

# FINANCE ASSESSMENT OF THE WATER SECTOR IN ETHIOPIA

FINAL REPORT FOR IRC

09 May 2019, José Frade



## ACRONYMS

<b>AAWSA</b>	Addis Ababa Water and Sewerage Authority
<b>ADA</b>	Austrian Development Aid
<b>AfDB</b>	Africa Development Bank
<b>AFD</b>	Agence Française de Développement
<b>BAU</b>	Business as Usual
<b>BAT</b>	Bottleneck Analysis Tools
<b>CapEx</b>	Capital Expenditure
<b>CapManEx</b>	Capital Maintenance Expenditure
<b>CSA</b>	Ethiopian Central Statistics Agency
<b>CSO</b>	Civil Society Organisation
<b>Ctp</b>	Capacity to pay
<b>CWA</b>	Consolidated Wash Account
<b>DFID</b>	Department for International Development (UK)
<b>DPs</b>	Development Partners
<b>EIB</b>	European Investment Bank
<b>ENR</b>	Environment and Natural Resources
<b>ESP</b>	Environmental Support Program
<b>EFY</b>	Ethiopian Fiscal Year
<b>GOE</b>	Government of Ethiopia
<b>GTP</b>	Growth and Transformation Plan
<b>IBF</b>	Investment Basket Fund
<b>JICA</b>	Japan International Cooperation Agency
<b>JMP</b>	Joint Monitoring Programme
<b>JSR</b>	Joint Sector Review
<b>KFW</b>	German Development Agency
<b>KPIs</b>	Key Performance Indicators
<b>LCC</b>	Life Cycle Cost
<b>MDG</b>	Millennium Development Goal
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MoE</b>	Ministry of Education
<b>MoFEC</b>	Ministry of Finance and Economic Cooperation
<b>MoH</b>	Ministry of Health
<b>MoUHD</b>	Ministry Urban Housing Construction and Development
<b>MoWIE</b>	Ministry of Water, Irrigation and Energy
<b>MSF</b>	Multi Stakeholder Forum
<b>NWI</b>	National WASH Inventory
<b>NGOs</b>	Non-governmental Organisations
<b>NRW</b>	Non-Revenue Water
<b>NWCO</b>	National WASH Coordination Office
<b>NWSC</b>	National WASH Steering Committee
<b>NWTT</b>	National WASH Technical Team
<b>O&amp;M</b>	Operation and maintenance
<b>ODA</b>	Official Development Aid
<b>OWNP</b>	One Wash National Program
<b>OpEx</b>	O&M expenditure
<b>PMU</b>	Programme Management Unit
<b>ppt</b>	PowerPoint presentation

<b>RF</b>	Revolving Fund or Revolving Facility
<b>RGC</b>	Rural Growth Centre
<b>RWB</b>	Regional Water Bureau
<b>RWCO</b>	Regional WASH Coordination Office
<b>SDG</b>	Sustainable Development Goals
<b>SWAp</b>	Sector Wide Approach
<b>3Ts</b>	Taxes, Transfers and Tariffs
<b>TABF</b>	Technical Assistance Basket Fund
<b>TA</b>	Technical Assistance
<b>TOR</b>	Terms of Reference
<b>TSUs</b>	Technical Support Units
<b>TWU</b>	Town water utility
<b>UfW</b>	Unaccounted for Water
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WASHCOs</b>	WASH committees
<b>WASH</b>	Water supply and sanitation
<b>WB</b>	World Bank, UNICEF,
<b>WIF</b>	WASH Implementation Framework
<b>WRDF</b>	Water Resource Development Fund
<b>WRMP</b>	Water Resources Management Policy
<b>Wtp</b>	Willingness to pay
<b>WWS</b>	Water Supply and Sanitation

# CONTENTS

<b>ACRONYMS</b>	<b>2</b>
<b>EXECUTIVE SUMMARY</b>	<b>6</b>
<b>1. INTRODUCTION</b>	<b>9</b>
<b>2. ASSESSMENT METHODOLOGY</b>	<b>10</b>
<b>3. SECTOR POLICY AND FRAMEWORK</b>	<b>12</b>
3.1 Political commitment and sector leadership	12
3.2 Sector policy, strategy and planning	12
3.3 WRMP objectives, principles, policies, recommendations	13
3.4 Institutional framework	14
3.5 Organisational framework, service provision	15
<b>4. CURRENT STATUS OF THE SECTOR</b>	<b>17</b>
4.1 Population growth and implications for SDG6	17
4.2 Poverty	17
4.3 Water supply services	17
4.4 Sanitation services	18
<b>5. INVESTMENT NEEDS &amp; PLAN (DEMAND)</b>	<b>20</b>
5.1 Investment Needs	20
5.2 Investment Plan and management	22
5.3 Climate resilient WASH programme	26
5.4 Progress of the OOWNP	27
<b>6. FINANCIAL RESOURCES (SUPPLY)</b>	<b>28</b>
6.1 Main sources. The 3Ts	28
6.2 The use of the 3Ts in Ethiopia	29
6.3 The flow of the financial resources	32
6.4 Climate resilient WASH programme	34
6.5 OOWNP Phase II (GTP-2) financing needs	34
6.6 The Ethiopian Water Resources Development Fund	35
6.7 Absorption capacity	36
6.8 The financial gap	37
<b>7. ASSESSMENT OF THE PROGRESS MADE BY THE SECTOR. CURRENT BOTTLENECKS</b>	<b>39</b>
7.1 Issues, bottlenecks and challenges	39
7.2 Conclusions and recommendations from sector reports	42
7.3 Assessment made for the WATERWORX Programme	44
<b>8. FINANCE RELATED CONSTRAINTS</b>	<b>46</b>

<b>9.</b>	<b>WAYS TO ADDRESS FINANCE RELATED ISSUES AND REMOVE CONSTRAINTS</b>	<b>55</b>
9.1	Recommendations from the sector review reports	55
9.2	Strategy proposed to move forward	55
9.3	Proposed action plan	57
<b>10.</b>	<b>APPENDICES</b>	<b>59</b>
	Appendix 1: Mission programme, entities and representatives met	59
	Appendix 2: List of documents supporting the assessment and references	60

## EXECUTIVE SUMMARY

With a population expected to reach about 94 million in 2016/17, the country has the second largest population in sub-Saharan Africa. About 20% lives in urban areas but with a growth rate of about 3.8% per year, the urban population could triple to 42 million in the 20 year horizon, representing more than 30% of the total population. This trend is putting heavy pressure on the need to invest in new WASH infrastructure to contribute to the achievement of SDG6. High rural to urban immigration and fast urbanisation, namely in small and medium sized towns or peri-urban areas will significantly increase the unserved population in these areas.

In the past, Ethiopia has made substantial progress in water supply coverage since the launch of the MDGs in 1990. The 2017 JMP WHO/UNICEF report indicated that service coverage in urban areas increased from 76% to 93% having access to improved water supply by 2015, with 56% having water piped onto the premises, and 37% obtaining water from other improved sources. In rural areas, the increase in the rate of coverage was faster, going from 22% to 56% evidencing substantial support to the new water supply facilities serving the rural population. Nevertheless, it still lags behind urban populations.

However, the SDG indicator set for 'safely managed' urban water supply is higher in terms of the level of service. This means that according to JMP statistics, the urban population with access to 'safely managed' water supply stands at just 38% and only 4% in rural areas. The sector is facing a significant gap in terms of safely managed facilities and needs a huge expansion of new infrastructure. This requires substantial financial resources given the capital-intensive nature of the infrastructure.

The Government of Ethiopia is strongly committed to the development of the water sector and has given it high priority in its political agenda as a key part of the country's development. The sector is governed by clear policies, strategies and planning mechanisms that gives it a sound, broad roadmap. The water resources management policy (WRMP) set in 2010 covers aspects relevant to the sector. Its main objectives, principles and recommendations drive most of the actions taken by the Government under the leadership of the Ministry of Water, Irrigation and Energy (MoWIE). However, this assessment has revealed that some goals have not yet been met and recommendations have not been applied satisfactorily, in particular the tariff policy.

A joint sector development process sets the objectives and targets in national plans and programmes such as the Growth and Transformation Plan (GTP) and One Wash National Program (OWNP). These objectives and targets cascade down to the decentralised regional and district governmental levels, which have a similar political commitment. The Government also adopted an integrated approach towards planning, financing, implementing and monitoring the sector under the single objective of achieving one plan, one budget and one report for the whole sector's development programme. This is done in coordination, harmonisation, partnership and alignment with all the sector stakeholders including ministries, donors, NGOs and CSOs.

The assessment concluded that the financial resources are insufficient and they face important constraints that create bottlenecks to the flow of resources. This reduces their effective use and results in a low absorption capacity.

A sector analysis report (Defere, 2017) identifies the following factors as major problems in terms of financing in the WASH sector.

- (i) Limited internal absorption capacity.
- (ii) Mobilisation of adequate resources.
- (iii) Targeting of available resources.
- (iv) Low tariffs that compromise sustainability.
- (v) The absence of planned system and performance improvement.
- (vi) Competing demands for the same resources (poverty eradication, education, health, road development etc.).

Therefore, in the short term it will be important to take action to remove these constraints before mobilising more financial resources. An Action Plan is proposed at the end of the assessment that focuses on some of the most relevant and urgent actions that could be considered and implemented rapidly.

One major issue affecting the enabling environment is the highly fragmented service provision framework, which resulted from the country's political and administrative decentralisation. This process also 'forced' the decentralisation of the responsibilities in WASH services provision. There are over 970 town water service providers in the country, of which about 500 are organised as water supply utilities and are constituted independently in each town. There are also around 470 small 'water committees' that provide water supply services in small urban settlements. These are not professionally operated. In this fragmented setting, sector regulation would be a tremendous challenge unless some harmonisation and merging/scaling up is done. The capacity to collect accurate data on the quality and cost of the services is a major challenge.

The identification and assessment of the investment needs are based on the integrated planning undertaken by the Government at national and sector level, and evidenced in the GTP initiated in 2005. A second GTP, GTP-2, covering the years from 2015/16 to 2019/20 was prepared to estimate the investment needs. The financial requirement was estimated at ETB 44.8 billion equivalent to USD 1.6 billion. The investment cost for new schemes and rehabilitation in rural water supplies is ETB 25 billion. In the urban water supply, expansion would require ETB 12.2 billion and new sewerage schemes and sewerage expansion is estimated at ETB 5.5 billion. About 49% would be provided by the Government and 31% by the donors.

On the supply side, the public finance provided by the Government through fiscal revenues based on taxpayer contributions to the federal, regional and district annual budgets is very important in supporting the sector. It reflects the strong political commitment mentioned above to investment in new WASH infrastructure and supporting measures. Fiscal decentralisation is reasonably well developed with the tax revenues shared at federal, regional and district levels.

Transfers are also a substantial contribution. The WASH finance analysis conducted by the Water Sector Working Group Secretariat (WSWG-S) and UNICEF in 2017 shows that the Official Development Aid (ODA) contributes a significant amount to all WASH sector investments in the country. In the past, of the USD 475 million estimated to be invested per year, around USD 352 million was ODA (74%), of which USD 236 million consisted of grants and USD 116 million loans.

Regarding the third T, tariffs, a clear and comprehensive national tariff policy specifies that the costs that need to be covered by tariffs are urban water utilities and the O&M costs in rural areas. It also decrees that affordability should be considered when setting tariffs. The tariff policy also defines provisions for cross-subsidies between wealth categories that are to be applied by all service providers.

Despite this clear policy, the reality is quite different. In practice no utility in the country has reached acceptable cost recovery levels. Information gathered during the assessment shows that the town utilities recover operation and maintenance costs, with around 10% of them having adequate cash reserves to address emergencies like replacements and investing small amounts in expansion. However, no data was found on the tariffs applied by most of the utilities. It seems that the overwhelming majority of utilities have very limited surplus funds to cover anything beyond routine maintenance and simple emergencies. Affordability analyses were also not available. In rural areas, many WASH committees (WASHCost) are also not collecting any fees.

Despite the efforts made by the Government to mobilise public finance, the funding gap is still high. In 2015, the country was only able to mobilise less than 50% of the funds needed to achieve the target required by the 2015 MDGs (GLAAS, 2014) and aggregated expenditure in that period was 0.57% of the GDP. This was low compared to peers in Sub-Saharan Africa (SSA) whose aggregated expenditure ranged up to 1.78% of their GDP.

A recent estimate of the investment costs needed to achieve the SDGs indicated the need to increase the actual annual financial resources allocated to the sector. The amount specified was six times more than USD 475 million to over USD 3 billion per year. However, the finance gap is secondary to substantially increasing the absorption capacity and the use of the allocated financial resources.

Attracting and mobilising more resources will not accelerate the achievement of SDG6 unless the bottlenecks and constraints causing the low absorption capacity are mitigated or eliminated. Therefore, the government budget fed by taxes should be used to remove these constraints and in so doing, increase the regular flow of other resources. Moreover, subsidies should target the poorer unserved population to ensure the affordability of tariffs within a cost recovery context.

In parallel, it is important to fully adopt the national tariff policy and increase the current tariff level, in line with affordability, using cross-subsidisation. The clustering/merging of services could also help meet this objective as well as improve the efficiency of service providers and progressively increase their creditworthiness to attract additional financial resources.

The Action Plan considers two options: Option A (short term) selected from proposals made recently by IRC; and, Option B (long term) defined on the basis of a strategy focusing on quick wins, bottom-up approach and demonstration effect that will enable the replication and scaling up of the output to national level. The Action Plan would be implemented in two phases and include one or more of the following actions.

- i) select the pilot area – region, service area and utility;
- ii) establish regulatory functions at regional level;
- iii) improve the efficiency of service provision through clustering/merging of service provision and improve the performance of the selected utility;
- iv) enhance the need for renewal of assets and cost recovery;
- v) promote the role of the private sector in the consultancy, design, procurement, project preparation and business plan development;
- vi) identify the opportunity for new financial mechanisms.



# 1. INTRODUCTION

IRC commissioned the consultant to identify the main constraints to attracting finance to the WASH sector in three countries (Rwanda, Uganda and Ethiopia). Each country has its own set of macro financing opportunities and challenges and the assessments would make explicit how to overcome the institutional, organisational, legal and financial constraints to attracting more public and private finance to the sector, and particularly in poorly served areas such as the rural water sector.

This report is the assessment of the WASH sector in Ethiopia that follows a mission to Addis Ababa by the consultant, José Frade from 9 to 13 July with the support of Eyob Defere and the IRC Ethiopia office. Interviews were carried out with representatives of the main stakeholders as listed in Appendix 1. A list of the documents made available and consulted is presented in Appendix 2.

The findings are expected to provide the basis for a decision on whether there is scope to undertake actions and develop facilities to attract and mobilise additional financial resources to the sector.

## 2. ASSESSMENT METHODOLOGY

The assessment methodology consists of three stages described below.

### STAGE 1: THE SECTOR

#### 1.1: Country sector policy, strategy and planning

Before focusing on the main objective of the assessment – identifying ways to attract and mobilise more financial resources to the sector, it is important to understand the key broad ‘instruments’ that drive the sector: the policy followed by the strategy followed by the planning. No proper planning can be done if not supported by a sector strategy that is established to give shape to a policy that is often based on a sector vision and broader country objectives which could include economic development, poverty reduction or climate change action. These instruments have the advantage of creating the conditions for consensus among the sector stakeholders promoting their involvement and minimising the risk of potential divergence of approaches and wrong practises in implementing programmes.

Another important aspect is to compare the sector driving instruments with the reality on the ground and understand if a major issue is the result of the absence of a policy, strategy and plan or a wrong interpretation or non-respect of them. One key example in the finance assessment is the tariff and cost recovery policy that is not adequately applied.

#### 1.2: Institutional and organisational/service provision framework

The instruments mentioned above could be sound and able to move the sector into sustainability, but the results and outcome depend entirely on those that apply it – the sector governance. Its capacity, procedures and practice dictate the sector performance. The decentralisation process is relevant as a starting point but without skilled and competent decentralised entities, the sector could be led to a low performance and absorption capacity of the financial resources made available to the sector. Within the institutional framework, the existence or absence of a key public entity to act as a regulator could influence the outcome. How the regulatory role is carried out is also a determinant and could sometimes lead to a negative impact by constraining the expectations associated with the economic regulation of the sector.

The organisational framework of the WASH service provision requires attention as the bottlenecks in financial flows and the consequent low absorption capacity are often associated with the low performance of the service providers. Low efficiency of the service providers also negatively impacts cost recovery as higher tariffs than necessary are required to cover the O&M costs. Furthermore, poor efficiency, scale and insufficient cash flow generated by tariff revenues limit the creditworthiness of the utility which is then not able to attract additional finance

The institutional decentralisation of the political and administrative sector worldwide has led to a highly fragmented framework of low performance service provision. It is a major cause of the current underperformance of the sector and the lack of financial resources to sustain the sector and achieve SDG6.

#### 1.3: Current status of the sector

The assessment of the current status of the sector, namely service coverage, gaps and trends discusses the baseline, supports the estimate of the investment and finance needs, assesses the factors, variables or constraints that could influence the capacity to attract and mobilise more financial resources.

## STAGE 2: THE INVESTMENT NEEDS AND FINANCIAL RESOURCES

### 2.1: Demand and supply of financial resources, management of the flow of the resources, absorption capacity and funding gap

Finding ways to attract and mobilise additional financial resources could not be achieved by only looking at the current resources allocated to the sector and identifying other available sources and financial mechanisms. This is often the approach taken in similar assessments. The demand side – the investment needs – also matters, at least to know what the financing gap is and the accuracy of the WASH service coverage baseline and the accuracy of the investment estimate. Targets are often set in line with international commitments such as the SDGs or national indicators based on political objectives and rarely take relevant constraints into consideration, such as stricter requirements regarding environmental protection and quality, or the fact that the water sector is capital intensive.

The absorption capacity of the financial resources is another important aspect to be assessed. If the capacity is low, action to remove the bottlenecks in the flow of resources from supply to demand should be prioritised to improve the absorption capacity before substantially increasing any financial resources.

The management of resources and its performance are major aspects influencing the absorption. The financial instruments used to channel financial resources are also important. The WASH sector tends to be conservative and does not easily apply successful instruments from other public infrastructure sectors. The very low sector creditworthiness due to the low performance of the service providers and inadequate tariff and cost recovery policies and practises does not favour innovative mechanisms. There are successful cases worldwide on innovative financial mechanisms but the capacity to scale up is still very limited.

### 2.2: Main issues and constraints/bottlenecks

As mentioned above, it is important to identify the issues and constraints/bottlenecks and their relevance/severity to define the priorities for the use of additional resources. This is important for the definition of the scope of the Action Plan and for the follow-up of this assessment.

## STAGE 3: THE WAY FORWARD

The assessment undertaken in Stages 1 and 2 should make it possible to define the best solutions to help address the main issues and remove the financial constraints. However, the scale of the actions could vary from national to more local levels such as the District Wide Approach (DWA). The latter could facilitate a bottom-up sustainable approach that requires less time and/or a lower cost. Some of the solutions go beyond the scope of the Action Plan proposed in this report for reasons indicated in the strategy (chapter 9.2), such as limited funding to support the Plan. However, small actions of short duration, if focused on quick wins and having a demonstration and replication effect, could facilitate the dialogue at national level and help address the issues identified and the proposed solutions.

The Action Plan at the end of this document is based on a clear strategy and the expected output.

## 3. SECTOR POLICY AND FRAMEWORK

### 3.1 POLITICAL COMMITMENT AND SECTOR LEADERSHIP

The Government of Ethiopia (GoE) is strongly committed to the development of the water sector and has given it high priority in its political agenda as a key part of the country's development. Article 90 sub-article 1 of the country's Constitution states that 'to the extent that the country's resources permit, policies shall aim to provide all Ethiopians access to public health, education, clean water, housing, food and social security'.

At a wider national level, the following plans related to the water sector were prepared in 2005.

**The Universal Access Plan (UAP).** This plan sets out ambitious targets, originally for the period 2005-2012, and later updated to 2025. The targets as originally designed were also modified and the plan became a living document to be used until 2025.

**The Plan for Accelerated and Sustained Development to End Poverty (PASDEP).** This plan was developed in parallel with the UAP and was the national plan that guided all development activities in Ethiopia from 2006 to 2010. PASDEP I contained a water and sanitation chapter which outlined the overall water target.

The Ministry of Water, Irrigation and Energy (MoWIE) is leading the sector development process. It is setting the objectives and targets in national plans and programmes such as the Growth and Transformation Plan (GTP) and One Wash National Program (OWNP) that were prepared jointly and cascade down to decentralised governmental levels with similar political commitment in the regions and districts.

The Government also adopted an integrated approach by:

- i) involving the Ministries of Health and Education to ensure that activities related to hygiene and training/capacity building are undertaken with the implementation of the WASH infrastructure in an integrated way; and,
- ii) planning, financing, implementing and monitoring the sector with the objective of achieving one plan, one budget and one report for the whole sector development programme in coordination, harmonisation, partnership and alignment with all the sector stakeholders.

### 3.2 SECTOR POLICY, STRATEGY AND PLANNING

The main documents supporting the sector policy, strategy and planning(b) are listed below.

- The Water Resources Management Policy (WRMP) calls for more decentralised decision-making; promotes the involvement of all stakeholders including the private sector; calls for increasing levels of cost recovery; and calls for the promotion of integrating water supply, sanitation and hygiene. This is a relevant document for this assessment. Its main objectives and principles are given in this report to either explain some of the proposals made in the Action Plan at the end of this document. The policy set in 1999, which describes the vision of the water sector and formulates the approaches, strategies and plans for the development of the sector, defined the foundation of the Water Sector Development Program (WSDP) for the period 2004-15 which was further elaborated in the National Water Supply and Sanitation Master Plan study.
- The Water Sector Strategy of the Ministry of Water, Irrigation and Electricity, 2001's main objective was to extend the water supply and sanitation coverage to large segments of society and thus achieve improved water and environmental health conditions.
- The objective of the Draft Urban Wastewater Strategy of the MWIE strategy was to enable towns and cities to practice a linear urban waste water management system based on disposal, open dry beds and small scale conventional treatment.
- Following the endorsement of the Ethiopian Environmental Strategy policy, an implementing agency was established (proclamation 295/2002 on pollution control) and endorsed to further define a regulatory mandate and set obligations.

- The National Sanitation Strategy (NHSS 2005, Ministry of Health) was designed around three pillars – enabling environment, improved access to hardware supplies and services, and promotion and mobilisation.
- The National Hygiene and ‘On-Site’ Sanitation Protocol (June 2006), the Integrated Urban Sanitation and Hygiene Strategy and Strategy Action Plan April 2017, and the School WASH Strategy.

### 3.3 WRMP OBJECTIVES, PRINCIPLES, POLICIES, RECOMMENDATIONS

The WRMP covers the aspects relevant to the sector. Its objectives, principles and recommendations have driven most of the Government’s actions since the approval of the sector policy document. However, this assessment has revealed that some goals have not yet been achieved and the recommendations either not applied or pursued, while other goals and recommendations contradict and conflict current practice and create a major hurdle to attracting more finance to the sector. These findings emerge from the extracts and quotes of the sector policy document presented below on specific topics that are relevant to the goals of the finance assessment. The findings are detailed in chapter 7.

#### a) **Institutional and organisational framework, decentralisation, fragmentation.**

- Water resources development shall be underpinned by rural-centred, decentralised management, a participatory approach and an integrated framework.
- Ensure that the management of water supply systems will be at the lowest and most efficient level of institutional set-up, which allows for the full participation of users. Promote effective decision making at the lowest practical level.
- Enhance the integrated and comprehensive management of water resources that avoids fragmentation.
- Promote the establishment of an integrated operation and maintenance framework that provides reliable and sustainable water supply systems in all regions.
- Ensure that the operation and maintenance of water systems is based on a decentralised approach that enhances sustainability.
- Ensure that the system of ownership of water supply systems recognises the local objective realities on the ground, and the involvement of the users and other stakeholders.

#### b) **Water and water services as an economic and social good.**

- Management of water resources will ensure social equity and economic efficiency.
- Although all water resources development ought to be based on the ‘economic value’ of water, a special ‘Social Strategy’ will ensure the provision of water supply services to the underprivileged sectors of the population.
- Recognise water as a natural resource with an economic value and ensure that fees are paid for services rendered.

#### c) **Finance, renewal of assets, O&M subsidies, cost recovery.**

- Ensure that all studies, development activities and loans undertaken by external support agencies, non-governmental organisations and Government incorporate self-financing plans and self-supporting budgets for reliable and operation and maintenance purposes.
- Adopt the principle that all funding agencies including External Support Agencies, the Government and the private sector, include in their funding provisions for water conservation and protection, operation and maintenance, rehabilitation and replacement, training and human resources development, adequate information and documentation, as well as other means to enhance and ensure the sustainability of systems.
- Promote the self-financing of programmes and projects at the local level.
- Provide subsidies to communities who cannot afford to pay for basic services on capital costs only based on established criteria, and phase out the subsidies gradually.
- Ensure that all water supply undertakings adequately address costs associated with operation and maintenance and are based on ‘cost-recovery’ principles.
- Promote the participation of local banks and other investors as well as popular and traditional self-help social associations (Idirs, rural credit services etc.) in the development of water supply through appropriate incentive mechanisms.

**d) Tariffs, pricing, cost recovery, affordability.**

- i. Ensure that the price of water is neither too high to discourage water consumption nor too low that it encourages abuse and waste;
- ii. Promote site specific tariff setting customised to the particulars of the project, location, users, cost and other characteristics of the scheme.
- iii. Ensure that the Government bears the responsibility of providing for the basic human needs of water for disadvantaged rural communities who cannot afford to pay for the development of water systems themselves, as appropriate and insofar as the communities are able and willing to cover the operation and maintenance costs themselves.
- iv. Ensure that pricing for urban water supplies aims at full cost recovery, develop cross-subsidisation strategies and promote credit services.
- v. As users' willingness to pay (Wtp) for water systems is a powerful impetus for the financial sustainability of water resources systems, Wtp shall be promoted.

**e) Participation of the private sector:**

- i. Promote the involvement and meaningful participation of the private sector in the management of water resources.

**f) Performance, competence, meritocracy in the sector.**

- i. Develop pertinent guidelines and criteria for professional certification, consultancy and contracting services, and promote decision making on the renewal of trade permits being based of professional merits as well as competence.
- ii. Establish and develop, as appropriate, suitable criteria for the evaluation of consultancy and contracting services in the water sector and create a conducive atmosphere for awards for excellence, honesty, fairness and dedication in consultancy and construction.

**g) National and foreign consultancy, design, standards.**

- i. Develop the appropriate water supply planning parameters, design criteria and standards along with acceptable, desirable and permissible ranges and limits.
- ii. Ensure that different classes of national and/or foreign consultancy and construction services are based on adequate experience and qualifications.
- iii. Formulate and adopt national standards and criteria for the design, installation, construction, operation and maintenance.

**3.4 INSTITUTIONAL FRAMEWORK**

The water sector is organised in line with the Government structure: national, regional, zone, woreda and kebele, and towns and cities. As a federal republic, Ethiopia has a strong decentralised government system with nine regional states and two city administrations. It is further divided into 805 woredas (districts) and over 800 towns. Depending on the size of the town, it has either an independent city council or falls under the woreda as a town municipality.

Urban areas are defined by the Central Statistics Agency (CSA) either by, one, the number of inhabitants, whereby settlements with more than 2,000 people are deemed urban; or, two, administrative status, whereby only those settlements that are the administrative centre of a woreda or district are considered urban. The Ministry of Urban Development and Housing decides on the organisation of towns. Towns with a population of more than 17,500 have their own council and manage their economic and social affairs autonomously, while towns with less than 17,500 are organised under district councils and only manage municipal affairs, with other socio-economic development issues being the subject of the district council.

At national level, the role of the MoWIE is to set national sector policy, strategy, planning and programmes such as the One Wash National Program (OWNP) which is coordinated by the National WASH Coordination Office (NWCO). There are Regional Water Bureaus (RWB) at regional (state) level that are in charge of planning and implementing

water supply projects and exercise operational oversight. The decentralised approach set in the WRMP has given the regions considerable power. Each region also has a WASH Coordination Office which seeks to promote coordination across the water, health and education sectors and under which regional programme management units (PMU) operate. The RWBs' institutional arrangements are not uniform but typically there are departments that deal with supporting and monitoring town water utilities (TWUs).

At the federal level, the National WASH Steering Committee (NWSC) is chaired by the MoWIE. At the same federal level are the WASH Technical Team plus the National WASH Coordination Office and the PMUs mentioned above. The structure at the regional level parallels that at the federal level. There are PMUs at regional level but relatively weaker coordination offices – the Regional WASH Coordination Offices (RWCOs) – as reported in several documents, which need to be reinforced. Apparently, the RWCO activities are not well aligned with regions and zones. These problems have also been identified by many WASH sector stakeholders which have expressed their concerns regarding the effectiveness of integration/coordination, harmonisation and alignment – see chapter 7.

The Water Resource Development Fund (WRDF) is a national entity responsible for funding the investments undertaken by the larger urban utilities. It appraises the urban water projects submitted by the utilities, signs loan agreements and manages the financial resources allocated to the Fund by ensuring that loans are repaid. The WRDF is a revolving fund (RF) initially sourced by GoE grants and expanded by additional grants and/or concessional loans from multilateral and bilateral financing agencies.

### 3.5 ORGANISATIONAL FRAMEWORK, SERVICE PROVISION

The organisational or service provision framework was set up in accordance with the WRMP policy 'to ensure that the management of water supply systems to be at the lowest and most efficient level of institutional set-up, which provides for the full participation of users and to promote effective decision making at the lowest practical level'. This policy, which is supported by the decentralisation goal, allowed the service providers to replicate the administrative structure and manage themselves autonomously at local level.

At town level there are either utilities or water committees that are responsible for the provision of water supply. In smaller towns, as in rural areas and under district water offices, there are voluntary water committees to operate water systems. In practice, these water committees have limited responsibilities. Their responsibilities are limited to activities such as operating simpler water facilities, reading meters and collecting bills from the users. When a town water system expands, a formal town water utility or water supply and sewerage enterprise is formed. The utilities are completely independent of district water offices and are accountable to town water boards and the regional authority. The town water boards are formed by city or municipal councils and oversee the utilities' operations.

Looking at this policy and its resulting administrative structure described below (a), it can be concluded that the service provision framework is highly fragmented.

- There are over 970 town water service providers in the country, of which about 500 are organised as water supply utilities and are constituted independently in each town. Their service area is determined by the town water board and city council. The utilities are categorised into five classes according to the size of the population: category 5 = small towns (< 20,000 population); category 4 = medium towns (20,000 - 50,000 pop.); category 3 = large towns (50,001 - 100,000 pop); category 2 = of 100,001 - 1 million pop.; and, category 1 = > 1 million population.
- There are also around 470 small service providers organised as 'water committees' that supply water services in small urban settlements of between 2,000 and 5,000 people. These are not professionally operated but are managed by voluntary community representatives assisted by meter readers and sometimes operators or technicians.

Most utilities are only responsible for water supply provision with municipalities providing sanitation services. Addis Ababa Water and Sewerage Authority (AAWSA) is the only utility managing water supply and sewerage systems in the city, and Addis Ababa is the only city in the country with a centralised sewerage system. Some utilities in secondary cities of between 50,000 and 500,000 population size provide sludge emptying and transportation services.

Some urban utilities cover the parts of settlements that are designated as urban areas, while other utilities (probably most) serve an urban core and the surrounding rural settlements. There are no private sector providers.

The numbers above show a highly fragmented and complex organisational framework with a large number of service providers, a wide range of size, different scope of services (water supply and or partial or total sanitation, design, procurement, construction or simply O&M) and levels of autonomy. It means that at the top of the sector policy, planning and action are fully integrated, but at the bottom the service provision framework is the opposite – non-integrated, fragmented and autonomous. Given the promotion of sound political and administrative decentralisation, this situation is common in the WASH sector in many countries. Unfortunately it has a negative impact on the performance of small service providers who are unable to recruit skilled staff and run their WASH systems efficiently.

In this context, sector regulation will remain a tremendous challenge unless some degree of harmonisation and merging/scaling up is achieved. The capacity to collect accurate data on the quality and cost of services and is a major challenge. During the mission, no relevant countrywide data could be collected except one reference to small towns<sup>(c)</sup>. However, several documents (see chapter 7) contain qualitative assessments that confirm the opinions expressed in some of the interviews about the poor performance of most of the service providers.



## 4. CURRENT STATUS OF THE SECTOR

### 4.1 POPULATION GROWTH AND IMPLICATIONS FOR SDG6

With a population expected to reach about 94 million in 2016/17 according to CSA 2014 projections<sup>(a)</sup>, the country has the second largest population in sub-Saharan Africa. About 20% is living in urban areas but with a growth rate estimated at about 3.8% per year – a World Bank analysis indicates an even faster urbanisation rate of 5.4% – the urban population could triple to 42 million in the 20 year horizon (2037) representing more than 30% of the total population. Urbanisation is very pronounced across the country and towns along main roads are rapidly attracting significant immigration from nearby rural areas.

This trend should be taken into consideration in any actions that aim to achieve SDG6. High immigration from rural to urban areas and fast urbanisation, especially of small and medium towns or peri-urban areas, will significantly increase the numbers of unserved populations in these areas. This will be aggravated by their dependence on the expansion of the existing water supply network or the construction of new systems that take longer to implement than simple rural water facilities. See the assessment of progress made in the national investment programme in chapter 7.

Average household size does not vary significantly by area type and is estimated at 3.4 persons in large town areas, 4.2 persons in small towns and 5.3 persons in rural areas<sup>1</sup>.

These figures have implications for the strategies that should be adopted in reaching SDG6. One consideration is 'value for money' or the ratio of 'SDG6 improvement per investment cost', which would be maximised by prioritising fast growing urban areas that are currently unserved or not adequately served. A second consideration concerns 'subsidy targeting' of the 'unserved lower income population' independent of the area where they live. Consideration should also be given to the current WASH sector goal of 'leave no one behind' which, to achieve safely managed services, would prioritise investment of basic services for all in the case of a substantial funding gap.

### 4.2 POVERTY

Statistics show that the country has undergone rapid economic growth over the last 10 years, but it still remains one of the poorest countries in the world. Over the period 2000–2011, the proportion of households living below the national poverty line – defined as ETB 3,781 (USD 190) per year in the 2010/11 Household Income Consumption & Expenditure Survey – fell from 45% to just under 30%. Over this same period, there was also convergence in the rate of poverty, to around one person in three, across all regions of Ethiopia.

Though poverty rates were similar in urban (26%) and rural (30%) areas, the vast majority (85%) of Ethiopia's poor are in rural areas with more than half in the large rural regions of Oromia and Amhara. Across urban areas, poverty rates in small urban centres – rural towns – are higher than in larger urban centres. The exception to this is the capital, Addis Ababa, which has wider inequality among its residents than most other cities.

### 4.3 WATER SUPPLY SERVICES

Ethiopia has made substantial progress in water supply coverage since the launch of the MDGs in 1990. The 2017 JMP WHO/UNICEF report shows that service coverage in urban areas has increased from 76% to 93% having access to improved water supply by 2015 based on the GTP I standard (see chapter 5.1), with 56% having water piped onto the premises, and 37% from other improved sources. The 7% of the population in urban areas served by unimproved water supplies mainly use surface water. In rural areas, there was a faster increase of the coverage rate from 22% to 56%, evidencing substantial support to the new water supply facilities serving the rural population but still lagging behind as compared to the urban population.

<sup>1</sup> Central Statistical Agency & Living Standards Measurement Study (LSMS), World Bank, March 2015

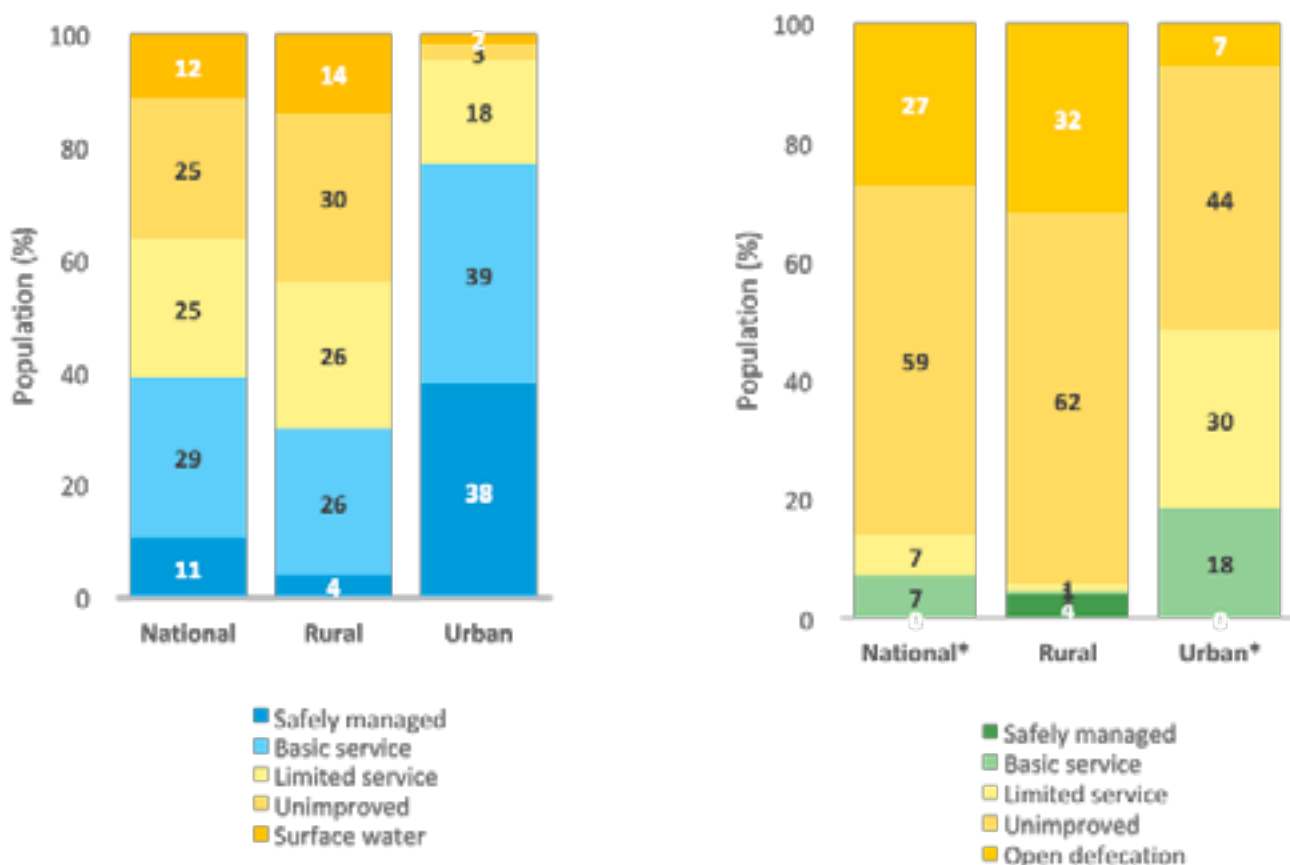
However, the SDG indicator of a 'safely managed' urban water supply sets a higher standard in terms of level of service, meaning that according to the JMP statistics, the urban population with access to a 'safely managed' water supply stands at just 38% and only 4% in rural areas. It is evident that despite the significant investment made in the country to provide new water supply systems and substantially increase the population served, there is still a substantial gap in coverage rate between improved and safely managed services required by the SDG6.

There is also apparently less attention paid or efforts made to ensure the operational sustainability of the utilities, which depends on different factors such as the availability of funds/cash flow to cover O&M and renewal costs like life-cycle cost (LCC) and tariffs ensuring cost recovery.

#### 4.4 SANITATION SERVICES

The JMP WHO/UNICEF 2015 study indicates that coverage of urban sanitation by improved, shared and other unimproved facilities have reached 27%, 40% and 26% respectively compared to 20%, 30% and 12% in 1990. Despite the increasing trend, it is far from the previous 2015 MDG target and a high proportion of the urban population are still living with health and environmental risks. Over 90% of urban residents use on-site sanitation facilities of which nearly 80% are dry pit latrines. Less than 3% have access to a sewer connection to remove waste water from households. The same study revealed that only 11% of urban slum residents have access to improved sanitation, which is significantly lower than the national urban sanitation coverage of 27%. In Addis Ababa the coverage rate in these same areas is higher at 41%, of which about 91% are on-site sanitation requiring pit latrine emptying. Enquiries have indicated that 85% of the residents in the capital are dissatisfied with the pit emptying services which reveal poor service and health risks.

In rural areas, the services are even poorer with 62% using unimproved sanitation systems. In terms of hygiene, only 1% of rural and 5% of the urban population have basic hygiene services. In conclusion, the current sanitation services require substantial improvement.



The following graph and table summarise the coverage rate by service<sup>(a)</sup>.

Ethiopia	Drinking water			Sanitation			Hygiene		
	National	Rural	Urban	National*	Rural	Urban*	National	Rural	Urban
	2015	2015	2015	2015	2015	2015	2015	2015	2015
Safely managed	11	4	38	-	4	-	-	-	-
Basic service	29	26	39	7	1	18	1	0	5
Limited service	25	26	18	7	1	30	1	1	2
Unimproved	25	30	3	59	62	44	-	-	-
No service	12	14	2	27	32	7	98	99	93

Source: WHO/UNICEF JMP (2017)

## 5. INVESTMENT NEEDS & PLAN (DEMAND)

### 5.1 INVESTMENT NEEDS

The identification and assessment of the investment needs is based on the integrated planning undertaken by the Government at national and sector level and evidenced in the Growth Transformation Plan (GTP) initiated in 2005 which defines the main objectives, targets and resources – physical as infrastructure, financial from different sources and human in terms of number, skills and training.

#### **Growth Transformation Plan 1**

The GTP-1 was a national plan for guiding all the country's development activities for five years from 2011 to 2015 (2003-2007 EFY). The national plan also guided the water supply and sanitation sector five year GTP-1 which aimed at the provision of a safe water supply of about 15 litres per capita daily (l/c/d) within 1.5 km for rural populations and about 20 l/c/d within 0.5 km for urban populations. It targeted rates of 98%, 100% and 98.5% water supply access coverage for rural, urban and total respectively by 2015. It also set a target to reduce the proportion of malfunctioning water supply schemes from 20% to 10%.

The baseline water supply access coverage for 2010 (2002 EFY) used to formulate GTP-1 were 66%, 91%, and 68% for rural, urban and total respectively, and the non-functionality rate was 20%. However, the National WASH Inventory (NWI) conducted in 2011 showed the estimated water supply access coverage for the same year 2011 to be significantly lower at 49%, 75%, and 52% for rural, urban and total respectively. Similarly, the non-functionality rate was higher at 25%. This led to the GTP-1 plan being revised in the light of the new data.

NWI baseline data at the end of the period showed that the coverage rate of urban water supply was lower. The identified cause was the capital-intensive nature and complexity of urban water supply facilities which require more time for design, procurement and implementation, and need well experienced consultants, drillers and contractors which are scarce in the country. Further, most of the construction materials and equipment are imported from overseas, which takes a longer procurement period.

#### **Growth Transformation Plan 2**

As the planning period for GTP-1 ended in mid-2015 (2007 EFY), the second Growth and Transformation Plan (GTP-2) covering the years from 2015/16 to 2019/20 (2008-2012 EFY) needed to be prepared. This was done under the guidance and coordination of the Task Force of the MoWIE specially established for this purpose. Each region prepared its own plan in line with the national targets set for the planning period and compiled as a national plan.

As stated above, the baseline data used for the planning of GTP-1 had significantly exceeded the more accurate NWI data. Thus, in order to deal with this backlog and meet the initial target, the GTP-1 subsector targets for 2014 and 2015 were revised to enhance the implementation. Accordingly, the baseline data for GTP-2 for the year 2015 EFY was set in expectation that the GTP-1 target would be fully achieved.

Urbanisation and housing developments are growing fast, particularly in the country's major cities and towns. Given their higher population density, residential and commercial satellite areas with high-rise buildings need higher flow conveyance, pumping and installed distribution capacity, per capita consumption and adequate water pressure. These are also demanded by users given their expectation of an improved quality of life and the construction of multi-storey buildings.

On the other hand, waterborne sanitation is becoming a problem due to the substantial increase of effluents from the consumption of water. Furthermore, various small and medium level businesses and industries which usually use water from the town water supply service are also expanding and exerting additional stress on the town water supply and waste water management.

Medium sized and small towns are also rapidly increasing in size demanding more domestic water supply and waterborne sanitation. The GTP-2 took these factors into consideration, requiring an increase in the minimum water supply service level standard for urban areas both in terms of quantity and fetching distance. As towns vary significantly in size and development level, this significantly affects the water supply demand and waste water collection, treatment and disposal. The GTP-2 categorised the levels of service according to the towns' characteristics.

Regarding urban water supply services, there are other factors evidencing the low performance of the service providers and poor customer service. Many issues need to be addressed, such as high non-revenue-water (NRW), intermittent supply, low pressure, poor drinking water quality, low cost recovery and no financial sustainability of the service providers. These water supply service management limitations coupled with increasing demand are further exacerbated by the lack of a well-organised, legally mandated independent utilities' service monitoring and regulatory body. Thus, GTP-2 needed to pay due attention to devising and implementing an effective urban water supply service monitoring and regulating mechanism in order to bring about sustainability, efficiency and reliability of the services.

The community management of rural water supply services is not as strong as it should be. O&M cost recovery is minimal, the technical and financial management capacity is still low, there is no well-organised supply chain and private sector participation, particularly in O&M, is almost non-existent. The GTP-2 therefore included a component to facilitate enabling environments that would lead to the capacity building of the private sector involved in consultancy and construction services in the sub-sector.

The country was aiming to reach lower middle-income country status by 2017 EFY, which was by the end of the GTP-3 planning period in FY 2025. This implies that GTP-2 is a transition period from a low income to a lower middle-income country. GTP-2's targets therefore needed to incorporate this vision and facilitate a smooth transition. It therefore set water supply service level standards for all areas and waste water management intervention levels at the level that would meet lower middle-income country standards.

The objectives of GTP-2 for the water supply sub-sector are as follows.

- Meet the universal target of providing access to a safe and sustainable water supply for all citizens in the planning period as per the minimum standard set for GTP-1. This is 15 l/c/d within a distance of 1.5 km for rural areas and 20 l/c/d within 0.5 km for urban areas.
- Provide 85% rural water supply access coverage with an upgraded minimum service level of 25 l/c/d within a distance of 1 km from the water delivery point and 70% urban water supply access coverage with an upgraded minimum per capita consumption of 100, 80, 60, 40 and 30 l/c/d for category 1, 2, 3, 4, and 5 in towns/cities respectively.
- Enable all cities/towns (973 towns) to provide a continuous supply for at least 12 hours a day. Reduce and sustain unaccounted for water (UfW) of the urban water supply systems to 20% during the Plan's period.
- Undertake a waste water management feasibility study for all category 1, 2, and 3 towns and cities (36 towns), and construct waste water systems for towns/cities with populations of over 200,000 (6 towns).
- Enable category 1, 2, and 3 towns (36 towns) to recover at least 80% of their investment cost; in category 4 towns at least 60%; and category 5 towns at least 30%. All of them are to cover 100% of their O&M costs through water tariffs.
- Enable all categories of water supply utilities' to put water quality monitoring systems in place.
- Enable category 1, 2, 3 and 4 town (119 towns) water supply utilities to have a section responsible for sanitation and hygiene in their organisational structure.
- Establish water supply O&M agencies at regional and zone levels to regulate and support O&M undertakings.
- Increase the involvement of the private sector in water supply activities, particularly in O&M of urban water supply utilities.
- Reduce and maintain the proportion of malfunctioning water supply schemes to 7% during the planning period.

The GTP-2 contained relevant statistics and information. During the planning period, about 29.3 million people lived in rural areas and 6.1 million in urban areas. This brings the total population to 35.4 million people. The plan was to serve about 30% of the population through investments made in line with the new programme. In line with GTP-2 standards, 31.3 million people are to be served. The plan was also to construct 238,370 rural and 400 urban water supply schemes and rehabilitate/expand 62,500 rural and 200 urban water supply schemes.

In total, to achieve the GTP-2 objectives, about 300,870 rural and 600 urban water supply schemes needed to be built; 36 town waste water management systems needed to be assessed and designed; and 6 waste water facilities needed to be constructed and rehabilitated/expanded. In total, ETB 44.8 billion (about USD 1.6 billion) was required to achieve the plan. This corresponds to about USD 45 per capita.

The five year investment plan was dictated by the goals set by the Government in terms of population served and levels of service to meet the SDG6. If fully achieved, the plan will have a major positive impact on improving WASH services in rural areas where the poorer and unserved population live. As they represent about 83% of the GTP-2 targeted population, this will contribute significantly to poverty reduction.

## 5.2 INVESTMENT PLAN AND MANAGEMENT

The Government's integrated planning approach with the objective of achieving one plan, one budget and one report, was embodied in the One Wash National Program (OWNP) described below. The OOWNP does not cover all the investment needs, as explained in the description below, but is built up with the collaboration of several donors and stakeholders. The OOWNP is composed of two phases in line with the GTP phases described in chapter 5.1.

### OWNP Phase I

The One WASH National Program (OWNP) is a sector wide approach (SWAp) whose broad objectives are to achieve water, sanitation and hygiene (WASH) results in Ethiopia through official policies, strategies and development plans in a harmonised and coordinated way involving sector stakeholders. It is a flagship Government programme supported by several development partners (DPs) and NGOs, in which different actors come together to address water supply, sanitation and hygiene as an integrated package aimed at achieving GTP targets.

The basis for the OOWNP was the WASH Implementation Framework (WIF) and the Memorandum of Understanding (MoU) signed by the four ministries (Water, Irrigation and Electricity; Health; Education; and Finance and Economic Cooperation). It is a national programme using results-based management and national systems to achieve WASH results in two phases. It is considered to be a significant step towards inter-ministerial cooperation and a step to raise the profile of the WASH sector. The MoU is an enhanced and modified version of an initial Memorandum signed in 2006 between the ministries.

The WIF was designed to guide the implementation of the WASH programme under the framework of the water policy. The OOWNP was aligned with the WIF in the definition of the programme components, organisation, principles, programme pillars, financial management, capacity building, M&E and roles and responsibilities of major stakeholders in the WASH sector. It was launched in September 2013, with a five year Phase I (2013–17) guided by GTP-1, and Phase II starting in 2018 guided by GTP-2.

The OOWNP rests on three overarching pillars:

- i. creating an enabling environment and good governance;
- ii. maximising availability and efficient use of human and financial resources to create demand for better WASH services; and
- iii. capacity development for improved delivery of WASH services at all levels.

It has four components: Rural and Pastoral WASH; Urban WASH; Institutional WASH and Programme Management; and Capacity Building. These components contribute towards improving the health and well-being of populations in both rural and urban areas. The immediate first objective of the programme was to increase the coverage of improved and sustainable water supply and sanitation services.

In terms of the management of the OWNP, the existing WASH National Institutional Arrangements are as follows.<sup>(h)</sup>

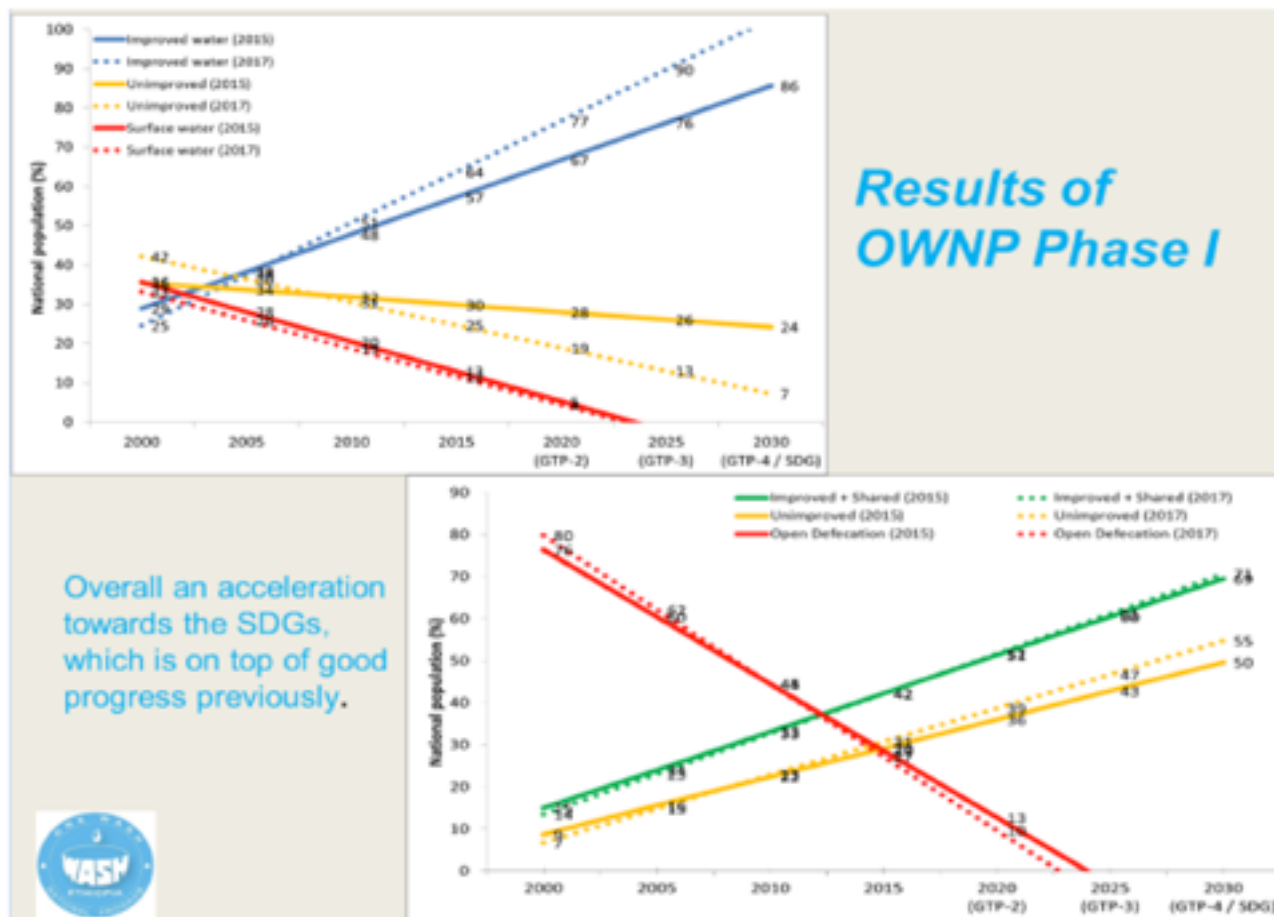
- a) **Governance.** The highest governing body is the National WASH Steering Committee (NWSC) whose members include Ministers and State Ministers from the four ministries mentioned above. The NWSC is chaired by the MoWIE. The technical arm of the NWSC is the National WASH Technical Team (NWTT) consisting of directors of the four WASH ministries. A similar structure is prescribed at regional level. The lowest level of WASH governance is the woreda. At this level, WASH activities are implemented by the District WASH Team led by the District Administrator. Its members are from the four WASH sector offices (Water, Health, Education and Finance) with additional members from the Women's Affairs and Agriculture offices.
- b) **Development partners.** The partners – AfDB, DFID, WB, UNICEF and later other donors – are represented by the Development Assistance Group's Water Technical Working Group.
- c) **Public administration management structure.** National WASH Coordination Office (NWCO) is responsible for coordinating, planning and overseeing programme implementation at federal level. The NWCO reports to the NWSC and is supported by the NWTT. Implementation of the sub-programme in each sector ministry is the responsibility of WASH Programme Management Units (PMUs) in the existing WASH line ministries. At regional, zonal and city levels, planning and implementation of the programme is coordinated by a WASH Coordination Office which reports to a Regional WASH Steering Committee (RWSC) and is supported by a Technical Team. Implementation is managed by WASH PMUs in the bureaus of water resources, health, education, and finance and economic development. At woreda level, the planning and implementation of the sub-programme is coordinated by a dedicated WASH Team also consisting of members from the water, health, education and finance desks. The Woreda WASH team reports to a Woreda WASH Steering Committee appointed by the Woreda Cabinet. At kebele level, WASH plans are approved by the Kebele Chairman and Council. Health extension workers are deployed to support communities to construct latrines and promote safe hygiene practices. At community level, WASH committees (WASHCOs) consisting of elected community members have been formed to undertake planning, operation and maintenance and, in some cases, construction of improved water supply and sanitation facilities.

The programme's staffing plan package for federal and regional WASH implementing structures was prepared by the NWCO and approved by MoFEC. In accordance with the approved staffing plan, the federal and regional water, education and health sectors, the PMUs deploy the critical positions. In addition to contracted staff, government permanent staff(g) support programme implementation. In the regions, there are different types of specialists at the Regional Water Bureau (RWB) such as regional PMU coordinators, procurement specialists, rural and urban technical specialists, contract management specialists, financial specialists and M&E specialists.

The OWNP's intervention area covers 382 rural woredas and 144 urban towns (124 small and 20 medium). The beneficiary population was estimated at about six million (3.8 million rural and 2.2 million urban). The initial budget was ETB 8.6 billion (USD 438.7 million). The programme's planned new infrastructure was the following.

- i. 24,227 rural water supply facilities (17,915 new water supply schemes and 6,312 rehabilitated existing water supply facilities) and 687,950 new household sanitation facilities.
- ii. 124 small towns with new or improved water supply and sanitation facilities and public latrines.
- iii. 1,220 new and rehabilitated water supply facilities for health centres/posts; 2,225 new and rehabilitated gender segregated sanitation facilities for health centres/posts; 3,600 new and rehabilitated water supply facilities for schools; and 3,335 new and rehabilitated sanitation facilities for schools.

The setup of the Sector Wide Approach (SWAp) under the OOWNP has accelerated progress in service coverage rates as illustrated in the figure below<sup>(d)</sup> when compared to the pre-OOWNP period (year 2015 continuous line vs. year 2017 dotted line).



**OOWNP Phase II**

OOWNP Phase II Programme Document has been drafted and recently shared with most of the sector players<sup>(e)</sup>.

OOWNP Phase II is guided by the country’s GTP-2. The OOWNP Phase II Programme Document, written in 2017, reports on achievements under GTP-1 and highlights the progress made towards the aims of GTP-2. The main recommendations of the Review of OOWNP Phase I were designed to support and guide the redesign and updating of Phase II of OOWNP.

There is a long list of recommendations made in the review of Phase I. The key and broader area of improvement for the OOWNP, i.e. its governance, processes and management identified in the review is the further strengthening the SWAp principles on integration, alignment, harmonisation and partnership, namely at the sub-national level and with other bilateral and multilateral partners.

There is a long list of recommendations in the Phase I review. The key recommendations centre around governance, processes and management. Under these fall other, broader areas, for OOWNP improvement such as further strengthening the SWAp principles on integration, alignment, harmonisation and partnership, namely at the sub-national level and with other bilateral and multilateral partners. This consists of raising the profile of NWCO and the RWCOs by giving them legal status and staffing them with the necessary manpower and logistics to properly carry out



their responsibilities in: coordinating/influencing other WASH sectors and PMUs; improving quality; producing a One WASH Programme report as started in 2008 EFY; and setting accountability mechanisms in planning and targeting activities. An empowered and strengthened NWCO would be able to enhance stakeholder's coordination/multi-sector planning and private sector involvement for WASH. The WASH coordination office would need to broaden its scope to the larger OWNPN implementation by building on its valuable experience with regard to the CWA.

Another proposed area of intervention was climate resilience and inclusive WASH given the increasing frequency of droughts resulting in reduced aquifer recharge and exacerbated by frequent pump breakdowns and poor maintenance services. The need was identified to not only address normal water supply service provision but also build contingencies for emergency situations. This means supplying water of sufficient quantity, quality and safety to all people in urban and rural communities and institutions throughout the year with no interruption.

In the OWNPN Phase I review report of March 2018<sup>(b)</sup>, the proposed new focus areas for Phase II are the following (quote):

- a) **Bring CSOs into the centre.** There has been significant success in application of the OWNPN's four core Guiding Principles (integration, alignment, harmonisation, partnership) with CWA members, but there is clear evidence that these now need to be expanded to include the inter-relationship with stakeholders outside of the original four OWNPN signatory ministries and WASH actors. Some CSOs which are prominent WASH practitioners are eager to be part of the CWA in some agreed form. As can be seen in the report, their contribution for WASH in terms of construction and capacity building is very much appreciated. They should at least be part of the aligned plan, bi-annual review of WASH programmes and annual reports as started in 2009 EFY with the preparation of the first WASH annual report by incorporating CSOs inputs.
- b) **Raising the profile of NWCO:** The NWCO and the RWCOs (supported by their agents and consultants) should have some legal status and be strengthened to have the necessary manpower and logistics to properly carry out their responsibilities to coordinate/influence other WASH sectors and PMUs, improve quality, produce a One WASH Programme report as started in 2008 EFY, and set accountability mechanisms in planning and targeting activities. An empowered and strengthened NWCO will be able to enhance stakeholder's coordination/multi-sector planning, private sector involvement for WASH. The WASH coordination office needs to broaden its scope to the bigger OWNPN implementation by building on its valuable experience with regard to the CWA;
- c) **Horizontal relationship with sectors:** There are different sectors which operate more or less for the same goal such as the Water Works Groups, Hydrology and Water Quality Control, Integrated Water Resource Management etc. that must design a horizontal working relationship so that there will be mutual support, knowledge sharing in WASH;
- d) **Funding support to the private sector:** Establishing a revolving fund or creating strong ties with microfinance institutions at the local level are ways of creating an enabling environment for private suppliers so that they create the supply chain for the necessary spare parts, sanitary wares, chemicals and other products;
- e) **Periodic review of WASH action plans:** It has become mandatory to conduct a quarterly action plan review at the woreda level and a biannual review at the regional level as part of a monitoring and follow up exercise where success, failures and challenges are being discussed. It is only through the quarterly review that solutions or support can be designed. The quarterly review is also a capacity building exercise and an experience sharing forum, since just reviewing annual reports will not be enough to guide the OWNPN on its desired direction. Including adequate budget for such important activities will be necessary in Phase II;
- f) **Tariffs for utilities:** Urban utilities and rural water supplies especially those using multi-village water schemes must be able to set appropriate tariffs to at least cover O&M costs. GTP-2 requires that all towns should cover 100% of O&M costs. Legalising WASHCOs is important to enhance rural water supply management, set tariffs, collect bills and save in officially opened bank accounts;
- g) **Coordinate with relevant government ministries:** To enhance urban waste water and solid waste management and regulatory action, it will, in the future, be important to take a multisector approach so as to be inclusive of areas covered by other ministries such as Ministry of Agriculture, Ministry of Forestry and Environment, Ministry Urban Housing Construction and Development, Ministry of Labour, etc;

- h) **Establish an independent regulatory body:** It is now appropriate that water supply and sanitation programmes, especially in urban areas, should have an independent regulatory body for urban water supply, urban sanitation and rural multi-village pipe water supply services. Establishing an independent regulatory body may require discussion with relevant stakeholders, legal entities and legalising it through the proper channels;
- i) **MoU with higher education institutions:** Design a memorandum of understanding with higher educational institutions so that OWNPN will be mainstreamed in curricula, such as, but not restricted to: i) environmental health, nutrition, control of tropical diseases and to collaborate in research and learning activities concerning behaviour and practises in WASH; ii) environmental impact of point and dispersed pollution sources from urban and industrial sources; iii) sustainability master planning and feasibility studies; iv) including socio-economics, financial modelling and appropriate technology; v) integrated land use and watershed management planning.

### 5.3 CLIMATE RESILIENT WASH PROGRAMME

A climate resilient WASH programme was defined as part of the OWNPN Phase II following a recent study<sup>(f)</sup> conducted by UNICEF showing the importance of reducing the vulnerability of the water supply systems, namely in rural areas, to climate change and severe extreme weather events. The study referred to low-tech non-resilient technologies such as hand dug shallow wells that might be cheap in terms of cost per beneficiary, but if they have no water during the dry season or droughts, the humanitarian costs of providing water, through water trucking for example, or the displacement of communities have to be factored in and will turn cheap solutions into costly events. Moreover, management models based on voluntary WASHCOs represent challenges in terms of the operation and management of even the simplest water systems. There is growing evidence that the sector should invest more in identifying climate-resilient water sources in parallel with professionalising water infrastructure management to increase the sustainability and lifespan of rural water supply investments.

The programme believes that water supply systems should be completely overhauled with a new approach that allows investment for creating resilient infrastructure, adequate and reliable access, water security, disaster reduction and secure investment efficiency. The conceptual approach includes the following components.

- Reliable sources of water. Explore sources of deep ground water that do not dry up or are vulnerable in case of drought. Where appropriate, consider the option of treated surface water. Explore and gradually use all options like the use of water from moisture, groundwater, surface water, desalinated water for different regions and areas.
- Use modern technologies such as remote sensing, geographic information system and automated monitoring and management system, reducing UfW and illegal consumption through the latest water saving methods accompanied by awareness creation at all levels.
- Provide adequate water access not only for humans, but also for livestock.

The programme is to be implemented in two phases from 2017 to 2025 and requires a total budget of about USD 5 billion. DPs will cover 50% of the budget, Federal Government will cover 40% and the remaining 10% will be covered by regional government and user communities. For more details, see chapter 6.4.

#### Emergency WASH Phase 2

The second phase of the OWNPN shall include one component on Emergency WASH, which will further strengthen that nexus and orient both humanitarian and development investments. As recently agreed at WASH Cluster level, part of the humanitarian response should help alleviate the structural causes of crises, and build infrastructure which is climate resilient. On the other side, development interventions shall consider existing vulnerabilities and ensure that WASH services are functional even during crises.

## 5.4 PROGRESS OF THE OWNP

The findings of the OWNP mid-term review conducted from 22 May to 8 June 2017(g) reveal that the programme implementation was generally on right track and that progress towards achieving the OWNP development objective was encouraging, in particular the rural WASH component which achieved about 71% of the five year plan. However, the progress in urban WASH and Institution WASH was limited to 4% and 25% respectively for reasons explained above and detailed in chapter 7.

According to the OWNP final review<sup>(b)</sup>, the baseline data in 2013 showed that the number of people with improved access to water supply was 57.5 million (45.8 million in rural and 11.7 million in urban areas) and at the end of Phase I (2015) it increased to a total of 76.2 million. This means that in two years, 18.7 million more people – about 20% of the country's total population – gained access to improved water during ONWP's first phase of implementation. In addition, 38,336 different types of water supply schemes were implemented.

Access to sanitation has also progressed in the same period during ONWP's first phase with the JMP WHO/UNICEF report recognising the fast reduction of open defecation from 44% of the population in 2010 to 29% by 2015.

The programme provided water and sanitation services to 382 woredas and 144 medium and small towns. The table<sup>(h)</sup> below summarises the implementation in 2016 and the accumulative progress of the programme over the first two years as compared with the five year programme.

Key outcome level targets	2009 EFY	Cumulative Achievement	% against 5 yr target
5.96 million in total	808,606	3.3 million	55
3.8 m rural beneficiaries	675,633	3.11 million	82
2.16 m urban beneficiaries	132,973	0.19 million	9
10,380 health and school WASH facilities	1,971 facilities (43% for schools, 57% for health)	4,817 facilities (38% for schools, 62% for health)	46

The figures above show that significant changes took place under Phase I of the OWNP as compared to the pre-OWNP period. According to the monitoring report, the acceleration was the consequence of a number of sectoral changes including better sector coordination, avoiding duplication of efforts, stimulating donor interests to finance the sector, introducing key policies and strategies and improving capacities.

## 6. FINANCIAL RESOURCES (SUPPLY)

### 6.1 MAIN SOURCES. THE 3Ts

The analysis and identification of ways to mobilise and attract additional financial resources to the sector requires assessing the sources that are usually available and those that are used in the country. The first step is to look at the 3Ts concept and clarify the confusion between these three sources and funding mobilised for capital expenditure (CapEx) and operational expenditure (OpEx).

The definition of each of the 3Ts is as follows.

**Taxes** are financial resources originating from domestic taxes – national, regional and local that are channelled and allocated to the sector via transfers from all levels of government budgets. These resources are usually provided as subsidies for CapEx but can cover OpEx if the third T, tariffs that are paid by the users of the WASH services are too low to fully cover the OpEx.

**Transfers** are financial resources provided by external sources such as international donors; philanthropic resources from charitable foundations such as NGOs; decentralised cooperation and local civil society organisations; and remittances such as those from the diaspora. These external sources are grants used mostly to subsidise the CapEx, namely for infrastructure serving the lower-income or unserved population but could also cover OpEx as referred above. Concessionary loans (loans that include a grant element in the form of a subsidised interest rate or a grace period) and guarantees provided mainly by development banks are also considered external resources. However, these loans constitute repayable finance, implying a debt service by the other sources. These sources could be taxes if the loan is undertaken by the government (sovereign) and/or tariffs if the government on-lends the loan to third parties such as service utilities who may also borrow directly from the financial market (sub-sovereign). Loans or repayable finance often create confusion and double counting if summed up with the other sources – taxes and tariffs used to service the debt.

**Tariffs** are financial resources coming from users of WASH services who generally pay the utilities. The cashflow generated by the payment of the tariffs is used to cover the OpEx and the debt service of loans/repayable finance as mentioned above. It could also be used to create the self-financing capacity of the utilities, thus reducing their leverage ratio and debt level. In developing countries, direct household contributions to CapEx could also be relevant if the utilities are unable to provide the service such as when households are located far from the existing network or on-site sanitation facilities. Households often use microfinance for this purpose. If the service is self-supplied – when the household builds and operates a private well and latrine or contributes to a community WASH facility, for example – the equity invested by the household in the form of cash, materials, or time would fall under the category of tariffs.

One of the most important aspects in analysing the availability of financial resources to the sector is the cost recovery and related tariff policy applied in the country. It is important to ensure that the OpEx is fully covered by the source Tariff for several reasons:

- i) ensure financial autonomy of the utility's annual budget to operate the system;
- ii) create incentives for demand/production/consumption management by the utilities and the customers; and,
- iii) give the population the option to contribute to the sector through paying for their consumption.

Universal access to adequate services is only limited by consumers' affordability. In terms of the affordability constraint, there is also a trend to cross-subsidise tariffs at regional level to ensure cost recovery and reduce the wide range of unit service costs in urban areas that vary widely according to population density or availability of water resources (abundant or scarce).

## 6.2 THE USE OF THE 3TS IN ETHIOPIA

### Taxes

The public finance provided by the Government through fiscal revenues based on taxpayer contributions to the federal, regional and district annual budgets plays a very important role in supporting the sector. It shows the strong political commitment highlighted previously to investing in new WASH infrastructure and supporting measures. Fiscal decentralisation is reasonably well developed with tax revenues shared at federal, regional and district levels. The federal government has a budget allocation formula to regions which the regions then use for districts and towns.

The federal and regional sector financing is entirely derived from Treasury resources fed by taxpayers. The sources of financing for districts and towns include municipal revenue and regional allocations. The district water offices' budgets come partly from the district budget, and partly from national finances like basket WASH financing. Capital investments by town utilities are generated from a combination of loans from the Water Resources Development Fund (WRDF), their own sources and Treasury support.

### Transfers, international aid

Ethiopia is a developing country with limited resource generation for development activities. According to the public expenditure review undertaken by the World Bank in 2016, external grants, which averaged around 3.4% of GDP over the last decade, remained the largest source of financing of Ethiopia's fiscal deficit.

The water sector, and in particular its investment and CapEx, receives significant support from a mix of external grants from donors such as multilateral and bilateral agencies, philanthropic foundations and NGOs; and concessional loans. For instance, in the OWP 2013-15 budget, USD 644 million of the USD 1.6 billion total programme budget (40%) was planned to be generated from ODA. However, the 2015/16 annual WASH report showed an allocation of 49% of the budget from ODA. Part of the increase of donor finance in that period was high NGO contributions of 18% for WASH emergency in drought affected areas.

The key donors in the sector providing both grants and loans are multilateral financing agencies (WB, UNICEF, African Development Bank and European Investment Bank), bilateral agencies (DFID (UK), AFD (France), IDC (Italy), JICA (Japan)), and aid agencies in the Netherlands and Finland. The donors and the Government coordinate their work in the Development Assistance Group (DAG) and the annual Multi Stakeholder Forum (MSF).

### Tariffs

There is a clear and comprehensive tariff policy whose main goal is the recovery of costs through tariffs for water utilities. The WRMP (see chapter 3.3) is clear on tariffs, pricing, cost recovery and affordability constraints. It also recommends cross-subsidies between wealth categories to be applied by all service providers. The cost recovery objective was present in the plans defined in the last two decades as mentioned below.

In 2001, the Government released the Ethiopian Water Sector Strategy with the principal objective of '*Securing a basis for the provision of sustainable, efficient, reliable, affordable and user-acceptable Water Supply and Sanitation (WSS) services to the Ethiopian people, including livestock watering, in line with the goals and objectives of the Ethiopian Water Resource Management Policy and other regional development policies*'.

The Water Supply and Sanitation Master Plan, developed in 2002 within the scope of the Environmental Support Program (ESP), estimates the capital investments required to meet the water demand of all Ethiopian urban utilities up to 2030. It proposes a financing scheme for accessing both grants and concessionary loans to stimulate the transition towards full cost recovery based on a classification of towns according to their population numbers.

The Town Water Supply and Sanitation Guideline of 2009 points out that utilities need to establish Town Water Boards (TWBs) and to develop business plans which clearly establish the need to revise their tariff regimes to generate sufficient revenues to gradually move towards full cost recovery.

As briefly mentioned above, the Ethiopian WRMP also provided a framework and guidance on tariffs as described below.

- Promote the development of site-specific water tariffs based on financial, economic, and social equality considerations. Involve local communities in price setting to ensure that tariff structures are compatible with consumers' ability to pay, with a view of providing sustainable services at affordable prices, and based on equitable and practical guidelines and cost-sharing criteria.
- Promote the 'user pays' principle in accordance with the user's willingness and ability to pay for the service, based on the costs of services in relation to the socio-economic conditions of the beneficiaries/users.
- Only subsidise capital costs for communities that are unable to cover the cost of basic services so as to ensure social equity. Establish financial resource allocation criteria to access these subsidies based on local socio-economic factors, and implement phasing out mechanisms of these programmes to promote self-reliance.
- Establish and implement cost-sharing arrangements to share the capital, operation and maintenance and capacity building costs between government, local communities, consumers, external support agencies and non-governmental organisations.
- Ensure that pricing for water projects leads, stage by stage, to full cost recovery based on users' payment capacities and by giving due consideration to appropriate technologies. While setting water charges, recognise water as an economic and social good. Promote subsidies to aid the poor, rectify price inequalities, encourage service expansion, and promote suitable technologies.
- Set tariffs in rural areas with the aim of recovering operation and maintenance costs while, in urban areas, aim at total cost recovery over time (which covers operation and maintenance costs, depreciation and debt servicing). Implement progressive tariff rates in urban areas tied to consumption levels. Develop mechanisms to continuously update the pricing structure.
- Promote rational subsidisation norms based on the severity of local problems, focusing on the direct beneficiaries and promoting localised initiatives as well as water use efficiency. Determine a 'social tariff' for poor communities which at the minimum covers operation and maintenance costs. Develop special flat rate tariffs for communal services like hand pumps and public stand posts. Consider covering 'connection fees' in areas where the cost of connection is beyond the reach of local communities.
- Promote and encourage water conservation through regulatory and demand management measures such as water pricing, improved extension services and public awareness in existing systems where the efficient utilisation of water is as feasible as developing new schemes to improve water use efficiency and conserve water resources.
- Establish progressive tariff rates tied to consumption rates in urban areas which are simple and easy to implement. Regularly update the pricing structure with the objective of achieving cost recovery and improving water use efficiency. While establishing pricing structure, consider the costs to be covered vis-à-vis the consumer's ability to pay.

What emerges is that the sector policy requires tariffs to be applied by the urban utilities for full cost recovery and for OpEx in rural areas to be covered but with gradual phasing out as highlighted in chapter 3.3: '*Promote self-financing of programmes and projects at the local level; ii) Provide subsidies to communities who cannot afford to pay for basic services on capital costs only; iii) based on established criteria and phase out subsidy gradually; iv) Ensure that all water supply undertakings will adequately address costs associated with operation and maintenance and be based on 'cost-recovery' principles*'.

Despite a sound tariff policy, the reality is substantially different. The cost recovery objective is far from being applied, as noted in several documents<sup>(k,l,m)</sup> and in the review of the OWNPs mentioned in chapter 7.

Despite the clear policy route, in practice no utility in the country has reached full cost recovery level<sup>(a)</sup>. All towns recover O&M costs, with around 10% of utilities having adequate cash reserves to address emergencies like replacements and to

invest small amounts in expansion, but they are unable to cover CapManEx on asset renewal. The overwhelming majority of utilities have very limited surplus funds to cover anything beyond routine maintenance and simple emergencies. Furthermore, the RWBs responsible for approving tariffs proposed by the utility water boards do not seem to acknowledge the importance of tariffs. During the mission, interviewees stated that RWBs did not accept the proposal of affordable tariffs previously agreed with the population to be served by a new water supply scheme, and lowered the proposed and agreed tariffs.

Town utilities use their own sources generated by cash flow revenues from users' tariffs to mainly cover the OpEx. However, no accurate data was found on the level of tariffs applied countrywide and the total cashflow revenues generated by the utilities and other service providers such as communities' contributions to operate the rural water facilities. The table below shows some of the data that was collected from reports provided during the assessment.

#### Overview of Water Tariffs applied by Major Secondary Towns of Ethiopia<sup>(1)</sup> (1 ETB = USD 0.036)

Consumption Band (m <sup>3</sup> )	Hawassa	Adama	Bahir Dar	Mekelle	Harar	Average of Other Towns	Avg. Increm.%
Public Taps	2.00	3.25	2.35	3.50	1.25	2.59	1.30
1 to 5	2.00	4.05	2.90	5.00	2.50	3.61	1.81
6 to 10	3.30	5.05	4.40	10.00	4.50	5.99	2.15
to 20		6.30		12.00		9.15	
11 to 25			6.10			6.10	
11 to 30	4.40				6.50	6.50	1.98
Above 20		7.90		15.00		11.45	
Above 25			8.20			8.20	
Above 30	5.50				13.00	13.00	2.36
<b>Average*</b>							<b>1.92</b>

This 2012 study<sup>(1)</sup> reviewed the current water tariffs applied by the HTWSSSE utility and found that:

- i. the water utility is not financially viable due to a lack of funds to finance operation and expansion costs;
- ii. tariffs are the most important source of funds for the utility but do not even cover operating costs; and
- iii. an estimated 31% of the population of Hawassa served through standpipes receives just a fraction of the water (8%) that connected customers receive and pays 25 times more;
- iv. a better tariff regime is needed to make the utility financially viable, to promote a more efficient water usage, to target subsidies to the poorest, and to enhance and expand service delivery. Current tariffs were established in 2004 and have remained unchanged for over eight years. If they had been adjusted with inflation today's rate would be three times higher;

Cost recovery	100% operating cost	100% full cost
Tariff for domestic and non-domestic (ETB/m <sup>3</sup> )	5.10	8.67
Standpipes	4.00	4.00

- v. in spite of large subsidies, low-income families access water mostly from neighbours (yard connections) and public taps. Public taps have lower charges and are affordable to poor households but are not popular. Recently, a number of utilities started providing credit facilities to connect households but this practice is at an early stage. There are also some programmes to connect poor households with shared connections but these are also at pilot stages.

### 6.3 THE FLOW OF THE FINANCIAL RESOURCES

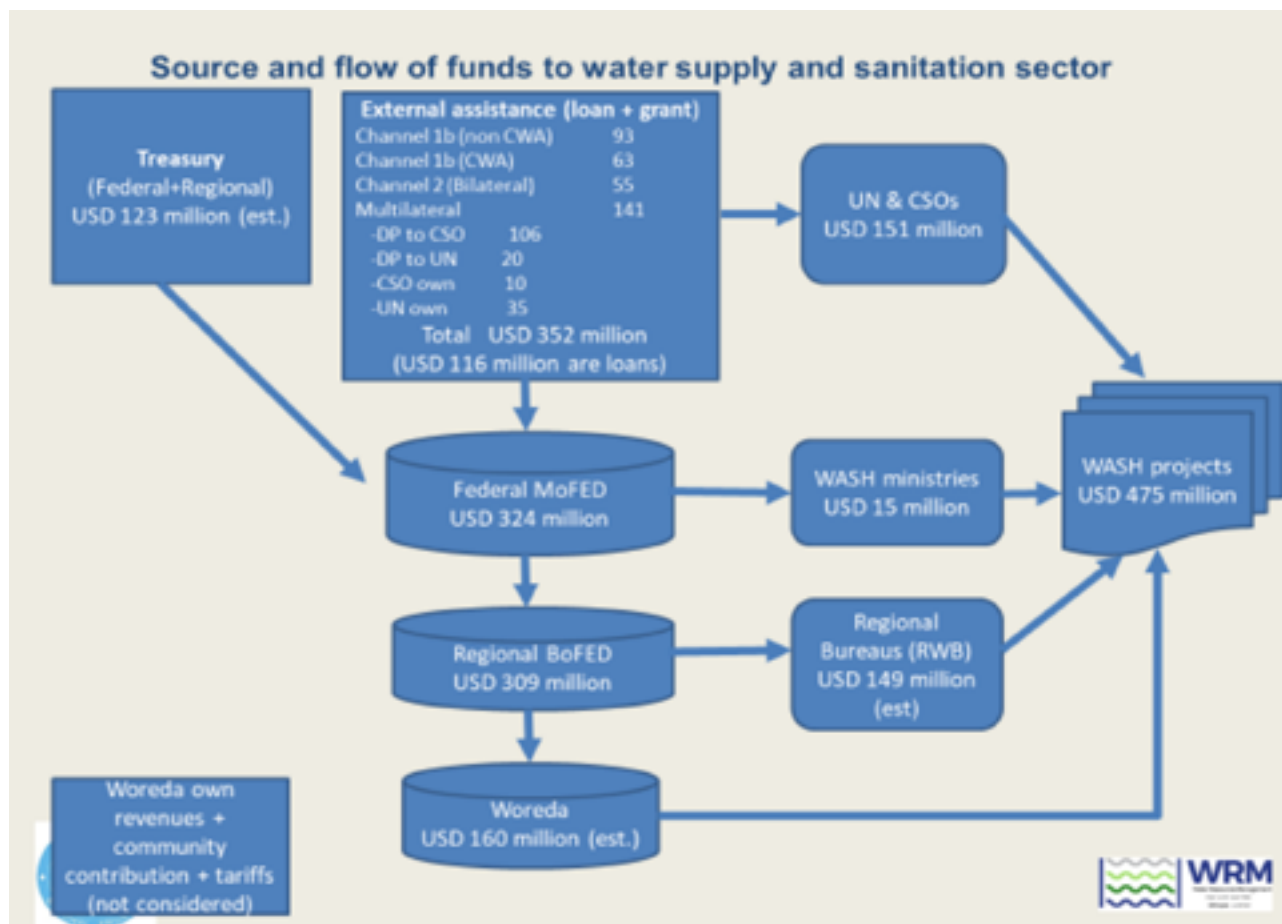
#### **Fund Mobilisation and Financing Strategy**

The WRMP establishes the main goals and principles regarding the mobilisation of funds for the sector as highlighted below.

- Consider the water sector as of equal importance as other crucial sectors of the economy when making financial resource allocation decisions at the national level.
- Establish financial management rules and feasible arrangements for resource allocation, cost-sharing and accessing funds for demand driven WWS systems. These rules and arrangements should define the roles and obligations of various partners (government, communities, private sector etc.) in the management of funds to improve transparency and accountability.
- Ensure self-reliance, through the promotion of local self-financing of programmes and projects, based on the overall socio-economic development conditions of local communities, and through appropriate incentive mechanisms. To this end, engage the participation of banks, private operators, micro financing institutions, national water fund, rural credit services etc.
- Establish criteria to access the financial resources from the Government budget to expand the coverage of WWS services both in urban and rural areas. As a matter of principle, utilise Government resources to strengthen national capacities, meet operation and maintenance expenditure, and support community-based initiatives. Undertake infrastructure development and feasibility studies using the funds acquired from external sources.
- Ensure transparency, fairness, responsibility and accountability in the utilisation and management of the WWS funds, namely through Community Water Committees (rural) and Consumers' Councils (urban), and by conducting regular audits and inspections by community members who are not members of the water committees/councils. Establish a line of responsibility and authority within these community-based structures. Institute good contracting arrangements to engage the consultants and private firms to perform planning, design, implementation and operation and maintenance tasks, and effectively administer these arrangements to ensure quality control.
- Provide incentives to local stakeholders such as community groups, manufacturers, consulting firms, in terms of concessions on import duties, tax rebates, subsidies, credit facilities and through other similar economic instruments to encourage their participation in the planning, design, implementation and management of WWS systems.
- Assign first priority to water supply and sanitation; then to watering livestock; followed by irrigation, hydropower and free environmental water flow.



According to the WASH finance analysis developed by the Water Sector Working Group Secretariat and UNICEF in 2017, the sector invests around USD 475 million per year. The financial flows used for the funding of the WASH projects is shown in the figure below:



The WASH finance analysis conducted by the Water Sector Working Group Secretariat (WSWG-S) and UNICEF in 2017<sup>(d)</sup> shows that the ODA represents a significant amount of all WASH sector investments in the country. Of the USD 475 million estimated to be invested per year, around USD 352 million is ODA (74%), of which USD 236 million are grants and USD 116 million are loans.

The funds channelled through the Consolidated Wash Account (CWA) – see reference below, have been allocated as follows:

- Channel 1: USD 279 m (59%)
- Channel 2: USD 55 m (12%)
- Channel 3: USD 141 m (30%)

The Development Partners contribute to all three channels through different instruments and projects. According to the study, UN agencies and NGOs receive and implement around USD 151 million, representing almost one third of the WASH sector investment, which at the moment is not properly captured in the OWP annual reports.

Bilateral donors and CSOs are active participants in OWP. They have their own plans, geographical locations, focused intervention areas, trained human resources and a set budget. These organisations have a project document complete with a budget that is approved by sector ministries and MoFEC. They contribute to hardware and software activities in WASH.

An assessment was made into the contributions of collaborating partners (CSO) towards OOWNP during Phase I (2014–2015) and the GTP-2 programme implementation status for the period 2016–2017. However, out of the 13 organisations contacted for the survey, only eight responded (Save the Children, Water Action, SNV, Water Aid, Care, JICA, World Vision and CRS). The total WASH investment from the eight NGOs up to 2009 EFY (2016/17) was USD 162.8 million, or 10% of the USD 1,633 billion investment for WASH in Phase I. However, the WASH finance analysis conducted by the WSWG Secretariat/UNICEF in 2016/17 shows that the actual CSO contributions to the programme are much larger than reported above. The actual investments for Phase I might be larger than the USD 1.63 billion, when considering other CSO contributions.

#### 6.4 CLIMATE RESILIENT WASH PROGRAMME

The final version of the Climate Resilient Water Supply, Sanitation and Hygiene programme as part of the OOWNP II, was developed after addressing the constructive comments given during the different consultative workshops at various levels with different stakeholders<sup>(f)</sup>.

The programme is to be implemented in two phases over eight years: Phase I from April 2018 to June 2020, and Phase II from July 2020 to June 2025. With a total budget of ETB 4.9 billion (USD 612.5 million) of which DPs would cover 50%, it is not known how much has been committed to date. The Federal Government is committed to cover 40% and the remaining 10% would come from regional government budgets and user communities. The amount of the investment programme was estimated by taking the current per capita cost of rural piped schemes for multiple villages, livestock watering, distance, infrastructure, labour availability, technology, borehole depth etc.

#### 6.5 OOWNP PHASE II (GTP-2) FINANCING NEEDS

The financial requirement of the investment programme included in the Plan and its sources was estimated at ETB 44.8 billion of which ETB 2.1 billion is project recurrent costs and ETB 42.7 billion investment costs. Of the investment costs, ETB 25 bn (56%) is for the construction of new schemes and rehabilitation in rural areas; ETB 12.2 bn (27%) for urban water supply construction and expansion; and ETB 5.5 bn (12%) for new sewerage schemes construction and expansion.

The table below shows the investment cost breakdown by sub-sector and type of work.

Sub-sector	Total		Average per year	
	ETB	M USD	ETB	M USD
Recurrent budget	2,135,141	77	427,028	15.4
Rural water:				
1. Construction	23,788,701	859	4,757,740	171.8
2. Rehabilitation	1,189,435	43	237,887	8.6
Sub-total	24,978,136	901	4,995,627	180.2
Urban water:				
1. Design	60,000	2	12	0
2. New schemes	7,288,311	263	1,457,662	0
3. Expansion	4,858,875	176	971,775	0
Sub-total	12,207,186	441	2,441,437	88.2
Urban sewerage:				
1. Design	17,500	1	3,500	0
2. Construction	5,500,000	198	1,100,000	0
Sub-total	5,517,500	199	1,103,500	39.8
Total capital costs	42,702,822	1,542	8,540,564	308.4
<b>Grand total</b>	<b>44,837,963</b>	<b>1,619</b>	<b>8,967,593</b>	<b>323.8</b>

The financial sources were also estimated based on the experiences of budget allocation for the sub-sector for the last three years of the GTP-1 period and are shown in the following table.

Source	ETB (000s)	M USD	% of Total
Government	21,970,602	793	49
Donors	13,899,769	502	31
NGOs	1,793,518	65	4
Urban Utilities	4,932,176	178	11
Communities and others	2,241,898	81	5
<b>Total</b>	<b>44,837,963</b>	<b>1,619</b>	<b>100</b>

### CWA

The Consolidated WASH Account (CWA) fund was established for the sector by some of the key donors as the core of basket funding to bring other financiers to the OOWNP implementation. The CWA covers the investment needs of the OOWNP in 382 woredas and 144 small and medium towns. It was designed to have a financing system through three channels.

- Channel 1: Consolidated WASH Account (CWA), which donors contribute to the basket fund that is managed by Ministry of Finance and Economic Cooperation (MoFEC). The contributors of CWA during Phase I were UNICEF, World Bank, DFID and AfDB.
- Channel 2: Cash transfer by Development Partners (DPs), NGOs or other organisations directly to government implementing partners in the water, health and education sectors.
- Channel 3: Direct implementation by DPs, NGOs or other organisations as per project agreements with the respective WASH sector offices.

Of the total available budget for WASH investment for Phase I of USD 1,633 billion, USD 766.9 million was invested up to 2009 EFY (2017) from the Government capital budget (47% of the available budget for Phase I). The WASH finance exercise conducted by the Water Sector Working Group Secretariat estimated that around one third of the WASH sector investments are done through UN and CSOs (channel 3).

## 6.6 THE ETHIOPIAN WATER RESOURCES DEVELOPMENT FUND

The Ethiopian Water Resources Development Fund (WRDF) is a specialised financing intermediary established in 2009 by the Government to promote the development of viable water supply and sanitation services and irrigation schemes. The Fund was established to facilitate the implementation of the water sector's cost recovery policy by providing on-lending facilities to medium and large towns. To this end, it provides loans to autonomous entities to implement their WASH systems on a cost recovery basis.

Financial resources for medium towns to support the OOWNP are channelled through the WRDF as sub-loans. The Fund is also responsible for managing the programme in 20 medium sized towns. With regards to programme implementation support to medium towns, the WRDF does the coordination and management and while the programme is coordinated by the Project Monitoring and Evaluation Core Process of the Water Resources Development Fund Office.

All the autonomous entities responsible for providing the services are eligible to borrow from WRDF if they demonstrate that they have the financial capacity to repay the loan. The borrowers and their projects must meet access criteria contained in WRDF guidelines to obtain the loans. A multi-disciplinary team of WRDF staff undertake the loan appraisal, involving a financial, economic, technical, institutional and social impact analysis. The WRDF is currently supported by technical assistance from an international consultant covered by an EIB grant.

The Regional Water Bureaus, or sometimes towns, send proposals to the WRDF for loan requests. For equitable distribution purposes, proposals by regions are screened by the WRDF board committee members using project criteria (which include size of population and access coverage). Regional equity is part of the criteria for the comparison and selection of the projects that will benefit from a WRDF loan.

While the four regions of Oromia, Amhara, SNNP and Tigray have some capacity to submit full documents for appraisal and their documents are of relatively good quality, the other regions have low capacities for submitting the technical documents needed for loan applications and they have a professional capacity gap at the contract administration level. The capacity of the water boards in the smaller regions to oversee both the projects and the operations of the town water supply systems are also very limited. Most of the utility performance is low and the full cost recovery stage has not been reached, only barely covering O&M.

The poor performance and low tariffs affect the creditworthiness of many of the utilities who are not able to access the WRDF concessional loans. There is also a capacity gap at WRDF, with high staff turnover and staff shortages. However, the nature of WRDF's revolving fund could attract more financial resources to the sector once the utilities move to cost recovery tariffs as defined in the national policy. The debt service of the WRDF concessional loans will continuously feed the revolving fund and maintain the availability of resources for new investment.

The main sources of funding for the Fund come from: Government of Ethiopia, World Bank, DFID, AfDB, EIB, AfD (Government of France), IDC (Government of Italy), BADEA, Kuwait Fund and UNICEF.

The loan conditions are usually the following:

- 5 years grace period (from the loan agreement signing date),
- 3% interest,
- 15 or 25 years maturity. In exceptional cases, the repayment period is 40 years (e.g. Hara and Adwa)

The loan granted is up to 80% and no less than 20% of the total project cost. The loan grant depends on the repayment period. Matching funds, such as from the regions, are included in the project if the capacity of debt repayment is lower. The repayment of the TWU loans is envisaged to create a revolving fund for developing water infrastructure in the urban areas.

WRDF provides funds either as loans for the development of WASH infrastructure to TWUs or as grants for capacity-building activities. To date, WRDF has extended loans to 36 TWUs to a total estimated cost of USD 436 million. Loans are for a period of 20 to 30 years, excluding grace periods of five to seven years at a 3.0% fixed interest. Of the 36 towns, seven projects have been completed and TWUs have begun making loan repayments. The remaining 29 towns are at different stages of development.

In a bid to streamline the support of the DPs and enhance the role of the revolving fund, AFD, EIB and IDC have proposed the creation of a basket fund modality. The basket fund comprises two investment funds, the Investment Basket Fund (IBF) and Technical Assistance Basket Fund (TABF). The IBF is used through loans for developing water and sanitation infrastructure and the TABF is used through grants for developing the technical capacities of the WRDF and TWUs. A total initial assistance of around EUR 80 million has been earmarked for the basket fund, of which: i) IDC contributes EUR 15 million as soft loan coupled with a EUR 3.5 million grant; ii) EIB contributes EUR 40 million as soft loan and a technical assistance grant to be specified; and, iii) AFD contributes EUR of 20 million as soft loan coupled with a possible EUR 0.5 million grant.

## 6.7 ABSORPTION CAPACITY

Of the total ETB 8.62 billion OOWNP life budget for 2009 EFY (2016/17), the NWSC, responsible for managing the programme, has approved about ETB 3.15 billion for the implementation of OOWNP CWA activities planned at federal and regional levels. According to the fourth quarter 2009 EFY IFR<sup>(h)</sup>, ETB 1.75 billion was utilised in this fiscal year and ETB 3.68 billion in the programme life by all implementing organisations. These figures show a budget utilisation performance of 56% and 43% against the annual plan and the programme life budget respectively.

At federal level, of the planned ETB 367.4 million for the 2009 EFY only 30% was utilised. MoWIE, MoE, MoH, MoFEC and WRDF utilised 37%, 108%, 29%, 65% and 37% of their planned budgets respectively. With regard to the regions, of

the ETB 2.8 billion total planned budget, 59% was utilised. Since its commencement, the programme has utilised about 43% of the total allocation. Of this, 96% went to the RWBs while the remaining 4.2% went to Federal WASH ministries.

Despite the shortfalls in the funds allocated, the absorption capacity of the sector is low. According to other sources of information, the average annual financial allocation for 2015/2016–2018/2019 was USD 144 million and much less than the MDGs need assessment and lower than the average allocation for Sub-Saharan Africa countries. The execution capacity was constrained for different reasons and was limited to only 80% of the budget allocated to water supply and 57% for sanitation. The major problem was observed in urban water supply execution, which is taking longer than expected.

Despite some discrepancy in the reports made available, the conclusion is evident: the absorption capacity of funds allocated to the sector is still low and constitutes a major bottleneck. The main causes are highlighted in the following chapter.

According to the IEC assessment in October 2017(b), the major problems of the WASH sector in terms of financing are:

- i. limited internal absorption capacity;
- ii. limited mobilisation of adequate resources;
- iii. limited targeting of available resources;
- iv. low tariffs that compromise sustainability;
- v. the absence of a planned system and performance improvement; and
- vi. competing demands (poverty eradication, education, health, road development etc.) for the same resources.

The assessment recommends addressing the problem through planned and continual improvement of services to all rural and urban water schemes, eventually leading to the improvement of the absorption capacity.

## 6.8 THE FINANCIAL GAP

It was not possible to identify data or sources providing a reliable estimate of the finance gap – the demand of investment needs minus the supply of financial resources.

The government developed the OOWNP Phase I outlining the financing requirements to achieve the previous MDG era targets. However, it fell short on capital maintenance even though rehabilitation works were included. Phase II as mentioned previously will require a larger amount of funding to achieve the water demand growth and higher service levels and the SDG6 goals. While the actual coverage rates of improved water and sanitation services are high, the coverage by safely managed services as defined in the SDG6 is still substantially low thus requiring high investment costs for new infrastructure.

Though there is a substantial effort to increase the amount of resources to the sector, the country was only able to mobilise less than 50% of the funds needed to achieve the 2015 target required by the MDGs (GLAAS, 2014). According to the same report, aggregated expenditure in that period was 0.57% of the GDP, which was low compared to other peers in Sub-Saharan African countries that ranged up to 1.78% of their GDP. The investment programme planned for the implementation of the OOWNP for the period 2013–20 was initially estimated at a total of USD 2.4 billion, or about USD 340 million/y.

The five year investment plan based on GTP-2 is dictated by the goals established by the government in terms of population served and levels of service in line with the SDG6. Overall, ETB 44.8 billion (about USD 1.6 billion) is required to achieve the plan. Therefore, the estimated cost of the OOWNP Phase II could be considered a proxy to the demand of finance resources. However, there was a recent estimate of the investment costs to achieve the SDGs indicating the need to increase the actual annual financial resources allocated to the sector by 6 times from USD 475 million to over USD 3 billion per year.

Despite the finance gap, the most urgent goal is to increase the absorption capacity and use the allocated financial resources. Attracting and mobilising more resources will not significantly accelerate achieving SDG6 until the bottlenecks and constraints causing the low absorption capacity are mitigated or eliminated.

In view of the above, the WASH sector in Ethiopia could focus on two main goals regarding the mobilisation and use of financial resources.

- Prioritise the use of taxes through the national, regional and local budgets to remove the current bottlenecks to the flow of financial resources. Also use these to subsidise the poorer and unserved population while ensuring affordable tariffs within a cost recovery context.
- Mobilise more resources through tariffs by applying the recommendations made by the national tariff policy.

The next chapter highlights the issues, bottlenecks, constraints and recommendations made in several OWP review reports with the purpose of setting the basis and validating the ones that are selected as the most relevant under the finance assessment.

## 7. ASSESSMENT OF THE PROGRESS MADE BY THE SECTOR. CURRENT BOTTLENECKS

According to an IRC document<sup>(a)</sup>, the sector's strengths are in the areas of policy and legislation, planning processes, and new infrastructure development. In brief, they include:

- the development of sector policies, legislation and strategies with the clear goal of achieving universal access;
- Government commitment to ensure universal access to WASH services and renewed commitment to improve service levels as formulated in the SDGs;
- Government commitment to urban water services through allocating substantial budget for urban water supply;
- the clear definition of the mandates of sector organisations at national, regional and town/district levels;
- a strong partnership between Government and donors;
- the establishment of the Water Resources Development Fund as a lending instrument for urban water supply investments;
- the creation of national learning platforms for sector stakeholders to exchange experiences and facilitate learning.

In conclusion, and regarding the sector enabling environment, the blocks with higher performance that do not require immediate attention in improving the sector are: i) Policy and legislation; ii) Institutional framework; iii) Planning; iv) Learning; and, vi) Water resources management. See the table below.

Financing and Infrastructure do not present relevant problems and the main underperformance is on monitoring and regulation.

Building block	Score
Policy and legislation	7
Institutions	5
Planning	5
Financing	4
Infrastructure	4
Monitoring	2
Regulation	1
Learning	5
Water resources management	5

### 7.1 ISSUES, BOTTLENECKS AND CHALLENGES

Despite satisfactory progress measured in broad terms of the investment and measures taken in the sector since the GTP was prepared and the OOWNP was launched about five years ago, there are important issues that slow the progress of the development of the sector. These have been identified in several assessments such as the Mid-term<sup>(g)</sup> and Final<sup>(b)</sup> reviews of the OOWNP Phase I and the UNICEF BAT<sup>(i)</sup> which are mentioned below. Other reports, like the last available OOWNP-CWA Account EFY 2009 Annual Report of the period 2016-17 prepared in August 2017<sup>(h)</sup> and the Proceedings of the 9<sup>th</sup> Joint WASH-WRM Multi Stakeholder Forum (MSF) June 12-13, 2018<sup>(t)</sup> indicate outstanding challenges and recommendations, which are also indicated.

The main conclusions and recommendations made by the reports are quoted on the next pages.

## 9<sup>TH</sup> MULTI STAKEHOLDER FORUM

The stakeholders were in agreement that private sector inputs and capacity in water supply sector implementation need to be increased. The current enabling environment does not support this development. Therefore, an enabling environment in which the private sector can build its capacity to respond to high level technical water supply solutions needs to be established. The major components would be to do the following.

- a. Establish tax free importation for deep ground water drilling machines.
- b. Establish tax free importation for solar panels, water pumps, treatment units, and other relevant water technologies.
- c. Give priority to companies involved in the import of critical water and sanitation equipment and materials to get access to foreign currency.
- d. Assess the viability and legal framework for private sector managed water utilities.

The planning of the creation of an independent water supply regulatory body for Ethiopia has been ongoing for long time. The need for this kind of regulatory body is increasing. The need now it is to set clear concrete strategic milestones for the establishment of a regulatory agency and create the necessary legal structure so that it can be established in the next 12 months.

The last National Water Inventory was conducted seven years ago. The water supply database has not been fully updated since then. A comprehensive and inclusive National Water Inventory needs to be conducted and a robust water database and data management system introduced for annual updating of the database.

The number of rural water supply systems is growing rapidly and aging. In recognition of this, the Rural Water Supply Operation and Maintenance Strategic Framework, the rural public utility model and related O&M manuals have been prepared and endorsed to guide woredas in keeping rural water supply functional. It is now time to print and disseminate these manuals to all regions, zones and woredas and create lasting awareness and capacity at all levels from region to woredas of the benefits of implementing an organised, resourced and well managed inclusive rural water supply operation and maintenance system.

In urban areas the domestic waste water is an increasing problem. Centralised and decentralised waste water treatment solutions have been piloted in selected urban areas, but most urban domestic waste water still flows untreated into the rivers causing many problems downstream. The solutions used to date need to be evaluated, analysed and shared among stakeholders in order to establish clear inclusive guidelines for all urban centres.

Most of the existing sanitation facilities, especially in rural households, are still sub-standard, non-inclusive and hardly provide the required hygienic protection from diseases. Strategies, guidelines and the establishment of private enterprises to deliver improved sanitation facilities to the public have been piloted and tested. It is now time to scale up the delivery of standard and inclusive sanitation facilities by increasing the private sector contribution and participation in the implementation of improved hygiene and sanitation facilities at household level so that these services are available for all households and for all users in Ethiopia. In order to scale up the improved sanitation adequately, seed money (revolving fund) for sanitation marketing enterprises shall be established and a manual for its use shall be prepared.

## WASH BOTTLENECK ANALYSIS TOOL

The challenges observed in programme implementation were reviewed using UNICEF's WASH Bottleneck Analysis Tools (WASH BAT) in October 2017, which analysed the enabling environment, supply, demand and the quality of challenges. It also made an important contribution to reviewing the first phase of the OWNP and develop its second phase.

The issues, bottlenecks and challenges were analysed under four different blocks: urban water supply; rural water supply; urban sanitation and rural sanitation. The blocks that are relevant to the finance assessment both from the demand and supply side are described below.



**Urban water**

For the enabling environment, there is political commitment to the OOWNP at both national and regional level. But there are no mechanisms for enforcement since there is no regulatory function. In terms of institutional arrangements, the link between the regional and national levels is weak.

Bottlenecks related to budgeting and financing include too low allocation of funds from the Government budget, as well as insufficient tariff revenues that do not even cover O&M costs. There is a business plan for utilities, but it is poorly implemented and monitored.

Some aspects of planning, monitoring and evaluation are in place, however the quality and regularity of data collection is limited by the discrepancy of data sources. There are operation and maintenance plans, but they are not enforced throughout the supply chain, implying low sustainability of water services. In general, there is low real capacity at the regional level and utilities are not managed by professionals. There is a capacity development plan but it has not been implemented, implying that there is no harmonised way to do capacity building.

**Rural water**

There is a general lack of capacity at different levels, compared to the assigned roles and responsibilities. The private sector in particular lacks capacity. Joint sector reviews are being done, but the supporting information (from monitoring and evaluation processes) is poor.

The available budget is far lower than the needs, in particular for the 70% of woredas that are not funded by the CWA. In general, current tariffs and management models are not sustainable. There is a high percentage of non-functional water points and low involvement of the population in decision making on the level of service. At the sub-national level, planning is being done, but there is limited stakeholder involvement.

**Urban sanitation**

The bottlenecks identified regarding institutional arrangements included unclear arrangements for service delivery, with little monitoring and regulation of progress and service quality. The planning process does not consider the whole service chain (access, emptying, transport, treatment, and reuse) and lacks both capacity development plans and coordination at the sub-national level.

In terms of budgeting and financing, there is a double bottleneck of a low level of available funds in relation to the needs, and a low capacity to spend those available funds. There is also a lack of ready-made projects that can attract new financing.

Other issues were the lack of adequate water supplies hindering urban sanitation (potential need for different technical solutions) and no facility for the reuse of waste and effluent. The link between urban sanitation and solid waste management and the lack of integration with other ministries was also pointed out.

**Rural sanitation**

Coordination is taking place, but it is not inclusive of private sector actors such as small and micro enterprises or individual entrepreneurs. There is no common map of all the actors operating in rural sanitation. There is no government-led capacity development plan. An important capacity gap that exists is how to develop the market for affordable solutions.

Regarding budgeting and financing, there is no budget line for rural sanitation in the Government's national budget, although the funds pooled in CWA provide for one. There is also poor utilisation of the existing budget. Bottlenecks in schools and health institutions were briefly touched on in this analysis but would merit a separate WASH BAT analysis.

## OWNP PHASE I REVIEW REPORT

This recent report of March 2018 raises a significant number of issues and recommendations to address them. The main issues consist of poor feasibility studies, design, cost estimates of investment and project management; lengthy procurement procedures; a lack of business plans prepared in advance and ‘on the shelf’ ready to be quickly rolled out as funding comes on stream; low capacity of sector staff and private sector contractors; very high staff turnover (mobility); a lack of incentives in public entities; and poor water quality control.

## 7.2 CONCLUSIONS AND RECOMMENDATIONS FROM SECTOR REPORTS

### WASH BAT

#### Prioritised actions for urban water

- i. Independent regulatory body.
- ii. Reduction of non-revenue water (NRW), regular revision of tariffs and enabling cross subsidies.
- iii. Inclusion of sustainability factors in planning, M&E plan.
- iv. National service delivery standards – manual and guidelines.

#### Prioritised actions for rural water, at the national level.

- i. Maximise fund mobilisation.
- ii. Strengthen capacity development activities.
- iii. Establish and roll out a regulatory authority.
- iv. Strengthen stakeholder coordination.
- v. Improve budget utilisation of ODA.
- vi. Professionalisation and engagement of small and medium enterprises.
- vii. Possibly use multi-purpose water systems to improve cost recovery.

#### At sub-national level:

- i. Prioritise the incorporation of business models into policies and guidelines.
- ii. Review the system of defining roles and accountabilities with clear guidelines on implementation and monitoring.
- iii. Advocate for and develop an investment plan that builds on innovative financing mechanisms and attracts the private sector and donors.
- iv. Review the existing monitoring framework and develop new indicators to be included in the national WASH inventories and harmonise these with other national management information systems.
- v. Review the HR strategy with standards for deployment and plans for needs-assessment based capacity building.

#### Prioritised activities for urban sanitation:

- i. Create a city wide sanitation master plan.
- ii. Dedicated and allocated public budget for urban sanitation and donor funding (Sanitation Fund, Levy for sanitation).
- iii. Establish a regulatory agency and revise the regulatory framework.
- iv. Develop a comprehensive capacity development plan for sanitation.
- v. Develop a sustainable service delivery model.

#### Prioritised activities for rural sanitation:

- j) On public health, advocate for the importance of rural sanitation based on research and evidence to obtain increased budgets.
- k) Support private sector involvement.
- l) Develop and implement a capacity development plan.
- m) Review and improve monitoring and evaluation.
- n) Strengthen stakeholder platforms to do joint planning, monitoring and review.

The analysis concluded that a few topics clearly emerged as priorities for all sub-sectors.

- **Regulation:** It was clear that there is a strong interest and Government commitment towards the establishing of a regulatory body for the WASH sector.
- **Financing:** All the sub-sectors would benefit from increased levels of financing, as well as strategies for identifying innovative financial instruments for the sector (i.e. blended finance, climate finance etc.). Some sub-sectors also need to improve their absorption capacity in order to accelerate the progress achieved in the previous years.
- **Service delivery models:** The concept of service delivery, in particular for sanitation, but also for water, would benefit from a thorough exploration and definition in the Ethiopian context. This would facilitate the definition of roles and responsibilities in existing service delivery models, as well as the identification of options for new service delivery models.
- **Private sector engagement:** Private sector actors were considered as key stakeholders to further advance water and sanitation service delivery. There is a need to incentivise their engagement through the development of sustainable business models, as well as to strengthen their capacity to engage in the water and sanitation sector.
- **Capacity development:** The sector needs increased capacities in all areas. This relates not only to opportunities for training, but more broadly to issues of human resources management and salaries.
- **City wide (or clustered) planning:** For urban and water and sanitation services, moving towards planning that includes larger administrative units, such as entire cities, woreda-wide plans, or clustered kebeles, was identified as a possibility to make better use of economies of scale.

## OWNP PHASE I REVIEW REPORT

The main recommendations made in the report are summarised below. They are grouped by demand and supply:

### Demand

- **Need for well-conceived projects** based on good and quicker feasibility studies, hydrogeological investigation and project design with realistic contingency plans associated with sustainable business plans prepared in advance and 'on the shelf,' ready to be quickly rolled out as funding comes on stream.
- Improvement of the **procurement of goods and services**, which are currently cumbersome, especially those that required international competitive bidding. For example, procurement of electromechanical equipment can cause considerable delays to projects.
- Better **project management**, namely at administrative and construction level affected by the bad quality of design, underestimated bill of quantities causing high technical contingencies, a lack of transparency on procurement and contract management, and price inflation/contingencies.
- Need for **substantial training** to be given to WASH sector staff at all levels on procurement and contract administration, benchmarking and establishment of appraisal teams with qualified professionals.
- More accurate implementation of **social and environmental safeguards, gender mainstreaming, equity and inclusion**, which are cross cutting issues in OWP that are often overlooked when planning and implementing services. Although there is a system in place, there is evidence that it has not been fully applied in practice, for instance at water points, within institutions etc.
- **Strengthening the low skills and capacity of the sector human resources at all levels**, for example in the regional PMUs and WASH Coordination Offices (RWCO), WASHCOs, WASH utilities, and among artisans, health extension workers, and private sector contractors such as drilling companies.
- Provide **technical assistance to urban and multi village water utilities** to improve utility management, administration, and operations to achieve full cost recovery status. This capacity building will be enhanced by proposed **clustering and formation of large (perhaps zonal) utilities** which are overseen by national or regional utility regulators.
- Establish an **independent regulatory body**. It is now appropriate that water supply and sanitation programmes, especially in urban areas, should have an independent regulatory body for urban water supply, urban sanitation and rural multi-village pipe water supply services.

- Establish **regulatory functions** for the RWCO, their agents and commensurate structures at the zonal level.
- Urgently examine the lack of commitment (morale), **very fast staff turnover (mobility)**, lack of incentives, absence of recognition, low salary scale compared with the private sector, absence of organised training plans, lack of innovative approaches etc.

### Supply

- Fund release and liquidation: Institutions still complain about the **need to revise fund disbursement, liquidation and replenishment of funds modality** in CWA. This modality needs to be reorganised to encourage active performers to work more and motivate others to be more active rather than simply following a 'business as usual' modality.
- The **WRDF process should be strengthened greatly** and utilised as a means to roll out projects based on sustainability studies and sound business plans.
- Funding support to the private sector: **Establish a revolving fund or create strong ties with microfinance institutions at the local level.** These are ways of creating an enabling environment for private suppliers so that they create the supply chain for the necessary spare parts, sanitary ware, chemicals and other products.
- Setting **water tariffs and service levels appropriate for cost effectiveness**, efficient and sustainable service delivery and to meet GTP-2 goals.

## 7.3 ASSESSMENT MADE FOR THE WATERWORX PROGRAMME

The issues, bottlenecks and challenges of the sector were also assessed and recommendations made for the preparation of the WaterworX(a,p) programme. The key aspects concerning the conclusions of the assessment and proposals made for the scope of the programme were extracted from the two documents and are summarised below.

### OBJECTIVES OF THE PROGRAMME

WaterworX is a public private partnership between all 10 Dutch water utilities, their local partners and the Ministry of Foreign Affairs of the Netherlands. It aims to provide 10 million people across 17 countries with sustainable access to drinking water by 2030, by strengthening the performance of the utilities through Water Operators Partnership (WOP) and its enabling environment in the selected countries including Ethiopia. In addition, it seeks to develop infrastructure development proposals for financing.

The programme has established a Water Operator Partnership (WOP) in Ethiopia with the Addis Ababa Water and Sewerage Authority (AAWSA), the Utility Forum and a group of four utilities that operate in Oromia region. While AAWSA is the largest utility in the country with over 450,000 customers, the four Oromia utilities are all medium sized with between 10,000 and 20,000 customers. They are considered mature utilities with relatively well-developed management and operational systems. The objectives of the programme in Ethiopia are to:

- serve one million poor people before 2021 of which 50% will be reached through water and/or sewerage connections and 50% will be reached by water points or appropriate sanitation;
- strengthen the capacity of the utilities financially, technically and socially as well as the enabling environment in terms of policies, laws and regulations and financing;
- increase access to water infrastructure investment finance by developing investment proposals and engaging with domestic and international financing organisations and banks.

## THE ASSESSMENT

The assessment of the enabling environment for urban water services revealed strengths of the sector in the areas of policy and legislation, planning processes, and new infrastructure development as already mentioned at the beginning of this chapter. However, there are areas in which the sector has not progressed well and which can be considered as critical gaps. These are the following.

- The sector monitoring system does not work effectively and as a result it is very challenging to monitor water utility performance.
- There is no regulatory agency and regulatory functions are not effectively undertaken.
- Asset management is very weak or absent in utilities.
- The participation of the private sector is very weak both in financing as well as in service provision.
- Sector organisations in charge of water resource management are missing or weak in human and financial capacity.
- The town water boards have very weak capacities as oversight bodies and lack many of the guidelines required to effectively discharge an oversight function.

The list of strengths and gaps in the development of the sector identified in the assessment of the sector enabling environment are similar to the conclusions of the assessments made by the BAT, MTR and Final review of the OOWNP. They were also confirmed in the finance assessment undertaken by the consultant.

## PROPOSED ACTIONS

Based on an assessment of the strengths and weaknesses, the following actions have been proposed to strengthen the enabling environment.

- a) Provide technical support in **establishing a regulatory agency** for urban water utility regulation at national level, and in establishing urban water supply services and performance regulations.
- b) Provide support in establishing a functional **national system to monitor the performance** of all urban water services.
- c) Provide support in establishing and strengthening **asset management systems** and practice in utilities.

## 8. FINANCE RELATED CONSTRAINTS

This chapter presents the constraints relevant to attracting more financial resources to the sector and contributing to the achievement of the SDG6, that is, to reduce the population not served by adequate water supply and sanitation services. A selection was made of all the issues and bottlenecks mentioned in chapter 7 that were confirmed or complemented by the assessment undertaken during the mission to Ethiopia. Also taken into consideration was the current status of the sector in terms of supply and demand of finance presented in chapters 5 and 6.

The analysis was carried out and explains the main subjects and/or selected constraints below. Suggestions on possible ways to address the issues and remove the constraints are made in chapter 9.

On the **supply side of the finance** the main constraints identified were the following.

### AVAILABILITY/INCREASE OF FINANCIAL RESOURCES: TAXES AND TRANSFERS

In terms of taxes, there is a strong political commitment at all governmental levels to allocate public financial resources to develop the sector. As an example, the Government recently decided to cover 50% of the funds required for the new Climate Resilient WASH programme estimated at about USD 6 billion. Despite the growing 'competition' with other social sectors requiring substantial grant support from the Government such as health and education which are also involved in the OOWNP, the UNICEF representative mentioned that there is still fiscal space to increase the collection of taxes and thus not reduce the mobilisation of governmental financial resources based on taxes in the short term.

The transfers from ODA have been managed in an integrated way under a basket funding approach using transparent channels like the CWA and WRDF. The ODA will likely remain stable or be progressively reduced once the Government achieves its aim of turning Ethiopia into a middle-revenue country.

Both the taxes and transfers are used for implementing physical infrastructure or other soft components like capacity building. The former has concentrated on the construction of new systems to attain the Government's objective of reducing the number of unserved people and achieve the SDG6, but has had less of a focus on rehabilitating the existing assets. The latter has been provided mainly through governmental support in the form of subsidies or international grants – see the example of the WRDF/TABF in chapter 6.6.

A relevant aspect regarding the use of subsidies/grants is the absence of a clear strategy to target and benefit the lower income/poorer population. The Government policy to require the recovery of O&M costs only in rural areas contributes to a correct targeting by assuming that rural populations' incomes are lower than those of urban populations. However, the subsidies might not fully reach the people living in peri-urban and slum areas due poor management of the flow of financial resources, as highlighted in chapter 7.

The implementation of the OOWNP Phase II will require more resources but in the available documents there is no specific reference to a financing gap resulting from the new phase. A gap will likely exist as the OOWNP does not cover all the WASH systems required to ensure universal services. No information was found containing an estimate of all the investment needs required to achieve SDG6.

Chapter 6.8 mentions that although the available budget and financing is insufficient to meet the needs, this is mainly associated with specific areas like sanitation or rural services and is not considered an issue at the wider water sector. Moreover, it is often associated with a low allocation of funds or absorption capacity, which is the main bottleneck.

**Main conclusion:** Despite a likely financing gap, it is advisable to prioritise the use of the resources coming from taxes and grants from transfers to remove the identified bottlenecks and improve the capacity to absorb the resources allocated to the sector. The resources will thus be used to address the issues on the demand side of the finance. They should, moreover, target the unserved and lower income population.

### AVAILABILITY/INCREASE OF FINANCIAL RESOURCES: TARIFFS

In the OOWNP Phase I review report of March 2018(b), a new focus area is proposed for Phase II of the tariffs for urban utilities and multi village water schemes. The goal is that these must be able to set appropriate tariffs to at least cover O&M costs. GTP-2 requires all towns to cover 100% of O&M costs.

The low tariffs applied by the service providers who do not comply with the national policy that requires full cost recovery is one of the major sector issues in the country. Tariffs are key to achieving several financial goals.

- 1) Contribute to the debt service of loans and other private capital (bonds, equity etc.) – the bridge or repayable finance necessary to cover the CapEx for the construction of WASH infrastructure that will reduce the unserved population.
- 2) Contribute to partially cover the CapEx by mobilising self-financing capacity/own funds of the utilities who will use the new WASH facilities.
- 3) Generate similar utility funds required to cover the CapManEx of renewing existing assets.
- 4) Cover the utility O&M costs in full thus making it financially autonomous and independent of annual transfers of funds from municipal or regional sources that might not be available or could negatively affect the operation of the facilities.
- 5) Full recovery of operational costs means the possibility to ensure high quality services such as drinking water quality, system efficiency and consequently lower tariffs. It also means the capacity to recruit skilled staff with proper wage levels and incentives, thus reducing turnover and retaining know-how.
- 6) Full recovery of maintenance costs means extending the lifetime of the existing assets and postponing renewal or avoiding rehabilitation with a positive impact on the level of tariffs.

Another relevant contribution of full cost recovery tariffs worth mentioning is lowering the sector risk for the financiers, either International Finance Institutions (IFI) or private capital for blended finance. In principle the water sector is very low risk given that the good is served under a monopoly with no competition from other suppliers for domestic, commercial, industrial and irrigation purposes. However, there is a perception among the financiers, equity providers, bond purchasers and others of a higher risk if the tariffs are mismanaged and vulnerable to political interference that do not guaranteeing debt service.

Current sector risk perceived by the main financiers is low as the debt service is fully taken by the Government, that is a sovereign risk that is disconnected from the performance of the utilities, the low level of tariffs applied by the service providers and consequently insufficient cost recovery. At present, sector stakeholders are focusing their attention and efforts on the implementation of new infrastructure driven by SDG6. As the majority of the existing facilities are relatively new, the need for asset renewal to ensure the satisfactory performance of the services is not perceived as an issue, but it will become one if the financial resources are not made available through the cash flow generated by the tariffs.

IFIs like the WB and AfDB channel their loans through the WRDF, although they do not yet participate in the IBF. They assume that the loans will be paid back by the borrowers and feed the financial resources available at the WRDF. It is expected that the growth of the Fund and need for debt service from the utilities/borrowers feeding the WRDF revolving fund will bring more attention to the tariffs and cost recovery.

It seems that Ethiopia does not have an affordability issue – no study was provided or mentioned on this subject as CapEx for the construction of infrastructure serving rural areas or the poorer population is fully subsidised and operating costs are low as the main source is groundwater. There is therefore scope for a significant mobilisation of additional resources through increasing revenues generated from tariffs together with lowering unit OpEx if service provision becomes more efficient.

As recommended in the tariff policy, cross-subsidisation should be considered to keep the level of tariffs within affordability limits, namely at regional level. This could be done by clustering or merging service provision,

addressing the sector's high fragmentation and enhancing the performance of the utilities. Cross-subsidisation could be a useful tool in overcoming the lack of solidarity in the WASH sector. The lack of solidarity is seen between the groups outlined below.

- Between the **served and unserved population** as the former tend not to accept the increase of tariffs necessary to service the loans required to attract more financial resources for the construction of new WASH systems covering the unserved population.
- Between the **population living in larger urban areas/towns** with lower investment and O&M unit costs who are thus charged lower tariffs for full cost recovery as compared with smaller towns.
- **Between the current generation** paying tariffs that do not cover the renewal of the existing assets **and future generations** who will have to take the burden of a transfer or asset renewal cost.
- Between the **population** living in regions with an excess of and insufficient **water resources**.

**Main conclusion:** Tariffs applied by the utilities are too low and not comply with the sector policy. This issue is widely acknowledged in the assessment of the sector performance but is not applied by the utilities nor enforced by the public entities who do not seem to perceive it as a major issue that will progressively affect the performance of the sector. Affordability does not seem to be a major constraint and could be mitigated by tariff cross-subsidisation supported by clustering/merging service providers. This would enlarge the service areas to cover urban and rural. A progressive awareness namely at donor level of increasing sector risks due to cost recovery issues might put more pressure on the need to change the current situation. The growth and wider use of the WRDF to channel the funding to urban areas could also contribute to a change of the current situation. A regulatory framework enforcing the tariff policy will likely be the best way to address the issue.

## MANAGEMENT OF THE FINANCIAL RESOURCES, PERFORMANCE OF PUBLIC ADMINISTRATION

The WASH BAT analysis concludes that there is a double bottleneck in budgeting and financing. These are a low level of available funds in relation to the needs and a **low capacity to spend those available funds**, particularly in urban sanitation.

The main issues identified in the assessment regarding the management of the financial resources are: poor coordination between the different governmental levels and weak links between the regional and national levels; low capacity at the regional level; low skills; high turnover (mobility) of staff due to low salaries and lack of incentives; the tendency of the public sector not outsourcing tasks that the private sector could undertake more efficiently; and the lack of coordination in staff training and the lack of a harmonised system of capacity building.

It is the responsibility of the Government to improve the efficiency of the staff in charge of managing the financial resources. The Government should take the necessary actions to strengthen the capacity of the staff and promote measures to reduce its mobility. External stakeholders could help, namely in contributing to the improvement of the management processes and tools or advice on the institutional framework, but the bulk of the measures required to increase the funding absorption capacity and remove the bottleneck on the flow of financial resources is a Governmental responsibility.

However, it would be important to promote some changes at the level of the RWBs given their key position within the decentralised process of decision making by the public entities. This is explained further down under other constraints, see the comments on regulation.

The availability of reliable data on all aspects such as financial resources, absorption capacity, allocation of resources has been mentioned. Apart from the National WASH Inventory that was carried out in 2010/11, there is no system that can provide sufficient insight into the service levels in the towns. The NWI data has, however, not been properly validated, comprehensively analysed or used and the attempts made have not been widely used for oversight and decision making. The WB initiated benchmarking and networking through IBNET (benchmarking of service providers) to assess utility performance, but only some of the utilities participated in the system. Further, since its introduction some utilities stopped reporting.



The positive aspect in the existing monitoring system is that there are potential capacities in place to ensure regular updating of the data. There are water boards at town level to assess utility performance. Regional water bureaus also have urban department and planning units that could ensure reporting from regions. However, there are no adequate mechanisms in the institutions to effectively update the system.

The WaterworX programme in chapter 7.3 also refers to the availability of data as a key tool to improve the management of the financial resources. However, there is likely to be some resistance to the implementation of a national monitoring data system that may evidence underperformance and those who are responsible for it. The best way to overcome any resistance would be through involving entities such as a regulator and the utilities who may be interested in the data and using it regularly.

**Main conclusion:** The scope for improving the management of financial resources is limited and should be the responsibility of the Government. Support is needed at decentralised level to bring this about and the RWBs could play a role by progressively developing the main regulatory functions at regional level (see other recommendations below). The contribution to national monitoring data could be limited at the physical point of intervention and involving the utilities and RWB could be part of the Action Plan proposed in chapter 10.

### WRDF, OTHER FINANCIAL INSTRUMENTS

The Fund was established to facilitate the implementation of the cost recovery policy of the water sector by providing on-lending facilities to medium and large towns. It provides loans to autonomous entities to implement their WASH systems on a cost recovery basis.

The WRDF is still facing problems and its performance is low. The technical assistance provided by international consultants over a five year period could improve the performance. However, its lack of autonomy as an entity that is part of the public administration, and a top political management appointment, will limit the WRDF's scope for improvement unless it has sector experience and proven capacity. This issue is similar to that mentioned on the management of financial resources, the composition of town water boards and the utility management.

Despite this issue, the Fund will have an important role in channelling financial resources to the urban sector through the provision of concessional loans. It will impose a debt service that will foster discipline and create incentives for the better management of the utilities. It will transfer the borrowing to the local urban entities or utilities, thereby encouraging the financial sustainability of the sector. The Government is currently channelling the financial resources to the Fund with no debt service but this may change in the future as an incentive to the WRDF for higher performance. As a revolving fund, the WRDF could progressively increase the financial resources required to continue funding new infrastructure in urban areas and start serving progressively the debt assumed by the Government.

Another important role of the WRDF is the joint use of TABF with the current TA provided by the international consultant to help the preparation of projects that either directly support the larger utilities or support them through the RWBs.

Similar financial instruments for the smaller urban and rural areas do seem less feasible at present as the CapEx is assumed to be fully covered by subsidies. In the exceptional case of an infrastructure investment cost being paid by the user, such as water connections to populations living far from the water supply network or on-site sanitation and operational equipment, some financial instruments using blended finance could be considered. These would support the users and/or the service providers of smaller urban and rural areas. See comments made under private finance.

If the Government would decide that the subsidy amounts should be increased to accelerate the implementation of new infrastructure to connect the unserved population, a solidarity tax could be considered. It could be applied in the tariff system of the population already connected and would be transferred to a financial instrument such as a revolving fund. It would cover the funding gap for new infrastructure to connect the unserved population. The same fund with a revolving nature could also be fed with revenues from the customers in rural areas to ensure the renewal of the assets.

**Main conclusion:** The WRDF will have a major role in channelling funds to the urban sector either for capacity building of utilities and project preparation, or for investment in new infrastructure. Other financial instruments might be considered on a case by case basis.

## PRIVATE FINANCE

The low level of tariffs and absence of cost recovery represent a strong risk for private finance. Moreover, the significant contribution of public funds supported by the government does not create an opportunity for private funding in the short term. Until recently, the political context was also averse to private sector participation at any level – consultancy, construction and financing. However, in the OOWNP Phase I review report of March 2018(b), the proposed new focus areas for Phase II include funding support to the private sector in the form of either a revolving fund or strong ties with microfinance institutions at the local level. In turn, these could potentially create an enabling environment for private suppliers who could put a supply chain for necessary spare parts, sanitary wares, chemicals and other products in place.

*The ninth MSF recommends that 'strategies, guidelines and establishment of private enterprises to deliver improved sanitation facilities to the public have been piloted and tested. It is now time to scale up in the delivery of the standard and inclusive sanitation facilities by increasing the private sector contribution and participation in the implementation of improved hygiene and sanitation facilities at household level so that these services are available for all households and for all users in Ethiopia. In order to scale up the improved sanitation adequate seed money (revolving fund) for sanitation marketing enterprises shall be established and a manual for its use shall be prepared.'*

**Main conclusion:** Mobilising private funding in Ethiopia does thus not seem feasible in the short term unless the Government recognises the need for it and creates the necessary conditions. Addressing the cost recovery issue and mitigating the sector's financial risk are preconditions. The best short-term opportunity might be local level finance with microfinance contributions to meet the financial needs as recommended in the reports above.

## REGULATION

The establishment of a regulatory agency has been identified as a priority activity by the Government of Ethiopia. The WASH BAT analysis concluded that, in terms of the OOWNP, political commitment is in place at both national and regional level to create an enabling environment, but that there is a lack of mechanisms for enforcement since there is no regulatory function. With the exception of enforcing some of the existing regulations, it makes no reference to the roles of a regulatory agency in regard to utilities' performance, economic/cost recovery/tariff enforcement or quality of the drinking water for example.

The sector has a highly fragmented and complex organisational framework with a large number of service providers, a wide range of sizes, different scopes of services (water supply and/ or partial or total sanitation, design, procurement, construction or simply O&M) and levels of autonomy. In this context, regulation would be a tremendous challenge unless some harmonisation and progressive merging of the utilities is achieved. The capacity to collect accurate data about the quality and cost of the services is another major challenge.

Technical support is currently being provided in this area through development partners, notably UNICEF. At present UNICEF and the MoWIE will commission a local consultancy firm to develop the regulatory functions, mandate and institutional set-up of a national regulator. Because of the country's federal system, the Government and stakeholders consider that regulators should be established at State level. It is not clear whether these regulators would be deconcentrated offices of a national regulator, or state level regulators. The consultancy firm will be tasked with clarifying the proposed model and establishing a regulator in Amhara and Southern Region.

The WaterworX programme is proposing a relatively small-scale complementary activity to the work of the consultancy firm, that is, it will support the establishment of a regulator in the State of Oromia where all its utilities are located. It will support the regulator in Oromia to adapt the planned national framework to regional-specific guidelines, and to develop the capacity of the staff. To fulfil these tasks, the consultancy firm will: i) develop region-specific regulation, derived from national regulation; ii) strengthen the capacity of a regional regulatory entity

through training and other complementary activities; iii) document the experience and share it with national actors. It is envisaged that the technical cooperation will appoint international technical peer reviewers to support the Ministry in reviewing the proposed national regulatory framework and facilitate experience sharing with Kenya, a neighbouring country with extensive experience in regulation.

Despite the wide recognition of the need to create a regulatory framework and an agency, there are significant issues.

- It is a long process and requires wide consensus. Resistance to a regulatory process from some stakeholders causes delays.
- There is a need to agree on the level of decentralisation.
- The service providers' organisational framework is highly complex and fragmented.
- There is no national monitoring database and system, and potential opposition to its implementation.
- The use of a national consultancy firm to set the roadmap in a country with no experience in this area could slow the process. This point was underlined by the UNICEF representative who mentioned a South-South collaboration with a country in another continent where the economic and utility regulatory experience is not particularly positive.

**Main conclusion:** There is a need for a regulatory framework and an implementing agency. However, a bottom-up approach might be more effective in achieving short term results and quick wins. This could be done, for example, by creating regulatory functions at regional level within the RWBs and recruiting staff for that purpose, but in line with the wider and longer on-going process led by UNICEF.

There are several constraints on the demand side of finance.

## INVESTMENT NEEDS

At this stage, OWN Phase 2 is the main reference for the investment needs in the near future. The five year investment plan proposed in the GTP-2 is dictated by the goals established by the Government in terms of population served and levels of service in line with the SDG6. The investment needs are thus well known and do not restrict the attracting of additional financial resources.

The investment needs for the renewal of assets has not been estimated. Until most of the utilities have initiated the asset management process, it will not be possible to make an accurate estimate.

Another problem on the demand side is the lack of ready-made projects that can attract new financing. This is mentioned in the WASH BAT assessment and see the comments on consultancy, design and so on.

**Main conclusion:** The investment needs for renewal should be estimated once the utilities initiate the asset management process and create the conditions to accelerate ready-made projects.

## HUMAN RESOURCES, CONSULTANCY, PROJECT PREPARATION, PROCUREMENT

The recent OWN Phase I final review report of March 2018 raises a number of significant issues and recommendations to address them. The main issues consist of poor feasibility studies, design, cost estimate of the investment and project management; lengthy procurement procedures; lack of business plans, preparedness in advance and 'on the shelf' plans that can be quickly rolled out as funding comes on stream; low capacity of sector staff and private sector contractors; very fast staff turnover (mobility); lack of incentives in public entities; and poor water quality control.

An important component in implementing the plan is human resources. All stakeholders involved in its implementation are required to have the necessary skilled manpower for the task. The main role of the government sector is to develop policies, strategies, legislation and regulations, development plans; look for financial sources; and play a regulatory and facilitation role in the intervention. The private sector mainly provides services for study and design, construction, operation and maintenance. Donors and NGOs give technical and financial assistance. As

beneficiaries, the community and urban water supply utilities are required to play an active role throughout a project implementation cycle.

The GTP-2 estimated the human resources requirement for the sector as a whole, consisting of the government and private sector, NGOs, communities, urban utilities etc. Included in this staff body would be water extension workers who support rural communities to plan, implement, operate and maintain their water supply schemes. They would be assigned to most of the *kebeles*, depending on the need. Artisans and caretakers would be available at rural *kebeles* and rural water supply schemes respectively.

For the planning period, it is estimated that 4,374 high and 13,000 medium level professionals, 10,500 artisans and 500,000 caretakers would be needed to meet GTP-2 requirements. The requirement for high and medium level professionals will be fulfilled through training by the government and private sector universities and colleges.

One option of meeting the human resources need is to draw on a past political context in which public companies are used. This would be a centrally driven approach. For instance, the state-owned Afar Water Works Construction Enterprise is responsible for 90% of the water supply construction work, with the Afar Design and Supervision Enterprise responsible for the design and supervision. The designs are reviewed and approved by the Afar Water Resources Bureau which also undertakes monitoring and oversight functions. This might explain why 95% of the staff required for the sector at all levels is estimated to be Government/public administration staff.

There is no shift towards greater use of the private sector for design, construction and operation. The sector has experienced long delays and quality issues with local private contractors that have seriously affected the work of contractors (selected on basis of lowest bid). Procurement procedures do not allow the best quality contractors to be selected.

The achievement of the OOWNP in urban water supply was substantially lower than in rural areas. The identified cause was the capital-intensive nature and complexity of urban water supply facilities. They take more time for design, procurement and implementation and require well experienced consultants, drillers and contractors which are scarce in the country. Interviews held also pointed to the lack of national design standards that affect the performance of the consultancy firms. Furthermore, there is still a strong aversion to the use of international consultants with the negative consequence of low quality studies and a lack of transfer of know-how from experienced consultants to the locals.

Efficient and timely procurement of goods and services and contract management have been important management issues that affect the implementation of projects. Procurement manuals and government proclamations have to be followed. Procurement is a lengthy process for many reasons, the most important being:

- i. the review, revision, and approval of changes in project scope, in particular major reductions in scope caused by large cost escalations due to inflation;
- ii. lengthy review and approval process of final designs and bid documents; and
- iii. long drawn out bidding processes.

On top of the procurement issue, there is a low capacity to follow guidelines and manuals that are already available in the regions.

**Main conclusion:** Need to identify the main reasons for delays on procurement and measures to accelerate the processes and promote project preparation.

## PERFORMANCE OF UTILITIES

At the top of the sector policy, planning and action is fully integrated, but at the bottom the service provision framework is not integrated, fragmented and autonomous. This creates the conditions for low utility performance.

Regarding the urban water supply services, no standardised information was found on the average performance of the utilities, but the reports highlight the current low performance, poor customer service and issues to be addressed. These issues include high non-revenue water (NRW), intermittent supply, low pressure, poor drinking water quality, low cost recovery and no financial sustainability of the service providers.

The low performance could not be improved without a reorganisation of the service provision framework and a functioning regulatory framework that uses a national monitoring database that includes information on the utilities' performance.

During the preparation of the GTP-2, it was noted that community management of rural water supply services is not yet strengthened as required. In this regard, O&M cost recovery is minimal. The technical and financial management capacity is still low, there is no well-organised supply chain, and private sector participation, particularly in O&M, is almost non-existent. The same document also mentions the importance of facilitating enabling environments to enhance the capacity of the private sector involved in consultancy and construction services in the sub-sector in order to improve implementation capacity.

The ninth MSF concluded that private sector inputs and capacity in implementing the water supply sector need to be increased. The current enabling environment does not support this. The WASH BAT assessment recommends urban water and sanitation services to move towards planning that includes larger administrative units, such as entire cities, woreda-wide plans, or clustered kebeles. Doing so would make better use of economies of scale.

The problem is apparently more serious in smaller and rural areas. This is not surprising given the degree of fragmentation in the service provision framework resulting from decentralisation. There may be some exceptions if utilities would have different leadership and competence at the top management, but in general, merging the service provision could improve the performance of the utilities. The multi-village schemes that are performing successfully may be a way to strengthen the capacity. They are merging the services of several communities in one single service provider which is giving them economies of scale and better conditions to mobilise the necessary resources, either human or equipment.

There are other issues that result from the lack of the professionalisation of staff. Water Boards are composed of representatives of different public authorities with experience in public administration but no knowledge or experience in the role of a board. Their staff turnover is high as representatives change frequently due to political appointments. Despite representing a public authority, many board members lack commitment to improving the performance of the utility. The utility managers are also appointed according to their career in public administration and they often lack sector and managerial experience. Recruitment based on a performance contract in line with the utilities' KPIs, as happens in other countries in the region, is not the norm.

The low performance of the utilities affects the demand side of the finance by delaying the investment and absorption of the available funds, despite the support of the RWBs in implementing the infrastructure. Poor O&M is also an issue. There is thus an urgent need to take action in the short term improve the performance of the service provision.

WaterworX has established a Water Operator Partnership (WOP) with Addis Ababa Water and Sewerage Authority (AAWSA), Utility Forum and a group of four utilities that operate in Oromia region. The WOP programme works with these agencies to improve service delivery through capacity building and technical assistance. The Utility Forum, which acts as a utility association, is currently organising experience exchanges among utilities. The regional associations are becoming more deeply involved in utility affairs by harmonising service levels and representing utilities' interests at regional level. The aim of the WOP programme is to create a national utility association that will

provide technical and organisational support to utilities and provide advice on service delivery and project implementation.

The sector has also identified the need for an effective monitoring system as a priority. The World Bank and MoWIE have implemented utility performance monitoring in 66 towns using IBNET. However, it was mentioned that this undertaking has not been as effective as expected due to inadequate capacity, the lack of commitment by sector actors and the absence of linkages between urban performance monitoring and the national sector monitoring system. WaterworX intends to implement the IBNET system in 50 more utilities, including in five existing WOP utilities, and develop a detailed strategy to support both national actors and the town utilities. This will be done in close collaboration with the national monitoring and MIS development team based in the Ministry. The activities of this component are as follows.

- Develop a framework for integrating the urban utility performance monitoring into a national sector monitoring and reporting system.
- Achieve consensus on the importance of monitoring the performance of utilities as an input for regulatory activity. It is critical that the right conditions are put in place before the regulator is established. This includes performance monitoring in the loan appraisal process by the Water Resource Development Fund (WRDF).
- Select towns in close coordination with MoWIE. This entails developing selection criteria and conducting a national workshop for regional water bureaus to select towns and to foster the commitment of all the actors the process.
- Build the capacity of the MoWIE team in performance monitoring.
- Train and support the selected 50 water boards and utilities on performance monitoring. This entails:
  - an orientation workshop for the board members of the 50 utilities on IBNET performance monitoring;
  - the capacity assessment of 50 utilities staff on performance monitoring;
  - developing training programmes and materials;
  - conducting theoretical training and on-the job training on data organisation, computation and reporting.
- Monitor and analyse performance monitoring reports (data). This consists of:
  - a review of the submitted data;
  - an analysis of the data
  - the aggregation and comparison of data.

As asset management has been identified as one of the critical constraints in urban utilities, it is included in the WaterworX programme. The programme proposes assessing the best practices in utility asset management and identifying suitable systems for utilities in Ethiopia. The programme's proposals are supported by an extensive literature review on utility asset management practices in other countries and an understanding of the policy and legal framework under which utilities operate in Ethiopia. Once the existing policy framework and institutional arrangements are fully understood, attention will be given to developing national asset management guidelines.

The WaterworX programme's activities include the following.

- Assess best practice in utility asset management to extract useful elements to be included in the guideline.
- Assess the challenges of national and regional actors and urban utilities in implementing asset management.
- Develop asset management guidelines for urban water utilities.
- Consult national, regional and town actors to review and approve the national guidelines.
- Select utilities to implement asset management. The proposal is to do this in four WOP utilities in Oromia region.
- Build the capacity of MoWIE, the Water Fund and regional water bureaus to assist town utilities in establishing proper asset management.
- Implement the programme's activities in four utilities.
- Document and disseminate experiences to broader sector actors.

**Main conclusion:** Need to support the improvement of the service provision performance given the current issues of a lack of professionalism, appointments to Water Boards and of utility managers, high fragmentation and the lack of incentives for innovation. The activities proposed in the WaterworX programme would be helpful in addressing these issues

## 9. WAYS TO ADDRESS FINANCE RELATED ISSUES AND REMOVE CONSTRAINTS

### 9.1 RECOMMENDATIONS FROM THE SECTOR REVIEW REPORTS

The previous chapter presents many recommendations made recently in several reviews of the progress of the OWNPN. However, the recommendations largely consist of general actions, proposals, intentions or priorities and do not propose detailed actions that could be started immediately to address the issues identified in chapter 7. They also do not propose ways of removing the main constraints that slow down or block the allocation of more funds to the water sector. The WASH BAT report of October 2017 is more precise than the other review reports, and proposes the following prioritised actions for urban and rural water.

#### a. Urban

- i. establish an independent regulatory body;
- ii. reduce non-revenue water (NRW), establish the regular revision of tariffs and enable cross subsidies;
- iii. include sustainability factors in planning and the M&E plan;
- iv. establish national service delivery standards, and produce a manual and guidelines.

#### b. Rural, at the national level.

- i. maximise fund mobilisation;
- ii. strengthen implementation of capacity development activities;
- iii. establish and roll out a regulatory authority;
- iv. strengthen stakeholder coordination;
- v. improve budget utilisation of ODA;
- vi. professionalise and engage small and medium enterprises;
- vii. consider the option of multi-purpose water systems to improve cost recovery.

In general, the main questions at the moment concern the 'how to' and 'what for' in terms of:

- i. establishing an independent regulatory body;
- ii. reducing NRW and revising the tariffs;
- iii. maximising fund mobilisation and improving budget utilisation of ODA; and
- iv. professionalising and engaging SMEs.

These are objectives rather than concrete actions.

### 9.2 STRATEGY PROPOSED TO MOVE FORWARD

The following strategy is outlined in the Action Plan. The strategy recognises that the amount of funds available to implement the Action Plan is limited.

- 1) Limit the scope of the Action Plan to soft measures and minimise the inclusion of hard components such as water supply and/or sanitation infrastructure and equipment.
- 2) Ensure that the Action Plan is high 'value for money', that is, it has a high value added/cost ratio.
- 3) Ensure that the Action Plan aims at short term results, that is, quick wins.
- 4) Ensure that the Action Plan has a high leverage ratio thus avoiding dilution into other programmes.
- 5) Ensure that leadership remains in the hands of the owners of the Action Plan.
- 6) Ensure that there is complementarity and cooperation with other on-going programmes in the sector. This will bring benefits from the financial support to those programmes and optimise/minimise the cost of the Action Plan.

- 7) Consider mainly using a 'learning-by-doing approach' in capacity building. Focus strongly on the transfer of know-how that will ensure the long-term retention of the know-how within the entity benefitting from the capacity building.
- 8) Privilege corporate capacity building over individual training.
- 9) Create conditions for innovation and if possible, adopt the leap frog approach.
- 10) Mitigate the lack of solidarity in the sector in view of its strong social purpose.
- 11) Remove the constraints to additional finance to the sector, especially finance destined for the unserved and/or low-revenue/poor population and to greater gender equality.
- 12) Try to reverse the past aversion in the country to the participation of the private sector and to 'importing' international experience.
- 13) Last but not least, create conditions for: i) replicating the experiences and lessons learned when implementing the Action Plan; and, ii) scaling up the Action plan and increasing the smooth flow of financial resources by reducing the 'head loss'.

There are a few considerations regarding the strategy above, how to apply it and how to remove the finance constraints. The strategy's goals could be achieved by combining the following complementary assumptions and actions.

*Limited amount of funds available, concentrate on soft components, short-term results, quick wins, complementary with other on-going programmes, high value for money*

In terms of the scope of the Action Plan, two options could be considered depending on the amount of funds available.

- 1) A first phase of the Action Plan would consist of a more detailed analysis or study of short duration. It would give continuity to this assessment and provide the details, contents and cost estimate of the actions to be implemented in the second phase over a number of years, depending on the expected output and availability of funds.
- 2) Choose an option that would address the most urgent issues within a short period or that have higher benefits. This would help raise awareness and promote the understanding of: affordable tariffs in mobilising additional financial resources; the role of cross-subsidisation and the benefits of clustering/merging of service provision in urban and rural areas; and, targeting subsidies. It will also enhance regulatory functions at RWB.

Soft components as well as quick wins will limit the duration and cost of the Action Plan and maximise its value added and outcomes.

*Focus on the unserved and/or the low-revenue/poor population and enhance greater gender equality, create conditions for replication and scaling up*

The Action Plan should meet the targets in the SDG6. But it will not be able to reach a significant number of people with limited funds unless it is anchored in a process that favours replication and scaling up. Selecting the sub-sector could be difficult. For example, would you choose: i) water supply or sanitation, knowing that the latter has lower coverage rates but the former is a higher priority for the population; or ii) urban or rural, knowing that the majority of the population and the poorer live in rural areas but population growth is concentrated in urban areas where water services are served by long network systems. This choice is made further complicated by the boundaries between small towns and rural areas not being clear. In conclusion, the best approach is to select an area served by a utility that has capacity and competence, a mix of urban and rural zones and that aims at equal universal service. In this case, the priority of the service will be on the unserved and not the population closer to the existing network – the urban would 'drag' the rural.

*Capacity building mainly using a 'learning-by-doing approach' with a strong focus on the transfer of know-how that will ensure the long-term retention of the know-how within the entity, privilege corporate capacity building over individual training*



Selecting a utility with the capacity and skilled staff that is obliged to expand its service to smaller urban areas and surrounding villages/rural areas would provide the conditions for the capacity building of the staff by learning-by-doing and retain the transferred know-how in the utility in the long term. This implies measures to reduce the high mobility/turnover.

*Create conditions for innovation and adopt the leap frog approach, mitigate the lack of solidarity in the sector*

The water sector is very conservative and is not open to innovation at all levels. There are several reasons for this such as the: lack of a competitive environment and a monopolistic approach; social nature of the good prevailing over the economic; lack of professionalisation of the staff; low wages; and the wrong perception that a public service means minimum private sector participation. However, there are new innovative solutions mainly driven by digitalisation, telecommunications and the energy sector that could be used immediately in developing countries. This would bring about the leap-frogging from old to new technologies much faster than in developed countries – a fast catch-up. Moreover, the investment costs of these innovative tools are not capital intensive like much of the ‘classic’ infrastructure for water supply and waterborne sanitation, and would make use of investments already made by the telecommunication and energy sectors.

*Reverse the aversion to private sector participation and imported international experience*

The OWINP review reports recommend the greater involvement of the private sector, but they primarily look to drilling companies. Despite significant obstacles regarding commissioning consultancy agencies, such as a lack of master plans, feasibility studies, design and project management, the sector relies entirely on local consultants. This is clearly evidenced in the reports made available and comments made about establishing a regulator. This approach, that seems driven by the past political context, stands in the way of the sector and local consultants benefiting from the experience and transfer of know-how from international consultants.

### 9.3 PROPOSED ACTION PLAN

#### A. Regulatory functions at regional level

Assess the functions and duties of RWBs and propose changes to add regulatory functions, structure/new department, staff/experts required and training needs. The activity would be carried out in close collaboration with the regional authorities and the RWB of the selected region, as well as in line with the on-going process at national level led by UNICEF and the activities proposed in the WaterworX project.

The key regulatory functions could be the assessment of the utilities’ performance and the approval of economic/tariffs to ensure cost recovery and drinking water quality.

#### B. Efficiency of service provision through clustering/merging of service provision

Assess and propose a clustering/merging of neighbouring utilities to create economies of scale, supply better services at lower cost, ensure a quick response to O&M needs and ensure the general improvement of the current poor performance, namely in smaller urban and communities.

Assess and propose an innovative means to support the local operating team. This could be installation of IT tools to measure and transmit operational data, track water consumption and billing, communicate the need for repairs or replacement of equipment.

#### C. Performance of the utility/utilities

In complementarity with the WaterworX project, design and undertake a TA and small investment programme that improves the performance of the selected utility or group. This could cover the quality of the services by reducing NRW, improving the financial and commercial management, and an asset survey.

**D. Renewal of assets**

If an asset survey is carried out, estimate the investment cost required in the short and medium term to renew the utility's/utilities' assets.

**E. Cost recovery**

Collect information, propose and undertake a study to adjust the tariffs applied by the selected utility. Assess the affordability and propose new structures for ensuring cost recovery. Include the investment cost of the expansion of the services and the renewal of the assets. Highlight the advantages of merging utilities based on the conclusions of Action C, cross-subsidisation within the expanded service area and affordability.

Consider a tariff structure that facilitates the use of the available subsidies to benefit the poorer.

**F. Consultancy, design, procurement, project preparation and business plan**

Identify and assess the current issues faced by the utility/utilities in A to F. Propose measures to address them. In terms of project preparation, consider the option of using TA support from experienced international consultants or the WRDF and its TABF to strengthen the capacity of the RWB at regional level.

**G. New financial mechanisms**

Identify and propose new financial instruments such as revolving funds, blended finance and microfinance combined with technical support services. Another option is to support service providers and users in the region with a first use in the pilot area.

The Action Plan would be undertaken in a specified pilot area with the expectation of short term results on the ground. This would create the conditions for replication to other areas and scaling up at country level. It would also contribute to the output of wider on-going programmes at national level in full coordination with leading entities and other stakeholders as a bottom-up contribution.

## 10. APPENDICES

### APPENDIX 1: MISSION PROGRAMME, ENTITIES AND REPRESENTATIVES MET

Date	Agenda
8 July	Consultant (Mike O'Leary)
9 July	Vitens Water Operators Partnership, Daniël Truneh, VEI, Regional team leader
9 July	Wanna Wake, Director General, Water Resources Development Fund
9 July	Mekuanenet Admassu, Development Bank of Ethiopia
9 July	European Investment Bank, Christophe Litt, EIB, Head of EIB Representation
10 July	Ababu Tadesse, Ministry of Finance and Economic Cooperation
10 July	Water Fund Consulting Firm
10 July	Abiy Girma, Ministry of Water, Irrigation and Electricity (Director), NWCO, PMUs
10 July	Muktar Ahmed, Water Utility Association, General Manager
10 July	Jorge Alvarez-Sala, UNICEF
11 July	Wendwosen Feleke Abebe, World Bank, Operations Officer Water
11 July	Gulelat Berhane, Finance Consultant (Former WRDF board member)
11 July	Wendossen G., Harbu Micro-Finance
11 July	Ahmed Muhamed, Addis Ababa Water and Sewerage Authority
12 July	WRDF Monitoring & Appraisal Department
12 July	Mike O'Leary, TA WRDF Consultants
12 July	Oromia Water Mines and Energy Bureau
13 July	Team meeting

Name	Organisation
Daniël Truneh	VEI, Regional team leader
Wanna Wake	WRDF, Director General
Jorge Alvarez-Sala	UNICEF, Wash Specialist
Christophe Litt	EIB, Head of EIB Representation
Wendwosen Feleke Abebe	World Bank, Operations Officer Water
Mike O'Leary	TA WRDF, Consultant
n.a.	Development Bank of Ethiopia
n.a.	Ministry of Finance
n.a.	Ministry of Water
n.a.	Finance Consultant (Former WRDF board member)
n.a.	AAWSA
n.a.	Water Utility Association Manager
n.a.	Harbu microfinance

**APPENDIX 2: LIST OF DOCUMENTS SUPPORTING THE ASSESSMENT AND REFERENCES**

- a. Establishing a roadmap to improve the enabling environment for local water and sanitation service providers; country study for Ethiopia, Eyob Defere, October 2017
- b. OOWNP. A Multi-Sectoral Swap Review of Phase I, March 2018
- c. Water and sanitation services in small towns in Ethiopia, M, Adank, J. Butterworth, S. Godfrey, M. Abera, 2016
- d. Resourcing and Increasing Commitment for the One WASH and WRM Programmes, Jorge Alvarez-Sala, UNICEF, National WASH Multi-Stakeholder Forum 9, June 12-13, 2018
- e. Proceedings of the 9th Joint WASH-WRM MSF. 'Resourcing and Increasing Commitment for the ONE WASH Program', presentation of the OOWNP Phase 2 (draft)
- f. Development of Sustainable Water Supply in Drought Prone Areas of Ethiopia, Final version, May 2018
- g. OOWNP-CWA Joint Implementation Support and Mid Term Review Mission, Aide-Mémoire, 22 May to 8 June 8 2017
- h. One WaSH National Program - Consolidated WaSH Account EFY 2009 Annual Report, August 2017
- i. One WaSH National Program - Consolidated WaSH Account EFY 2008 Annual Report, August 2016
- j. WASH BAT Report, 2-4 October 2017
- k. Five towns water supply and sanitation project. Consultancy services for utility capacity building, Durame and Gende Huwa towns. Final tariff review report, Eyob Defere Management Consultant & HYWAS Engineering Consultants, July 2014
- l. Draft Final Tariff Proposal for Hawassa Town Water Supply and Sewerage Service Enterprise, USAID-Tetra Tech ARD/SUWASA, June 2012
- m. Highlights for Development of Tariff Strategy SUWASA Ethiopia: Introducing Efficient and Innovative Water and Sanitation Services in the Municipality of Hawassa, USAID-Tetra Tech ARD/SUWASA
- n. WRDF access rules and operational guidelines, Part I draft, January 2003
- o. One WASH National Program-Consolidated WASH Account Program, Mid-term Review Final Report, June 2017
- p. Costed action plan. Support to the enabling environment for urban water supply in Ethiopia, Ministerie van Buitenlandse Zaken, WaterworX, April 2018
- q. Climate Resilient WASH: JTR-11 Field Mission to Afar, 4-8 June 2018
- r. Proceedings of the 9th Joint WASH-WRM Multi Stakeholder Forum 12-13 June 2018
- s. AMCOW Country Status Overview Water Supply and Sanitation in Ethiopia Turning Finance into Services for 2015 and Beyond

