

Ethiopia WaterCredit Market Assessment

Conducted by:



In partnership with:



Table of Contents

About Water.org and WaterCredit.....	3
Executive Summary	4
1 Water and sanitation status: significant improvement still a long way to go	7
2 Current policy environment and constraints.....	9
3 Need for microfinance	11
4 Potential market for WASH Financing	15
5 Gap analysis and opportunities for WASH Financing	19
6 Recommendations on potential intervention model for WASH Financing.....	21
References	24

Exchange rate

USD 1 = ETB 19

The analysis and recommendations of this report do not necessarily reflect the views of Water.org and its Executive Board. This is an independent publication by the M2i Consultants. Enquiries can be sent to info@water.org

About Water.org and WaterCredit

Water.org is a U.S.-based non-profit organization committed exclusively to providing safe drinking water and sanitation to people in developing countries. Water.org does this through a blended platform approach involving local partners, community and engaging appropriate technology, health and hygiene education and innovative funding.

WaterCredit is an innovative initiative of Water.org that puts microfinance tools to use in the water and sanitation (WASH) sector. Launched in 2003, it is the first comprehensive program of its kind in the world that connects the microfinance and WASH communities to scale up access to credit and capital for individual and household based WASH needs and does so with multiple models across multiple countries.

At its core, WaterCredit seeks to partner with micro finance institutions (MFIs), water and sanitation non-governmental organizations (WASH NGOs), WASH suppliers, or utility companies with the objective of helping FIs (or other stakeholders) develop pilot and roll out financial products focused on the water and sanitation needs of clients. WaterCredit loans are used for purchase of water access: water connections and meters; digging, drilling and improvement of wells for household usage; construction and/or rehabilitation of toilets; bathrooms; purchase of rainwater harvesting tanks; and water pumps, among others. Water.org assist MFIs develop financial products suitable for the local context. Water.org does not propagate any particular technology or WASH solution. The FIs have the flexibility to finance whatever WASH products are most appropriate in the local context for the people and determine product terms they are comfortable lending on.

Water.org currently implements WaterCredit in India, Bangladesh, Uganda, Indonesia, Peru and Kenya. Water.org intends to scale up and expand WaterCredit activities, with respect to geography, financing models, loan products and scope of partnership.

Water.org is exploring the potential of initiating WaterCredit in Ethiopia and it is with this intention that this WaterCredit market assessment has been carried out. The WaterCredit market assessment was carried out in close collaboration with the relevant WASH and microfinance sector stakeholders in the country.

M2i Consulting, a management consulting company based in Delhi, India, carried out the WaterCredit Market Assessment in Ethiopia for Water.org. The assessment was conducted in March and April 2014.

Status of WASH and need for financing

The Ethiopian Government has made significant efforts in the last decade towards achieving universal access to WASH. However, the country still ranks among the lowest in the world in levels of safe water and sanitation coverage. While access to safe drinking water has improved by almost five times in this period, coverage remains extremely limited with 90% of Ethiopia's population still lacking access to these basic services in their homes¹. Sanitation needs in Ethiopia are even greater. 63% of the country's 91.7 million inhabitants lack access to improved sanitation, and of these, almost 40% have no access to sanitation facilities whatsoever. Diarrhea continues to be the leading cause of death among children under five². In addition, the majority of Ethiopia's citizens live in rural areas where rates of coverage are lower. Among rural Ethiopians, 42% have access to an improved water supply, compared to 97% of urban dwellers, and 30% to basic sanitation facilities, compared to 69% in urban areas.

Whereas the government aims for provision of WASH services on sustainable basis, and has proposed cost recovery principles for rural and urban areas, the reality is that water investments are highly subsidized both in rural and urban areas and that sector is largely unsustainable as urban utilities struggle to recover costs. This is further compounded by the inability of majority of WASH committees to cover basic operations and maintenance costs but instead depend heavily on government subsidies. To encourage household investment in improving water access, the government is promoting self-supply and aims to reach more than 5 million people within five years. Achievement of this goal is highly constrained by lack of financing option for households. Other modalities promoted include community managed projects, *woreda*³ managed projects, and NGO managed projects.

In sanitation, there is no element of subsidy for household sanitation facilities. Government investments are planned largely for demand creation using the Community Led Total Sanitation and Hygiene (CLTS-H) approach and capital investments on sanitation infrastructure creation in institutions such as schools, health centres, prisons and public areas.

To achieve universal coverage in water and sanitation the government requires USD 2.4m. Of this, USD1.6m is estimated to be availed from government expenditure (36%), Loan from donors (15%), Direct donor funding and NGOs (8%) and community financing (5%) leaving a huge budget deficit of USD 777m or 46% of required total budget. It is in this context that the government and the WASH sector at large expect MFIs to play an active role in providing financial services for water and sanitation facilities. Yet, thus far, the involvement of MFIs in WASH has been very limited. This is due to a myriad of factors including but not limited to: limited understanding of the WASH market by MFIs, perceived WASH lending as a high credit risk; limited engagement and interactions between MFIs and NGOs and lack of policy framework to guide financing for WASH investments.

¹ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. April 2104. "Ethiopia: estimates on the use of water sources and sanitation facilities (1990-2012).

² World Health Organization (WHO). "Ethiopia Factsheets of Health Statistics 2010."

³ A *woreda* in Ethiopia refers to an administrative district made up of various wards or neighborhoods; there are 670 rural *woredas* and 100 urban *woredas*.

Status of microfinance

There are currently 31 MFIs in the country reaching around 3.2 million borrowers and with a combined gross loan portfolio of close to ETB 13 billion (USD 0.7 billion).⁴ Savings and Credit Cooperatives (SACCOs) also have good penetration in rural areas; currently, there are 11,340 SACCOs in the country with a combined membership of 0.55 million.⁵

While MFIs currently have limited involvement in WASH, they have shown interest in WASH financing. Most MFIs contacted during the market assessment expressed a desire to learn more about WASH financing, and Water.org's WaterCredit methodology. According to MFI representatives interviewed key incentives to invest in WASH lending include access to technical and financial support and established /verified long term market and business potential in the sector. Worth noting is that several MFIs have or are currently piloting lending of water and sanitation products. Examples include JICA⁶-OMO partnership and ROSSA-OCSSCO⁷ project.

Opportunities for WaterCredit

From this market assessment, there is evidence that the environment in Ethiopia is favorable for WaterCredit and that MFIs need and can play a greater role in improving access to WASH services. The following are key enabling factors:

- 70% of people interviewed in the primary survey showed willingness to borrow for WASH products indicating high demand for improved WASH facilities. Preference for sanitation products was lower in rural areas compared to urban areas. Improved access to water is ranked highly among rural households compared to sanitation.
- There is government emphasis on self-funded models both in water and sanitation for achieving WASH targets under Ethiopia's Growth and Transformation Plan (GTP), but there are no formal financing mechanisms or model currently available.
- The study estimated that water and sanitation improvement cost between USD100 – 500. Taking into account the low income levels of potential households, appropriate financing options will be a prerequisite in improving access to WASH.
- Ethiopia has two of the Africa's largest MFIs. Across the country, there is good penetration of MFIs and SACCOs with decentralized offices.
- There are a number of WASH NGOs that have shown keen interest in working with MFIs to create demand.

Recommendations for WaterCredit Interventions

Based on the overall need of the sector, the following three types of interventions are proposed:

1. **Create a favourable policy environment and institutional financing mechanism for the WASH sector:** There is need to develop and institute policy framework to guide implementation of WaterCredit in Ethiopia. Policy initiatives can be targeted at establishing where applicable credit fund, line of credit and guarantee schemes and coordination of implementation across sectors. Major stakeholders to be engaged include

⁴ Association of Ethiopian Microfinance Institutions (AEMFI). Performance Analysis Report 2013.

⁵ Ethiopia Federal Cooperative Agency.

⁶ Japan International Cooperation Agency

⁷ Oromia Credit and Saving Share Company

respective government ministries, Development Bank of Ethiopia, NGOs, Donors and MFIs.

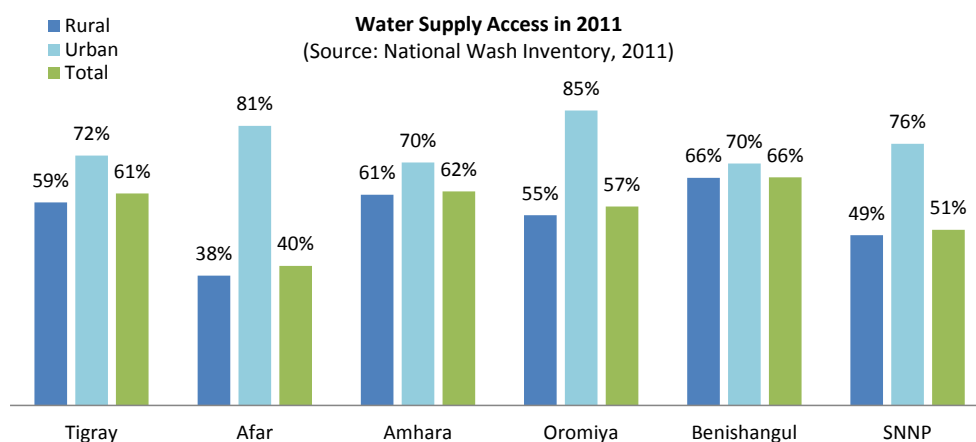
2. **Support MFIs in developing WASH loan products:** MFIs have shown a need for assistance in developing WASH financial products and building their capacity to offer these products. Water.org could play an integral role in supporting them in this process. AEMFI can provide platform for mobilizing the MFIs and for sharing learnings and best practices. Partnership with WASH-NGOs can help in demand creation, technical support and capacity building.
3. **Support SACCOs in developing WASH loan products:** There is also the potential for Savings and Credit Cooperatives to develop WASH financial products. This should be coordinated with cooperative agencies at the federal, regional and woreda levels to identify strong SACCOs and credit unions and develop their capacities to offer WASH loan products.

1 Water and sanitation status

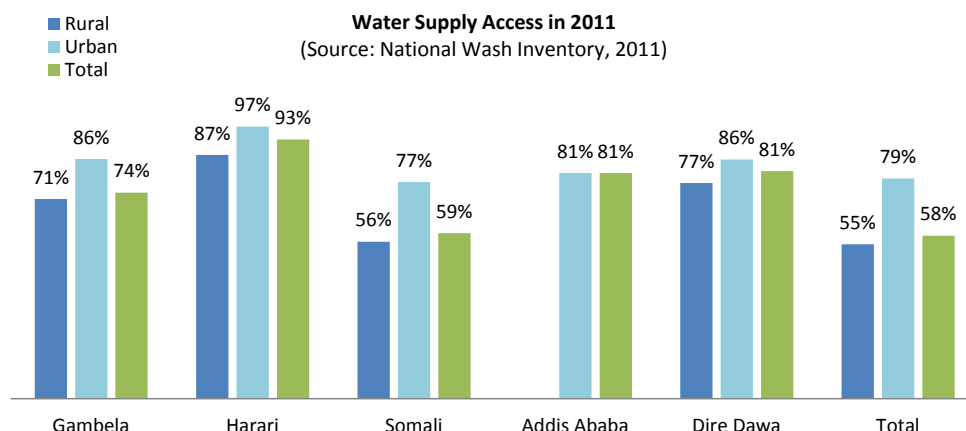
1.1 Water

Ethiopia is naturally well endowed with water resources and wetlands. The water availability for Ethiopia is 1,900m³ per capita per year, which is much higher than the generally accepted threshold of ‘water scarcity’ of 1,000m³ per capita per year. However, despite having ample water resources the access to water in Ethiopia is very low because of its uneven spatial and temporal distribution of water.

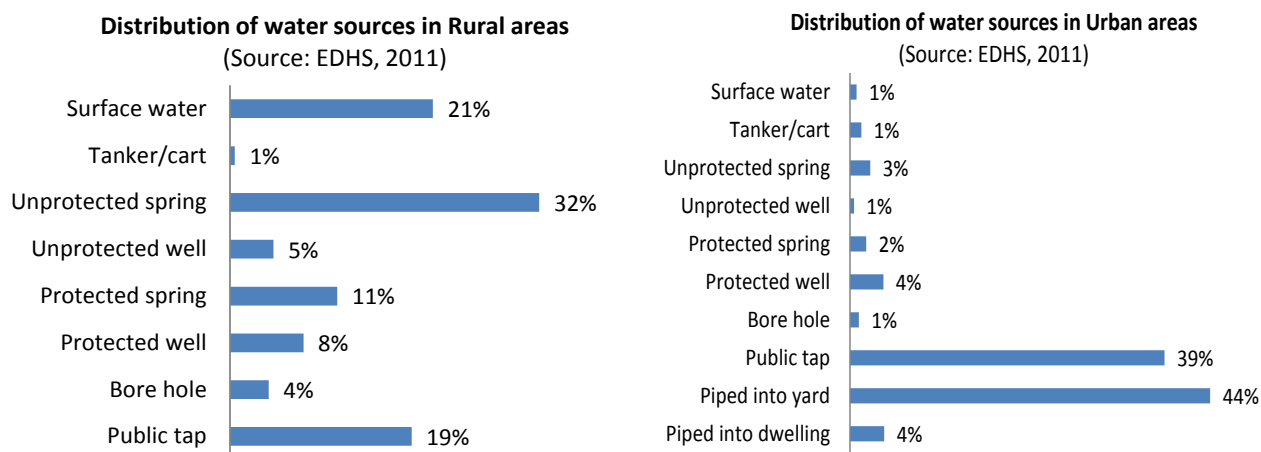
The recent National WASH Inventory (NWI) prepared by the Ministry of Water Irrigation and Energy (MoWIE) has become one of the most reliable sources of data available on access to water. The NWI 2011 data shows that overall 58% of the population has access to improved water. This includes 55% of the population in rural areas and 79% in urban areas.⁸ Water supply access has been defined as potential access to 15 litres per capita per day (LPCD) of safe water within 1.5 kms in rural areas and 20 LPCD within 0.5 kms in urban areas.



⁸ Summary of Seminar held on 8 April 2013 on NWI findings, Addis Ababa, Katharina Welle.



While there has been significant progress in water coverage during the last two decades, almost half of the population (48%) does not have access to an improved drinking water, according to 2012 Joint Monitoring Programme (JMP) data. Furthermore, the majority of Ethiopia's citizens live in rural areas where rates of coverage are even lower. Among rural Ethiopians, 58% of the population still depends on unprotected sources, compared to only 3% of urban dwellers.⁹ The 2011 Ethiopian Demographic and Health Survey (EDHS) closely reaffirms this data and further shows a breakdown of the types of water sources as seen below. In rural areas the majority of families depend on unprotected springs and surface water, where in urban areas the most frequent sources are public taps or water piped into their yard.



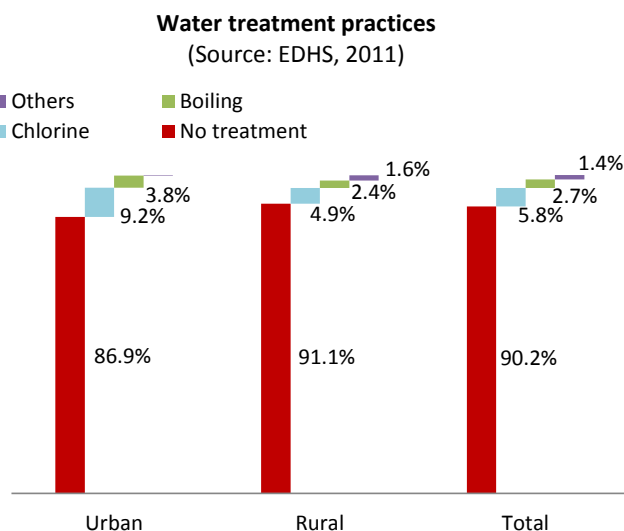
Water fetching

The shortage of water results in increased hardship especially for women. The 2011 EDHS Survey shows that 87% of Ethiopian households had to fetch water. In rural areas, almost 99% households fetched water while in urban areas approximately half that number (49%) had to fetch water. It is mostly the responsibility of the women in rural as well as in urban areas to fetch water. Not only does fetching water result in a loss of productive time for women, but also has adverse health implications.

⁹ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. April 2104. "Ethiopia: estimates on the use of water sources and sanitation facilities (1980-2012).

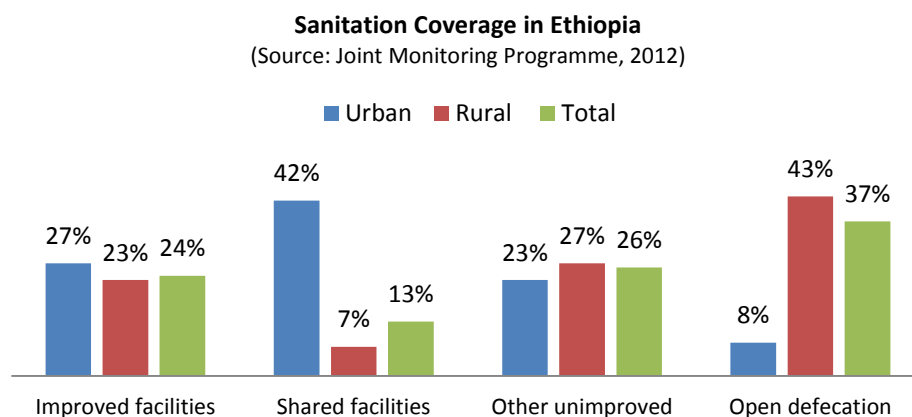
Drinking water treatment

In addition, the findings of the 2101 EDHS Survey show that the large majority of Ethiopians do not treat water in any way before consuming. In rural areas, 91.1% of households do not treat water, and in urban areas this was not far off at 86.9%. Of the small percentage of those who treated water, the most common methods were use of chlorine and boiling. The use of filters was almost negligible even in urban areas.



1.2 Sanitation

Similar to water, access to sanitation has also improved in the last two decades in Ethiopia. However, the coverage of improved sanitation is still quite low. Across Ethiopia 63% of citizens use unimproved facilities, and of this, 37% still practice open defecation, according to the 2012 JMP data. Unsurprisingly, the discrepancy between rural and urban areas is considerable. In the rural areas, the number of people that lack access to improved facilities is 70%, while in urban area this is only 31%.¹⁰



2 Current policy environment and constraints

The Ethiopian government has made a consistent effort towards improving access to WASH services. The government, along with other stakeholders, has prepared the WASH Implementation Framework (WIF) to achieve the targets of the national Growth and Transformation Plan. All WASH initiatives in Ethiopia are currently guided by WIF. WIF focuses on integration, harmonization, alignment and partnership. In order to implement this integrated approach the government has created the One WASH National Programme. Currently, the four modalities for improving access to water facilities are: community managed projects, (CMPs) where the project is managed by the community through community level committees

¹⁰ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. April 2104. "Ethiopia: estimates on the use of water sources and sanitation facilities (1980-2012).

called (WASHCOs) but funds are provided by government; woreda managed projects (WMPs) where projects are largely managed and implemented by government; NGO managed projects (NGO-MPs) where NGOs implement schemes; and self-supply projects (SSPs) where individual households are expected to make their own investments for implementing their personal water schemes.

Under the prevailing WASH scenario, the WASH investments on water are highly subsidized in three of the modalities, CMP, WMP and NGO-MP. The cost recovery principle of government in rural areas expects only recovery of operation and maintenance costs while almost the entire capital investment is to be made by government. The community is expected to pay up to 15% of cost, in kind.

In reality, however, there are problems on even the recovery of operation and maintenance cost from the rural users, who mostly depend on the government to cover. Other problems include a lack of supply chain for WASH spare parts and a lack of sufficient funds from payment resulting in these rural schemes ultimately depending on government even for operation and maintenance costs.¹¹ If government is not able to repair or maintain a scheme it often results in the scheme remaining defunct. The NWI 2011 data shows that 25.5% of the rural schemes are non-functional.

In urban areas, the financial sustainability of water provision is also very challenging. According to cost recovery principle, the tariffs are expected to result in full cost recovery by the utility. This includes the capital cost, operation and maintenance cost, depreciation and cost of debt servicing. However, in reality the urban water supply is also significantly dependent on subsidies. According to the Ethiopian government's Urban Water Supply Universal Access Plan (UAP) 2011-15, only 63 towns having population greater than 30,000 that can move towards a full cost recovery tariff (however, they are currently subsidized). Furthermore, with strict cost design 80 towns between 15,000 to 30,000 population can move towards covering only depreciation and operation and maintenance cost, while for towns below 15,000 population, the UAP document acknowledges that it will take some time before these towns can achieve beyond covering just the operation and maintenance cost. Out of a total of 970 towns in Ethiopia, as many as 907 (94%) towns have population less than 30,000, which means that it would be difficult for the majority of towns in Ethiopia to be able to achieve full cost recovery in the near future.

Self-supply is the only modality where people are expected to make their own capital investments in their individual household based water solutions. However, this modality is currently highly constrained due to lack of appropriate financing mechanisms for people. The government expects MFIs to play a role in accelerating self-supply but the involvement of MFIs in financing household water schemes is almost negligible.

In terms of sanitation, the accelerated plan based on National Hygiene and Sanitation Strategic Action Plan (SAP) targets improved sanitation to grow to 84% by 2015. This requires upgrading unimproved toilets and at the same time constructing new sanitation facilities. To fulfill these

¹¹ Eva Ludi, Bethel Terefe, Roger Calow and Gulilat Birhane. 2013. Chapter 1: Ethiopia's water resources, policies and institutions, from *Achieving Water Security*. Overseas Development Institute.

targets a total of 11.5 million new latrines will need to be constructed, according to the SAP 2011-15). Unlike in the plan to increase water access, improved household sanitation both in rural and urban areas does not include plans for government subsidies. Families are expected to cover all the costs to improve their existing sanitation facilities or to construct new ones. As mentioned above, due to the limited incomes of many Ethiopian households without WASH access there is a significant need for assistance in financing these projects. The government investments on sanitation are primarily planned for activities regarding the creation of an enabling environment and demand. However, they will also invest in the creation of institutional sanitation facilities for schools, health posts, health centres, prisons, public toilets, sanitation marketing, transport and water testing kits. Thus, availability of finance can accelerate both water and sanitation outreach.

3 Need for microfinance

Section 1 showed the current status of WASH in the country amply highlighting the need for expanding the access to water and sanitation services. It is also clear that currently there is high dependence on government for capital investments as well as for coverage of operation and maintenance costs in both rural and urban areas, particularly in medium to small sized towns.

In the primary survey of the market assessment, around 70% people showed willingness to borrow for WASH products. In addition to this, there is push from the government on scaling up WASH services creating a favorable environment. For sanitation there is also a great need for capital investments for the construction of new latrines or for the improvement of the existing ones. The current government efforts are directed towards the CLTS-H approach. Under this approach, the focus is mainly on behaviour change and it uses the assumption that once behaviour is changed, demand will be created and people will invest in constructing their own sanitation facilities. Thus, there will also be a need for financing if the demand created by CLTS-H efforts is to materialize into actual construction of sanitation facilities and result in improved access.

It is in this context that microfinance has a definite role to play in the sector. WASH financing, including Water.org's WaterCredit initiative, can help in the creation of appropriate financial products. There is a need to further develop the existing policies and strategies to move from a grant mentality to a practice of self-financing.

3.1 Status of MFIs

Microfinance in Ethiopia was formalized after the government introduced regulation for the MFIs in 1996. At present, microfinance in Ethiopia is characterized by dominance of state owned MFIs, significant savings mobilization, steady growth and a focus on sustainability. On the basis of ownership, the MFIs in Ethiopia can be classified in three categories:

1. Owned by regional governments and affiliated NGOs or entities
2. Owned by NGOs affiliated to International NGOs
3. Owned by individuals or other local institutions

The largest MFIs in each region are owned by the regional governments and operate largely in a single region.

Outreach

As on December 2013, Ethiopia had 31 licensed MFIs with 3.1 million active borrowers and loans outstanding of ETB 12.9 million (USD 0.68 million). As per our estimates, Ethiopian MFIs reach about 25% of total potential clients with its loan products.¹²

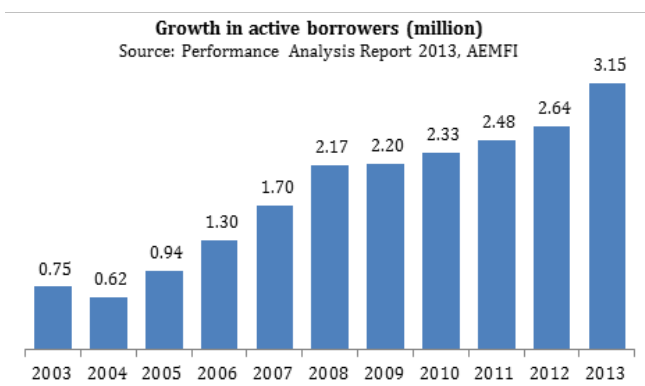
Outreach (as of 31 December 2013)

MFI Name	Active borrowers	Loans Outstanding ETB (Mn)	Loans Outstanding USD (Mn)
ACSI	8,94,867	4,480	\$228,252,341
OCSSCO	8,42,819	2,732	\$139,193,169
DECSI	3,93,413	2,609	\$132,926,419
OMO	3,27,888	585	\$29,816,514
ADSCI	2,30,839	1,253	\$63,863,405
Wasasa	70,630	207	\$10,550,459
Busaa Gonofa	67,787	161	\$8,205,912
Vision Fund	58,269	275	\$14,016,310
Sidama	47,810	46	\$2,344,546
SFPI	36,842	107	\$5,453,619
Others	178,576	514	\$26,197,757
Total (31 MFIs)	3,149,740	12,969	\$661,009,174

Source: Association of Ethiopian MFIs (AEMFI)

The five largest MFIs of Ethiopia account for about 85% of total active borrowers in the country, and all five are owned by the regional governments and related institutions.

Ethiopian MFIs have grown steadily over the past 10 years. Growth in the number of total active borrowers between 2003 and 2013 is shown in the chart below. Compounded Annual Growth Rate (CAGR) of active borrowers during the past 10 years was about 15%.



Regional distribution

Most of the MFIs in Ethiopia are concentrated in the five regions of Addis Ababa, Oromiya, and Southern Nations, Nationalities and People's (SNNPR), Amhara, and Tigray. Respective regional government owned MFIs have the largest outreach in each of these regions. MFIs do

¹² As per World Bank data, 55 million persons in Ethiopia are below poverty line (USD 2 a day, PPP). Taking average household size to be 4.6 (as per Ethiopia Demographic and Health Survey, 2011), potential market for microfinance is estimated to be about 12 million households.

not have significant operations in some of the regions like Somali, Affar and Gambella.

3.2 SACCOs

SACCOs are part of the cooperative system for various activities including dairy, multi-purpose agriculture, consumer cooperatives, and housing. As of December 31, 2013, there were 557,460 individual members in 11,340 SACCOs across the country. Of these SACCOs, 2,442 are affiliated to credit unions.¹³ Close to 60% of the SACCOs associated with these unions were in Amhara and Oromiya regions.

3.3 Microfinance for WASH in Ethiopia

Despite significant demand for WASH services, the involvement of MFIs in WASH has so far been limited. Most of the MFIs have not been involved in financing household based WASH facilities. To a limited extent MFIs have financed irrigation based or multi-use water services projects. In September 2012, a workshop was organized for consensus building on provision of microfinance for water supply, sanitation and hygiene and multi-use water services. Around 25 participants from several MFIs, NGOs and governmental organizations, like the Ministries of Water and Energy, Agriculture, participated in this interdisciplinary workshop. The discussions were based on the experiences of trainees who participated in the WASH Microfinance Training Course in Nairobi in July 2012 organized by NETWAS. The main outcome of the workshop was the aid memoir signed by all participants. This memoir included a six month roadmap to strengthen the partnership of MFIs in the development of the WASH sector. Although it was a good beginning, the effort has not resulted in substantial involvement of MFIs in WASH. Some of the key reasons identified for limited intervention of MFIs in the sector are:

- Lack of understanding of MFIs on WASH issues and the market
- Perception of high credit risk owing to its non-income generating nature
- Lack of understanding of the requirements from the financial product and the physical products to be financed
- Lack of credit enhancement and risk sharing mechanisms
- Inadequate engagement between WASH sector and MFIs

While, the above factors came out clearly as the reasons for MFIs limited intervention in WASH, one of the positive findings was that the MFIs have shown interest in the sector. The opinions of most of the MFIs regarding financing WASH facilities are summarized below:

- MFIs would like to know more about the sector, including the issues, demand for finance, role for MFIs and the risks associated
- If there is sufficient demand, MFIs would like to develop appropriate products
- MFIs will need support in understanding the physical products to be financed and the financial products to be developed

¹³ Federal Cooperative Agency, Ethiopia.

- The entry barrier for MFIs will be lowered if there are some risk-sharing financing mechanisms at least during the initial phase. Such support can be tapered down over a period of time as MFIs become comfortable in this new product line.

Thus, during the market assessment it came out clearly that MFIs are willing to intervene and even commit their funds if they understand the market. However, it was reported that MFIs seek technical and financial support in the initial period.

To better understand possible models of MFIs working in the WASH sector, there are some examples where MFIs have already undertaken WASH interventions and are receiving technical and financial support. These include the following:

JICA-Omo Microfinance (OMFI) partnership for rope pump financing

In February 2014, JICA, OMFI, and SNNPR Water Resource Bureau entered into a MoU for implementing a rope pump credit scheme. Under the scheme 200 rope pumps are to be installed by December 2016. The project aims to enhance rural drinking water supply by promoting the low cost technology of rope pumps. A special credit scheme called "Rope Pump Credit Scheme" has been formulated.¹⁴

OMFI is acting as the implementing agency. The pumps will be procured and installed by JICA through the Regional Water Resource Bureau and Woreda WASH Team. This will be extended as a loan to households availing the rope pump. The borrower will then repay this money with interest to OMFI. The returned fund will then be revolved as seed fund for further financing of rope pumps by OMFI. The maximum loan provided is 4,000 ETB. Repayment tenure is flexible subject to a maximum of two years. Repayment frequency is also flexible to include quarterly, semi-annual or annual repayments. At the time of survey, loan disbursements had not yet started under the project.

OCSSCO ROSSA project

Resource Oriented Sanitation Services in Adama (ROSSA) is being implemented by Waterschap Hollandse Delta through an MOU with local municipality, water utility and Adama University. The ROSSA project is being carried out in three *kebeles*¹⁵ (kebeles 06, 07 and 08) of Adama City in Oromiya region. The objective of the project is to make improved toilet facilities available to the households. The organization has adopted a multi-pronged approach under this project consisting of the following:

1. Train local enterprises in construction of improved toilets and other related enterprises, such as pit cleaning and waste processing.
2. Create awareness building to encourage households to adopt improved toilets.
3. Link households with the MFIs to provide financing to the households.

Waterschap Hollandse Delta has partnered with Oromiya Credit and Savings Share Company (OCSSCO) to provide loans to these households. The MFI has been provided a guarantee fund (in the form of a grant) for those category of clients who have the capacity to repay but do not

¹⁴ Signed Memorandum of Understanding between SNNPR Water Resource Bureau, JICA and OMFI, February 2014

¹⁵ *Kebele* is the Ethiopia word for a ward or neighborhood.

have capacity to offer any collateral.

Another project partner of Hollandse Delta, WASTE has had similar project in Abra Minch city in SNNPR where about 1,000 loans have already been provided. The performance of these loans was reported as very encouraging. In addition, WASTE in partnership with OCCSO has initiated sanitation loans project in Arsi Negele, Zeway and Modjo towns of Oromiya region.

Millennium Water Alliance project¹⁶

The Millennium Water Alliance has received funding from the Conrad N. Hilton Foundation to continue its program in Ethiopia. The work under this new phase will begin from July 2014. The project aims to increase access to safe water for the poorest and most difficult-to-reach populations in rural areas. It will be implemented in 23 woredas across four regions. The project has a focus on self-supply and targets involving MFIs to finance the WASH products for improving access to water. The project has four objectives:

- To provide sustainable and equitable safe water access to 300,000 people in rural Ethiopia through the construction of new and rehabilitated water schemes.
- To provide access to safe water in public institutions including 45 schools serving 18,900 students and 17 health clinics serving 29,850 people.
- To strengthen the capacity of national and local government, community based organizations, and the private sector to provide continuous water service delivery of rural water schemes.
- To increase awareness of best practices for both the Ethiopian and global WASH sector.

4 Potential market for WaterCredit

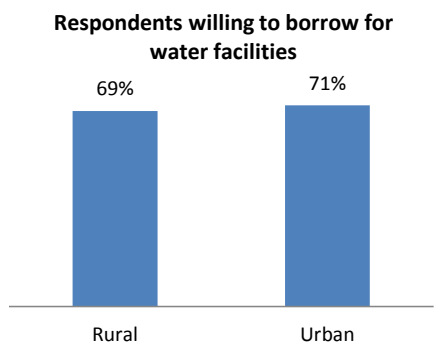
4.1 Preferences of potential clients

This section is based on the results of the primary survey conducted during this market assessment of potential clients of WaterCredit products in four regions.

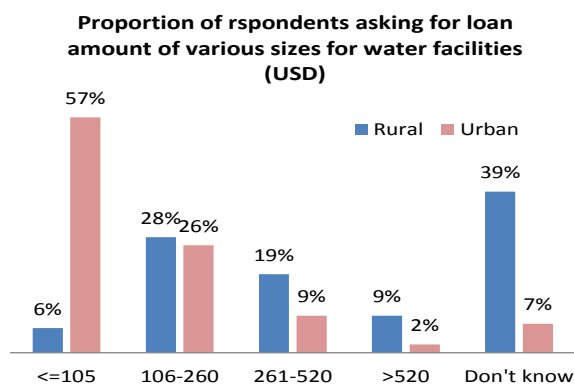
Water

Close to 70% of respondents in both rural and urban areas expressed interest in borrowing for improving water facilities for drinking or other household usages. However, only 12% respondents in the rural areas and 5% in urban areas expressed willingness to take loan for improving water facilities for agriculture or for cattle. Thus, willingness to borrow is mainly for drinking water and other essential household activities. Interestingly, when asked how much loan they will need, 39% and 7% of respondents in rural and urban areas respectively did not know how much they will need to borrow, as they were not sure how much investment will be required in the water facility they need. The other respondents estimated the loan amount to be less than USD 260 in urban areas and ranging between USD 100- 500 in rural areas.

¹⁶ Source: Millennium Water Alliance Office

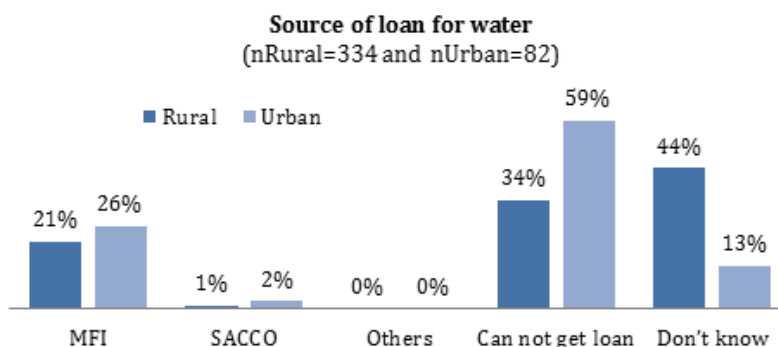


Source: Primary Research, M2i



Source: Primary Research, M2i

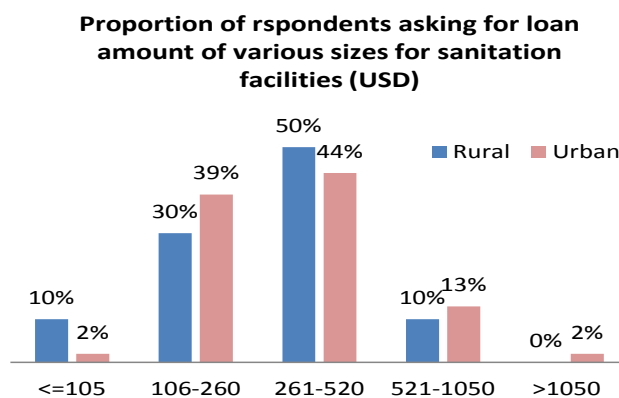
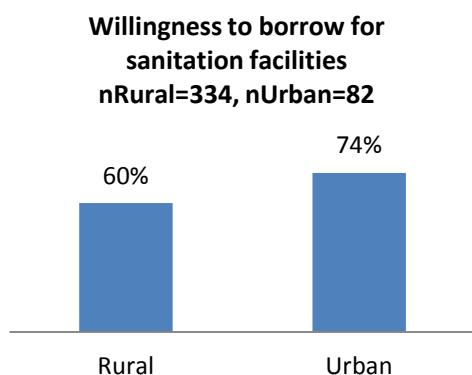
On being asked from where they could obtain a loan for an improved water facility, over 70% of the respondents in urban and rural areas said that they could not get a loan for WASH or were not aware of where they could get a loan. This shows that currently the majority respondents are either not aware of any loans available for WASH or that there is a very limited number that exist. None of the respondents had availed a loan for a water facility in the sample.



Source: Primary Research, M2i

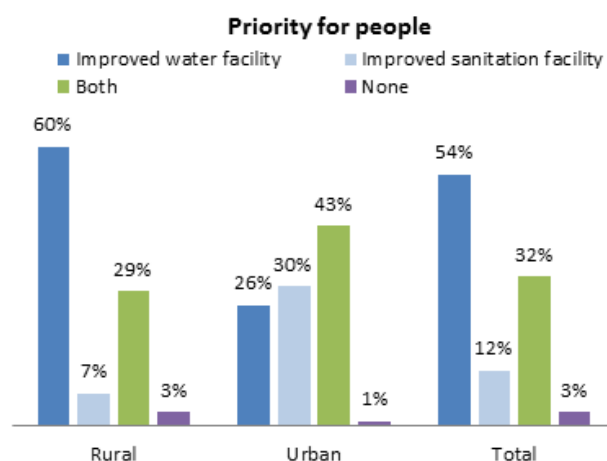
Sanitation

Sixty percent of respondents to the survey in the rural areas and 74% in the urban areas expressed willingness to take out a loan for a sanitation facility. The range of the loan amount was estimated to be USD 100-500 in urban and rural areas.



Source: Primary Research, M2i

The primary research conducted indicates there are distinct priorities for people in rural and urban areas. For the rural respondents getting an improved water facility is a high priority while for urban respondents getting both improved water and sanitation facility is important. This means that given a choice for a single WASH loan, the demand for loans for water facilities is going to be high in rural areas while in urban areas demand for loans could be mixed, both for water and sanitation facilities.



Source: Primary Research, M2i

4.2 Market segments and characteristics

On the basis of key demand characteristics we can segment the market for WASH loans in Ethiopia in the following categories.

Segment	Associated WASH products
Household water connection in urban areas	Piped connection to households
Household water facilities in rural areas	Rope pumps, shallow wells, hand pumps, rainwater harvesting structures
Household sanitation facilities in urban areas	Household toilets
Household sanitation facilities in rural areas	Household toilets
Micro and Small Enterprise loans for the WASH supply chain	Relevant WASH products and services

Key characteristics of different market segments are described in the table below.

Urban water connection	Rural water facilities
<ul style="list-style-type: none"> Many people in urban areas are dependent on community based water connection called <i>bonos</i> and need loans to get a household connection. A key driver of growth in the potential market for urban water connections is likely to be the urbanization process, whereby new households are added in urban areas. Discussions with water utilities and other stakeholders suggest that the water utilities currently cover most of the urban areas and are gradually improving their distribution 	<ul style="list-style-type: none"> The demand for loans in the rural areas will be contingent on the presence of an efficient supply chain for associated water products. Since the topography of Ethiopia is highly undulating, the availability of ground water changes in a small geographical area. Therefore, the demand for loans for water facilities is likely to be highly variable. South and southwestern areas of the country have typically very low water tables, therefore, ground water based solutions may not be feasible in such areas, which may instead require rainwater harvesting

<p>network.</p> <ul style="list-style-type: none"> • The actual demand for water connection is likely to be impacted by the availability of water distribution infrastructure in the urban areas. 	<p>solutions.</p> <ul style="list-style-type: none"> • In cases where investment requirements are higher (over ETB 15,000 or USD 780) constitution of water user groups and extending loans to such groups can be considered.
Urban sanitation facilities	Rural sanitation facilities
<ul style="list-style-type: none"> • In most of the urban areas, there is availability of suppliers who can provide components for construction of improved toilets and supply chain issues are less likely to be a constraint. • People having their own houses are more likely to opt for constructing toilets rather than those renting. 	<ul style="list-style-type: none"> • The demand for sanitation loans in rural areas is initially likely to be low on account of the following reasons: <ul style="list-style-type: none"> ○ People currently have a significantly higher priority for water rather than sanitation. ○ There are open spaces available for open defecation. ○ Supply chains pertaining to improved sanitation facilities are currently underdeveloped. ○ People have basic pit latrines and the need for having improved toilets is not a high priority. • Demand is likely to be relatively high in the areas where the government and NGOs have done intensive work for increasing awareness.
Micro and Small Enterprise loans for the WASH supply chain	
<ul style="list-style-type: none"> • At present, there are few enterprises dedicated to WASH. Most of the micro enterprises which are serving the WASH sector are general artisans, masons and manufacturers who provide goods and services to the WASH sector on need basis. • In the past few years, there is increased effort from the government and the NGOs to promote enterprises which will primarily cater to the WASH sector. • There is potential to finance such enterprises, but the products for these have to be different than from household financing. With increasing coverage of rural water facilities, the demand for such enterprises will grow in the future. 	

In most of the towns in the regions of Amhara, Oromiya, Addis Ababa, Tigray and SNNPR, MFIs have a strong presence. Thus, it is likely that the demand for credit will be highest in these regions. In addition, the major MFIs in these regions have field presence in over 75% of kebeles where they are operating. In the villages where there are no MFIs (or SACCOs), the potential market is likely to be dormant.

4.3 Water quality

The quality of water is a big issue in rural areas as a high proportion of the population depend on unprotected sources either most of the year or for some part of the year. However, due to the very high priority of gaining access to water, people show less of a focus on the quality of water at the time of the market assessment. Most people have expressed demand for products which can provide them sufficient water, rather than for products which can improve the quality of water. Therefore, demand for water purifying devices is likely to be low, but may materialize in the future.

In urban areas, people had access to piped water connections and they considered water from these connections to be safe and already treated. Therefore, most people did not see a need for water purifiers. In fact, since most people considered the water safe, they used it without treating it in anyway, such as straining or boiling. It is also possible that the limited income of the families interviewed in this assessment influences their lack of interest and they low priority for water purification devices.

5 Gap analysis and opportunities for WaterCredit

5.1 Water

From the analysis of this market assessment, the following shortfalls have been identified in financing. However, these can also be seen as potential opportunities for stakeholders to address in the market.

Lack of financing sources under the self-supply modality: Self-supply is one of the modalities perceived as having significant potential for increasing access to WASH. Almost 30% of the Ethiopian government's targets have been planned to be achieved through this modality. However, this modality is highly constrained due to lack of financing mechanisms in the sector. A financial facility to support self-supply could significantly accelerate its success and subsequently access to water for households.

Lack of implementation of partial subsidy approach under self-supply: The self-supply guidelines state that as a second approach within self-supply, if a group of a minimum of ten members applies jointly for a water scheme, they are eligible for a 50% subsidy either from the government or an NGO. This approach is to be supervised by a woreda WASH team. However, still the scheme has not picked up. Water.org's WaterCredit intervention can benefit from this modality in a group based financing model.

Multi-use water services (MUS): There is increasing focus on MUS, where the same water source is used for different purposes including drinking, household use, for cattle, enterprises and irrigation. There is potential for MFIs to finance such MUS schemes. Due to the diversity of uses and the specific usage of water for income generation activities, such schemes can be classified by MFIs as productive loans and MFIs would be more open to financing such schemes. However, one of the potential risks in this would be that MFIs may eventually start focusing only

on projects with significant income generating potential and may not prioritize projects where drinking water is the main purpose.

Weak supply chain: While there is a push under different modalities to create water schemes in order to enhance access to water, there are not enough skilled human resources and suppliers (i.e. spare part dealers, shops, etc.) available at the ground level to be able implement, repair and maintain the water schemes. There is potential of working along with WASH NGOs who have the expertise to develop capacity, while dedicated financial products can be developed for such artisans and entrepreneurs. This will provide MFIs the opportunity to diversify their portfolio under WASH.

Low focus on rainwater harvesting: Ethiopia has topography where the availability of ground water changes within a short geographical area. Hence, different solutions for creating water accessibility are required in different areas. Most of the focus in the sector seems to be on ground water harvesting with only a low focus on water harvesting structures. Work can be done along with WASH NGOs to propagate water harvesting technology and to finance such structures and water tanks.

Capacitating and financing WASHCOs: WASHCOs are the community institutions responsible for the operation and management of water schemes, including community-managed projects. There are issues related to the capacity of WASHCOs, including limited skills as far as financial and management aspects are concerned. WASH NGOs, like COWASH, work with these WASHCOs to build their capacity. There is potential to collaborate with WASH NGOs and COWASH to identify good WASHCOs who need funds for expansion of existing water schemes or for their repair and maintenance. Such schemes could be financed through a financing model, like WaterCredit.

Lack of financing sources for pipe connection in urban areas: Availing a pipe connection from a utility requires some initial investment in the form of fees, cost of piping and billing equipment, and security deposits. Altogether the cost ranges between ETB 700 to 2,000 (USD 37-105) depending on distance of the house from the main pipe line. For many urban and rural poor to afford this investment is difficult, hence they form potential clientele for WASH financing.

5.2 Sanitation

Lack of financing sources for sanitation: The lack of finance is a constraint in sanitation as there is no subsidy element in household sanitation targets set under SAP. Achievement of GTP targets on access to improved sanitation will be difficult unless people have access to finance; this creates opportunity for WaterCredit mechanisms. A pilot of similar initiatives carried out under the ROSA project in Abraminch has shown encouraging results.

Weak supply chain: As in water, the supply chain in sanitation is weak. Currently there is lack of skilled human resources and suppliers available at the woreda and kebele level. Thus, there is an opportunity to work with WASH NGOs to develop capacity and finance small enterprises.

Lack of designs: There is still very limited work done on the design front in Ethiopia. Unlike neighboring countries such as Kenya, where a lot of design innovation has been done, in Ethiopia there are still not many toilet designs available. The toilets mostly being used have a heavy concrete base which lacks a water seal. The toilets open directly into pits and thus often have a foul smell and flies, which adversely affect their usage.

5.3 Institutional efforts

No institutional financing mechanisms developed: The plans for achieving GTP also rely on self-supply. In sanitation, almost entire household access is expected to be self-funded. It is clear that given the investments required in creating the improved facilities for WASH and the current economic status of the majority of Ethiopians, it would be virtually impossible for most of the households to create these improved facilities with their own savings.

Despite this, at the government level no institutional financing mechanism has been created for the households. The policy documents do talk about involvement of MFIs but again no formal arrangements have been made with MFIs to help them come forward for financing WASH. In fact, the overall engagement of the WASH sector with MFIs or SACCOs has been limited. Development finance institutions, like the Development Bank of Ethiopia or Water Resource Development Fund, have not been involved in developing dedicated lines of credit or other funding mechanisms for WASH, which could be channeled to communities through commercial banks, MFIs or SACCOs.

Limited involvement of MFIs in WASH: Almost all key stakeholders in WASH acknowledge the importance of MFIs in accelerating WASH efforts through the provision of finance. However, the engagement of the sector with MFIs has so far been very limited. As discussed earlier, MFIs currently lack understanding of WASH issues and need technical and financial support to play more active role in the sector.

Lack of financial products for WASH: The MFIs currently do not have financial products for financing WASH products. MFIs mostly have financial products for income generating activities like agriculture and business. However, MFIs have shown a willingness and interest in understanding the sector and coming forward if WASH lending products can provide a viable and scalable business opportunity.

Existing WASH sector players have limited experience in engaging with MFIs: Most of the sector stakeholders currently have limited experience with engaging MFIs.

6 Recommendations on potential intervention model for WaterCredit

Based on the gap and opportunities that exist in the sector, three types of interventions are recommended for the development of a WaterCredit market.

6.1 Type 1 Intervention: Create favourable policy environment and institutional financing mechanism for the WASH sector

In the **Type 1** intervention, WASH stakeholders can work towards creating a favourable policy environment, which can help the government move towards more sustainable market based solutions. In this regard, the stakeholder forums (Multi Stakeholder forum and Sanitation Marketing Multi Stakeholder Forum) can be an avenue towards creating an institutional financing mechanism for WASH in the country. This will require some lobbying efforts with ministries and financial institutions such as Development Bank of Ethiopia or Water Resource Development Fund. These institutions can create a dedicated line of credit (soft loans), refinancing mechanisms, or guarantee fund for MFIs and SACCOs to provide financial services for WASH. Such a financing mechanism can greatly facilitate the Type 2 and Type 3 interventions that are recommended below.

Key recommendations for Type 1 Intervention

- Potential agencies that can create some institutional level financing mechanism are MoFED, Development Bank of Ethiopia, Water Resource Development Fund or international donors. DBE already provides soft loans under RUFIP program to MFIs and SACCOs.
- For intervention of this nature, entities should work with sector enabling NGOs such as IRC, MWA, SNV, iDE and agencies like WSP, COWASH and AEMFI.

6.2 Type 2 Intervention: work with MFIs

In the **Type 2** intervention, the microfinance sector needs assistance in developing financial products and building their capacity to offer these products for WASH. Here, MFIs may need some financial risk sharing mechanisms (e.g. guarantees) initially. These can emanate either from the Type 1 intervention that is proposed or through WASH-NGOs and donors to mobilize such a facility.

Key recommendations for Type 2 intervention

- It will be important to first mobilise the MFIs on the issue of WASH and to sensitize them. AEMFI can provide platform to engage with the sector.
- Specifically, the senior management of MFIs including the CEO should be oriented and introduced to WASH.
- There should be collaboration with WASH NGOs (such as Millennium Water Alliance) on areas of mutual interest, including:
 - Choosing similar geographies for intervention as NGOs can create demand through capacity building efforts and awareness while MFIs receive assistance in developing appropriate financial products to meet the demand.
 - Creating a credit risk sharing mechanism for MFIs.
 - Project learning sharing.
 - Training and orientation of MFIs in NGOs' WASH intervention areas
 - Identification of artisans and suppliers, and their capacity building and linkage with MFIs
 - Designing innovative WASH products (e.g. toilet designs)
- MFIs should explore the possibility of product development not just for households but also for small common user groups, MUS schemes, and WASH entrepreneurs.

- If a project with MFIs promoting water and sanitation loans is undertaken, its results should be communicated and shared with concerned ministries and government officials at the federal, regional and woreda levels and leverage the efforts being made by the government.

6.3 Type 3 Intervention: work with select SACCOs

In **Type 3** intervention, water and sanitation loans products could be developed with SACCOs, working with the Cooperative Agency at the federal, regional and woreda level to identify strong SACCOs or even credit unions. SACCOs also need assistance in building their capacity to deliver these products.

Key recommendations for Type 3 intervention

- SACCOs have capacity issues and therefore the development of WaterCredit products with them could be difficult and risky to undertake. If done, the Cooperative offices at various levels must be consulted in selection process.
- SACCOs should be helped in developing simple products mainly for household water and sanitation loans and some small common user group financing.
- A simple MIS may need to be developed for SACCOs to be able to track the WASH loans separately.
- The possibility of working with SACCO Unions should be explored. Some SACCO Unions have good capacity.

7 Conclusion: Favorable environment for WaterCredit interventions

The key findings of this assessment indicate substantial unmet WASH needs across Ethiopia, with a high demand for and interest in innovative solutions for WASH financing. While projects in the past have concentrated on a subsidy approach, there is growing recognition for the exploration of innovative financial mechanisms including microfinance. There is a gap between the WASH and microfinance sectors that needs to be bridged, but this gap represents a significant potential for Water.org's WaterCredit model to be impactful and successful.

References

- 1 “A Hidden Source: Household-led Rural Water Supply in Ethiopia”, Sally Sutton, John Butterworth and Lemessa Mekonta, 2012
- 2 “Achieving Water Security: Lessons from research in water supply, sanitation and hygiene in Ethiopia”, Roger Calow, Eva Ludi and Josephine Tucker
- 3 “Additional In-depth Sanitation Study Findings”, Jackson Wandera, SNV Sanitation Action Research Team Leader, February 2014
- 4 AEMFI, Performance Analysis Report – Bulletin 9, Wolday Amha and Anteneh Kifle, 2013
- 5 AMCOW, Country Status Overview 2
- 6 “Assessment of the Financial Products of Saving & Credit Cooperatives (SACCOs) & Multipurpose Cooperatives in Ethiopia”, Gebrehiwot Ageba, Assefa Admassie, Hebteselassie Hagos, March 2011
- 7 “Behavior Change Communication (BCC) in Four Regions of Ethiopia: A study to Identify Key Factors that Influence Adoption and Practice of Sanitation and Hygiene Behaviors”, WSP, December 2013
- 8 “Collective Impact in Ethiopia 2004-2012”, Independent Study of the Millennium Water Alliance WASH Program, December 2013, Susan Davis
- 9 CoWASH Project Document, 2011
- 10 CSA (2007) Census
- 11 data.worldbank.org
- 12 Ethiopian Demographic and Health Survey, 2011
- 13 Evaluating Household Water Treatment Performance and Scaling up Safe-Drinking Water Solutions National Workshop, 8-9 February 2013, Addis Ababa, Ethiopia, WHO/UNICEF/psi
- 14 Human Development Index Report, UNDP, Report 2013
- 15 iDE Ethiopia Deep Dive Market Assessment Report, 2013
- 16 “Introduction of the Rope Pump in SSNPR and its wider implications”, Sally Sutton and Tsegaw Hailu, May 2011
- 17 Joint Monitoring Program, UNICEF/WHO, April 2014
- 18 Ministry of Water and Energy (MoWE) (www.mowr.gov.et)
- 19 Ministry of Water and Energy, Manual for Accelerating Self-supply Program, Water Supply & Sanitation Directorate, February 2014.
- 20 www.mixmarket.org
- 21 “Multiple Use Water Services in Ethiopia Scoping Study”, John Butterworth, Jan Teun Visscher, Frank van Steenberg and Barbara van Koppen, December 2011
- 22 National Bank of Ethiopia (www.nbe.gov.et)
- 23 National Hygiene & Sanitation Strategic Action Plan 2011-15, December 2011, MoH
- 24 Program Document One WASH National Program
- 25 Revised CoWASH Project Document, September 2013
- 26 Rural Water & Sanitation Supply Chain Assessment & Analysis in Oromia, South, To Tigray and Amhara Regions, February 2014, SNV/UNICEF
- 27 RWSEP Community Development Fund, Summary of achievements and disbursement process
- 28 Self-supply Policy Guideline, MoWE, January 2012
- 29 Summary of Seminar held on 8 April 2013 on NWI findings, Addis Ababa, Katharina Welle
- 30 The Project for Rural Water Supply, Sanitation and Livelihood Improvement through Dissemination of Rope Pumps (RPs) for Drinking Water, Basic Information on Micro Finance, June 2013, GoE

- 31 The Federal Democratic Republic of Ethiopia, Ministry of Health, Latrine, Technology Options Manual, May 2011
- 32 “Towards a regional assessment of self-supply potential in SNNPR, Ethiopia”, David M J Macdonald, British Geological Survey, September 2012
- 33 “Towards development of a market based model to improve latrines in rural areas Of Ethiopia”, SNV & WEDC Sanitation Action, February 2014
- 34 Universal Access Plan, 2011-15, MoWE, GoE
- 35 Universal Access Plan, Mass Mobilization Strategy, MoWE, GoE
- 36 WASH Implementation Framework (WIF), August 2011, GoE