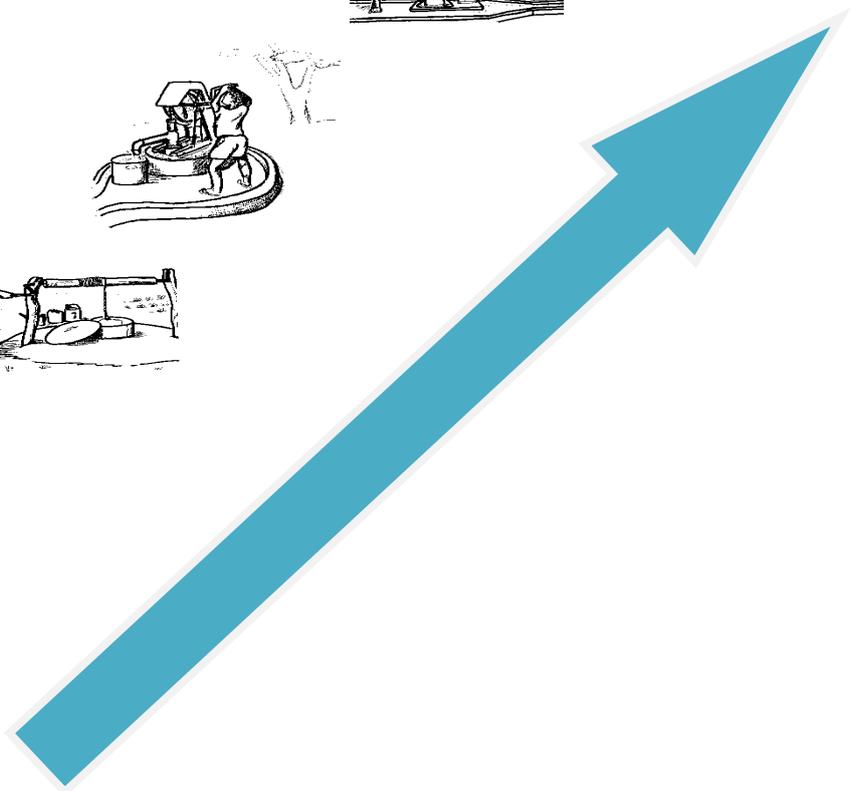
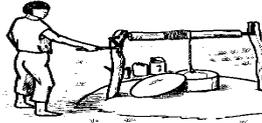
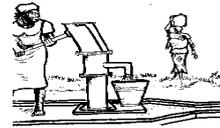




A study report on the potential for financing self supply in Sierra Leone



Cover photo: Moving up the rural water supply ladder-ground water option

A WaterAid report, February 2014



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Abbreviations

ASCA	Accumulating saving and credit association
ASI	Adam Smith International Consulting LTD, UK
CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
CEDA	Community Empowerment and Development Agency (local NGO)
CLTS	Community Led Total Sanitation
IP	International Partners
JMP	Joint Monitoring Program of WHO/UNICEF
HELP	Hands Empowering the Less Privileged (NGO)
HHWT	Household water treatment
MDG	Millennium Development Goals
M&E	Monitoring and evaluation
MFI	Microfinance Institution
MUS	Multiple Water use services
MOPANDA	Movement towards Peace and Development Agency (local NGO)
O&M	Operation and maintenance
ODF	Open defecation free
OpEx	Operational and minor maintenance expenditure
PLAN	PLAN Sierra Leone (NGO)
ROSCA	Rotating saving and credit association
TA	Technical Advisor
VSLA	Village Saving and Loan Association
WA	WaterAid (NGO)
WASH	Water supply, sanitation and hygiene
WHH	Welthungerhilfe (NGO)
WHO	World Health Organisation

Executive Summary

Rationale

The Rural Water Supply and Small towns Strategy Paper of the Ministry of Water Resources of Sierra Leone lists Self-supply as one strategic option to improve access to water and sanitation in rural areas of Sierra Leone. As the biggest share of the population lives in villages with a population of less than 150 people these areas will not be served by subsidized conventional water supplies in the near future. Self-supply is the only realistic supply option for thousands of households living in rural areas in Sierra Leone.

Self-supply for water supply, sanitation and hygiene (WASH) is defined as incremental improvements of WASH services through user investments. Self-supply is applied at household level as well as at community level, and for domestic and for productive uses. It relies on private initiative involving the households, communities and institutions as investors and the local private sector as service provider. This approach triggers strong ownership which is key for sustainable operation and maintenance of systems. There are strong linkages between WASH Self-supply and other sectors such as small scale agriculture, rural development and income generation. In Sierra Leone there are different technical options which can be used for Self-supply for water supply such as rainwater harvesting or improving and deepening existing wells. Accelerating Self-supply uses different entry points for interventions such as improving technologies, developing capacities at local level and providing affordable financing mechanisms.

Two pilot projects on Self-supply funded through the WASH Facility were implemented by WaterAid and Welthungerhilfe respectively between 2012 - 2014. Results of the pilots stressed the fact that there is a huge potential for Self-supply in Sierra Leone, however one hindering factor is the lack of financial capacities of households to invest in Self-supply. In particular there is a strong need to come up with affordable financing mechanisms which work even in remote rural areas and for clients which are not eligible for loans from commercial banks and microfinance institutions (MFI) due to lack of collateral and reliable incomes.

This report on the potential for user investment in WASH Self-supply in Sierra Leone assessed the current financial mechanism in place which can be used by households for investing in WASH. Based on a contextual analysis and interviews with villagers and producers of Self-supply technologies a set of financing needs were identified for households and for community as the clients of Self-supply and for the local suppliers who want to expand their business in Self-supply. For each of the financing needs the existing financing mechanisms, including individual saving, Osusu, village saving and loan schemes (VSL), microfinance institutes (MFI) or commercial banks have been assessed. Recommendations are provided on how to improve the enabling environment concerning the financing mechanisms in Sierra Leone. Together with previous reports on the potential of Self-supply in Sierra Leone, this report provides a basis for developing a road map towards accelerating and rolling out Self-supply at national level in Sierra Leone.

Key findings concerning accelerating Self-supply

- Provision of affordable financing mechanisms for rural population is highly relevant as they depend fully on Self-supply and will struggle to cover the financial resources needed to invest in their water sources without financial mechanisms.
- In some areas of Sierra Leone there are already some financing mechanisms known which allow households to finance their investments for WASH such as for households (e.g. Village Saving and Loan associations [VSLA]), for community (community WASH saving fund), or for local businesses themselves on the supply side (e.g. loans from associations, maybe from MFI/initial donor subsidy/private investment).
- The VSLA scheme is a proven scheme to generate funds for individual loans through building up individual savings. However, by its nature, it is not appropriate for maintaining community handpumps, which requires setting up a separate community WASH saving fund.
- So far, loans provided by VSLA were not restricted to be invested e.g. in particular in WASH. Households might use to invest the savings in other priorities such as small business or for inputs for farming. Further sensitisation, including social marketing, is needed to raise WASH up the priority ladder for household expenditure – also promoting the potential benefits through income generating activities, improving food security, convenience and status.

- The 'Valley of Death', the early phase of technology introduction is a real risk for new businesses (for Self-supply and sanitation marketing).
- VSLAs are unlikely to provide sufficient funds for business start-ups aside from a few tools for rural masons. Intelligent mechanisms for funding are needed involving also donors to overcome the valley of death.
- Uptake of new technologies needs more efforts and clear targeting and business viability is lower in rural areas than in urban/peri-urban areas. More research is needed to identify promising approaches on how businesses can establish viable supply chains in rural areas, as well as to explore more how strong business cases, e.g. established in peri-urban areas or by using synergies with other sectors, can be expanded to rural areas e.g. through franchise systems.
- Community and household income is highly seasonal. Projects for accelerating Self-supply should be sequenced in such a way that demand exists and products are available in time for income surplus (e.g. harvest time)
- For accelerating Self-supply the sector needs to see households as customers with specific needs and aspirations, not as beneficiaries, and see the profit-making local business as suppliers. Self-supply should be promoted as a business area with potential to make a living.
- Improvements of water sources and sanitation facilities should be combined with implementation water safety plans and use of household water treatment for all water sources as recommended by WHO.

Recommendation to further develop affordable funding mechanism in Sierra Leone

- Establishing proper understanding at national and district level on potential and limitations of financing mechanism for Self-supply, in particular the difference between VSLA and community WASH saving funds
- Establishing more VSLA, in particular in remote rural communities; using VSLA also for informing households on HHWT products, income generation and for empowering youth and women
- Developing further community WASH saving funds to include also measures for strengthening governance by community members; finalizing and rolling out guidelines to support further establishment and follow up of community saving funds for community WASH services at national level
- Support artisans active in Self-supply to set up associations and their own loan schemes
- Allocation of sufficient funding at local level to establish, promote, support and follow up adequate financial mechanisms, but also to support other components relevant for accelerating Self-supply
- Linking support for financial mechanisms for Self-supply with activities in other sectors, e.g. value chain development for agriculture and forestry.

Next steps for embedding Self-supply in Sierra Leone

In order to get Self-supply fully integrated into the planning and budgeting at national and local level in Sierra Leone, Self-supply needs to be properly understood at government level. Sufficient capacities have to be developed to support its implementation on the ground. A clear understanding of the roles of all actors involved is needed, in particular at government level at national and local level. In parallel, sufficient evidence and good examples have to be documented and shared to create visibility and further demand. Synergies with catalytic projects e.g. in small scale agriculture, rural development and vocational training should be capitalized. Next steps to prepare rolling out of Self Supply should include:

- Consultation of findings on financial mechanisms for Self-supply within the WASH Sector
- Presentation of results of piloting on Self-supply approach to the Ministry and other key actors in the WASH sector Sierra Leone,
- Discussion with key partners from government (Ministries, vocational training), development partners, NGOs, UNICEF and from MFI on their potential support for accelerating Self-supply through their programmes
- Drafting building blocks and a programme for developing a road map towards a "National WASH Self-supply Strategy" in Sierra Leone
- Sensitisation and promotion of Self-supply approach to wider public considering impacts of recent emergency interventions on attitude of people

1. Rationale

1.1 Challenges concerning WASH supplies in Sierra Leone

The situation in Sierra Leone concerning water supply and sanitation in rural and urban areas is very alarming. According to the latest publication of WHO/UNICEF, water supply coverage in rural areas of Sierra Leone is still very low (42% according to JMP Update 2014), and the figure for access to improved sanitation facilities in rural areas is even worse, at about 7%. Around 39% of the rural population still practise open defecation (WHO/UNICEF 2014). Concerning the trend in improving access over time, only slow progress has been made in improving access to water and sanitation. In particular, the funds allocated in the government budgets are far too low to reach the goals for rural water and sanitation in Sierra Leone and to sustain the existing services (CSO 2012). Not surprisingly, a mapping study on the functionality of water points at national scale in 2012 revealed a very high rate of non-functional water points. Only 39% out of 28,845 improved water points which were mapped are in use and functioning all year round. There is a high seasonal variation in terms of access to improved sources (WB 2012).

Apart from rural areas, the peri-urban and urban areas also suffer from insufficient WASH service provision. In numerous urban and peri-urban areas, many households have invested in and installed their own wells and various water-lifting devices to overcome frequent shortages due to the low level of services provided by communal piped supplies. However, even where improved sources are providing water, many people still use unimproved sources as they offer a higher level of convenience, or as they can use a higher quantity of water at lower costs (WHH 2014).

According to government policies, community water supplies are mostly installed in communities with more than 150 inhabitants. For these infrastructures, investment costs were mostly financed through external agencies, resulting in a high level of subsidy for capital investment costs. Communities are expected to manage operation and maintenance (O&M) including collecting fees to pay for the recurrent costs for O&M. Due to the long history of emergency response when services were provided for free, it is difficult to introduce water fees in some of the communities. Lack of financial sustainability is one key factor threatening the overall sustainability of WASH services. For communities with less than 150 inhabitants the strategy suggest Self-supply as there will be no sufficient funding in the near future to provide all communities with subsidized community supplies. As most of the communities in rural areas have less than 150 inhabitants, the biggest part of the rural population in Sierra Leone will depend on Self-supply!

1.2 Self-supply and accelerating Self-supply

For water supply **Self-supply** means that people provide the water themselves. In a broader sense Self-supply can be defined as incremental improvements to access to water which are financed by their own investments. However the approach of Self-supply is not limited to water supply only, it can also be used in the area of sanitation (as basis for the Community Led Total Sanitation approach [CLTS]) or for agriculture where there are strong links with the multiple use approach (MUS).

Accelerating Self-supply is the management of establishing and supporting the enabling environment so that Self-supply can start and continue to provide quality services. Based on the experiences from other countries where accelerating Self-supply has been implemented so far, four key component have been identified which need to be in place to accelerate Self-supply, which include

- supportive policies and tools,
- strengthened capacities at local level including the private sector,
- suitable technologies that provide an added value to the clients and
- affordable financial mechanisms such as saving groups or microfinance services.

These four components should be embedded in a system of awareness rising for good hygiene behavior including promotion for household water treatment. Synergies with catalytic projects e.g. from small scale agriculture sector should be capitalized. Self-supply should be supported by long term reliable funding,

technical assistance and M&E until the system is well established and working in a self-sufficient way (see figure 1).

Figure 1: Key components for accelerating Self-supply

Accelerating Self-supply and CLTS are similar approaches, both strongly depending on behavioural change, on user motivation to invest in one's own supplies and on local markets that provide adequate products even in rural areas. The term "Self-supply" is defined as improving household or community water sources, whereas "CLTS" focuses on sanitation and hygiene.

To simplify the discussion in this study, the term **WASH Self-supply** will be used. WASH Self-supply describes an integrated approach which follows the same principle of user investment and covers all levels of technologies, for water and for sanitation and hygiene, including linkages to income generation.

Both approaches follow a market based approach, which means that the incremental improvements and investments are fully paid by the owners and there are no subsidies for investment or for costs of operation and maintenance. External support might come in as "soft" support such as for providing training of the local private sector, advocacy, and supporting marketing such as sanitation marketing or facilitating financial mechanisms.

An underlying assumption of self-financed infrastructure following WASH Self-supply approach is that people can have the financial resources to buy adequate technologies and products on the local market and that they have the knowhow and skills to construct, upgrade and maintain their wells and latrines. Financial constraints of households in rural areas do limit the choice of technical solutions to rather low-cost options. The concept of WASH Self-supply promotes that even small incremental steps can lead to relevant health benefits for the population when improving their WASH Supplies, in particular if combined with on-going sensitisation and hygiene education (Cairncross and Valdmanis, 2006).

Studies in Sierra Leone show that there are a large number of traditional wells which can become "improved" according to WHO standards with relatively small investments by owners (Sutton 2012, Byars 2013). This offers a huge potential for thousands of people in the rural areas to have better access to improved sources, with clear health benefits. Unfortunately, so far, traditional wells have not been included in the mapping of water sources, so the exact number and regional distribution is not yet known.

Recent studies show that the concept of improved sources cannot sufficiently predict the provision of safe water only by indicating to the use of a particular technology (Bain et al. 2014). Therefore WHO strongly promotes to apply the concept of **water safety plans** and using **water treatment and safe storage at household level (HWTS)** for all drinking water.

1.3 Need for shift of mind sets

For many years many investments in social infrastructure in Sierra Leone such as for WASH were provided as grants or subsidies to communities. In the past years however there was a shift in Sierra Leone towards development interventions that trigger delegation of tasks to district government and involvement of communities in planning and decision making.

The self-financed WASH approach, which includes Self-supply for water and CLTS for sanitation and hygiene, is still a rather new concept in Sierra Leone. Therefore to get the full impact of this policy, there is need for a major shift in the mindset of many actors. Clear and targeted information of the sector is needed to ensure that the concept and opportunities are fully understood. So far, there is not yet a full buy-in from all key actors in the sector. In many areas, latrines are still provided for free (which is a 100% CapEx with subsidy), creating confusion among communities on approaches and leading to distortion of markets for WASH products.

Self-financed WASH supplies is not a new approach in Sierra Leone. It has been practised for hundreds of years. However, accelerating WASH Self-supply, which means supporting service delivery through fostering the enabling environment, is relatively new as an approach explicitly promoted at policy level by government

and development partners. To accelerate WASH Self-supply on the ground, there is need for a major shift in the mindset of actors involved, including a change in the division of labour, responsibilities and roles between the actors. In the WASH Self-supply approach, the government is no longer the implementer, but it is the steering actor in the process through regulation, technical advice, information and monitoring and quality control. In WASH Self-supply, it is the local private sectors such as local artisans, drillers or retail shops that are key actors engaged in the supply chain as they provide products and services needed and also interact with clients through marketing (see Figure 2). They need to establish a viable supply chain, which should allow them to make a living out of this business. In the approach, the households are no longer beneficiaries but clients that make decisions and fully cover the costs of investment and maintenance for technologies they have chosen to get adequate WASH services.

Figure 2: roles of actor in accelerating Self-supply

In the WASH Self-supply approach, the supply of a WASH product is realised directly by a market interaction between the client and the local private sector. The client is the demand side of this market interaction, and can include households, communities or institutions. The supply side is the local private sector. To start and to support this market interaction, some specific support and facilitation might be needed from third parties, in particular if the WASH Self-supply market is still very new. This soft support can be provided by government, NGOs and other partners in the WASH sector through various forms such as:

- Compared to the conventional approaches using subsidised investment, in WASH Self-supply, **government** at national and local level focuses on policy and regulation, information and awareness raising, technical support and supervision (arrow A and B). It regulates WASH service provision and does supervision.
- **NGOs** play a crucial role in the facilitation of WASH Self-supply implementation, e.g. through information campaigns, capacity development and trainings (arrow C and D).
- **Other partners** who can support implementation include academia or traditional leaders (arrow E).

The market-based approach in WASH Self-supply will only succeed if there are products which satisfy the needs and demands of clients and will be affordable with respect to the investments and recurrent costs for operation and maintenance (O&M). In many rural and in some peri-urban communities, the demand for WASH products is still very weak. Market segmentation should help to better understand and address the needs, capacities and aspirations of specific groups of clients, to design specific promotion campaigns, but also to design different types of products which fit to different segments of clients. Studies on sanitation marketing in Cambodia and Benin clearly stated that sanitation products should satisfy some minimum level of standards but should be upgradable so that households with more aspiration can move further up the sanitation ladder (WSP 2011, WSP2013).

1.4 The relevance of Self-supply in Sierra Leone

In many rural areas, including the districts of Pujehun or Kenema, the majority of villages have a population smaller than 150 persons. These communities are difficult to reach on a cost-effective basis using community managed systems. As budget constraints will most likely be continued, these communities do not tend to be priority areas for community-managed systems which are funded mainly by the government and third parties. To improve their water supplies, these villages rely on their own initiatives and investments to construct, operate and maintain their own water and sanitation services.

Therefore, self-financed supplies for water or sanitation and hygiene will be one of the key strategic pillars to supply WASH services to thousands of people in rural but also peri-urban and urban areas in Sierra Leone where people strive for a higher level of service. To assess the potential of Self-supply in WASH and to identify appropriate technologies and partners, the WASH Facility of Sierra Leone (with funds from the UK government through DFID) decided to launch two pilot projects for Self-supply as a complementary approach in the period 2012-2014. Self-supply, which triggers households or communities to invest in their own WASH supplies, is already enshrined in the Government strategy for the country, but more research is needed in the

field of Self-supply, to find ways on how it can best contribute to increasing access to water. Currently, government and international partners including UNICEF are promoting the Community Led Total Sanitation approach (CLTS) to sensitise communities and to support them to become ODF. The CLTS approach will be further developed to consider findings from assessments showing that there is some slippage back to OD in some communities. As most of the households in rural area depend on income from subsistence farming they will face challenges to purchase products for self-supply based on their income only. As there will be hardly any subsidies these households will fully depend on affordable financing mechanisms such as savings and affordable loans to purchase Self-supply products. Also the local private sector needs similar financial mechanisms to expand their business.

WASH Self-supply is not an approach used only in Sierra Leone. A growing number of countries are implementing Self-supply. For example, in Ethiopia, in 2013, Self-supply was adopted as one key pillar in the national strategy for providing water to rural communities ("One WASH"). The approach is now rolled out at national scale for implementation. In "One WASH" Self-supply, interventions are closely linked to multiple use of water services (MUS). Apart from Ethiopia several other countries support Self-supply such as Mali, Uganda, Zimbabwe or Zambia. As Self-supply is fully aligned with Post MDG targets for WASH and with the Human Rights to Water approach, more and more countries will consider WASH Self-supply as a complementary approach for WASH service delivery.

1.5 Experiences concerning WASH Self-supply in Sierra Leone so far

In the Rural Water Supply and Small towns Strategy Paper of the Ministry of Water Resources, Self-supply is listed among two other approaches (for small towns and for villages) as one accepted approach for the decentralised provision of water and sanitation supplies to rural households and communities. As such, Self-supply is complementary to the conventional service approaches (GoSL 2013). For communities smaller than 150 persons, that form the major share of villages in rural areas in Sierra Leone, Self-supply is the relevant service approach. Under the umbrella of the WASH Facility, which is managed by Adam Smith International Ltd. (ADI) and funded by DFID, two pilot projects on Self-supply were conducted in Sierra Leone in the period 2012 – spring 2014 to explore more the potential of WASH Self-supply in Sierra Leone:

- The pilot project implemented by Welthungerhilfe focused on private sector development and promotion of specific products mainly for domestic water supply, irrigation and sanitation. The products promoted were originally designed by EMAS, a well-known and experienced organisation in the field of Self-supply.
- The second pilot project on Self-supply implemented by WaterAid targeted to pilot Self-supply mainly on well upgrading and household water treatment and to develop a strategy for Self-supply in Sierra Leone in addition to other key sector documents such as financing study and training materials.

The two pilot projects worked in several districts, with some overlap in Kenema district. Within the scope of the WASH Facility, several reports were produced in the past three years which inform the planning for scaling up of Self-supply for WASH in Sierra Leone. Below, some key messages are summarised which are particularly interesting for this financing study for WASH Self-supply.

- A detailed baseline research study was conducted to assess the potential for Self-supply and existing practices in rural areas (Sutton 2012). The analysis focused on districts WaterAid is currently active, in particular on Kenema and Pujehun. According to the findings, there is a huge potential to upgrade the large number of traditional wells, e.g. through deepening of wells, covering and using simple pumps, but also to promote rainwater harvesting (RWH) tanks or house water treatment products (HHWT). The report provides a wide range of recommendations also targeted at policy level and at technical level including the private sector level.
- In both pilot projects several trainings were provided for about 70 local technicians on the production and promotion of low-cost technologies suitable for Self-supply and on business development.

There are an increasing number of workshops in rural areas which do provide these products and do good business.

- In many regions, there is good potential to apply manual drilling to tap shallow groundwater (RWSN webinar 2014). This technology would allow increasing coverage for water supply by also using low-cost pumps in areas where conventional drilling is not possible due to poor access.
- An exhaustive study was conducted on the level of uptake and the potential of scaling up of household water treatment products in Sierra Leone (Nestbuilders 2014). In many regions, retailers see interesting potential to sell HHWT products to households, but more promotion is needed, more secure supply chains have to be established, and funds need to be made available to kick start their business. Based on the findings, the study recommends promoting a combination of safe storage buckets with taps and chlorine solutions as the most promising set of products for Sierra Leone. These products seem to be affordable and available for a very wide range of the population, provided a viable supply chain can be established.
- A recent study on Life Cycle costs (IRC/KNUST 2014; soon to be published) was conducted on community water supplies, CLTS and Self-supply. The findings indicate that implementing services through Self-supply is a bit more costly so far if it comes to unit costs per person for water supply. This is due to upfront costs which can be significant for Self-supply. However, the level of service provided by Self-supply is much higher than by any other approach. If more providers come into business and quality is still acceptable, this might bring down unit costs for Self-supply.

The same study highlights concerns related to the current level of uptake of sanitation technologies, mainly latrines constructed using traditional materials which are promoted through the current CLTS approach so far. It points out that some products do not fit to the needs and to the context specific condition, e.g. instable soils so uptake is rather limited and slippage partly back to OD an issue. More research is needed to address these issues, in particular provision of adequate sanitation technologies. A project in the area of sanitation marketing implemented by the NGO Goal is currently addressing these issues in Sierra Leone.

- Recently, a learning visit was conducted within key sector actors on Village Saving and Loan schemes (VSLA) in Sierra Leone. The results were shared at a national conference. It became clear that VLSA are a very promising vehicle in Sierra Leone for households to build up savings which can be used to fund individual loans.
- Based on the encouraging experiences related to households, a funding mechanism was developed at community level which should generate sufficient funds to allow proper maintenance of community water points, the "**community WASH saving fund**". The fund is generated in a village through regular contributions of all households and used for community WASH investments and recurrent costs of O&M of community WASH facilities. Although this community-based funding mechanism looks similar to classical VSLA, there are important differences, such as:
 - o In the community WASH saving fund, it is mandatory for all households to contribute.
 - o The funds in the community WASH saving fund are generated by fixed contributions of each household. The funds should only be used for community WASH, not for individual loans.
 - o For the management of the community WASH saving fund, a WASH committee is established and specific WASH related bylaws are defined.
 - o Unlike the VSLA schemes, which dissolve after twelve months, the community WASH saving fund should not dissolve.

The community WASH saving funds for WASH in communities look like a very promising option to assure financial sustainability of community water points and even to improve the level of WASH supply in communities in general. Follow-up and more research are needed to develop options for safeguarding fees or savings dedicated for community water point maintenance.

- For the further discussion and development of VSLA and of the community WASH saving fund, a clear distinction of terms and proper wording is recommended as the two mechanisms are different and should not be mixed up.
- A previous study from 2012 on the financial aspects in Self-supply communities (Draft, not published) presents data on income levels for different villages in the target region, and on different uses of water and the relative share of expenditures of households on food, health, farming, water supply or energy. The average monthly income per household was reported to be around 100,000 Le, and certainly less than 200,000 Le. However, the sum of all expenditures of a household per month by far exceeded the monthly income. This can partly be explained by the fact that cash income is highly seasonal and that for some time, in kind contributions are also accepted by suppliers.

Most households rely on subsistence farming as an income source, although many households try to have multiple income sources to reduce risks. This leads to a high level of seasonality of cash flow in households over the year which makes tracking and recording difficult, but also creates a challenge for households to make bigger investments.

- The average daily water consumption per household reported in the study was about 170 litres, which is about 20-25 litre /cap*day. Water is used for a wide range of purposes, including drinking, cooking, bathing and laundry. Different sources of water are used to fetch the amount of water needed. In particular in the dry season, when some wells dry up more surface water is used as a source. Mostly, women and children are in charge of fetching water. Many cases of sexual harassments or even rape are still reported when young women go to the bush to fetch water.

Now with the emergency interventions for fighting Ebola in 2014 and 2015 there is a high risk that expectations of people is back to provision of highly subsidized interventions. However as soon as the emergency interventions stop the principles of the new policy will be applied and promoted again, which puts households in the driving seat to invest in their sanitation infrastructure but also supports self-financed water supplies.

1.6 Scope of this assignment

In January 2014, an external evaluation of the two Self-supply projects under the WASH Facility Sierra Leone identified a huge potential for Self-supply to be a complementary WASH service delivery approach in particular in rural areas. The evaluation also provided recommendations with respect to the next steps concerning further scaling up of the Self-supply approach in Sierra Leone (Gelhard 2014). Additionally, it emphasised the need to consider all elements, including water supply, sanitation and hygiene, in an integrated approach when it comes to developing a strategy for WASH Self-supply in Sierra Leone.

This financing study shall provide an important step towards the development of a roadmap for WASH Self-supply in Sierra Leone. Two main objectives were defined for this study (for the entire TOR, see Annex 1):

- Objective 1: to define the financing environment of Self-supply communities including documentation in a report
- Objective 2: to develop a manual/guideline which outlines other financing options including Village Savings and Loan Associations (VSLA) that would enhance user investments in their own water supplies

Based on the initial meetings with key stakeholders, including UNICEF and Adam Smith International Ltd., the scope of the study was enlarged and included:

- following an integrated approach covering all three themes: water, sanitation and hygiene. Therefore the assessment of financing options addresses all areas of WASH Self-supply;
- assessing financing options which satisfy financing needs related to WASH Self-supply for households and communities, but also the needs of the local private sector to start a business in WASH Self-supply;

- focusing on the analysis on rural areas, but including peri-urban areas where possible in the short time available for this study;
- coming up with recommendations for districts WaterAid is active in, but being as generic as possible to allow transfer of recommendation to other areas in Sierra Leone;
- considering all adequate financing options but having a particular focus on the VSLA and community WASH saving funds piloted so far.

This study will provide two deliverables:

- The study report will provide an assessment of financing options and recommendations to be considered when developing a road map for scaling up WASH Self-supply.
- As a separate document, a manual will provide guidance on how specific financing options can be used in Sierra Leone to accelerate WASH Self-supply.

1.7 The key audience of the report

- In particular WaterAid, Welthungerhilfe, UNICEF, the Ministry of Water Resources, the Ministry of Health and Sanitation and other partners active in the field of Self-supply, CLTS and financing mechanisms in Sierra Leone,
- The WASH sector of Sierra Leone, led by the Ministry of Water Resources,
- Potential donors interested in supporting the WASH sector in Sierra Leone through CLTS and the Self-supply approach, in particular UNICEF,
- Other actors active in rural development in Sierra Leone.

2. Methodology of the study

2.1 From technologies to services

Investments in one's own water or sanitation facilities as proposed by Self-supply and CLTS put a significant financial extra burden on poor rural households. The investments in WASH compete with many other urgent needs and priorities such as school fees or health costs. Rural households are particularly challenged as they often do not have access to information on technology options and to information about costs, e.g. on investment costs, or on needs and costs for operation and maintenance (O&M).

When investing in WASH, households or communities not only buy a product but finally strive to have a higher level of service. So WASH Self-supply is not just selling and buying products but assuring that clients get a better WASH supply. Therefore, the value chain for investments of households in WASH is complex, including additional benefits such as convenience, potential income generation, improving food security or status. The local private sector engaged in the WASH Self-supply business needs to realise that households should be treated as clients that are willing to invest in products and services and look for an added value. Quality products and service quality are key to growing business on a sustainable basis.

2.2 Uptake of technologies

The uptake of WASH technologies in a new market such as rural areas will usually follow a kind of S-shaped curve as many market penetration processes do (see figure 3). We can distinguish three key phases during the uptake of a technology in a market:

- **Invention phase:** In an initial phase, when there is the piloting and testing of a technology such as the rope pump, the level of uptake by users is limited. Once the testing has produced positive results and feasibility for a wider upscaling of this technology is proven, actors can decide on how scaling up can be organized and they prepare for the launching.
- **Tipping point:** If sufficient resources are put in place and the marketing including a viable supply chain are installed more products will be taken up by the market. First the early adopters will buy, and later the more reluctant will come in.
- **Uptake and use at scale:** Finally the number is growing, more providers come in and there is a high level of uptake.

Figure 3: Key phases in the uptake of technologies

Source: Olschewski & Casey, 2013

The model presented is the ideal case. However in practice, there are several limitations which might hinder the uptake of promising technologies in a new market. Based on the analysis of several case studies, there is a set of reasons for slow uptake or even failure. Interestingly, the technology often did not meet the need or the expectations of users, or the products were just too expensive.

This might also be the case for many households in rural areas who intend to invest in their own WASH supplies (Olschewski & Casey, 2013). In several cases, even the process of the introduction was not well planned, actors were not clear about their roles, the resources allocated were much too little to support the introduction and to provide after sales services. In particular, at the beginning of the introduction, there are high costs for developing and improving the product, and for marketing and for setting up supply chains, while the revenues generated are small due to the low number of units sold. This creates a gap in terms of cash which is called the "valley of death" (see Figure 4).

Figure 4: Financial challenges when introducing new products

Source: Olschewski & Casey, 2013

Experiences and case studies captured and analysed in an action research project WASHTech (www.washttechnologies.net) highlighted that the analysis and the development of recommendations with respect to up-scaling of WASH Technologies need to consider the perspectives and views of all of the key actors involved in WASH Self-supply, which involve

- the **users of the technology**; they are also the **buyers** and operate the infrastructure as per definition, they invest in their own WASH infrastructure,
- the **producers or providers** of a WASH technology, including service providers
- the **regulators or facilitating agencies** involved in Self-supply or CLTS.

Also for this assessment of the financing environment of WASH Self-supply, all actor groups will be considered, the demand side (households, communities), the supply side (suppliers, technicians) and also the regulator and facilitating agencies such as NGOs as relevant actors in the enabling environment for WASH in Sierra Leone.

2.3 Data collection and geographic scope and realistic depth of analysis

For this assignment, data were collected in meetings with all relevant key stakeholders, interviews took place mainly in Freetown, and during a four-day field visit to selected districts in the rural area of Sierra Leone (Pujehun, Kenema, Moyamba). Due to the limited time available and due to the outreach of Ebola, the stay in rural area was limited to only four days. The data collected captured mostly narrative and qualitative data, information from group interviews and on-the-spot visits and checks, e.g. of pumps installed some weeks ago. A list with the schedule of all meetings is included in Annex 3. The interviews included information collected on details of the marketing mix and on life cycle costs (see Annex 4 and 5)

Together with secondary data from reports and interviews, this information is used for triangulation and as a basis to develop concrete recommendations on how to increase investments for WASH in households and communities and the supplier of the WASH Self-supply market.

3. Regulatory framework

3.1 WASH and Self-supply

The policy and regulation concerning the rural water supply and sanitation sector are defined in the National Water and Sanitation policy (July 2010). There it is stated that appropriate technologies should be used for WASH services. CLTS is the approach to trigger villages to become ODF, which means households have to cover the costs to construct their own latrines. The Rural Water Supply and Small Towns Strategy Paper issued by the Ministry of Water Resources in 2013 suggests, among other items that Self-supply should be used where feasible as a decentralised approach for households and small communities. Due to budget constraints, conventional approaches will most likely be targeted on small town and bigger villages. Therefore communities with a population of less than 150 people will most likely rely on Self-supply.

So far a detailed strategy to roll out and accelerate Self-supply in Sierra Leone is lacking. To foster linkages between the different policies and to raise awareness of actors with respect to the potential and relevance of Self-supply in the provision of WASH services in Sierra Leone, WaterAid will lead a consultative process for developing a roadmap for developing a strategy for Self-supply at national level in the next months.

3.2 Financing environment

As in many other countries, the financial sector in Sierra Leone is organised according to different levels with an increasing degree of regulation, supervision and formal support (see Figure 5):

Figure 5: Scope of financial products offered and level of supervision

Formal bodies such as microfinance institutions (MFI) and commercial banks should be monitored by the government and regularly provide reporting and auditing, as defined in the permits. However, based on feedback from interviews, it seems that there is hardly any oversight and supervision by the government of the microfinance activities performed by certified MFI active in Sierra Leone.

Apart from these formal to semi-formal financing institutions, a huge variety of informal financial bodies are active, including traditional Osusu groups (also known as "tontine" in other regions of Africa) or more organised saving groups, such as the Village Saving and Loan Associations (VSLA). These informal groups are not registered; however, local governments are often informed about the existence of VSLA through their contacts with implementing partners.

4. The demand side for rural WASH Self-supply in Sierra Leone

4.1 Current situation regarding access to water and sanitation in areas visited

As described more in detail in the baseline study (Sutton 2013; for country specific data of JMP/WHO2014 see Annex 2), the situation regarding access to water and sanitation in the rural areas of the two districts visited is fully unsatisfying. Also in towns such as Pujehun, Bo or in Kenema, there is a high level of Self-supply as the community water supply is not providing adequate services at all. In Bo, there are plenty of private wells installed with quite expensive India Mark II pumps, which are used for single households only. In parallel a high number of unimproved water sources are used by many households. Also, sanitation facilities are often very poor in most of the urban areas. In rural areas, there are hardly any latrines except in districts which have been sensitised for ODF. In institutions such as schools, water supply and sanitation is often neglected or even inexistent.

4.2 Expressed needs and priorities for WASH services

The communities visited clearly expressed the need for more safe water supplies which provide water throughout the year. This is because that some source fall dry but also because population in many villages is growing rapidly. To address the issue of poor supply with community water points, some communities started to build up funds to install more wells or pumps on existing wells, e.g. in Kpai village. Even some households expressed demand and their plans to invest to have rope pumps for their own supply as this offers a higher level of convenience. These households want to know more about other products available.

With respect to sanitation, some communities see the need to put in more effort to stay ODF or become so, as some households slipped back, also due to poor latrine design. There is a clear need to offer better products and options at different costs, as well as the need for after-sales services and follow-up to support communities and clients in maintaining their infrastructures.

4.3 Perceptions and attitudes of people regarding WASH products offered

So far, WASH products have been promoted in Pujehun and Kenema in two ways:

- Directly through technicians who are located in the communities. They visit households and some of them also distribute leaflets on products (e.g. EMAS ¹products).

¹ EMAS is a NGO based in Bolivia developing and promoting low cost technologies for WASH Self-supply

- As for the rope pump, promotion is mainly through demonstration sites. The demonstration sites (see photo below) are located at highly frequented spots, but the pumps are not accessible and cannot be used by potential buyers. In particular, as “seeing is believing”, more display pumps need to be installed in a way that people around the areas actually can see them and use them or that they can get feedback from owners on how the pump really works.
- So far, the upgrading of wells including the deepening of wells has not been displayed or explained at the demonstration sites.

Figure 6: Demonstration site for Self-supply technologies

In meetings, households and communities clearly stated that they liked the rope pump. Some communities and also private households were starting to save to purchase a rope pump.

However, in the meetings, no demands or requests were expressed to come up with improvements with respect to sanitation such as latrines or for hygiene. Interestingly, within the range of EMAS products, the toilet seat is the product sold most. This shows that there is demand for sanitation products, although more sensitisation, specific promotion and marketing are needed to inform rural households on the options available so that they can make an informed decision in favour of investment in sanitation infrastructure.

4.4 Socio-economic context and income sources

In the rural areas visited, households mostly rely on subsistence farming, e.g. of cassava or fruits. To minimise risk and soften impacts of high seasonality of cash availability, households try to combine various income sources, e.g. petty trading. Income sources of rural households can be grouped in farming income, non-farming activities including trading or wage labour, and transfers such as remittances (only limited information available). More detailed information on the socio-economic context in the communities visited is provided in Annex 6.

4.5 Financing needs concerning WASH in rural areas

Potentially, there is a huge market in rural Sierra Leone for WASH products and services. Hundreds of communities which are home to 10,000s of inhabitants will have to improve their water sources based on their own investments, if they don't want to rely on unsafe sources. The same households will have to construct or improve their latrines in order to stay or become ODF. Communities and households need products and services in order to maintain their supplies, including supporting financing-related costs.

However, to unlock this potential, a smart mix of promotion, sensitisation, product range, affordable financial mechanisms and close contacts with clients is needed. Government needs to support the creation of demand through sensitisation, support at local level and coordination of actors.

The potential of WASH Self-supply is huge, not only in rural areas, but also in peri-urban and urban areas. It will unfold differently in terms of regions and segments. Most likely, a faster uptake will happen near centres, market places, in areas with additional income sources. The level of self reported monthly income and ability to pay was recently documented for a study on household water treatment products (Nestbuilders 2014).

In order to develop successful marketing measures, needs of specific segments of clients have to be addressed (see Annex 7). For the areas visited, three relevant segments with specific needs related to WASH Self-supply and financing of WASH were identified:

For investments in WASH Self-supply:

- Funding investment costs and or recurrent costs for maintenance by households for their WASH infrastructure (CapEx, OpEx)². The cost of the WASH products provided so far varies between 50,000 Le for simple EMAS toilet seats to 400,000 Le for a rope pump or 600,000 Le for a latrine slab including superstructure (without pit digging).

² Capital investments in infrastructure (CapEx), costs for minor repairs for operation and maintenance (OpEx) and Capital Maintenance expenditures (CapManEx) as defined by the Life Cycle Cost Approach (Fonseca et al 2011)

- Funding of investment costs for new community water points funded by themselves (CapEx). The size of funding for a new hand-dug water point, e.g. a well including a rope pump, might be up to 1,000,000 – 1,500,000 Le if there are no rocks.

For community WASH issues such as recurrent costs of O&M of community water points:

- Funding of recurrent costs for operation and maintenance costs for community water points (OpEx, CapManEx). The size of funding for minor repairs might vary. So far, there is little data on costs for minor repairs. There is a need to follow up cost figures for O&M of various pump types and management set-ups.
- If it comes to major repairs (CapManEx) the amount of cash needed might be more than 1,000,000 Le, e.g. for a new handle or rising main.

As rural households depend mainly on subsistence farming, which generates only seasonal cash income and might be not sufficient to purchase technologies for Self-supply in one go. **Therefore in particular rural households in Sierra Leone need affordable financing mechanisms which allow them to purchase these products over a longer period of time.**

4.6 Existing financial mechanisms used by target communities for WASH

In the communities visited a broad range of financing options are used to save money or to cover investment costs for WASH products (CapEx).

- For **payments**, there are different options for “non-cash” payments, e.g. using in kind payments or work labour, but mostly different forms of cash payments, which are often provided in instalments. Cash is generated from various income sources, in many cases from selling charcoal, subsistence farming or small businesses. Some communities generate cash income by pooling income from particular joint activities, such as community farming.
- In some villages, individuals are organised in **saving** schemes to save up money and to access small **loans** for individual investments, using Osusu or Village Saving and Loan schemes.

Several **commercial banks** are active in Kenema and Pujehun region which provide loans and saving products.

- In Pujehun, only one commercial bank is active at the moment, the ROKEL Bank. ROKEL offers loans if there is a regular income on the borrower side which allows repayment of loans. A community can open a saving account if it can present a constitution, the minutes of the last meeting and a certification of the council. Usually, three signatures are needed for transactions to avoid misuse.

Households relying only on subsistence farming are not eligible for loans. Neither will start-ups with no track record be eligible unless there is a strong and accepted guarantor.

ROKEL started with “mobile” banking, using agents who visited the villages from time to time. However, this delivery system created excessively high costs, was risky and was affected by too many defaulters. Therefore, ROKEL stopped the mobile banking model, and changed their approach to work with the rural clients. In 2005, ROKEL opened a branch in Pujehun which is still operating. Rural clients now have to come to Pujehun to arrange their banking transactions.

- About ten microfinance institutions are active in districts of Sierra Leone, mostly providing loans. (<http://www.mixmarket.org/mfi/country/Sierra%20Leone>; accessed 12.6.2014). BRAC is the MFI with the biggest outreach in terms of number of borrowers, having managed a portfolio of more than 22,000 borrowers in 2012. BRAC provides small loans (Micro lending: (>350,000-2,000,000 Le) and bigger loans (>3 mill. Le up to 20 mill. Le) for enterprises. For the micro lending, BRAC is working through group lending, so that no individual collateral is needed. Loans can be used for any purpose, although they are mainly used to improve the income generating source.

BRAC is active in 9 of 14 districts in Sierra Leone, including Kenema. However, so far, it has not operated in Pujehun because of bad access to remote villages. Based on its experiences, rural people can afford to pay back loans in time. However, they need some kind of regular income basis. So far, BRAC has not promoted any particular loan product targeted for WASH and within households, WASH investments, and in particular sanitation, are not yet a priority area for investments, according to BRAC.

- Apparently, CEDA was also active in providing loans in Pujehun region but pulled out in that region some time ago. So far, no formal funding sources such as commercial banks or MFI have been used to support households in investing in WASH.

Some communities have started building up a **community WASH saving fund** which is used to pay **recurrent costs** for operation and maintenance of community water points.

5. The supply side of rural WASH Self-supply in Sierra Leone

5.1 Water resources suitable for Self-supply

Most areas of Sierra Leone can benefit from extensive rain fall (up to 3,000 mm/year) during a rainy season of about 7-8 months between May and November, with a peak in July - August. Many streams come down towards the coast, allowing use of surface water for various purposes, also in Pujehun and Kenema districts. However, many of the smaller streams and ponds fall dry at the end of the dry season.

In distinct regions of the country, the hydrogeological conditions are favourable, so that shallow aquifers with groundwater can form. These shallow aquifers can be tapped using manual drilling techniques, which is a rather simple and low-cost drilling method that is also suitable for installing many pumps. There is growing interest in the WASH of Sierra Leone to further develop the manual drilling sector, which would allow e.g. rural households e.g. in the coastal region to access groundwater using this cost-efficient method (RWSN 2014).

5.2 Suppliers and WASH products for Self-supply

In Pujehun, 15 technicians from target communities were trained by WaterAid. This assures that communities have a short way to the supplier and can be informed directly by a trusted technician. In Kenema district, WaterAid trained 15 technicians, and Welthungerhilfe has trained 40 technicians. All technicians trained came from communities within Kenema district.

Within the two pilot projects, a wide range of products suitable for Self-supply have been identified and piloted. In the Welthungerhilfe pilot, nine different products of the EMAS series were tested and promoted. The products investigated cover a wide range, such as for water supply, sanitation, improving of housing (e.g. showers), but also household water treatment. Within the WaterAid pilot, the different types of the rope pump and well upgrading were tested and promoted. An external evaluation concluded that there was a significant potential for providing relevant WASH products and services to households in rural and peri-urban regions through the market based approach of Self-supply (Gelhard 2014).

A recent study on the potential scale-up of household water treatment options (HHWT) products showed that there was quite a potential for providing households with products for water disinfection, treatment or safe storage, but that there needs to be more marketing and a viable supply chain to pull people into investments (Nestbuilders 2014). So far, households have very different priorities concerning their investments in WASH. Some might focus more on HHWT options, others on improving wells so to have access to water closer to their homes. This shows that despite a huge potential, an intelligent mix of marketing tools and sensitisation by local leaders and government are needed to succeed with product introduction and uptake.

5.3 Costs of WASH products provided and market response

In Pujehun and in Kenema, WaterAid has installed five demonstration sites each. The sites are located near market places or important public sites where many people pass by. So far, the demonstration sites are fenced to avoid damage. The natural leaders of the particular area are entitled to provide information and access to the site. However, people passing by cannot see or even try out how the pump works themselves, e.g. through a display. The demonstration sites set up by WaterAid include two types of Rope Pumps (about 400,000 Le) and a pull pump or E-Frame (about 200,000 Le) as well as the EMAS pump (about 300,000 Le).

In Kenema, Welthungerhilfe also runs a workshop with a demonstration site. There, a suite of EMAS products are present:

- EMAS pump
- water harvesting tanks
- toilet seat
- latrine slab
- hand washing basin
- latrines with different superstructure including ventilation pipe
- solar water heater

The costs for the EMAS products are within a range of 50,000 Le for the toilet seat to up to 600,000 Le for an entire new latrine slab and superstructure. A list of products and costs (indicative figures) is provided in Annex 8. The exact costs on place are matter of negotiation with technicians. At the site in Kenema, rope pumps as promoted by WaterAid are also displayed.

So far, technicians have very rarely kept records of the pumps and products supplied. Therefore it is difficult to provide figures on units sold to clients, or prices of products per region. The association of technicians should promote record-keeping allowing proper market research. This would also support the individual technicians in their efforts to sell products.

5.4 Funding needs of suppliers and producers

Producers and suppliers of WASH products have expressed their need to have access to seed loans, e.g. to kick off business, to stock up spares at the right time or to cover costs for the start tool kit, which costs about 1.5 mill. Le. Also, manual drillers who plan starting their own business often need some seed funding to buy the material they need to create the drilling rigs and tools. The total amount very much depends on the scope of tools needed, but it can be expected that it is in a similar range to that for the Self-supply technicians (around 1 mill. Le).

5.5 Associations of technicians

In Kenema, about 20 paying members are now organised in an association of Self-supply technicians. PLAN International developed a 1st draft of a bylaw for cooperatives of technicians active in the field of Self-supply. The key purpose of this association in Kenema is to raise funds so that members can access cheap loans for specific business related activities. Monthly member fees are about 5,000 Le/ member, and so far, only 20 members contribute regularly. Up to now, the total amount collected is about 2 mill. Le. An additional purpose of the association apart from business development through loans should be to assure that quality control of products and installation is conducted. However, so far, members of the association have not been too keen to get controlled regarding the quality of their work.

More effort and sensitisation is needed and more innovative ideas have to be developed, e.g. certification to motivate and to push technicians to agree on introducing further quality control measures. Both push and pull methods should be introduced, e.g. offering technical support for free for those who participate in a certification scheme or promoting a shortlist of selected approved producers.

6. Enabling environment for WASH Self-supply in Sierra Leone

6.1 Need for follow up of communities and further sensitization

Communities in Kenema and Pujehun were sensitised 1-2 years ago with respect to ODF and Self-supply. After that, many communities were declared ODF. However, only little follow-up was provided if at all. In Kenema, more than 940 communities were declared ODF after the sensitisation. However, a study recently presented shows that by now, 40% of the communities have already slipped back to OD (verbal communication O. Sankoh, EH Office District of Kenema, 17.6.2014). One of the reasons mentioned was the need for better follow-up in communities as well as an urgent need for further sensitisation and support.

Information of communities and households on WASH Self-supply should provide information on the approach but also on the benefits of WASH Self-supply, which include convenience, potential for income generation and improving food security, health benefits and reduced costs for health treatments, status and security. Girls and women could be a particular target group for marketing as they suffer most from poor WASH facilities near their homes (better security situation).

In future, Self-supply and CLTS projects, it is recommended to strengthen to engendering the WASH Self-supply concept, e.g. through motivating women even more strongly to become technicians and in supporting and motivating technicians to allow young adults to participate in the training for Self-supply.

Apart from better information at household and local level, there is also a strong need to better inform key actors at national level in ministries and partners to better understand the concept of WASH Self-supply, the division of tasks and roles, the cost implications and the technological approaches used. To allow a further scaling up of WASH Self-supply measures, there is a need to provide capacity development at district level to ensure that the concept and roles and responsibilities are fully understood.

6.2 Need for coordination and harmonisation of approaches and actors

Self-supply, CLTS and sanitation marketing all centre on the concept of the market-based approach. This is in line with official government policy. However, there are still donors that do provide water and sanitation infrastructure such as latrines for free or with heavy subsidies in the same region as CLTS and Self-supply are promoted. This creates confusion within communities and leads to conflicts about implementation procedures which might affect the uptake of Self-supply and CLTS and the viability of the businesses of the technicians. There is an urgent need for policy mainstreaming and harmonisation at national and district level including sensitisation and information of the wider public on the Self-supply approach.

6.3 Need for follow up training and capacity development of technicians

So far, WaterAid has trained about 30 technicians who come from the communities triggered. Welthungerhilfe has trained about 40 technicians from Kenema region. The trainings focused on the production and promotion of specific technical options and a basic set of business skills. After the first round of training, Welthungerhilfe conducted a follow up training which provided a kind of evaluation of the trained technicians. Both organisations, WaterAid and Welthungerhilfe, see a clear need for proper follow-up, for refresher trainings of trained technicians and for supporting them in further promotion to create demand for products and to introduce new products which satisfy needs. Particular focus is needed to introduce effective mechanisms for quality control as the reputation of the approach is directly linked with the quality of the products provided and the resulting services.

6.4 The value chain concept highlights the benefits of WASH Self-supply

For the further promotion of Self-supply for water or CLTS for sanitation and hygiene, further development of the sensitisation, information and of the marketing is needed. Key messages should consider:

- Self-supply provides added values to household members having investing in their own supplies. The focus should not be shame; it should highlight the **convenience** side, e.g. saving time for women and girls could be a good selling point if the message is also directed to them;
- **potential for income generation**, food security and strengthened resilience against external shocks
- **Improved security** (Snake bites, safety);
- present the option to share facilities and maybe costs, so as to also make individual wells public
- Improving health is spending less on cash; by improving in one's own latrine, this benefit comes directly to each household, whereas impact of CLTS is much more diffuse if not implemented 100%!
- highlight fact that technicians are in the villages, so that the risk of bad products is rather low for clients;
- identifying and strengthening leaders, often women who can take the lead in promotion and sensitisation.

6.5 Platform for exchange at national and district level

Various actors are engaged in different activities related to water supply or sanitation in the same districts of Kenema and Pujehun. Therefore, there is a clear need for coordination and harmonisation to assure that programmes are aligned with national policies and coordinated in time and regionally. Coordination is also needed to capitalise from synergies, to avoid double spending or gaps or even to avoid conflicting interventions. **Harmonisation and coordination** is needed at national as well at district level.

However, there is primarily a need for **sharing of expertise** in the districts with respect to the planning, implementation and monitoring of WASH Self-supply activities. District government and implementing partners should strive to establish a platform for exchange and coordination on WASH Self-supply. For CLTS, platforms are already active at district and national level. However, they don't exist so far for water-related Self-supply activities. Exchange should include actors from the side of saving schemes and from the financing side as well.

6.6 Linkages with other programmes and sectors

So far, the approach of WASH Self-supply is not yet widely known in Sierra Leone, nor is it properly documented. Based on the piloting studies, a strategy for rolling out should be developed. This strategy ought to explore the potential to use and strengthen linkages with programmes in other sectors such as agriculture or livestock to combine promotion of the technologies designed for WASH in these areas and to trigger MUS services, but also to strengthen the income side of the clients. As the example from Nicaragua shows, where the rope pump was introduced as a multi-purpose pump, the household-driven improvements have led to substantial improvements in livelihood and in improved WASH services for many rural farmers (Alberts and Van der Zee 2003).

7. Analysis of existing and potentially available financial mechanisms in the project region

7.1 Most relevant financing needs identified for WASH

Based on the feedback from the field visits and exchange with key stakeholders, three areas have been identified which need specific financial mechanisms to get started, to allow ongoing operation and to support further development. These three areas include:

Households/individuals:

- 1) Funding **investment costs and or recurrent costs for maintenance** by **households** for their WASH infrastructure. The cost of the WASH products provided so far varies between 50,000 Le for simple EMAS toilet seats and 400,000 Le for a rope pump or 600,000 Le for a latrine slab including superstructure (without pit digging).

Communities:

- 2) Funding of **investment costs for new community water points** funded by themselves. The size of funding for a new hand-dug water point, e.g. a well including rope pump, might be up to 1,000,000 – 1,500,000 Le if there are no rocks
- 3) Funding of **recurrent costs** for operation and maintenance costs for community water points. The size of funding for minor repair might vary. So far there is little data on costs for minor repairs. There is need to follow up cost figures for O&M of various pump types and management set ups. If it comes to major repairs the amount of cash needed might be more than 1,000,000 Le, e.g. for a new handle, rising main.

The results of the assessment of financing options for No 2 and 3 are presented in a combined way to reduce the length of the text.

Local private sector/suppliers/technicians:

- 4) **Microenterprise loans** for local suppliers in WASH Self-supply business, e.g. as seed money for stock, promotion or leasing or heavy equipment

7.2 Assessment of financing mechanisms available for Self-supply

The set of financial mechanisms available in rural Sierra Leone include:

At **individual** level:

- Saving in kind or cash at household level
- Private loans
- Osusu
- Commercial banks or microfinance institutions (MFI)
- Village saving and Loan Associations (VSLA)

At **community** level:

- Community WASH saving funds

These existing financing mechanisms are assessed using a set of criteria as following:

- Liability to access funding and inclusiveness
- Loan size suitable for WASH investment
- Costs to access funding (including interest rate)
- Flexibility (timing, Loan size)
- Accessibility
- Formality
- Collateral
- Risks for borrower
- Comments (option add services to financial service)

The detailed results of the assessment are provided for each existing financing mechanisms (see annex 9).

7.3 Recommendations for potential financing mechanisms for Self-supply

Considering the current context of rural areas in Sierra Leone for the near future, the most relevant financing options for the financing needs identified can be summarised as following:

- For **households** interested in financing investments and recurrent costs in WASH, the most promising option is the **VSLA**, if the households cannot mobilise cash from their incomes. The VSLA also of-

fer to include educational aspects e.g. in on hygiene in the saving scheme which is not the case for other mechanisms. Additionally the VSLA can be linked in an easy way with the provision of products for Self-supply.

- For **communities** that want to cover investment cost and recurrent costs, **community WASH saving funds** are a very promising option, as they might also offer funding options for sanitation and hygiene issues. One major advantage is that the decision is taken at the lowest level, close to the ground, which ensures ownership.

The savings funds visited for community WASH collect savings in a range of about 6 US\$ / year and household. This is in line with the cost benchmarks as published by WASHCost for boreholes and pumps for covering the cost for O&M. This means that for the minor repairs, these saving schemes might be adequate, whereas for major repairs, the communities might have to go back to organisations to ask for co-funding.

- For **technicians and small businesses** in the field of Self-supply for WASH, the idea of setting up an **association that offers loans** is a reasonable way forward. This form of financing mechanism offers masons and artisan to access bigger loans in a shorter time as compared through VSLA schemes. Once the technicians can show some track record in terms of viable business at individual level, they might become eligible also for loans from MFI or from commercial banks. However, some soft loans from donors might be needed for technicians to allow the first steps for entering business at all.

The detailed results of the assessment are provided for each potentially relevant financing mechanism (see annex 10).

8. Summary and recommended next steps

Detailed recommendations for next steps are provided in Annex 11. A summary of key steps is provided below:

8.1 Summary of findings and recommendations

Demand Side

- Stimulating shift in mindset from providing WASH products towards stimulating demand for more convenience
- Awareness raising within households and local leaders on Self-supply approach and its benefits, on roles of actors, technical options and available technicians

Supply side

- Develop and provide options of low cost, quality WASH technologies so that people with different aspirations and resources have a choice
- Inform clients on all relevant cost components for the products promoted
- Promote technologies at strategic sites and establish demonstration sites and so that potential clients can really see and try how technology works
- Marketing and product delivery to address specific segments of clients; offering a range of products for different clients with different needs, aspirations and capacities
- Promotion of added value focusing on convenience and potential for income generation
- Piloting and intervention in a district only based on a context specific needs assessment and socio-economic analysis involving potential clients and partners
- Involvement of local leaders and local government in promotion events for Self-supply and related technologies

- Promotion of WASH technologies for domestic and for productive uses together with household water treatment options

Enabling environment

- Clear coordination and policy harmonisation of WASH approaches
- Continued technical support for WASH Self-supply activities including follow up , monitoring and evaluation (M&E)
- Stimulating local markets, support to local private sector in Self-supply business and promotion;
- Fostering documentation, sharing and learning through as learning platform for Self-supply
- Promotion of Self-supply together with hygiene education and household water treatment as component of any water supply
- Allocation of sufficient funds at local level for ongoing hygiene awareness campaigns, technical support and follow up of accelerating Self-supply
- Capacity development on Self-supply for relevant actors at national and local level including local private sector

Financing mechanisms

- Rural households can generate sufficient savings to invest in WASH Self-supply
- There is no 'one size fits all' solution for the financing - the context needs to be properly addressed
- Saving schemes such as VSLA can enable individuals and indirectly also communities to develop
- Community WASH saving funds provide a powerful mechanism to raise and save funds to cover recurrent costs for O&M of community water points

8.2 Next steps for improving financial mechanisms for Self-supply

- Establishing proper understanding at national and district level on potential and limitations of financing mechanism for Self-supply, in particular the difference between VSLA and community WASH saving funds
- Establishing more VSLA, in particular in remote rural communities; using VSLA also for informing households on HHWT products, income generation and for empowering youth and women
- Developing further community WASH saving funds to include also measures for strengthening governance by community members; finalizing and rolling out guidelines to support further establishment and follow up of community saving funds for community WASH services at national level
- Support artisans active in Self-supply to set up associations and their own loan schemes
- Allocation of sufficient funding at local level to establish, promote, support and follow up adequate financial mechanisms, particularly saving schemes for individuals as well as for community WASH investments
- Linking support for financial mechanisms for Self-supply with activities in other sectors, e.g. value chain development for agriculture and forestry.

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