



WASH Self-Supply in Sierra Leone: Perspectives and Options

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Published in May 2014 by

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With support from



Summary and General Conclusions

According to the Progress on Sanitation and Drinking Water Update 2013 by WHO/UNICEF [1], the national rate in Sierra Leone of people using improved water sources is at 57%. The picture for the use of sanitation facilities becomes even more challenging since only 13% of the population nationwide is using improved facilities.

Small and remote communities, relying mostly on traditional sources of water such as unprotected family wells, are often not considered within the subsidised communal supply infrastructure. Self-supply provides the means to help these communities to incrementally upgrade their domestic and community water supplies and hence to reach higher levels of services.

The National Water and Sanitation Policy (NWSP) points out the urgent need for developing alternative water supply techniques for rural areas and clearly demands for community and household participation in the “planning and ownership of the water supply schemes” [2]. The Rural Water Supply Strategy (RWSS) suggests self-supply as a service delivery approach for smaller remote communities [3]. Both papers call for further research and piloting of appropriate technologies supporting self-supply. On this basis, two pilot projects were carried out to provide practical examples on how self-supply could be an option to improve the WASH situation in Sierra Leone.

This paper outlines the findings of an independent evaluation of two projects, i) on appropriate and innovative WASH self-supply technologies, implemented by Welthungerhilfe and ii) the development of a strategy to accelerate household investment in improved water self-supply, implemented by WaterAid. Funded by the Department for International Development (DFID) through the WASH Facility Sierra Leone, the two projects specifically test a market based approach to self-supply in Sierra Leone.

The findings presented demonstrate, among others, that a formal support to self-supply is rather a new approach in Sierra Leone. Positive lessons learnt can be taken from the inception of community led total sanitation (CLTS), the “sanitation part of self-supply”, which was successfully implemented in several communities in the past years. There certainly is potential for self-supply to complement communal water services where formal service providers attribute lower priority to target smaller remote and inaccessible communities (population of 150 persons and below). A good coordination between coming projects and programmes on accelerating self-supply is crucial and collective action by the WASH sector will have a greater impact at a larger scale. Understanding local context will be a defining factor in scaling-up self-supply and will determine the roles of different actors in the process.

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1 Preface

This paper outlines the findings of an independent evaluation of two projects testing a market based approach to WASH self-supply in Sierra Leone, carried out in January 2014. It illustrates the framework conditions of WASH supply in Sierra Leone and describes the approaches of the two projects in supporting self-supply options to households and communities. It judges on the potential of the EMAS technology to support self-supply initiatives, points out barriers to scaling up decentralised WASH technologies from the viewpoint of different key perspectives and provides recommendations to key stakeholders for acceleration and scale up of self-supply in Sierra Leone. Moreover it aims at highlighting lessons learnt from the pilot projects to support sector learning.

2 Rationale

2.1 Current status of WASH supply in Sierra Leone

Water access in rural areas of Sierra Leone is characterised by the use of a combination of water sources to meet household needs, including streams and wells for cooking, washing and bathing. These unimproved sources are used even where protected sources (wells) exist for a variety of reasons, including proximity and ease of access; lack of awareness of hygiene and health impacts from using contaminated sources; lower cost; and cultural preferences.

However many of the improved sources were installed in emergency-relief efforts after the war and are no longer functional due to a number of reasons. Missing parts and lack of finance or the supply chain to secure replacements or carry out the necessary repairs are just some of the most obvious.

A water point mapping conducted in 2012 by the (then) Ministry of Energy and Water Resources revealed that out of 27,365 improved public water points installed between 2002 and 2012 18,080 (66%) are technically functional. 5,137 (19%) are broken down and 4,148 (15%) were partly damaged. Even among these 18,080 functional water points, 6,868 are sea-

sonal, giving enough water only during the rainy season. Thus, the number of points that are protected, technically working and in-use throughout the year is only 11,212 (41% of the total).

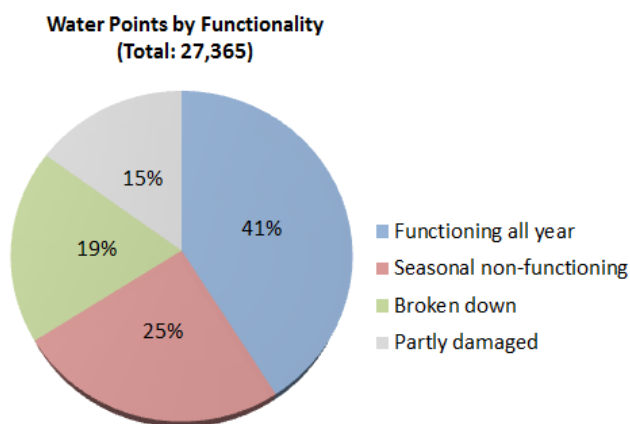


Figure 2-1: Functionality of water points in Sierra Leone 2012
Source: <http://www.sl-wash.org/Data.html>

Many of the community water-supply schemes are delivered through external agencies with capital costs that are heavily, or completely, subsidised. In return, rural communities are expected to take an active role in operation and maintenance through WASH committees. These committees are supposed to charge fees from households using the water in order to save up necessary capital to finance repairs. In the rainy season households prefer to use other (non-treated) water sources available rather than pay for access to hand pumps, and in the dry season when wells are often dry and access intermittent, households complain of quality/quantity received compared to access fees.

Contrary to the rural areas, in urban settlements the two state utilities the Sierra Leone Water Supply Company (SALWACO) and the Guma Valley Water Company (GVWC) have the responsibility for service delivery [4]. Compared to consumers in rural areas who are usually able to only invest in small and basic water infrastructure such family wells, consumers in urban areas are more affluent and enlightened and generally willing to invest larger amounts in their private water supply systems especially when the traditional service providers are not meeting expected satisfaction levels.

In Sierra Leone communal water supply is limited to communities larger 150 people. Smaller communities are mostly neglected since the formal service providers attribute lower priority to target smaller remote and inaccessible communities.

Urban
<ul style="list-style-type: none"> Population > 20,000 Full reticulation and customer connections 100 lpcd
Peri-urban
<ul style="list-style-type: none"> Population between 5,000 – 20,000

<ul style="list-style-type: none"> Reticulation and limited or full-house connection 60 lpcd
Rural (small towns and villages)
<ul style="list-style-type: none"> Communities of 150 – 5,000 people 250m fetching distance 250-500 people per water point (dug or drilled wells) 20 lpcd

Figure 2-2: Classification to communal subsidised improved water systems (Adapted from [3])

In these small communities it has always been a tradition to provide for their own water supplies through various means including family wells and small scale rainwater harvesting. Family wells are more common in rural and peri-urban areas of Sierra Leone where individual families dig their own wells to provide water for drinking and sometimes productive uses.

2.2 Self-Supply in the context of Sierra Leone

Self-Supply refers to local level or private initiatives by individuals, households or community groups to improve their own WASH supplies, without waiting for help from Government and non-government organisation [5]. Once the basic services are available, individual families make their own decisions on how to improve their services based on affordability and technical capacities at local level. Self-Supply is more about self-initiative and less about donor subsidy or external support. Self-supply empowers individuals and communities to incrementally improve their WASH supplies at their own pace with regard to technical capability and financial capacity. Shallow groundwater tables, suitable hydrogeological conditions and abundant rainfall, could make hand drilling techniques a potentially suitable low cost solution to increase the availability of water for the population [6].

According to Sutton, 2007 the success of Self-Supply depends on the development of four supporting building blocks. These are:

1. Technical options and advice
2. Access to finance (including microfinance),
3. Involvement of private sector and
4. Enabling government policies

The Rural Water Supply and Small Towns Strategy Paper issued by the Ministry of Water Resources in 2013 suggests, among others, self-supply as a decentralised approach for households and small communities smaller 150 people. Moreover the Ministry of Water Resources will explore options for creating an enabling environment and appropriate support mechanisms to make this as achievable and affordable as possible. With more than 40% of the people of Sierra Leone not having access to improved water sources and more than 80% without access to improved sanitation services it is unquestionably that the conventional approaches are not solely practical to meet the people's demands on WASH services.

2.3 WASH Facility Sierra Leone

The WASH Facility is a £5million DFID provided fund, managed by Adam Smith International on behalf of the Ministry of Water Resources, Ministry of Health & Sanitation, and the wider WASH Sector in Sierra Leone. The WASH Facility is part of a wider support program to the WASH sector, supporting the attainment of the objectives of the National WASH Policy.

The Facility is financing a number of action research projects to develop successful approaches enabling subsequent scale-up. Self-Supply fits within a wider group of funded projects testing ‘market based approaches’ to WASH. Other related projects include a nationwide market feasibility study on household water treatment and storage; sanitation marketing; village savings and loans (to increase ability to pay of customers).

The two projects on self-supply proposed by Welthungerhilfe and WaterAid were approved for funding in 2012. As with other pilots, the purpose of funding these projects was to allow the WASH sector in Sierra Leone to test a concept that seems to be effective elsewhere; to learn from the pilots, and use the outputs to define how the concept could be expanded, and become a viable approach for improving WASH access in the country.


2.4 The projects of WaterAid and Welthungerhilfe

The WaterAid project aimed at developing a set of practical guidelines for accelerating private investment in water self-supply and improving the standards of supplies financed by users themselves to complement community supplies. It proposed to undertake more evidence based research and advocacy at sector level for the uptake of the self-supply approach. With its piloting part, mainly consisting of well upgrading, WaterAid concentrated on small communities with no protected water sources and with a strong spirit to improve their well-being, e.g. those communities which became ODF in a short time. A network of local NGOs and government institutions both on local and on national level supported project execution.

Welthungerhilfe focused on the testing and promotion of the EMAS low-cost technology for appropriateness to support WASH self-supply efforts in the Western Area Rural- and Kenema Districts.

The piloting of the technology was accompanied by qualifying preselected technicians on the building and selling of the components of the EMAS system and hence becoming self-employed water and sanitation suppliers.

Technology demonstration sites at strategic places, such as markets, religious meeting places or along arterial roads, were established aiming at raising awareness and interest for the low-cost technology options of EMAS.



EMAS (Escuela móvil aguas y saneamiento básico) is a German based NGO promoting the application of simple and affordable water and sanitation technologies to support efforts and strengthen the capacity of households and communities to solve their own problems in WASH service delivery. The EMAS concept is based on a variety of simple technologies such as manual drilling of deep wells, manual pumps built by the users themselves, small wells from springs, rain water harvesting systems, ferro-cement tanks, sanitary installations such as VIP latrines and latrine seats facilitating the life of the old and the physically impaired. An important component of the concept is the qualification of local artisans to maintain and replicate the technologies and become suppliers of WASH services themselves. The main objective of EMAS’ range of technology is to empower the user and to provide a major innovation in the sector by introducing low cost schemes where local technicians in close collaboration with households produce their own WASH hard ware, install them and conduct repair services.

Box 2-1: The EMAS water and sanitation concept



Figure 2-3: Private EMAS demonstration site at Mobai Junction, Kailahun District (Source: Gelhard)



Figure 2-4: Private EMAS demonstration and selling point at Panderu village, Kenema district on the main road to Kailahun (Source: Gelhard)

The trained technicians conduct private installations beyond the Western Area Rural- and Kenema Districts, which were the main project locations, to additionally seven other districts. Figure 2.2 shows the number of installations in nine districts of Sierra Leone, whereas the orange shaded columns represent those districts which were not directly targeted by the project.

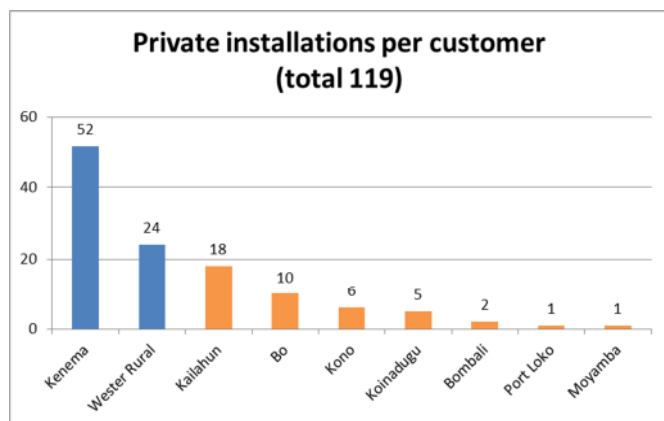


Figure 2-5: Private installations in nine districts of which seven did not belong to the targeted areas.

Figure 2-6 presents the number of single components installed during a period of 18 months from July 2012 to December 2013. It is remarkable that the latrines seats were the best sellers among the EMAS components. This was mainly because of its affordable nature and because of the immediate positive change it was able to provide to the customers.

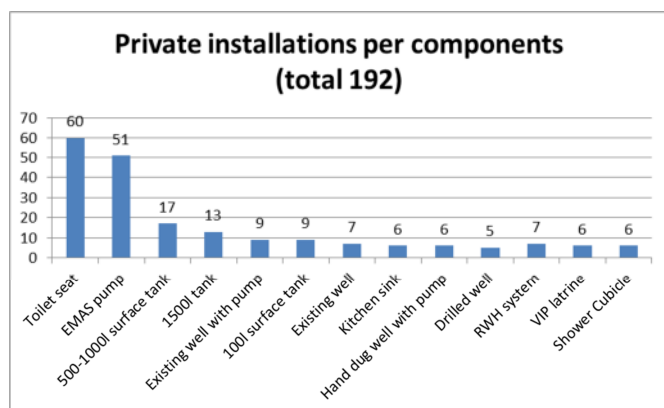


Figure 2-6: Number of single EMAS components installed over an 18 months' period.

3 Results and Lessons Learnt

3.1 The status of self-supply in Sierra Leone and its embeddedness in national policy

Less than one-third of the rural population in Sierra Leone has access to a reliable supply of safe drinking water from a protected source, and many continue to rely on unprotected wells, rivers, streams and swamps. Even where a protected source exists, it is clear that households use a combination of sources including streams and traditional wells for cooking, washing and bathing to meet their water needs [7].

There are three main policies which influence WASH in Sierra Leone, i) the Agenda for Prosperity (GoSL, 2013), ii) the National Water and Sanitation Policy (GoSL, 2010), and iii) the National Environmental Health Policy (GoSL, 2000) [8].

In regard to self-supply some indications can be found in the specific objectives of the National Water and Sanitation Policy (Draft) encouraging communities to invest in and manage their own water supply and sanitation services [2]:

- To ensure that communities participate in the planning, construction, ownership, operation and maintenance of their water supply schemes
- To promote participation of the private sector in the delivery of water supply related goods and services
- To enable local community ownership of rural water supply schemes
- To increase communities' participation in financing their water supply programs

Although a step in the direction of acknowledging self-supply as service delivery approach, it is not yet formally recognised. Some statements (collected during the evaluation exercise) of government officials on self-supply are:

- "There is basic knowledge existing on self-supply but the challenge is how to capacitate the communities to enhance/improve on the systems"
- "Self-Supply is a good and viable option which has been practised for several years in SL. Now the challenge is to enhance the knowledge and put it to the next level"
- "Not only the communities need to be sensitised but the Ministry incl. the local councils as well"
- "Monitoring, done by the engineers on district level, mostly concerns to conventional water supply. Self-Supply initiatives are not monitored yet"

This clearly shows that there is little knowledge on how to formally address the issue of self-supply in Sierra Leone.

3.2 The appropriateness of the EMAS low-cost technology

EMAS rests upon a whole technical and social concept to encourage families to use their low-cost water and sanitation technologies to incrementally improve their household infrastructure.



Figure 3-1: Two EMAS Flexi Pumps in a rural setting supplying overhead tanks of a household (Source: Gelhard)

In that EMAS focuses on the added value of the technologies towards improving household living conditions and lifestyles. EMAS implements its strategy primarily through the training of local independent technicians and typically partners with other organisations and local/national governments for implementation. Although successfully introduced in Latin America the question is whether it is a good and applicable technology to support self-supply in Sierra Leone as well?

To assess the applicability of the EMAS technology in supporting self-supply efforts of households in Sierra Leone, the “Technology Applicability Framework – TAF”, a decision support tool on the applicability, scalability and sustainability of a specific WASH technology, developed by the Water, Sanitation and Hygiene Technologies (WASHTech) research project was applied¹.

The results are listed along the six sustainability dimensions: social, economic, environmental, institutional and legal, skills and knowhow and the technical dimension.

To capture the most relevant priorities of the key actors in the technology introduction process, the six sustainability dimensions are explicitly assessed from the perspective of the [9]:

- Technology **user or buyer** (household or community using WASH services),
- Technology **producer or provider** (retailer of products such as spares, service provider),
- **Regulator** of the WASH sector, **investor** in the introduction process or **facilitator** of the introduction process.

The final result of the TAF is a matrix based on the assessment of 18 indicators through a set of questionnaires. For the EMAS technology the scoring results are presented in figure 3-2 and are explained in greater detail below.

Social

The demand might not be obvious at first but once the people are aware of the benefits they want to have it for themselves, or those who have already installed some components don't want to miss them anymore. The willingness of the HH is there to pay for their systems and cover maintenance costs. Additional values can be added in upgrading their systems increasing the service levels.

The technicians (service providers) are all trained on the technical requirements of the technology but lack knowledge in business administration. This can be overcome with additional training and capacity building activities.

Critically seen are the capacity and the willingness of the government to promote a change of the perception of people that water should be provided for free and to convince to take own initiative to improve the WASH service levels.

Economic

Although the components of the EMAS technology are available and affordable to the target group of the project, there is little knowledge so far on the willingness and ability to pay for self-supply technologies for rural and poorer households.

The barriers keeping people away from investing in their own water and sanitation infrastructure need to be studied in more depth to be overcome in up scaling efforts. There might also be concerns about commercial interests of other providers and suppliers encouraging households to use modern technologies when other less expensive options may be appropriate.

The service providers (trained technicians) in the two districts report that their businesses are running well and that they have additional financial resources for schools fees, medical care and certain individual amenities, etc. They are able to advise potential customers on the technology and most have a pricelist at hand.

There is unclear information on the availability of supportive funding schemes. For micro-finance schemes WASH is reported to be not an attractive sector for investment. From the government side there is no information on potential funding in self-supply.

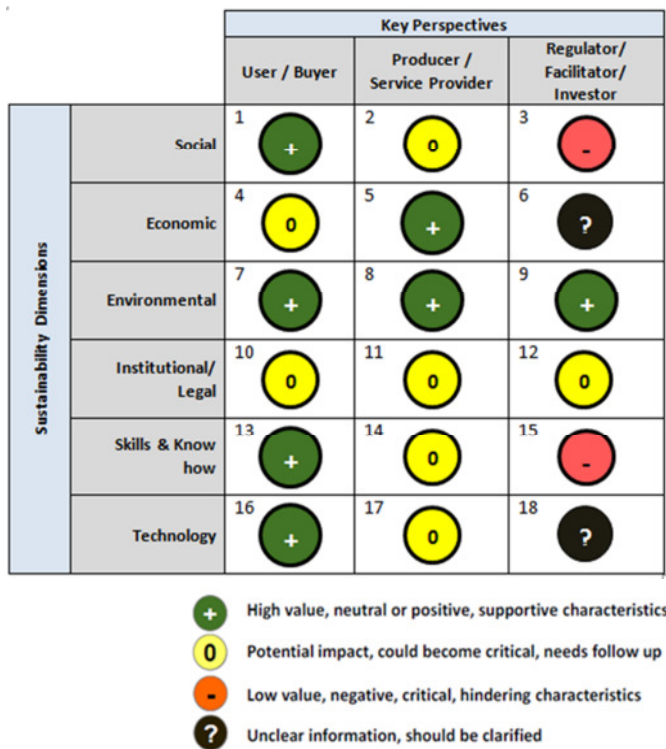


Figure 3-2: Results of the TAF scoring

¹ Due to time constraints during the evaluation mission, the TAF could not be applied to the scope as recommended in the TAF guidelines. E.g. the scoring was not done in a participatory way by the evaluator but rather on the basis of semi structured interviews and group discussions held with the members of the established business units and single trained technicians. Therefore the results solely reflect the qualitative findings of the interviews and discussions and can serve only as a rough analysis on the scalability of the EMAS technology.

Environmental

The EMAS technology presents no reported negative impacts to users or the environment. The local production is possible with all the parts available on the local markets.

Institutional / Legal

There is no legal framework existing regulating O&M. In case of repairs the owners would contact the next reachable EMAS technicians, or do the repairs themselves. The business units are all registered at district level and have legal status to operate. Quality implementation needs to be further stressed and already existing quality standards need to be revised and further developed.

The Ministry of Water Resources issued the “Rural Water Supply and Small Towns Strategy”, a document suggesting self-supply as a decentralised approach for households and small communities typically smaller than 150 people. This strategy only identifying self-supply as an option for small communities does not acknowledge its potential in the urban and peri-urban setting, more on a household basis where people wish to have higher levels of service from the communal supplies.

Skills & Knowledge

The assessment showed that the users are able to cope with the technology. The owners know whom to address facing problems they would not be able to solve themselves. The technical skills of the trained technicians are more advanced than the business skills. There is a need for further training in business administration and marketing. The prevailing perception among the artisans is that a good technician must necessarily be successful in his or her operation.

Technical

This was rated positively since all the interviewed users are satisfied with the performance of the technology and the value they got for their money. Pipes and fittings for pump construction and installation are all imported but available on nearest urban market. In the rural areas no retail stores are in place dealing with the components which poses a serious challenge to the supply chain. Therefore a better understanding of the functioning of the retail is important to sustain the supply chains even outside the urban and peri-urban fringes.

There is little knowledge on potential governmental funding schemes for self-supply initiatives. From the donors’ side of view, there is still money available for the sector but accompanied with a great uncertainty what needs to be funded.

Conclusions from the TAF assessment

There is a demand by the individual households to improve their WASH status and a willingness to pay for the improvements. Although the low-cost technology (e.g. EMAS) is available and affordable to the target group in the peri-urban areas, there is little knowledge so far on the willingness and ability to pay for self-supply technology for rural and poorer households. In particular in rural areas, affordability of WASH products can be critical and households are not always able or willing to

raise the upfront capital for domestic water supply only. Promoting self-supply as well as an investment for business returns such as car wash facilities or small scale irrigation systems might leverage self-supply in rural areas of Sierra Leone.

Understandably there is no legal framework existing regulating O&M yet. It is questionable whether there will be one at all, since self-supply is giving the responsibility for O&M to the households. However the introduction of standards and a quality control mechanisms and the build-up of a functioning network of service providers who can be contacted in case the HH are not able to repair their devices or there is need for consultation for operation issues, need to be fostered. The trained technicians in the business units are the ones taking responsibility for that.

Concerning the value for money aspect, all the interviewed owners were satisfied with the technology they implemented and plan for further upgrading their systems.

The supplies for the low-cost technology are all available in the urban markets. Moving towards the rural areas a functioning supply chain may become a challenge since hardly any retailer stockpiles the components.

3.3 Barriers to scaling up decentralised technologies in water and sanitation provision

Scaling up the concept of a decentralised WASH service provision requires the overcoming of barriers of the different key perspectives.

Users/ individual householdsUp-front capital investment required

Scaling up the self-supply concept includes addressing the marginalised rural households just as the peri-urban and urban society willing to increase their service levels. In the rural setting households are first and foremost concerned with raising the upfront capital. They lack information on financing instruments such as micro-finance, Village Savings and Loans and other traditional saving schemes to raise the capital expenditure. Moreover additional options to use water for productive and income generating purposes are not perceived by this households.

Lack of awareness on self-supply options and their benefits

Sierra Leone is endowed with abundant water resources and people are used to their habits in going to the stream or the closest well to satisfy their water needs. The majority is not aware of the benefits a water supply nearby their homes would have. Once people are aware that having a well nearby would save time for water fetching drastically and an improved well would deliver better quality water, the decision to invest in their own supply is likely to be easier.

Dependency syndrome

The majority of the (rural) population still thinks that it is the governments mandate to provide a water supply for free and that if the government is not investing, an international NGO

will do. This is a big dilemma because it occurred that in one community self-supply efforts were promoted and at the same time a community close by received a funded community well.

Service providers

Differing quality levels and missing quality monitoring

It is the characteristic of low cost technologies -such as EMAS- that they are free of copy rights and designed for self-construction and adaptation. This results in a bandwidth of quality of the self-made components. Those of bad quality are counterproductive and leave behind a bad reputation on the technology. One of the most obvious reasons is the lack of professionally trained technicians.

Unsustainable supply chains

The technicians operating in rural environments struggle with the purchase of building material. They have to travel to the next urban market to buy their supplies which is a time consuming and expensive undertaking. Reportedly pipes had to be cut into halves because pipes of 6 meter lengths were impossible to transport. The business units in these remote places think of stockpiling the material but this would incur additional investment. Cooperating with already established, well running retail businesses is a viable strategy.

Lack of business skills and missing market strategies

The technical skills are more advanced than the business skills. There is a need for further training in business administration and marketing. The perception is that a good technician must be necessarily successful in his/her operation.

National and local government, Investors, Facilitators

Lack of knowledge on the potential self-supply can have to increase water and sanitation coverage numbers

A huge motivation for the Government of Sierra Leone and international donors to invest in WASH infrastructure is the increase in coverage towards meeting the MDGs. So far there is no knowledge on the potential, self-supply would have to contribute positively to coverage numbers. A water point assessment, mapping all public improved water points in Sierra Leone was conducted in 2012. A second assessment mapping all unimproved water points would be necessary to assess the potential of self-supply in increasing coverage and service levels in the country.

Lack of knowledge on appropriate self-supply technologies

The decision makers need to be well informed on the latest trends of appropriate low-cost technology to go for a strategy. The NGO sector dealing with self-supply initiatives should capitalise on the success stories and should disseminate best practise examples.

Monitoring and quality control of installations

The projects showed that monitoring of the implemented WASH supplies became a challenge for both the project management and the local government. For scaling up the concept

and technology nationwide the question arises who and how should monitoring and quality control of the private businesses be done?

3.4 Recommendations for accelerating self-supply in Sierra Leone

The Ministry of Water Resources issued the "Rural Water Supply and Small Towns Strategy", suggesting self-supply as a complementary decentralised approach for households and small communities smaller than 150 people. This strategy only identifying self-supply as an option for small communities does not acknowledge its potential in the urban and peri-urban setting, more on a household basis where people wish to have higher levels of service from the communal supplies.

Furthermore the government needs to undertake further studies on the potential that self-supply would have to increase coverage for achieving the MDGs, in order to know the financial implications on the national budget for water and sanitation provision.

Additionally research and development activities on locally adapted low-cost solutions supporting self-supply efforts need to be undertaken to inform decision makers on the latest trends of appropriate low-cost technology. This should be complemented by expert exchanges supporting mutual learning from best practise examples in other countries.

In accordance with the Rural Water Supply and Small Towns Strategy document 2013, continuous monitoring and evaluation is crucial for improving rural WASH supply and hence self-supply acceleration. Local councils need to be capacitated to develop appropriate mechanisms for monitoring and evaluation. Key aspects of such monitoring should consider complementarities with conventional water supply systems, access to water, water quality and availability and protection of ground-water resources and construction quality.

It is the characteristic of low cost technologies -with EMAS being no exception- that they are free of copy rights and designed for self-construction and adaptation. This results in a bandwidth of quality of the self-made components. Bad quality is counterproductive and leaves behind a bad reputation on the technology and hence jeopardises self-supply acceleration. Technical and Vocational Training Colleges (TVTC) will play an important role in self-supply acceleration by providing the necessary trainings on self-supply technologies. In this regard, efforts should be made by the Ministry to incorporate self-supply technologies in the curriculum of TVTC.

Close coordination of all stakeholders in planning, designing and implementing self-supply is mandatory to avoid duplication of efforts impeding each other as explained in chapter 3.3 on the barrier of the dependency from donor organisations. Moreover comprehensive sector coordination leads to efficient and effective use of resources and utilises complementarities between ministerial efforts and those of local and international NGOs in the WASH sector.

Self-supply acceleration supported by local or international NGOs should always incorporate a component on financing models to provide sustainable and profitable micro-finance services. Close collaboration with for example the “Village Savings and Loans Association” (a group -formed by the poor in communities with no access to formal financial services) should be gone into.

3.5 Lessons learnt

1. Self-supply, promoted as a complementary service delivery model, can help supporting the government in filling the gap in rural water and sanitation supply (e.g. communities <150 ppl.), as well as providing the means for urban and peri-urban households willing to increase their service levels.
2. The potential of self-supply to increase (rural) water coverage and increase service levels in urban and peri-urban settings is still unclear. This is crucial information for any organisation willing to invest in accelerating self-supply.
3. Self-Supply is not limited to any particular technology, hence other technology options also need to be tested. In the Welthungerhilfe project mainly the EMAS technology was piloted. This technology provides specious arguments for its application, but as any other simple and easy to replicate technology it is prone to attract artisans looking for a quick solution and neglecting the necessary quality requirements.
4. Introducing a new concept needs time. Constant review and learning from the pilot phase are necessary before a strategy can be developed.
5. The pilot phase should be followed by a consolidation phase allowing for monitoring the outcomes of the pilot phase to serve as a sound basis for the strategy development.
6. To create a perceptible impact on the WASH sector in terms of self-supply the efforts of NGOs have to be bundled and clear coordination structures have to be established in future projects and programmes.
7. Low-cost technologies and private supplies are not necessarily associated with lower levels of water quality. All private HH interviewed drink the water from their improved wells right away, without reporting any incidents of sickness or discomfort. However HHWTS concepts have to be strengthened in the self-supply concept.
8. Sanitation self- supply works best where there have been successful CLTS undertakings.
9. Community mobilization and self-supply promotion are crucial to the success of self-supply and must cut across the whole duration of the project.
10. Self-supply strengthens ownership and hence the lifespan of WASH supplies

11. Though there is a willingness of the people to invest in their water supplies, they are still looking for sharing responsibilities between the NGOs and them. E.g. in the case of conventional water supply schemes where NGOs provide all industrial materials while communities provide local materials, unskilled labour, etc. This calls for more sensitization on the concept of self-supply.
12. Addressing the needs and capacities of the poorest households with self-supply initiatives is the greatest barrier to overcome in order to ensure they are not neglected.

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