Government of Sierra Leone
Ministry of Water Resources
and
Ministry of Health and Sanitation

Water, Sanitation and Hygiene Sector Performance Report
2017

July 2018
EXECUTIVE SUMMARY

This Annual Sector Performance Report (ASPR) describes the activities and progress in Sierra Leone in the provision of Water, Sanitation and Hygiene (WASH) services and Water Resources Management (WRM) during 2017. It is made up of four parts:

1. An introduction to the report presenting the socio-economic situation in Sierra Leone and the aim of ASPR and the preparation process
2. A summary of WASH sector progress including the WASH emergency during 2017
3. A summary of the status and progress in the WRM sector
4. A concluding chapter suggesting the way forward.

This ASPR is written in preparation for the Annual Sector Conference to be held in Mid-2018. The report has been written for Central and Local Governmental staff associated with WASH and non-governmental international and national implementing agencies as well as WASH Development Partners.

The 2017 Annual WASH Sector Review Conference

The ‘Third Annual WASH Sector Review Conference’ with the Theme: ‘ACHIEVING THE SDG’s ON WATER AND SANITATION’ was held from the 22nd and the 23rd of November 2017 at Bintumani Hotel in Freetown. The Conference was a successful experience sharing and coordination event for the WASH MDAs, Implementation Partners and Development Partners. The recommendations from the conference include:

1. **WASH Policy/ Planning**: Hold the next annual sector review by June/ July 2018, to feed recommendations into GoSL planning cycle
2. **M&E Framework**: Operationalize the country sector management information system, ensuring efficient and timely progress reporting by all implementing partners
3. **Rural WASH**: Formally adopt the National Rural Water Supply and Sanitation Programme
4. **Urban WASH**: Finalize the Urban WASH Roadmap, incorporating Freetown Master Plan Study and governance of decentralized urban water points, and a comprehensive approach for solid and liquid waste management in major urban centres
5. **Rural Sanitation**: Integrate ODF status follow up responsibilities into Community Health Workers’
6. **WASH in schools/ health centres**: Revise/ update 2015 Standards and technical guidelines for WASH in public institutions to enhance achievement of desired health outcomes
7. **Water Resources**: Disseminate the enacted Water Resources Act and collect and consolidate all previously developed materials that relate to the establishment of the agency
8. **Emergency WASH**: Produce guidelines for disaster preparedness and emergency WASH response

The discussions also highlighted that the challenges in the WASH sector of integrating all components of WASH, clarifying roles and responsibilities for service delivery, decentralising service delivery and monitoring progress remains.
The WASH Policy and Institutional Framework

For Sierra Leone achieve the national WASH targets and sustainable management of water resources, the national sector leadership will need to revitalise the earlier commitments to the institutional reforms – the sector does not need revolution; rather it needs to consistently implement the reform process that started with the formulation of the National Water and Sanitation Policy (NWSP).

The reforms of the legal framework for the sector are major achievements. These include the introduction of regulation for service provision through the establishment of the Electricity and Water Regulatory Commission (EWRC); the introduction of regulation of water resources through the National Water Resources Management Agency (NWRMA); and the amendments to the mandates of the major water utilities Guma Valley Water Company (GVWC) and Sierra Leone Water Company (SALWACO). Naturally the challenges will now be to fully operationalise the regulatory frameworks and establish effective service delivery by the utilities.

2017 also saw the completion of the NRWSSP - a comprehensive programme defining the actions needed for Sierra Leone to reach the SDGs in 2030 and the NRWSSP now needs to be implemented. The year also saw the start of developing the Urban Road Map covering comprehensive plans for all components of WASH in urban areas.

Chapter 2.1 contains a detailed description of the enabling environment for WASH service delivery. Some of the conclusions are:

The overall policy, legal and programmatic framework:
- The WASH sector has completed the overall legal framework as prescribed by the NWSP - and is now facing the challenges of operationalising the new legal instruments for service regulation and service provision as well as management of water resources.
- A comprehensive implementation programme (the NRWSSP) has been developed for the rural WASH sub-sector to achieve the SDGs and plans for the urban WASH subsector are being developed.
- The NRWSSP prescribes comprehensive capacity development for District and National Level Sector Coordination for rural WASH - and this is yet to be operationalised. While these coordination procedures will be applicable also for the small town and urban areas outside Freetown, attention is needed for effective coordination in the ‘Urban WASH’ subsector.
- The MWR would need adequate resources and capacity to implement a truly Government-led sector coordination and planning framework

Institutional mandates and capacity:
- The WASH sector is progressing substantially in the implementation of the institutional reforms prescribed by the NWSP; however, the sector is facing serious capacity challenges at national and district level. The capacity development process is ongoing across the WASH institutions and comprehensive support programmes are underway for water service regulation and for water services in Freetown.
The NRWSSP presents a comprehensive capacity building programme for rural WASH actors at local, district and national levels. A similar comprehensive support programme would be needed for SALWACO to fulfil its mandate of managing operations in the specified areas on a full cost recovery basis and providing technical assistance to District Councils.

The Environmental Health and Sanitation Directorate (EHSD) in the Ministry of Health and Sanitation (MoHS) will need capacity building to address the serious challenges related to access to sanitation and hygiene in urban areas as well as for rural sanitation and hygiene as described in the NRWSSP.

**Community management and sustainability of service provision**
- While the community management policy and the need for user payment for services is generally recognised as appropriate to ensure sustainable services, there are large challenges in the implementation of this and a consistent approach across all implementers and considerable capacity building will be needed.
- The focus on implementation of new water points will need to be complemented with a comprehensive approach on capacity building to ensure that communities gain permanent access to WASH Services.

**Private Sector in WASH Service Provision**
- The private sector will play a vital role in provision of cost effective and good quality WASH services and considerable capacity building is needed to change from the present situation with limited competition and low-quality services. For this change to happen, the market must develop - so increased investments with consistent use of the private sector is needed.
- This can be further facilitate0d by standardisation on equipment and parts; standard designs and specifications; good quality, accountable and transparent supervision and commissioning procedures; a legal and regulatory framework for national certification; as well as promotion of associations of WASH private sector actors to facilitate consultative mechanisms - only by consulting in a structured manner with the private sector actors can the public sector know how to facilitate good and competitive service provision!

**WASH Funding**
It is presently difficult to get an accurate overview over the WASH funding since:
- Government funding for WASH is an integrated part of the funding to various MDAs and not easily identified e.g. separate funding for rural sanitation, rural water, school WASH etc.
- Information on Development Partner funding is likewise mostly not separated in the same sub-sectors and often projects cover integrated WASH activities and therefore not easy to identify e.g. funding for rural water vs rural sanitation.
- Non-Governmental Organisation (NGO) partners with own funding or funding through multinational organisations are often reluctant to reveal budgets and actual expenditures.
- The planning cycle of Development Partners and NGOs can be different from the Government financial years and therefore the funding and expenditure figures are not comparable for the same timeframes.
Despite all these difficulties, this 20017 SPR attempts to provide an overview of the WASH funding. The estimated overall funding is about 70 mUSD in 2017 and the majority, about 90% is from Development Partners.

In conclusion, the present planning is dis-jointed with many implementers doing their own planning without adequate coordination at national and district levels - and without reporting on physical and financial progress.

Achieving the SDGs will need coordination and comprehensive effort by all partners including openness and transparency in the planning and reporting on financial aspects. It will need increased funding but most of all it will require improved effectiveness in the service delivery.

**The Status and Progress on WASH Service Delivery**

The Statistics Sierra Leone (SSL) Multi-Indicator Cluster Survey (MICS) 2017 was carried out in November 2017 and provides comprehensive data on the access to WASH services across Sierra Leone. The results by the Joint Monitoring Programme (JMP) for monitoring progress towards the Sustainable Development Goals (SDGs) will be presenting access according to the service ladder as described in Annex C2: SDG WASH Definitions and this is adapted for the statistics presented in this 2017 ASPR. The data is based on the JMP (dated July 2017) based on the historical SSL surveys including the 2015 Population Census data on access to WASH services. The JMP data has been recalculated using the 2015 population statistics and updated with the results from the MICS 2017.

**Rural Water**

For rural areas (rural settlements and rural communities <2000 people) the MISC 2017 data shows access to safely managed water services to be 1% and the access to basic services (using an improved water source within a max collection time of 30 minutes) is 47%.

The targets for the MDGs were 69% and the NWSP target was 74% for 2015 and these have not been reached by far. Functionality and seasonality are serious and growing problems for rural water services. Comparison between the 2012 and the 2016 water point mapping shows that especially water sources based on shallow groundwater are increasingly not providing water year-round.

**The status and progress on rural water can be summarised as:**

- The access to water in rural areas has increased from approximately 25% in year 2000 to 47% in 2017 and to reach the SDG targets of 100% in year 2030 this annual rate of increase would need to double.
- Especially, the functionality of water facilities needs attention and additional focus is needed on capacity building for community management and private sector maintenance services.

*Source: analysis of MICS2017 and JMP data published July 2017*
The 2016 water point mapping seems to indicate that seasonality of water facilities based on shallow groundwater is seriously deteriorating with only 30% of the springs, wells and public standpipes providing water year round.

Improvements are needed by sector management in monitoring and reporting from the many implementers and districts for the sector to be able to accurately monitor progress including unit costs and implementation efficiencies.

**Water Services in Small Towns**

Conclusions on status and progress on small town water services can be summarised as:

- The small towns seem to remain the “forgotten middle” – and there are challenges with the management and the sustainability of service provision. The NRWSSP deals with many of the same challenges for the rural towns with population up to 5,000 and there seems to be need for development of a comprehensive programme and investment plan for small towns with population from 5,000 to 20,000 in line with the strategies provided in the NRWSSP and in continuation of the 2014 Small Towns Management Study.

- Data on the situation in the small towns can be improved when the SSL locality frame is available to allow for analysis of the 2015 Population Census data as well as the SDG baseline and the water point mapping data.

**Urban Water Services**

The MICS 2017 data for access to water services in urban areas show 3% access to safely managed water and 69% access to basic water services - water from an improved source within a total collection time of 30 minutes. The statistics are available for urban areas defined as settlements with population of more than 2,000 people and therefore covers the NWSP demarcations of rural towns (2,000 to 5,000 persons), small towns (5,000 to 20,000 persons) as well as the urban areas with population > 20,000.

The targets for the MDGs were 69% and the NWSP target was 74% for 2015 and these are close to having been reached.

**The status and progress on urban water services can be summarised as:**

- The access to water services in urban areas is relatively high compared to rural and small towns, however there are large differences in access between wealthy and poor households and different geographical areas.

- There has been a steady but slow improvement from about 65% in year 2000 to the about 72% in 2017. To reach the SDGs, the annual rate of increase in access will need to increase four-fold – 7% over the past 17 years as compared to the need for 28% increase over the next 13 years - so huge investments are needed in rehabilitation and expansion of water services in Freetown and other urban areas.

*Source: analysis of MICS2017 and JMP data published July 2017*
Improvements in water services in Freetown are expected in the coming years with substantial investments and support programmes to GVWC and EWRC – while improvements in water services in the other 9 urban areas are also urgently needed.

The Government have taken important strategic planning actions with the ongoing development of the Urban Road Map and the Master Plan for Freetown water supply.

**Sanitation and Hygiene in Rural Communities**

The NWSP target for adequate sanitation in both rural and urban areas is 66%. Evidently there is much work to be done in the access to sanitation in both rural and urban especially in considerations of the target for universal access by 2030 prescribed by the SDGs. Morbidity and mortality from WASH-related preventable diseases remain high.

The MISC 2017 statistics provide information on the access to sanitation in rural areas. Only 8% of the population in rural areas have access to basic sanitation - defined as using improved sanitation facilities that are not shared. 20% have access to improved facilities that are shared and 45% and 28% use un-improved facilities and open defecation respectively.

Data on hygiene in rural Sierra Leone is also available from the MISC 2017 and indicate that 15% of households have handwashing facilities with water and soap and an additional 20% have handwashing facilities. The 2016 SDG baseline survey showed a more positive picture with 16.4% having handwashing facilities with both soap and water and 35% of households having handwashing facilities. The extensive EVD campaigns could have affected these results positively and the challenge will now be to sustain the gains as indicated by the lower figures for 2017 as compared to 2016.

Conclusions on status and progress on rural sanitation can be summarised as:

- The access to sanitation in rural areas is very low despite some progress in the implementation of the Community Led Total Sanitation (CLTS) process and subsequent improvements (CLTS+) promoting Sanitation Marketing and Community Health Clubs
- The 2016 Water Point Mapping and SDG Baseline study included data collection on the Open Defaecation Free (ODF) status in communities. 23% of the respondents confirmed that their community has been declared ODF and of these there appear to be a slippage of 0.28%.
- Substantial increase in sanitation activities will be needed for Sierra Leone to move towards achieving the SDG targets of access to sanitation for all.

*Source: analysis of MICS2017 and JMP data published July 2017*
The NRWSSP supports the implementation of the CLTS+ process and its implementation will include substantial capacity building support to the MoHS at national and district level to implement the CLTS+ and continued environmental sanitation activities.

**Sanitation and Hygiene in Urban Communities**

Urban Sanitation remains a huge challenge in the sector especially in the areas of sewerage, on-site sanitation, faecal sludge and solid waste management. The NWSP target for adequate sanitation is 66% and the present access is far below the 2015 target.

The MICS 2017 statistics show that 27% of the population in urban areas have access to basic sanitation - defined as using improved sanitation facilities that are not shared. 47% have access to improved facilities that are shared and 22% and 4% use un-improved facilities and open defecation respectively.

The indicator for basic hygiene measures the presence of hand washing facility with soap and water in the household at the time of survey. Data on hygiene in urban areas in Sierra Leone is also available from the MISC 2017 and this indicate that 50% of households in urban areas have access to handwashing facilities out of which 33% have water and soap. This is an improvement on the 2016 SDG baseline survey that indicated that 35% of households had handwashing facilities out of which 16.4% had the handwashing facilities with both soap and water.

Conclusions on status and progress on urban sanitation can be summarised as:

- Access to basic household sanitation in urban areas is low at 27% and it has barely increased over the last 15 years. A substantial increase in sanitation activities will be needed for Sierra Leone to move towards achieving the SDG targets of access to sanitation for all.
- There is clearly a need for WASH stakeholders to have a comprehensive strategy for urban WASH including hygiene, sewerage, on-site sanitation, faecal sludge and solid waste management to address the serious challenges. This include developing appropriate standards and designs as well as pro-poor strategy, communication strategy, payment for services and monitoring systems etc.
Access to WASH Services Combined

For the first time in Sierra Leone, the MICS 2017 has data for households with access to ‘Basic WASH Services’ – defined as households having access to all three WASH components: basic water, basic sanitation as well as handwashing facilities with water and soap.

The health benefits from access to all three components of WASH at the same time is obvious and it is striking statistics that only 5% of the population in Sierra Leone have access to all three WASH services – this emphasises the need for the integrated approach addressing all components of access to water, adequate sanitation facilities and hygiene education. The access is higher in Urban areas with 9% and a very low 2% in rural areas.

The MICS 2017 also provide data on access to WASH services according to wealth quintiles. Not surprisingly the access is highest for the wealthiest, however it is surprising that only 16% of the richest households have access to the full range of basic WASH services.

These statistics are an indication to Government that the upcoming massive investments in water services in Urban areas and in particular in Freetown, will need to be accompanied with a comprehensive investment in sanitation and hygiene to provide health benefits for the population.

WASH in Schools

Conclusions on status and progress on school WASH can be summarised as:

- The 2016 SDG Baseline survey provides information on the status of WASH in Schools and the access to basic services is a challenge: just over 30% of the schools have access to basic water; about 40% of the schools have access to basic sanitation; 17% have handwashing facilities and less than 10% have access to menstrual hygiene management.
- Substantial work has been done by the MEST and WASH partners in the development of standards and guidelines for WASH in schools.
- The NRWSSP include a comprehensive programme for WASH in schools in the rural communities (with population up to 5,000 people) and a programme of a similar magnitude would be needed to improve access to WASH in schools in urban areas.
- 2017 main progress to improve access to Safe WASH facilities is achieved through the Saving Life Program coordinated by UNICEF and funded by DFID.

WASH in Health Care Facilities

Conclusions on status and progress on WASH in Health Care Facilities can be summarised as:

- Progress in 2017 set significant milestones in the WASH in Health Care Facilities in particular the UNICEF interventions in 11 districts excluding Kono and Kailahun.
The sector should therefore intensify the delivery of WASH in Health Care Facilities by ensuring that all Clinics are provided with adequate WASH facilities that meet the sector standards.

**WASH Management**

**Monitoring and Evaluation**

Conclusions on status and progress on WASH Monitoring and Evaluation (M&E) can be summarised as:

- The WASH MDAs and implementation partners have defined the national WASH M&E Framework and have carried out the 2016 Water Point Mapping update and the SDG WASH Baseline survey. While these are major achievements, the operationalisation of the data collection and data management tools still needs to be achieved across all the WASH implementation partners.
- The difficulties in collecting actual data on project implementation by the various MDAs, Districts and NGO implementing partners for the SPR is an indication that there is still not a functioning WASH M&E system in Sierra Leone.
- The development of the detailed data management systems for water resources management and for regulated water services will need sustained efforts and collaboration by all WASH MDAs and partners to ensure that the data becomes an integrated part of the M&E Framework.

**Governance and Accountability**

In conclusion:

- WASH Sector Management has the potential to improve significantly if all sector implementers (MDAs, Districts and NGOs) use the data collection and reporting tools that are envisaged in the M&E Framework and all implementers are willing to share information.
- The transparency provided by using the M&E Framework will need to be supplemented by continued efforts at all levels to improve accountability and good governance. Only by ensuring transparent and accountable procurement processes and high-quality contract management and implementation supervision, can the private sector develop to provide high quality and cost-effective services.
- The obligations of WASH Implementation Partners to contribute within a Government/local Government led planning and reporting framework is crucial for reaching the SDG targets as there is substantial implementation capacity in the WASH NGOs that the sector needs to benefit from.
- The implementation arrangements should be documented in Service Level Agreements (SLAs) between the implementing partners, the District Councils and the respective MDAs - and the implementation of these SLAs must be tracked using Android base software and a national WASH MIS Database.

**WASH in Emergencies**

The WASH in emergency section attempts to give a holistic picture of the WASH activities related to emergencies such as Ebola, Floods, Drought and Cholera, etc. depending on the situation during the reporting year. The scale of the Ebola epidemic has brought the sharp focus of the importance of WASH in emergencies and the need for contingency planning and preparedness for an emergency.
at all times. The focus of the 2017 report is to examine structures and plans that are in place to address emergencies. In summary:

- Sierra Leone is prone to emergencies with attendant consequences, as the country has little ability to predict disasters of subsequent dry and rainy seasons. There is therefore the desired need for the WASH sector to annually plan for emergencies such as Floods, Mud-slides, Cholera, Droughts, etc.
- The EVD and the mudslide emergencies have been a big wake-up calls for the sector. It informed the need to improve coordination and the need to improve and sustain WASH services in institutions and communities.
- The Mudslide and flooding that follows also tested the effectiveness of the WASH in emergencies. In spite of difficulties which call to question the lack of national fund for emergencies, with support from donors both within and without averted, attendant negative impact to the national tragedy.

**The Status and Progress on Water Resources Management**

Chapter 3 provides information on the enabling environment, the present status and progress on Water Resources Management in Sierra Leone. Reference is made to the indicators for achieving the targets under SDG6 and the KSlS defined for WASH in Sierra Leone related to Water Resources Management. Although it is not possible at this stage to provide quantitative values for most of the indicators, these are included to indicate the type of data that will be needed in future SPRs.

The National Water Resources Management Agency (NWRMA) is yet to be established following the enactment of the Water Resources Management Act 2017, and institutional capacity for water resources management is therefore presently anchored in the Water Directorate in the MWR. Substantial activities on improving the water resources and water quality monitoring system have been carried out in 2017 including:

- The MWR Water Security Project putting in place the foundations for water security in Sierra Leone
- Planning for the Water Quality Study and establishing a National Water Quality Steering Committee
- Development of a National Water Safety Plan
- Capacity building activities related to water quality and international collaboration covering areas such as ‘Directive for The Management of Shared Water Resources in West Africa’, ‘Study Tour to Ghana’s Water Resources Commission’, ‘Enhancing Skills of Water Professionals in the Assessment, Monitoring and Management of Water Quality in Agenda 2030 SDGs’, ‘Validation of IWRM Indicators of ECOWAS regional water observatory’, and ‘Water Monitoring programme and network design for surface water bodies’
- Emergency WASH response to the mudslide is water quality assessment, monitoring and treatment
- Certification of Newly Constructed or Rehabilitated Waterpoints
The Climate Change Water Project (UNDP/GEF) aiming at Building Adaptive Capacity to Catalyse Active Public and Private Sector Participation to Manage Exposure and Sensitivity of Water Supply Services to Climate Change.

Joint MOisision of the World Meteorological Organisation (WMO), Global Runoff Data Centre (GRDC), UK Met Office, and AfDB to Assess the Capacity and Capability of the Meteorological and Hydrological Services of Sierra Leone

Completion of the Hydrogeological Mapping project implemented under the RWSSP by SALWACO with support from the AfDB

The implementation of the construction of 7 Hydrological monitoring Stations, 25 groundwater monitoring station and equipment for the re-establishment of the hydrological monitoring network in the districts of Kono, Pujehun, Bonthe, Kambia and Koinadugu have commenced under the RWSSP with support from AfDB.

The Climate Change Conference of Parties Twenty Third Session in November 2017 in Bonn bringing together representatives of the world’s governments, international organizations and civil society to advance the Paris agreement of the Convention and to scale up climate action

Finalization of data collection and in-dept transboundary diagnosis on mining and the production of energy on the Moa/ Makona and Mano River Basins and the impact on water, land and the population

Feasibility study for the creation of a trans-boundary river basins authority for the Manu River Union member states – the Mano River Union Transboundary Water Basin Authority

Mano River Union Ecosystem Conservation and International Water Resources Management (IWRM) Project

Conclusion on water resources management:
- Operationalising the monitoring of water resources is a challenge in Sierra Leone and the new NRWMA0 will need substantial support to develop the monitoring systems and the regulatory framework for water resources abstraction and discharges
- The MWR has carried out a number of projects and activities to improve the monitoring of water resources and promote IWRM generally and in particular Transboundary water resources management in the Mano river basin

Conclusions and Priorities
Based on the long list of conclusions and recommendations above, the top priorities for the WASH Sector seems to be:

A. Implement the NRWSSP - including all the capacity building to private and public sector and in particular the full operationalisation of the WASH M&E Framework.

B. Develop a comprehensive programme and investment plan for the Small Towns in line with the strategies provided in the NRWSSP for Rural Towns and in continuation of the 2014 Small Towns Management Study.
C. Support the development of an Urban WASH Roadmap leading to: i) development of a strategy and detailed plans for addressing sanitation in all urban areas including on-site sanitation, sewerage, sludge management and solid waste; ii) development of a water services investment plan for the new GVWC Service Area covering Freetown and majority of Western Rural; and iii) development of a strategy and investment plan for SALWACO urban service areas.

D. Support the institutional development of the NWRMA and capacity building for monitoring of water resources management including regulation of water discharges and abstractions.

**Recommendations on the preparation of future SPRs**

The ASPR is one of the main outputs from the WASH M&E Framework - and therefore the vision should be that the M&E Framework will provide the data needed to prepare the ASPR - and therefore the institution overseeing the development and maintenance of the WASH M&E Framework (‘Water Information and Management Unit’ under the MWR) should be capacitated to produce the ASPR as a regular annual deliverable based on the data from the WASH M&E Framework.

This is not the case presently. The present report has largely been prepared by Consultants engaged by the MWR with some inputs from the WASH MDAs and guided by a Steering Committee and consultations with key sector stakeholders.

**Data from Statistics Sierra Leone**

The statistics for the 2017 ASPR are based on the data available from the 2017 MICS and well as referring to the WPM and SDG Baseline Survey carried out by the WASH Partners and SSL in 2016. There is no 2017 update on the WPM and SDG Baseline data since the WASH implementation partners, the MDAs, the District Councils and the many NGO Implementing Partners are not utilising the data collection and data management tools established in 2016 for the WPM and SDG Baseline.

In the years where the SSL will not be carrying out surveys with WASH related questionnaires such as the MICS and Demographic and Health Survey (DHS), it is recommended that the WASH stakeholders avail funding for SSL to carry out follow-up surveys on the 2016 SDG Baseline.

The provision of data in the MICS 2107 on combined access to water, sanitation and handwashing is a major step forward and should be maintained. Substantive monitoring of the achievement of the WASH SDG targets also include that households have access to all components of WASH at home as well as in schools and clinics. SSL should be encouraged to develop the tools be able to monitor the combined access at home, school and clinics.

The analysis of population data and access to WASH according to the classification of rural, small towns and urban specified in the NWSP is not yet possible since the SSL has not yet finalised the localities frame that will enable analysis per community size. This reduces the ability of the WASH sector to develop good planning tools that respond to the classification in the NWSP.
Data from WASH Implementing Partner
The 2017 ASPR was prepared during the first half of 2018 and is based on data collected from WASH implementation partners, MDAs and Development Partners. A general data collection format was used and circulated to all partners, MDAs and Districts in the beginning of 2018. The data format is described in Annex B: WASH Implementation Data Collection Tool. Only few partners provided comprehensive data despite many attempts to encourage reporting.

In view of the multitude of partners operating in the WASH sector in Sierra Leone, the detailed data collection for the 2017 ASPR has not been successful. The difficulty in getting progress and financial data from the implementation partners is a clear indicator for the challenges in operationalising the WASH Sector M&E Framework. To provide a consistent overview over the annual achievements, the data (financial and physical progress) must be separated in the respective sub-sectors (rural water, small town water, urban water, rural sanitation, urban sanitation, school WASH, clinic WASH) and the physical progress must be measured according to the definitions of the KSIs (number of persons served with basic services, number of installations etc.)

It would be expected that the development of the regulatory frameworks for water services and water resources by EWRC and NWRMA, in the future will be providing data on the KSIs for water services and water resources management. It is recommended that the MWR ensures that the detailed development of these regulatory frameworks and the related monitoring tools are done in view of the KSIs earlier developed by the WASH Stakeholders or at that the KSI definitions are refined as a result of the detailed work in the developing these frameworks.

The WASH stakeholders working on solid waste management could work on improving the KSIs on solid and liquid waste, and faecal sludge management to fully describe the challenges and achievements and related data collection tools. This should enable the waste management aspects to be covered more comprehensively in the future ASPRs.

Recommendations for the development of the future ASPRs:
− Recognise the ASPR as a main output from the WASH M&E Framework. Prioritise the development of the M&E Framework and capacitate the MWR ‘Water Information and Management Unit’ to produce the ASPR as a regular annual deliverable.
− Until the M&E Framework and the data management tools are used universally, undertake an annual data collection based on the format that was attempted to be used for the 2017 - and use this consistently with all MDAs, Districts, Development Partners and implementing NGOs. Improve the data collection format based on feedback from the Partners.
− Encourage SSL to: i) continue using the comprehensive WASH questionnaires from the MICS 2017 in all future sample surveys including the 2018 DHS; ii) strive to undertake WASH surveys on an annual basis and time these towards the end of the year to provide consistent annual data on access to WASH Services; develop tools for measuring combined access to WASH – water, sanitation and hygiene at home, school and clinics; and iv) complete the localities frame to be able to analyse data according to the classification in rural, small towns and urban used in the NWSP.
- Finalise the list of KSIs and WASH SDG Indicators in line with the development of the regulatory frameworks for water services and water resources management. Use the KSIs consistently in the development of the M&E Framework and the reporting in the SPR - and in all future surveys and censuses carried out by SSL and any other WASH partners.

- Establish a working group by WASH stakeholders in solid and liquid waste and faecal sludge management to develop KSIs that fully describe the challenges and achievements on waste management and develop the related data collection and analysis tools.
FOREWORD

Key Statements by Ministry of Water Resources

Minister of Water Resources

The Ministry of Water Resources in collaboration with its Partner Ministry Department and Agencies, have successfully held the Third Annual Sector Review in November 2017. This is a demonstration of the commitment of the Ministry of Water Resources to consistently coordinate and engage the Sector in order to assess the progress that is being made, and to build consensus on the way forward.

Although progress has been made, we have still not been able to meet our WASH targets as stated both in the Agenda for Prosperity and the Millennium Development Goals. Updated data from the MICS 2017 indicates the access to basic water services is 58% (47% in rural areas and 72% in urban areas) and the targets for the MDGs were 69% and the NWSP target was 74% for 2015 so overall the targets for access to water have not been reached. The targets for sanitation were 66% and the MICS 2017 figures indicate access to basic sanitation far below the target of 16% (8% in rural areas and 27% in urban areas).

What this means from the figures is that there is a greater need for more attention to be paid to providing water supply in rural areas and to ensure that projects incorporate not only the development of the infrastructure but a balanced mix of governance, Institutional Strengthening, capacity building and long-term sustainability strategies. There is also need for greater attention to the full range of sanitation and hygiene aspects in both rural and urban areas.

Although there is still room for improvement, The Ministry of Water Resources have made considerable strides in coordinating our Donor Partners, Non-Governmental Organizations and other stakeholders involved in WASH in order to improve on the harmonization of Partners plans with Government’s strategic objectives for the Sector. This was clearly seen during the Ebola Outbreak and the implementation of the recovery plans wherein the Ministry received tremendous support from its Donor Partners.

A major achievement is the passing into law of the legislations for the water service providers and water resources management in August 2017. This is an important step towards implementing the recommendations of the National Water and Sanitation Policy.

The Ministry of Water Resources continues to emphasise the need for improved WASH Sector Monitoring and Evaluation and implement systems that will allow for future editions of this report to deliver more comprehensive information on functionality, gender and vulnerability, hygiene and sanitation as well as NGO participation in the delivery of water and sanitation facilities to the people of Sierra Leone. Though this edition provided some information on these parameters, the Ministry will till work harder to obtain more in subsequent editions. I extend my sincere appreciation to the Water Directorate and our Development Partners, NGOs, the Media and partners from the Private
Sector and individuals who have made this issue a success. I would like to thank all our partners – African Development Bank, Department for International Development (DFID), the Millennium Challenge Corporation (MCC), Embassy of China, Dutch Government, Indian Government, Japan International Co-operation Agency, UNICEF, Water and Sanitation Program, World Bank, and our cherished national and international NGOs – for their contributions to the sector.

I thank my colleague Ministers of Health and Sanitation as well as the Minister of Local Government and Rural development, for their cooperation and collaboration as we pursue our shared vision of improving health outcomes and reducing poverty.
Key Statements by Minister of Health and Sanitation

The 2017 Annual Sector Performance Report (ASPR) presents a broad outlook of the state of WASH in Sierra Leone and how this sector has performed during 2017. The strength of collaboration with the Ministry of Water Resources in the implementation of the national water and sanitation policy underpins the strides the country continues to make on the recovery programmes following the Ebola epidemic. The report reflects progress from WASH institutional reforms, service delivery, reflect on the challenges the sector faces the report provides a comprehensive and honest assessment of how the WASH sector has performed in the reporting years.

Some steady progress is being made, as population using improved source of drinking-water (proportion of whole population using safely managed, basic or limited water services) has improved from 40% in year 2000 to 68% in 2017 (MICS2017); population using improved sanitation facilities (proportion of whole population using improved [non-shared] sanitation facilities) has also improved from 10% in year 2000 to 16% in 2017 (MICS2017); the country has still not been able to meet the WASH targets as stated both in the Agenda for Prosperity and the Millennium Development Goals.

In the area of environmental health and sanitation, evidence abound to show that many of the major causes of death and disability caused by diarrhoea, respiratory tract infections, and the high prevalence of stunting and wasting in children under five are linked with the challenges with environmental health and sanitation (EHS). EHS interventions are highly cost-effective and have enormous health and socio-economic benefits across the life-course. They are also fundamental from a human rights perspective – particularly with regard to access to clean water and sanitation. To tackle these issues, the MoHS has set up the Environmental Health and Sanitation Directorate (EHSD) with a mandate to overcome major challenges in these areas.

Following the Annual Sector Conference in November 2017 and the issue of this ASPR for 2017 there is every need for the sector to arrange a 2018 Annual Sector Conference to interact with stakeholders and provide an account of the services and measure the progress it is making towards its targets. The leaderships of the two Ministries (MoHS and MWR) remain committed to improving on the WASH outcomes in Sierra Leone by fostering a strong, collaboration among all WASH sector stakeholders.
Key Statements by Minister of Local Government and Rural Development

The efforts of many actors are required to ensure that the people of Sierra Leone have access to safe and sufficient water supply, sanitation and environmental health services. The National Water and Sanitation policy defines government’s responsibility for providing legal, policy and regulatory environment for the provision of water, Local Councils supervised by my Ministry have also been mandated by this same policy to be service delivery agents in their respective localities and communities. This places Local government as an extremely important agent in playing its own role in WASH service delivery.

The Local Government Act 2004 devolves responsibility for rural and peri-urban water supply and environmental health functions (sanitation and hygiene) to local councils. These local authorities have been playing the roles of working with their communities in identifying community with urgent needs for water. Local councils are expected to prepare communities through creating awareness and awareness and also support progress monitoring so that service provided are maintained and last. In a similar vein, development actors are required to work within the defined government service delivery framework as well as local councils’ development plans and must make an open communication with councils and be accountable for the services they provide for the people.

My message is to emphasize the need for strong collaboration among all stakeholders. We must see ourselves as partners and should be ready and continuously engage at all times, so we are better positioned to respond to the delivery of water and sanitation initiatives in our localities. I commit to this collaboration and will give the necessary support for prudent decision around planning and service delivery at the local level.

I comment the Ministry of Water Resources and the WASH Partners for the development of the ‘National Rural Water Supply and Sanitation Programme’ and re-commit my Ministry to the effective implementation of this programme as a key part of achieving the objectives of the National Water and Sanitation Policy, Environmental Health Policy and Decentralised WASH Delivery, capacitating the central and local governments to securing improved Water, Sanitation and Hygiene for our people.
ACKNOWLEDGEMENTS

This WASH Annual Sector Performance Report (ASPR) is prepared by the Ministry of Water Resources with contributions from many sector stakeholders including: GVWC, SALWACO, DfID, United Nations International Children Fund (UNICEF), the Millennium Challenge Corporation (MCC), International NGOS such as Freetown WASH Consortium, GOAL, World Hope International, Inter Aide, WaterAid and others

The Ministry particularly acknowledges the support provided by the African Development Bank (AfDB), in supporting the preparation of this report and funding of the associated conference.

An electronic version of this document can be found on the Sector Learning website http://www.washlearningsl.org/ and the Ministry of Water Resources and Ministry of Health and Sanitation websites. Every attempt has been made to verify information at the time of publication of the report. Any errors are unintended.
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1 INTRODUCTION

This is Sierra Leone’s forth WASH Annual Sector Performance Report (ASPR) describing the WASH sector progress during 2017. It is made up of four parts:

1. An introduction to the report presenting the socio-economic situation in Sierra Leone and the aim of the ASPR and the preparation process
2. A summary of WASH sector progress including the WASH emergency during 2017
3. A summary of the status and progress in the Water Resources Management sector
4. A concluding chapter suggesting the way forward.

This ASPR is written in preparation for the Annual Sector Conference to be held in Mid-2018. The report has been written for Central and Local Governmental staff associated with WASH and non-governmental international and national implementing agencies as well as WASH Development Partners.

1.1 Country Economic and Demographic Data

Sierra Leone is a small country with total land area of about 72,325 km² situated along the Atlantic Ocean in West Africa and shares borders with the Republic of Guinea in the North and Liberia in the Southeast. Sierra Leone emerged from a decade long civil war in 2002. The war not only destroyed water supply and sanitation infrastructure and water resources monitoring equipment but also changed the economic and demographic profile of the country. Table 1 provides an overview of Sierra Leone’s basic environmental and socioeconomic indicators. The 2015 Population and Housing Census put the population at slightly more than 7 million people.

<table>
<thead>
<tr>
<th>Country Area</th>
<th>Neighbouring countries</th>
<th>Climate</th>
<th>Human Development Index (out of 185)</th>
<th>Life expectancy at birth</th>
<th>Deaths per year due to diarrhoea</th>
<th>Population</th>
<th>Population growth rate</th>
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<tbody>
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<td>2004-2015 intra-census</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>2017 $3.8 billion (4.2% annual growth)</td>
</tr>
</tbody>
</table>

* Sources: Statistics Sierra Leone and data.worldbank.org/indicator/Sl
Sierra Leone has been making steady progress since the end of the war in 2002. As illustrated on Figure 1, Sierra Leone experienced positive economic growth measured as the Gross Domestic Product (GDP) growth over the last 15 years. The exception is 2014 and 2015 where the economy was severely affected by two shocks: the Ebola epidemic and the sharp drop in the iron ore prices. The disruption to agricultural planting and harvesting, manufacturing, construction, tourism and transportation, the closure of markets and the disruption of regional and international flights, following the outbreak of the Ebola undermined the growth prospects of the economy. The combined effect of the Ebola and closure of iron ore mining companies resulted in a big recession as it recorded a real GDP declined of -20.6% in 2015.

Figure 1: Annual GDP Growth Rates

* Source: data.worldbank.org

However, in 2016 and 2017, the economy has shown significant signs of resilience and recovery from the impact of the twin shocks of Ebola and falling commodity prices, as GDP growth was 6.1% in 2016 and 4.2% in 2017. This was mainly based on the resumption of iron ore production, agricultural activities, other mining and services such as tourism and transportation. Domestic revenue marginally increased by 4% in 2015 from Le2,226,200 million in 2014 to Le 2,330,159 million.

Sierra Leone was not only doing well on the economic growth yard stick, it was also making progress in poverty reduction and human development. Sierra Leone’s Human Development Index (HDI) as published by the UNDP Human Development Report is increasing since the 1990s to 0.420 in 2016 positioning the country at 179 out of 187 from its original rock bottom position in 2004.

Figure 2: Human Development Index – Sierra Leone since 1990
The poverty index also declined from 66.0% in 2003/04 to 52.9% in 2011. Sierra Leone had also made notable progress in consolidating peace and strengthening democratic governance institutions and built capacity to deliver effective and efficient public services in a transparent and accountable manner. The third post-conflict democratic elections in 2012 as well as the recent elections in 2018 cemented the stability the country enjoyed since the end of the conflict in 2002.

The Ebola outbreak however heightened hygiene sensitisation and practices especially with hand washing promotion all over the country that in turn helped in part to break the Ebola chain. The post-Ebola recovery focused on Ebola care centres; disinfection of affected communities and monitoring of WASH services’ functionality; restoration of water, sanitation and hygiene service delivery in health units and schools; and promoting retention of positive health and hygiene behaviour through community engagement and ownership. This is reflected in the positive trend in the hygiene indicators presented later in this ASPR.

Government in Sierra Leone operates through a local government structure with 14 District Councils (now 16 after the creation of Falaba and Karene Districts in 2017) and 5 City Councils in Koidu, Bo, Kenema, Makeni and Freetown. The District and City Councils play an important role in planning and implementation of WASH Service Delivery in particular in areas not covered by the Water Utilities: GVWC and SALWACO.

1.2 The ASPR - Aims and Preparation Process

The WASH Sector Annual Sector Performance Report (ASPR) is prepared by the WASH Ministries, Departments and Agencies (MDAs) coordinated by the Ministry of Water Resources (MWR). The ASPR is a key output of the WASH Monitoring and Evaluation (M&E) Framework and the MWR aims at developing data collection systems to facilitate easy compilation of the ASPR.

1.2.1 Data collection from Partners

The 2017 ASPR was prepared during the first half of 2018 and is based on data collected from WASH implementation partners, MDAs and Development Partners. A general data collection format was used and circulated to all partners in the beginning of 2018. The data format is described in Annex B: WASH Implementation Data Collection Tool. The partners providing comprehensive data were:

- Freetown WASH Consortium (OXFAM, Action Against Hunger, Concern Worldwide & Save the Children International) for the Project: Improving WASH Services in Western Area Urban and Western Area Rural Districts in Sierra Leone. Action Against Hunger (AHH) also provided additional information on their activities in Western Urban as part of the Freetown WASH Consortium.
- **World Hope International** for the Project: Water Sanitation Hygiene in Bombali
- **Inter Aide** for the Projects: Access to safe water in Sierra Leone: Scaling up responses to basic needs/ Preventive maintenance of handpumps in Bombali and in Tonkolili.
- **WaterAid Liberia/Sierra Leone** for the Projects: Decentralized WASH Service Delivery in Kenema; Decreasing Vulnerability through WASH in Pujehun; and Decentralised WASH Service Delivery Project in Kailahun.
- **GOAL** for the Projects in Freetown on Faecal Sludge Management; and water and sanitation in Kenema

In addition, UNICEF provided comprehensive information on all the projects supported by UNICEF with DfID funding.

In view of the multitude of partners operating in the WASH sector in Sierra Leone, the detailed data collection for the 2017 ASPR has not been successful. The difficulty in getting progress and financial data from the implementation partners and the Districts is a clear indicator for the challenges in operationalising the WASH Sector M&E Framework.

The WASH M&E Framework and these challenges are further described in Chapter 2.3.1. It is recommended that the WASH M&E Framework and the reporting obligations for WASH partners is included in the agenda for the 2018 Annual Sector Conference. This should include critics and feedback from the Partners on the data collection tools and how to administer these tools in an efficient manner for future data collection.

### 1.2.2 The information used for the 2017 ASPR

In the absence of comprehensive data from the implementation partners, the 2017 ASPR is based on information provided by the MDAs. This includes:

- Comprehensive information from SALWACO on the implementation of the AfDB funded Rural Water Supply and Sanitation Project (RWSSP) and other SALWACO activities
- The comprehensive WASH Data from the Multi Indicator Cluster Survey (MICS) implemented by the Statistics Sierra Leone (SSL) in November 2017. This is the basis for the general statistics on access to WASH Services presented in the report.
- Information provided by the DfID on the funding provided to the WASH Sector. The DfID website provides in a commendable manner transparency and accountability on the sector funding by making available all financial and progress data on the projects supported by DfID.
- GVWC, the MCC and WASH Sector Ministries and general Government information on Budgets etc.
1.3 The 2017 Annual Sector Conference

The ‘Third Annual WASH Sector Review Conference’ with the Theme: ‘ACHIEVING THE SDG’s ON WATER AND SANITATION’ was held from the 22nd and the 23rd of November 2017 at Bintumani Hotel in Freetown.

The primary objective of the Annual Review is to identify a small number of key priority actions and/or milestones for the WASH sector to be achieved in 2018. The Key Priority Actions should be realistically achievable in time for 2018 sector conference and should be based on a realistic assessment of the current situation.

The Annual Sector Conference was very well attended and honoured by a Key Note Address by His Excellency the President.

1.3.1 Conference Programme

The conference started with various plenary sessions covering key WASH areas such as: Status of WASH Service Delivery in Sierra Leone; Institutional and legal framework for WASH service delivery; Development of Sierra Leone’s Urban WASH Roadmap; and Status for WASH in Sierra Leone. This was followed by three parallel sessions covering:

- **Urban Water Supply**: Challenges and Opportunities; Reaching the Urban poor with improved WASH Services - Decentralized Water Supply- Challenges & Opportunities; SALWACO Urban Water Supply Delivery

- **Urban Sanitation and Integrated Waste Management**: Faecal Sludge Management in Urban Freetown; Integrated environmental sanitation in secondary cities of Kenema, Bo Makeni; and Solid waste management – Western Area

- **Water Resources Management**: Water Resources Monitoring and Management in Sierra Leone; Rolling out of the National Water Resources Management Agency

Day one ended with a Plenary Session on WASH Emergency Preparedness and Response covering: WASH response to flooding and mudslide disaster; and Early Warning systems and flood preventive mechanism.

Day two started with parallel sessions on:

- **The role of community water and sanitation systems for rural development**: Rural Water Supply and Sanitation Project; Preventive Maintenance Approach for Hand pump; Community sanitation & hygiene; WASH in Health Care facilities; and WASH in Schools

- **Sector M&E & Knowledge Management**: the WASH M&E framework; the Water Point Mapping and National WASH Baseline; WASH FIT - a WASH Facility Improvement Tool for all health facilities.
Last, but not least, the Conference dealt with Sector Planning and Financing covering aspects such as Sector Planning; Mobilising Domestic Finance to achieve the sustainable Development Goals in WASH; and the National Rural Water and Sanitation Programme (NRWSSP) and Investment plan.

1.3.2 Conference Outcome

The Conference was a successful experience sharing and coordination event for the WASH MDAs, Implementation Partners and Development Partners. The recommendations from the conference include the following:

1. **WASH Policy/ Planning:** Hold the next annual sector review by June/ July 2018, to feed recommendations into GoSL planning cycle. **Action by:** Miata Greywoode, Policy, Planning and Research Unit, MWR

2. **M&E Framework:** i) Operationalize the country sector management information system, ensuring efficient and timely progress reporting by all implementing partners, with the result that an annual sector report card outlining national and sub-national progress towards achievement of WASH sector, SDG, is routinely prepared for presentation in the annual sector conference; ii) Undertake a detailed interrogation of WASH baseline data, resulting in a set of actionable policy and resource allocation recommendations (e.g. analysis of breakdown of existing water wells). **Action by:** Mohamed Bah, M&E Unit MWR and Bockarie Sesay, EHSD MoHS

3. **Rural WASH:** Formally adopt the National Rural Water Supply and Sanitation Programme (NRWSSP), integrating all GoSL and externally funded activities into District WASH Plans. **Action by:** Director Souma, MWR, involves SALWACO, MoHS

4. **Urban WASH:** Finalize the Urban WASH Roadmap, incorporating Freetown Master Plan Study and governance of decentralized urban water points, and a comprehensive approach for solid and liquid waste management in major urban centres, including public/private partnerships. **Action by:** Francis Moijue, Head of Urban Water Supply, MWR, involves MoHS, SALWACO, GVWC, FCC, World Bank. AfDB, GOAL, WHH

5. **Rural Sanitation:** Integrate ODF status follow up responsibilities into Community Health Workers’ (CHWs’) strategy. **Action by:** Doris Bah, EHSD, MoHS.

6. **WASH in schools/ health centres:** Revise/update 2015 Standards and technical guidelines for WASH in public institutions to enhance achievement of desired health outcomes. **Action by:** Usman Gbabai, EHSD MoHS.

7. **Water Resources:** Disseminate the enacted Water Resources Act and collect and consolidate all previously developed materials that relate to the establishment of the agency. **Action by:** Mohamed Juanah, WRM Unit, MWR

8. **Emergency WASH:** Produce guidelines for disaster preparedness and emergency WASH response, based on learnings from Ebola, dry season plan and landslide responses. **Action by:** Ishmail Kamara, MWR & Doris Bah MoHS.
The discussions also highlighted that the challenges in the WASH sector of integrating all components of WASH, clarifying roles and responsibilities for service delivery, decentralising service delivery and monitoring progress remains.

The difficulties mentioned above in getting comprehensive information for the preparation of the 2017 ASPR is a clear indicator of the challenges in achieving effective WASH sector coordination and reporting structures.

In view of the timing of the 2017 Sector Conference close to the end of 2017, it is too early to report on progress towards the aims expressed above.
2 THE CURRENT STATUS OF WASH

This chapter provides information on the enabling environment, the present status and progress on WASH service delivery as well as WASH Management aspects and concludes with a chapter on ‘WASH in Emergencies’, in this report summarising the response to the Landslide disaster in Freetown.

When appropriate reference is made to the indicators for achieving the targets under Sustainable Development Goal 6 (SDG6) and the additional Key Sector Indicators (KSIs) defined for WASH in Sierra Leone

2.1 Enabling Environment

This chapter presents the enabling environment in terms of the Policy, Legal and Strategic Framework; the Sector Coordination; and the issues concerning Institutional Capacity at national, local government and community level and in the private sector as well as aspects of Planning and Finance for WASH service delivery.

2.1.1 Policy, Legal and Strategic Framework

The WASH Policy Framework.
In 2017 the policies that influenced WASH were the following:

1. **The Agenda for Prosperity (A4P)**: The Government’s development program (Agenda for Prosperity - 2013-2017) identifies WASH objectives as the enactment and implementation of the National Water and Sanitation Policy (NWSP). The main priorities of the A4P include improving access to WASH services; scaling up Community Led Total Sanitation (CLTS) as well as improving household storage and treatment of drinking water.

2. **The National Water and Sanitation Policy (NWSP) 2010**: Aligns the WASH policy objectives with Sierra Leone’s Development Vision 2025, the A4P objectives (GoSL, 2013b) and the commitments to attaining the Millennium Development Goals (MDGs) 2015. The NWSP addresses 5 key themes related to water and sanitation:
   a. **Effective Water Resource Management** - To promote the optimal, sustainable and equitable development and use of water resources.
   b. **Adequate Urban Water Supply and Sewerage** - To achieve sustainable development and management of urban water supply and sewerage services, reflected in the following: (i) improving water supply coverage in urban areas from the present 47% to 74% by 2015); and (ii) improving sewerage and non-sewerage sanitation coverage in urban centres from 31% to 66% by 2015.
c. **Adequate Rural Water Supply** - To improve health and alleviate poverty of the rural population through improved access to reliable water supply services from the present 32% and achieve the overall national target of 74% by year 2015.

d. **Adequate Hygiene and Sanitation** - To improve the health of communities and ensure that the majority of the population (66%) have access to sanitation services by 2015.

e. **Appropriate Institutional, Legal and Regulatory Framework** - To establish an effective institutional and legal framework which addresses the growing challenges in the sector.

Given the direction and targets set in the NWSP, it recommended major reforms of the sector. Implementation of the NWSP are still ongoing and some policy statements, strategies and guidelines have been drafted as well as legal frameworks and regulatory regimes for water utilities and water resources management have been instituted.

3. **The National Environmental Health Policy** written in 2000, is currently being updated with an Environmental Sanitation Policy (ESP), which will complement the NWSP. The main WASH focus of the ESP will be sanitation and hygiene. There has been progress in drafting this policy draft with experiences from the EVD epidemic. It is anticipated that the ESP will clarify MoHS human resource requirements as well as providing more technical information on sanitation and hygiene objectives. This policy should provide a sound basis for a strategic plan for implementation that should lead to an overall improvement of sanitation and hygiene in Sierra Leone.

4. **The National Decentralization Policy 2010** serves as a guide Government and key actors in implementing, strengthening and deepening decentralization in the country. The core principle of this policy is the transfer of power, authority and resources from central government to Local Councils.

**The WASH Legal Framework:**

The NWSP recommends reforms in the new institutions and updating of obsolete legislations in line with the policy decisions that have been developed. Legislations were promulgated for the economic regulator (The Electricity and Water Regulatory Commission (EWRC) Act 2011) and the resource regulator, the National Water Resources Management Agency (NWRMA) Act 2017. In addition, necessary legislative amendments for service providers such as Guma Valley Water Company (GVWC) and the Sierra Leone Water Company (SALWACO) have taken place.

1. **Electricity and water regulatory Commission (EWRC) Act 2011** The EWRC Act set up a body with the mandate to regulate electricity, water supply and sewerage services. In relation to water delivery, the EWRC is tasked to: issue, renew, amend, revoke or cancel licenses; monitor license compliance; provide guidelines for the provision of water services; protect the interests of consumers and providers of water services; monitor standards of performance; and promote fair competition among providers in the
provision of services in utility-managed areas, such as Freetown, Bo, Kenema, Makeni and other urban centres.

2. National Water Resources Management (NWRM) Act 2017 This establishes a national authority for managing water resources – national Water Resources Management Agency (NWRMA). This law establishes this body that would regulate and manage water resources as well as providing for the equitable, beneficial, efficient and sustainable use and management of the country’s water resources.

3. The Guma Valley Water Company (GVWC) Act 2017 The GVWC Act of 2017 therefore repealed and replace the GVWC Ordinance 1961 in order to streamline its operations and make its provisions consistent with the existing WASH policy and legislative framework. The main thrust of this Act is to create a vibrant and efficient water supply company to expand and improve the supply of water within Freetown and its surroundings. The Act extends GVWC supply area as the entire peninsular and therefore include Freetown, Waterloo and the peri-urban and rural areas on the peninsular.

4. The Sierra Leone Water (SALWACO) Company Act 2017. The Sierra Leone Water Company under the old Act of 2001 gave the responsibility for water supply services in a number of urban/ peri urban areas such as Bo, Kenema, Koidu, Makeni, Kabala and the International Airport town of Lungi. The NWSP (2010) extends SALWACO’s responsibility to supply water services to rural areas and all urban areas except Freetown. As a result, the SALWACO Act of 2017 repeals and replaces the SALWACO Act, 2001 and streamline the managerial role of the company with regard to urban water supply facilities, and support role of the company in rural and community water supply and related sanitation services. It also identifies forty-four (44) service areas where SALWACO will be responsible for providing services on a full cost recovery basis. In addition to these areas, SALWACO is given responsibility to provide Technical Assistance to the District Councils for other rural water supply services – against payment for services.

Strategies and Guidelines
The strategy framework and the development of guidelines and tools commenced and have continued since the sector review period in 2014. Substantial progress has been made in the development of the strategy documents and guidelines/tools. Generally, there has been more progress in the development of strategies, programmes and tools and guidelines in the rural water sector as compared to urban water.

In the rural water sub sector, there is an existing rural water supply strategy and a National Rural Water Supply and Sanitation Program (NRWSSP) has been developed. To accompany these strategic documents, a number of important guidelines and tool kits now exist, which include guidelines for cost-effective boreholes; hand-dug wells guidelines and WASHcost. The NRWSSP implementation manuals exist which include details for the Community Project Cycle and District and National Level planning and implementation management.
Updated guidelines for CLTS+ implementation as well as Standards and Guidelines for WASH Services in Healthcare Facilities have been proposed and drafted.

There are some on-going initiatives in the pipeline for addressing urban water supplies such as the development of a water master plan for Freetown; Rehabilitation of GVWC water supply network and the institutional strengthening of GVWC to facilitate an urban water supply road map. In order to place these major investments within an overall strategic planning framework, there seems to be a clear need for a comprehensive strategy and implementation program for ‘Small Towns’ and for the ‘Urban Water’ sub-sectors.

Management options for Small Town Water Supplies have been developed with implications for the implementation of the SALWACO Act (2017).

Programme Implementation

The National Rural Water Supply and Sanitation Programme (NRWSSP): The development of the NRWSSP was completed in 2017. The NRWSSP presents the strategy and investments plans for providing WASH services to the rural population in settlements with a population less than 5,000 people and the schools and clinics in these settlements. It is a framework for comprehensive capacity building of the public and private sectors to provide cost effective WASH services for Sierra Leone to reach the SDG targets for full access to services by 2030. It addresses the many challenges in the present rural WASH service delivery with inadequate and largely un-coordinated service provision. The investment plan describes the investments required by District Councils as well as services provided by NGOs and private sector in WASH within a government led planning and reporting framework.

2.1.2 Sector Coordination

Effective sector coordination and harmonization is essential for tracking sector progress and ensuring targets are met. At the moment, WASH sector activities are undertaken by nine (9) Ministries, Departments and Agencies (MDAs), twenty-two (22) Local Government entities (15 Districts, 6 Cities and 1 municipal council), two (2) water utilities and a huge number of international and national Non-Governmental Organisations (NGOs) providing WASH services. A range of large, medium and small-scale private sector operators such as Mining Companies, agribusinesses, small-scale engineering firms and supply chain businesses) are also engaged in the sector as.

Sierra Leone’s Development Partners (UK aid (DFID), World Bank (WB), African Development Bank (AfDB), and other financial supporters like Millennium Challenge Cooperation (MCC) UNICEF and Japan International Cooperation Agency (JICA)) as well as a number of international consultancy firms contracted to support the Government, are engaged in the sector supporting WASH projects, multiple smaller initiatives and several on-going governmental reforms taking place.
With the different actors and on-going initiatives and projects, the risk of an uncoordinated approach is evident. This risk is being considered and is currently primarily addressed through the commitment to coordination through different platforms/ meetings at all levels.

With the sector reforms, a sector coordination architecture was designed in 2012 which attempted at actualizing coordination through various platforms.

- An Inter-Ministerial Committee has been established. There is the recognition that even though this structure had not formally met, it emphasizes the need for close high-level collaboration between key MDA’s engaged in WASH service delivery.
- Development Partners forum was established to help align aid to government frameworks. It started off slowly and last held meetings in 2015. The meetings basically were a stock take of the WASH sector and identified partnership opportunities; it also met to galvanise support from WASH partners for the post Ebola Response efforts.
- Sector coordination was born out of the Sector Policy Coordination Team (SPCT) meetings which highlighted the need for a Sector Coordination Platform which should meet monthly. The SPCT meetings were initially held every quarter with the purpose of developing and reviewing sector strategies and guidelines as well as supporting the on-going sector reforms. It comprises four groups: rural WASH, urban WASH, WASH sector budget, and Emergency WASH to coordinate emergencies.

Sector coordination changed a bit during the post Ebola recovery phase, with the implementation of the President’s Recovery Priorities. The presidential Delivery Team (PDT) in 2017 proposed a coordination framework for the President’s Recovery Priority Water Sector initiative. In order to ensure effective delivery of the President’s Recovery Programme (PRP), a three-stage coordination mechanism was proposed.

1. Sector Steering Committee (SC), led by the Minister of Water Resources and constitute membership drawn from key sector stakeholders. This group is tasked with the overall responsibility of resolving implementation problems/challenges.
2. Sector Coordination Committee (CC) was designed along the lines of the earlier Sector Coordination platform and led by the Sector Coordinator within the President’s Delivery Team for smooth execution of his sector functions. Membership in the CC was drawn mainly from PRP Initiative and sub-Initiative leads along with functional managers of key sector institutions outside the primary MDAs. The CC had a problem-solving function and was tasked to escalate critical implementation problems and challenges to the Steering Committee for resolution.
3. Technical Working Groups had a more hands-on role in coordinating implementation. Within the Coordination framework, a TWG was set up for the priority programmes in the water sector initiatives. TWGs are led by relevant functional managers and membership
primarily drawn from the MDA and allied institutions. TWGs at their level also provide a problem-solving role to enhance effective and timely service delivery.

In practice, some of these structures particularly the Steering Committee is still being largely utilized and has been continually functioning. This might be the same with the Sector Coordination and some to the more relevant TWGs.

At the districts level, during the PRP implementation in 2017, WASH sector coordination meetings took place bi-weekly to track progress and report outcomes on initiatives at the General PRP sectors monthly meetings. The bi-weekly sector meetings were chaired by the MWR district engineers and brought together implementing partners/service providers.

In this arrangement there was a system/mechanism to monitor sector coordination, but the reports were only held and shared at the PDT central office. There was obviously a delink between district level coordination and it is important to share good practices and facilitate feedback sharing process with the national level coordination - and visa-versa. There is need to improve upon reports on the outcome of these meetings as well as share the results from these efforts.

Effective and consistent government-led sector coordination still remains a challenge. In the absence of regular coordination meetings, the sector management is effectively responding to sector coordination requirements on a ‘demand basis’ – particularly when there is a need for Government and Stakeholder feedback on specific deliverables of the sector from various initiatives, hence positioning the WASH sector in a way that allows Development Partner to contribute meaningfully to national WASH priorities in a more strategic manner.

**Sector Coordination – Going forward**

Good practice dictates that regular coordination meetings need to take place at national and district levels as well as sustained annual review meetings and sector performance reporting that feeds into the annual planning cycle.

Apart for the rather haphazard efforts at coordinating the sector as a whole, the NRWSSP describes coordination, planning and reporting procedures for rural WASH. There is the need to replicate similar structures and procedures for the coordination in the urban/ Small Town sub-sector where the service providing agencies like GVWC and SALWACO would be key in coordinated planning with local Councils for investments and management of water supply systems in local Government areas.

In 2017, with the implementation of the post Ebola recovery through the presidential recovery priorities, government-led national as well as district level sector coordination gained momentum and had appropriate priority and resource allocation to sector coordination. There is the obvious risk of a reversion to the mundane challenges in view of the Government diminished prioritization of this and funding constraints. Going forward, sector coordination
even though could be supported in the shorter term, this will have to be a responsibility with the main WASH Ministries to develop a truly Government-led sector coordination by providing the necessary investment into getting this going.

The Annual Sector Review Conference provides a platform for discussing the progress and challenges in the WASH sector. It is an important part of the sector coordination. This event took place in 2017 and is a great effort at institutionalizing this annual event as an important step in getting the Government lead in sector coordination.

The 2018 Conference could possibly review the challenges and missed opportunities without consistent sector coordination. The structure and format for the initial sector coordination architecture proposed by the SPCT and the PRP related architecture will be and looked at to proffer sustainable solutions in this area.

In conclusion, the WASH sector has now completed the overall legal framework as prescribed by the NWSP, but still faces challenges of implementation of the new legal instruments for service provision and regulating the water resource.

A comprehensive programme has been developed for the rural WASH sub-sector to achieve the SDGs. A similar programme for the urban WASH subsector such as programmes addressing needs in the ‘Small Towns’ sub-sector and the urban areas outside Freetown are needed is yet to be developed.

The MWR would need adequate resources and capacity to implement a truly Government-led sector coordination and planning framework.

2.1.3 Institutional Capacity

Institutional reforms, roles and responsibilities:
The implementation of the intents of the WASH policy (NWSP 2011), highlighted the urgent need for the design of a clear institutional framework to address the challenges and inconsistencies in the roles and responsibilities in the provision, management, regulation, oversight and delivery of WASH. This required the following:

- Shifting government’s focus from implementer to policy-maker and facilitator;
- Strengthen the leadership roles of the MWR and the MoHS to secure the implementation of water and sanitation delivery;
- Establish a regime for regulating water supply services;
- Establish an entity for water resources management
- Promote active stakeholder participation in the management of planning, construction, ownership, operation and maintenance of community water supply and sanitation schemes.
Previously, institutional arrangements for the sector were inadequate. As a result, we now have government bodies (Ministries (MWR, MoHS, EWRC and NWRMA) carrying out policy and regulatory functions. There are now specific service delivery mandates for the two public water utilities, GVWC and SALWACO for water supply. There is now a clear mandate for private sector WASH service delivery.

The institutional reforms in the NWSP recommends the following:

- **MWR**: Ministry of Water Resources. Lead for water resources and custodian of the Water Law
- **MoHS**: Ministry of Health and Sanitation (through the Environmental Sanitation Directorate) lead in the promotion of sanitation and hygiene programs. Lead for overall coordination of sanitation and hygiene activities,
- **MEST**: Ministry of Education, Science and Technology. Lead for sanitation and hygiene education in schools
- **EWRC**: Electricity and Water Regulatory Commission. Economic regulation of water and related sanitation delivery
- **NWRMA**: National Water Resources Management Agency. Regulation and oversight of water resources management
- **NCP**: Management Supervision Oversight of GVWC
- **GVWC**: Guma Valley Water Company. Provision of water to Freetown and its environs
- **SALWACO**: Sierra Leone Water Company. Provision of water and sanitation in all urban areas outside Freetown and some rural areas
- **LC**: Local Councils. Local Government entities at the district level for the implementation of water and sanitation delivery.

**In conclusion**, the WASH sector has made good progress in the implementation of the institutional reforms prescribed by the NWSP; however, the sector is facing serious capacity challenges in getting some of the agencies up and running as well as providing a comprehensive strategic framework and support to the urban water sector.

The capacity development is ongoing across the WASH institutions and comprehensive support programmes are on the way for water service regulation and for improving water services in Freetown. The comprehensive capacity building programme for Rural WASH actors articulated in the NRWSSP is not yet being implemented. A similar comprehensive capacity building programme is required for the urban and small-town water sector.

The EHSD in the MoHS will need capacity building to address the serious challenges related to access to sanitation and hygiene in urban as well as for rural sanitation and hygiene.
2.1.4 Communities and Local Government

Communities and Local Government
Local Governments by the Local Government Act 2004 have the mandate for development planning in their areas of jurisdiction. The process of development planning requires a lot of community consultation to identify and prioritise their development needs. This process inherently emphasizes a demand driven approach in community project site selection. In WASH, the NWSP and the Rural and Small Towns Strategy (MWR 2014) also emphasizes the need for community selection to be demand driven, the technology choice to be based on consultations with informed communities, and capital contributions both in kind and cash to be made, to foster a clear sense of ownership of the source. In reality, this rarely happens. Selecting communities for project implementation is ‘supply driven’, and the requirement of communities to contribute in cash and kind to capital costs is not consistent across implementers.

Communities may be consulted regarding the location of water points, however there is often limited consultation regarding the service levels/ technology options to be installed in the communities. Capital cost contribution is presented for discussion in the Rural Water Supply Strategy document but has not to date been finalised. The NWSP implies that communities shall cover the Operation and Maintenance (O&M) costs, and that District Councils may need to support major capital maintenance and replacement costs. However, there is uncertainty regarding at what stage/ context the councils would need to provide external cost-sharing support, and whether councils budget for such lifetime cost contributions in their annual budgeting.

Willingness and practice of payment for water services is a challenge across the country, and in particularly in rural areas. ‘Willingness to charge’ is also a major issue. The Water Point Mapping (2016) data shows that it is only 2% of the water points where payment for water is regularly practiced and additional 2%, funds are collected only after system breakdown. Where WPCs are collecting funds, households can often be reluctant to pay, with concerns on the transparency and accountability of the managed funds.

Local Councils
The core principle of decentralisation is the transfer of power, authority and resources from the government centre to democratically elected Local Councils. The Councils have some regulatory mandate for WASH service delivery in their localities. Ongoing support from the MWR and the MoHS, is improving understanding of the roles and responsibilities at council level. The interaction has also led to some level of activity harmonisation.

The Local Councils are foreseen in the NRWSSP to play a pivotal role in the planning and coordination of WASH activities within their areas of jurisdiction and considerable resources
are envisaged for capacitating the Local Councils in fulfilling their roles with MDA providing overall guidance and oversight over WASH implementation.

**Sustainability**

Although there are many factors that influence sustainability, in Sierra Leone there are four important interlinked factors that stand out in regard to the shortcomings of sustainability in the WASH sector.

1. There is a limited capacity in terms of skills, knowledge and resources within communities, local and central government, and utilities. This means that it is difficult for institutions to keep services working as intended once they have been constructed.

2. There is an imbalance between capital investment and recurrent costs. To date the vast majority of international funding received in Sierra Leone supports initial capital investment. Much less money is spent on recurrent costs that will help ensure WASH services continue functioning.

3. The conventional approach to WASH service delivery continues to focus on extending coverage and output construction targets or numbers. This means that water and sanitation services are handed over to communities with little consideration for the external support arrangements that need to be in place such as the private sector supply chain for spare-parts and services to ensure that maintenance services are available locally.

4. The evidence from the Water Point Mapping (WPM) shows that 65% (2016), 63% (2012) of water points are functioning and in use. Of those that are functioning, only about half (54%) have water all year round. These alarming statistics should trigger much debate and action about the quality of the WASH service delivery.

Unless there is a stronger commitment to rehabilitating and maintaining existing infrastructure, it will be impossible to meet the NWSP targets and the SDG targets of full access by 2030. A comprehensive programme for capacity building and private sector development will be needed to ensure cost effective service delivery and in particular to ensure that households and communities are not receiving only first-time access to WASH services but rather permanent access to WASH services.

In conclusion, ownership of infrastructure by Local Councils and communities is a hallmark for sustainability. While the community management policy and the need for user payment for services is generally recognised as appropriate to ensure sustainable services, there are large challenges in the implementation of this and a consistent approach across all implementers and considerable capacity building will be needed.

The focus on implementation of new water points will need to be complemented with a comprehensive approach on capacity building to ensure that communities gain permanent access to WASH Services.
2.1.5 Private Sector

**Private Sector**
The NWSP as well as the Rural and Small Towns Strategy emphasize the role of the private sector in WASH, and their capacity need to be strengthened especially in areas of water systems and water point construction, supply of materials and parts, and providing maintenance services. They could also potentially be capacitated to engage in ‘software’ activities as well such as studies, institutional development of sector agencies and capacity development training.

Local and national supply chains for materials and spare parts would be enforced wherever possible through local (national, and ideally district-level) procurement. Where needed, support may be provided to strengthen supply chain links through basic Public Private Partnerships (PPPs). The domestic manufacturing sector exists and should be encouraged to supply a wider range of materials which achieve requisite quality standards.

There is the need for the development of a network of higher-skilled rural water supply technicians. These technicians would be private, for-profit individual operators, who should benefit from standard training and subsidized for tool kit. The technicians would provide routine preventative maintenance, together with repairs and potentially source construction/installation services.

The active participation of the private sector is critical to the sustainability of WASH industry in Sierra Leone and is in line with the ‘Local Content’ policy of the government as well as an avenue for the creation of employment for the youth.

In conclusion, the private sector plays a vital role in provision of cost effective and good quality WASH services. As such deliberate and considerable capacity building of the private sector is required to change from the present situation with limited competition and low-quality services.

This can be accompanied by growing the market with increased investments and appetite for the private sector. The standardisation on equipment and parts; standard designs and specifications; good quality, accountable and transparent supervision and commissioning procedures; a legal and regulatory framework for national certification; as well as promotion of associations of WASH private sector actors would be the accompanying benefits of the sector.
2.1.6 Planning and Finance

WASH Planning
The WASH services provision is planned according to the ongoing planning procedures in the respective WASH MDAs, in the District Councils as well as implementation plans for the many civil society implementers active in WASH.

The District Councils prepared WASH Investment Plans in 2014 and 2015 and these have been guiding the District activities. There are challenges in the coordination and joint planning at district level between the District Councils and the implementing NGOs. To a large degree, the NGO implementers are working according to their own plans and not necessary according to a common plan prioritised by the District Councils.

At national level, SALWACO is planning for implementation of projects within its mandate, including the implementation of the AfDB funded Rural Water and Sanitation Project that is implemented by SALWACO and the District Councils in 6 districts and the Three Towns Projects implemented in Bo, Makeni and Kenema.

GVWC is planning for investments in the rehabilitation and extension of the water services in Freetown. A comprehensive investment plan for water and sanitation in Freetown was prepared in 2008\(^1\). The 2008 plans identified the need for investment in water services of approximately 250 mUSD and investments in sanitation and hygiene of about 10 mUSD over a 10-year period.

Two new planning initiatives were initiated in 2017: i) the development of an Urban WASH Road Map supported by MCC covering all WASH services including water, sanitation and solid and liquid waste management in the urban settlements with population above 20,000 persons; and ii) the development of a master plan for Freetown Water Supply supported by the AfDB. This will make long-term plans for the development of adequate water sources for Western Area and the investments in water supply infrastructure.

The MWR with support from the AfDB completed the NRWSSP in 2017 as the first comprehensive plan for Sierra Leone to achieve the SDG WASH targets by 2030. The NRWSSP covers communities up to 5,000 people and similar strategy and planning instruments seems to be missing for the Small Towns with population from 5,000 to 20,000 people and the urban areas, in particular the urban areas outside Freetown.

WASH Financing
Financing for WASH comes from various sources. In addition to the users’ own investments in water and sanitation facilities, the Government is providing some funding to the WASH MDA

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\(^1\) Strategic Water Supply and Sanitation Framework, 2008, Guma Valley Water Company, Freetown Atkins
for recurrent and capital costs. The majority of the WASH funding comes from Development Partners that are funding projects, either on-budget within the Governments planning frameworks or off-budget, planned and implemented by the organisations individually.

It is difficult to get an accurate overview over the WASH funding since:

- Government funding for WASH is an integrated part of the funding to various MDAs and not easily identified e.g. in funding for rural sanitation, rural water, school WASH etc.

- Information on Development Partner funding is likewise mostly not separated in the same sub-sectors and often project cover integrated WASH project and therefore not easy to identify e.g. funding for rural water vs rural sanitation.

- NGO partners with own funding or funding through multinational organisations are often reluctant to reveal budgets and actual expenditures.

- The planning years of Development Partners and NGOs can be different from the Government financial years and therefore the funding and expenditure figures are not comparable for the same timeframes.

Despite all these difficulties, this 2017 ASPR attempts to provide an overview over the WASH funding. This is based on:

- Information on budgets and expenditures collected from District Councils and a number of the WASH NGOs during the preparation of the NRWSSP

- Information from the Local Government Finance Department on transfers to Districts and from the Ministry of Finance on the budgets and expenditures for MDAs

- Information from Development Partners on the projects implemented with their funding

- An approximate identification of the sub-sectors covered by the Government, Development Partner and NGO funding and an approximate allocation of project funding per financial year according to implementation reports.
The results are presented in Figure 3 showing the estimates of actual expenditures until 2016 and the budgets for 2017 and 2018.

The figures indicate the type of funding: GoSL Development and Recurrent; Development Partner Grants or Loans (on-budget); and NGO Funding (off-budget). The estimated funding is dominated by the Development partner funding and in total amounts to about 50 mUSD annually. The GoSL figures for 2017 and 2018 are budgets and the actual expenditures are not available at the time of preparing the 2017 ASPR.

The estimated funding amounts per sub-sector are illustrated in Figure 4. The urban water funding is a considerable proportion, and this includes funding for the new investments in Freetown water, the MCC support to Urban WASH as well as the Three Towns Projects in Bo, Makeni and Kenema and the Freetown WASH consortium activities.

The rural water and rural sanitation funding is mainly from the NGO activities through projects funded by Development

*Source: analysis of various data sources as described in text*
Partners through organisations like UNICEF and international NGOs.

As mentioned above, there are presently only investment plans for the rural WASH sub-sector in the form of the NRWSSP. A comparison between the average annual funding needs for the implementation of the NRWSSP and the existing funding estimates are shown on Figure 5.

It is clear from the graphs that the magnitude of funding required for the implementation of the NRWSSP is not different from the present funding levels. The main difference will be the structured capacity building of all sector actors and adherence to a common planning and reporting framework by all actors.

The NRWSSP includes a comprehensive private sector capacity development programme with the objective of improving implementation quality and reducing unit costs. So, the investment estimates are based on unit cost for e.g. boreholes that are considerably lower than the rates presently experienced in the implementation of the RWSSP by SALWACO.

**Key Sector Indicators for Funding**

The KSIs for WASH funding are shown in Table 2 including the definitions for the SDG6.a and 6.b on sector management and coordination.
## Table 2: Definitions for KSIs on Funding for WASH

<table>
<thead>
<tr>
<th>Funding for WASH</th>
<th>On-Budget WASH Funding</th>
<th>Off-Budget WASH Funding</th>
<th>Sector Management and Coordination</th>
<th>SDG6.a.1 Government coordination</th>
<th>SDG6.b.1 Community participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual on-budget funding for WASH Services</td>
<td>Government Annual Budget allocation (including DP Grants and Loans) for WASH Services</td>
<td>Total annual funding from DPs, NGOs and Civil Society Organisations for WASH Services not registered in the Government’s Annual Budgets</td>
<td>Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan</td>
<td>Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management</td>
<td></td>
</tr>
</tbody>
</table>

The figures for WASH expenditures in 2017 presented in the graphs above indicate that the annual on-budget funding for WASH is about 70 mUSD per year; the annual off-budget funding for WASH is about 4 mUSD per year and therefore about 6% of the WASH funding is off-budget.

This might not be representative for the SDG6.a.1 indicator of the ‘Amount of water and sanitation related official development assistance that is part of a government coordinated spending plan’ since the implementation of many of the NGO activities funded through Development Partners like DFID are registered on the GOSL budgets, however the activities are not necessary part of a government coordinated spending plan.

Providing figures for SDG6.a.1 would require improvements in the government led planning and coordination of NGO activities for example through the consistent implementation of Service Level Agreements for the NGOs with MDAs and Local Councils and availability of implementable WASH Plans by the Local Councils.

Providing relevant information on SDG6.b.1 on the proportion of local units with established policies and procedures for community participation would require development of improved monitoring systems for community management and local government procedures.

**In conclusion:** the present planning is dis-jointed with many implementers doing their own planning without coordination at national and district levels - and without reporting on physical and financial progress.

Achieving the SDGs will need a coordination and comprehensive effort by all partners including openness and transparency in the planning and reporting on financial aspects. It will need increased funding but most of all it will require improved effectiveness in the service delivery.
2.2 WASH Services: Status and Progress

This section of the SPR provides a summary of the status and progress during 2017 for WASH Services.

The first chapters 2.2.1, 2.2.2 and 2.2.3 provides the status of access to water, sanitation and hygiene respectively and Chapter 2.2.4 provides for the first time some striking statistics on the households with combined access to all three WASH components.

Chapters 2.2.5 to 2.2.11 provides additional information on the status of WASH services and the 2017 activities related to rural water supply; small town water supply; urban water supply; sanitation and hygiene in rural and urban communities respectively; and for WASH in Schools and WASH in Health Care Facilities.

The general statistics available for access to WASH services at the end of 2017 are from the Statistics Sierra Leone (SSL) Multi-Indicator Cluster Survey (MICS) 2017 that was carried out in November 2017. The MICS report provides a wealth of information on various aspects of access to WASH at national, rural/urban, regional and district level. In addition, corresponding information is provided on the level of education of the household head and the wealth status of the households. The MICS 2017 information include:

- main source of drinking water/ improved drinking water sources
- time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources and percentage using basic drinking water services
- households without drinking water on premises and persons usually collecting drinking water used in the household
- Average time spent collecting water
- water available when needed and main reasons for not being able to access water in sufficient quantities when needed
- risk of faecal contamination based on number of E. coli detected in source drinking
- safely managed water: drinking water on premises, available when needed, and free from faecal contamination
- water treatment method used in the household
- observation of handwashing facility and percentage of household members by availability of water and soap or detergent at the handwashing facility
- type of sanitation facility used by the household
- use of private and public sanitation facilities and use of shared facilities
- improved pit latrines and septic tanks by method of emptying
- management of excreta from household sanitation facilities
- place of disposal of child's faeces
- drinking water, sanitation and handwashing ladders
The MICS WASH results are presented in the sub-chapters below and are summarised in the following graphs. Extracts of the key indicators at national, rural/urban, regional and district levels are provided in Annex D: WASH Access at District levels. The definitions of the SDG WASH Indicators are explained in Annex C2: SDG WASH Definitions. The 2015 statistics are based on the 2016 Joint Monitoring Programme (JMP) Report that use statistics from previous SSL Surveys including the data on WASH access from the 2015 Population Census.

The JMP statistics presented in the 2016 report were based on population projections from the 2005 population census of 6.45 million people in Sierra Leone with 40% in urban areas while the 2015 census indicates 7.1 million people with 41% in urban areas. The MISC 2017 statistics are reflecting access according to the higher 2015 population. In order to reflect the progress from the 2015 JMP statistics to the 2017 MISC statistics according to the same population base, the JMP access figures have been recalculated in the graphs presented below.

A further complication in analysing the statistics on access to WASH services is that, according to the definitions used by SSL and therefore by the JMP statistics, urban areas are settlements with population above 2000 people. However, this is different from the definition of urban settlements in the National Water and Sanitation Policy (NWSP) which defines settlements of up to 5,000 people as rural areas. The national targets presented below are referring to the 2015 targets in the NWSP.

### 2.2.1 Status for Access to Water

The status of access to water services will be measured according to the SDG indicator 6.1.1 for access to safely managed drinking water and the underlying service ladder. The indicator definition is shown in Table 3.

<table>
<thead>
<tr>
<th>1. Access to water services</th>
<th>SDG 6.1.1 Proportion of population using safely managed drinking water services</th>
<th>% of population (households, schools, clinics) using drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority contamination</th>
<th>Urban/rural (settlement type) wealth affordability</th>
</tr>
</thead>
</table>

Presently there is very limited access to safely managed drinking water services in Sierra Leone. The target language used for the SDG indicators imply that access at home as well as in schools and clinics is included and services shall be on site, available at all times, and free of any contamination. The access to water in schools and clinics is described in Chapter 2.2.10 and Chapter 2.2.11 below, however presently there are no statistics available on access at home, school and clinics combined. The following is a description of the access to household water services according to the definitions shown in Table 4.
The MICS 2017 survey shows that 2% of the population has access to safely managed water defined as ‘Percentage of household members with an improved drinking water source located on premises, free of E. coli and available when needed’. The indicator most relevant for assessing the situation in Sierra Leone is the access to basic water services. Data is available from SSL on access to improved water sources and collection time. The access to drinking water in rural and urban areas are illustrated in the SDG Ladders in Figure 6 as compared to the NWSP and the 2015 Millennium Development Goals (MDG) targets.

The NWSP target for access to water is 74% for both rural and urban populations and the MDG target is 69%. The results illustrated on Figure 6 shows that access to safely managed and basic services of 72% in urban areas is just below the NWSP 2015 target and just above the MDG target, while the access in rural areas of 47% lacks behind. Sierra Leone did not reach the MDG or the NWSP targets for access to water in rural areas.

As further described in Chapter 2.2.5 below some of the main challenges relate to the functionality of water points including seasonality. A contributing factor to the low functionality rate is the focus on construction of new water points - often with inadequate quality of siting and construction - and limited focus on capacity for Operation and Maintenance (O&M) services by the local private sector and management capacity in the rural communities.
Achieving the SDG targets of full access to water by 2030 will clearly require increased investments and improved operational efficiencies of urban water supplies as well as a major and more comprehensive approach to capacity building of the private and public-sector stakeholders to improve the quality and rate of service delivery in rural areas.

The MICS data provide an insight into access to WASH services according to wealth quintiles. The access to drinking water is illustrated on Figure 7.

There is a clear correlation between wealth and access to services – however it is striking that a quarter of the wealthiest households do not have access to basic water services.

2.2.2 Status for Access to Sanitation

The NWSP target for adequate sanitation in both rural and urban areas is 66%. Evidently there is much work to be done in the access to sanitation in both rural and urban areas especially considering the SDG target of universal access by 2030. Morbidity and mortality from WASH-related preventable diseases remains high. The recent outbreak of Ebola highlighted serious
infection risks in communities and in public institutions such as schools and health facilities, due in part to the deplorable state of the water and sanitation infrastructure.

The definition of the indicator for access to safely managed sanitation is shown in Table 5. This indicator include access for the whole population including households and pupils in schools and patients in clinics and also include the use of hand washing facilities. SSL is not yet providing data on the combined access at home and in schools and clinics.

**Table 5: Definition of Indicators for Safely managed sanitation**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safely managed sanitation</td>
<td>Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water</td>
</tr>
<tr>
<td>SSL % of population (households, schools and clinics) using an improved sanitation facility which is not shared with other households and where excreta are safely disposed in situ or transported and treated of-site and using hand-washing facility with soap and water</td>
<td></td>
</tr>
</tbody>
</table>

Access to sanitation in households will be measured using the indicator definitions shown in Table 6. Both the safely managed and the basic sanitation services assume that households are using sanitation facilities that are not shared with other households.

**Table 6: Indicator definitions for household sanitation services**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safely managed sanitation</td>
<td>Proportion of population using safely managed sanitation services</td>
</tr>
<tr>
<td>% of population using an improved sanitation facility which is not shared with other households and where excreta are safely disposed in situ or transported and treated of-site</td>
<td></td>
</tr>
<tr>
<td>Urban/rural (settlement type)</td>
<td></td>
</tr>
<tr>
<td>Wealth</td>
<td></td>
</tr>
<tr>
<td>Affordability</td>
<td></td>
</tr>
<tr>
<td>Basic Sanitation</td>
<td>Proportion of population using a basic sanitation service</td>
</tr>
<tr>
<td>% of population using improved facilities which are not shared with other households</td>
<td></td>
</tr>
</tbody>
</table>

The national target for the percentage of the population with access to improved sanitation by the end of 2015 is 66% for both rural and urban populations and the MDG target is 55%. The MICS 2017 data indicate national access of only 16% to basic services with 27% in urban areas and only 8% in rural areas.
The 2016 SDG Baseline survey indicates that 22.7% of the population use improved facilities that are not shared. Whichever the correct figure is, it is clear that access to sanitation is far behind both the national and the MDG targets. It should be noted that there is no access to ‘safely managed sanitation services’ in Sierra Leone.

The challenges for achieving the sanitation targets are multiple and range from the general socio-economic situation with high population density and inadequate housing in urban areas to inadequate national focus and leadership in addressing sanitation and hygiene issues.

Achieving the SDG targets for full access to sanitation and hygiene by 2030 will be a major challenge for Sierra Leone - unless a complete change in attitudes and the priority given at leadership level to sanitation and hygiene issues will take place.

The access to sanitation according to wealth quintiles is illustrated on Figure 9.

The situation with 46% of the poorest households having no access to sanitation is an indication of the need to address the affordability issues in sanitation and in the implementation of the CLTS programmes.

It is again surprising that 60% of the richest households only have access to limited and unimproved sanitation facilities – there seems to be a need for hygiene education and promotion of sanitation at all levels.
2.2.3 Hygiene Status

The SDG WASH indicators use handwashing as the key proxy for assessing improvements in hygiene.

There were no specific targets set for handwashing in the MDGs or the NWSP. The MICS 2017 data shows a remarkable progress in access to handwashing facilities of 23% of households having facilities with water and soap as compared to 12% in the 2015 statistics.

However, it must be recognised that while the 23% is a major improvement, it still poses a considerable hygiene challenge to reach universal access to handwashing.

**Figure 10: Use of Handwashing in 2017 and 2015**

The access to handwashing facilities per wealth quintiles are shown on Figure 11.

While there is a clear improvement in the use of handwashing with increasing wealth, it is surprising that only about 40% of the wealthiest households have access to handwashing with water and soap; while it is also encouraging that about 10% of the poorest households have prioritised their resources to provide improved hygiene in the form of access to handwashing.

**Figure 11: Use of Handwashing Facilities according to wealth quintiles**

*Source: analysis of MICS2017 and JMP data published July 2017*
2.2.4 Status for access to Basic WASH

The MICS 2017 data provides for the first time, statistics for households with access to ‘Basic WASH Services’ – defined as households having access to all three WASH components: basic water, basic sanitation as well as handwashing facilities with water and soap.

The health benefits from access to all three components of WASH at the same time is obvious and it is striking statistics that only 5% of the population in Sierra Leone have access to all three WASH services – this emphasises the need for the integrated approach addressing all components of access to water, adequate sanitation facilities and hygiene education.

The access to the full range of basic WASH services according to wealth quintiles is illustrated on Figure 13.

Not surprisingly the access is highest for the wealthiest, however it is surprising that only 16% of the richest households have access to the full range of basic WASH services.

2.2.5 Rural Water Supply

Access to water services

The MICS 2017 survey shows that 0.7% of the rural population has access to safely managed water defined as ‘Percentage of household members with an improved drinking water source located on premises, free of E. coli and available when needed’.

The indicator most relevant for assessing the situation in rural areas in Sierra Leone is the access to basic water services – ‘proportion of population with access to water from an improved water sources within a 30 minutes collection time’. Data is available from SSL on access to improved water sources and collection time. The statistics provided by the SSL and therefore the JMP statistics presented here use the definition of rural as settlements with
population less than 2000 people. The NWSP define rural as settlements with less than 5,000 people and the NRWSSP has defined the different types of rural settlements as follows:

- **Rural Settlements**: small settlements with population of less than 150 people – in accordance with the NWSP target with support for water self-supply

- **Rural Communities**: communities with population above 150 people and less than 2000 people. Generally, the most appropriate water supply technology is expected to be point sources such as hand-dug wells and boreholes with hand pumps

- **Rural Towns**: small towns with population above 2000 people and less than 5000 people. Generally, the most appropriate water supply technology is expected to be piped systems either gravity from spring sources above the community or pumping systems powered by solar pumps.

The JMP presents access according to the service ladder as described in Annex C2: SDG WASH Definitions. The JMP statistics are updated with the results of the MICS 2017 as shown in the chart on the right. For rural areas (rural settlements and rural communities <2000 people) the data shows access to safely managed services of 1%. The access to basic services is 46% and access to limited services (improved sources with >30 minutes collection time) is 6% while access to un-improved services and surface water is 24% and 23% respectively.

The historical development in access to basic water services in rural areas is illustrated in Figure 14. There has been a steady but slow improvement from about 25% in year 2000 to the about 50% in 2015. With this level of investment, the SDG target of full access in 2030 will not be reached – the annual rate of increase in access will need to double.

The 2015 Population Census data on access to water and sanitation services from the SSL can be analysed according to settlement size as soon as the locality frame is available. It will then in future SPRs be possible to present access to drinking water...
according the demarcations used in the water sector of Rural Settlements; Rural Communities and Rural Towns.

**Functionality of rural water facilities**

The definition for the Key Sector Indicators (KSIs) for functionality are shown in Table 7.

<table>
<thead>
<tr>
<th>Functionality of Water Services</th>
<th>Proportion of hand pumps operational</th>
<th>% of hand pumps delivering water at time of survey</th>
<th>By type of Hand Pump (India MkII/ Kardia, . . . ) By District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of piped water systems operational</td>
<td>% of public standpipes delivering water at time of survey</td>
<td>Pumped System/ Gravity Fed System By District</td>
<td></td>
</tr>
</tbody>
</table>

The Water Point Mapping (WPM) carried out in 2012 and in 2016 provide data on functionality of water facilities and there is no new data available on functionality for 2017 since the WPM data collection tools are not yet used consistently in the work by Districts and Implementing Partners when implementing or monitoring rural water supplies.

The data on functionality from the 2012 and the 2016 water point mapping are illustrated on Figure 15 for the improved water sources. The functionality aspects are described in more detail in the 2014-16 ASPR and a full description of the WPM results is provided in the respective reports.

![Figure 15: Functionality of water points](image)

The functionality of ‘2. Protected Hand Dug well’ is particularly important since these are about 40% of the water points included in the surveys. The functionality has remained at only 60% for hand pumps on wells. The functionality of protected wells without a pump is naturally higher around 80% since the

---

service does not depend on a functioning hand pump. Functionality has improved from 63% to 70% for boreholes.

The functionality also has a component of seasonality and this is captured in the water point mapping by interviewing users about whether or not the water points deliver water year-round and if not, for how many months the sources are dry. The result related to seasonality is shown on Figure 16 showing the proportion of water points providing water all year round.

![Figure 16: Seasonality of Waterpoints](source: WPM Data 2016)

It is notably, that the number of shallow groundwater-based water points like protected springs, and wells that have water year-round has dropped considerably from 2012 to 2016. In light of climate change, this is a worrying development that would warrant detailed investigations of rainfall and groundwater levels.

The analysis of the data on water points that are both functioning and have water year-round is illustrated on Figure 17. It is alarming that less than 30% of the dug wells with hand pumps and the public standpipes are delivering water year-round. In view of the definitions for the SDG WASH indicators for access to water ‘available when needed’, the current rate of functionality and seasonality would need to change substantially for Sierra Leone to make progress towards achieving the SDG targets.

![Figure 17: Water Points functioning year round](source: WPM Data 2016)
Longer term sustainability of the water sources for rural water supplies would also require coherent action on catchment management to ensure groundwater recharge rates are maintained in a possible future climate scenario with more erratic rainfall patterns.

**Value for Money**

The KSIs for ‘Value for Money’ are shown in Table 8.

<table>
<thead>
<tr>
<th>Table 8: Definition of KSIs for Value for Money</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value for Money</strong></td>
</tr>
<tr>
<td>Per Capita Cost</td>
</tr>
<tr>
<td>Per Capita Capital Cost of Water System</td>
</tr>
<tr>
<td>Implementation</td>
</tr>
<tr>
<td>Capital cost of new water facilities divided</td>
</tr>
<tr>
<td>by the number of persons served by the</td>
</tr>
<tr>
<td>facility</td>
</tr>
<tr>
<td>Type of technology</td>
</tr>
<tr>
<td>District</td>
</tr>
<tr>
<td>Divide hardware and software</td>
</tr>
<tr>
<td>(training for community management)</td>
</tr>
<tr>
<td>Specific Construction Cost</td>
</tr>
<tr>
<td>Unit cost of specific technologies</td>
</tr>
<tr>
<td>The final delivery/ installation cost of</td>
</tr>
<tr>
<td>specific water components</td>
</tr>
<tr>
<td>BH Drilling/ Well construction/</td>
</tr>
<tr>
<td>Pipe laying/ Software costs etc</td>
</tr>
<tr>
<td>By District</td>
</tr>
</tbody>
</table>

Providing comprehensive data on value for money would require the WASH implementers providing physical and financial data on the implementation of projects, and that the data is provided in a comparable manner. For this SPR, there is no comprehensive data available to provide reliable statistics on unit costs.

A major challenge in the preparation of the 2017 ASPR has been the consistent reporting from WASH implementers on the implementation expenditures and achievements. The implementation monitoring using the 4w monitoring system is not updated and it is generally time consuming and difficult to collect information from the many different WASH implementers.

**Water Quality**

A web based Geographical Information System (GIS) groundwater database system was developed by the Water Directorate with support from the RWSSP/ AfDB. The Water Directorate will be updating the database system and generate periodic technical data on existing infrastructure. The definitions for the water quality KSIs are shown in Table 9.

<table>
<thead>
<tr>
<th>Table 9: Definition of KSIs for Drinking Water Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Quality</strong></td>
</tr>
</tbody>
</table>
| Proportion of water points delivering bacteriologically safe water
| % of water samples fulfilling the bacteriological water quality standards
| By type of water point (Well; Well HP; BH/HP; BH/PSP; Gravity/PSP)
| Location (District/ type of settlement)
| Season (rainy/dry)                                   |
| Proportion of water points delivering chemically safe water
| % of water samples fulfilling the chemical water quality standards
| Proportion of water points delivering physically safe water
| % of water samples fulfilling the physical water quality standards

Future SPRs will have data on the water quality testing that has been carried out on rural water systems.

**Equity of Service Provision**
The definition of the KSIs for equity in rural water service delivery is shown in Table 10.

<table>
<thead>
<tr>
<th>Equity of Service Provision</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-District Equity</td>
<td>Mean chiefdom deviation in access from district average</td>
</tr>
<tr>
<td>Inter-District Equity</td>
<td>Mean district deviation in access from national average</td>
</tr>
</tbody>
</table>

The data on access to water and sanitation at chiefdom and district level from the 2015 SSL Population Census and the MISC 2017 is not subdivided by rural/urban and the MISC data is not providing access at chiefdom level. However, when the SSL locality frame is finalised, the future SPR can include analysis of the equity for rural, small towns and urban respectively based on the 2015 Population Census data.

The present data for access to water nationally from the 2015 Population Census data shows an Intra-District standard deviation (differences in access in different Chiefdoms within a District) is in average between all districts 16% and highest in Bonthe (27%); Kenema (23%) and Bombali (22%) and lowest in Western Urban (7%) and Western Rural (8%).

The Inter-District standard deviation (differences in access in different Districts) is in average between all districts 16% and highest in Southern Region at 17% and lowest in Western Area at 0%.

The equity indicators show the differences in access to WASH and should influence the District Planning for WASH towards more funding to the chiefdoms within Districts where access is low.

**Rural Water Implementation in 2017**

The rural water facilities are provided by a number of different implementers, including various NGOs, District Councils and SALWACO. The national and international NGOs active in the districts are shown on Figure 18.
The sector stakeholders implemented a monitoring system named 4xW for tracking the implementation of WASH activities in the districts. Unfortunately, the 4xW has not been updated and there is presently no detailed information from the implementers available for this SPR.

Ideally, the SPR would present information on the implementation of water points and capacity building activities based on information from the implementers. This was attempted for the 2017 SPR, however, only a few of the Implementing Partners have provided information on the activities and budgets/ expenditures. For activities in rural areas, comprehensive information was received from:

- **Freetown WASH Consortium (OXFAM, Action Against Hunger, Concern Worldwide & Save the Children International)** for the activities in Western Area Rural District.
- **World Hope International** for the Project: Water Sanitation Hygiene in Bombali
- **Inter Aide** for the Projects: Access to safe water in Sierra Leone: Scaling up responses to basic needs/ Preventive maintenance of handpumps in Bombali and in Tonkolili.
- **WaterAid Liberia/ Sierra Leone** for the Projects: Decentralized WASH Service Delivery in Kenema; Decreasing Vulnerability through WASH in Pujehun; and Decentralised WASH Service Delivery Project in Kailahun.
- **GOAL** for the Project on water and sanitation in Kenema
In the absence of comprehensive information on the implementation of rural water activities, an attempt has been made for determining the implementation rate of rural water systems in 2017 using the following two methods:

1. Deriving implementation rates from the statistics on access to rural water
2. Deriving implementation rates from the information on expenditures for rural water

1. **Implementation derived from access statistics**

The implementation based on statistics on access to rural water can be estimated from the JMP statistics showing the status at the end of 2015 based on the 2015 Population Census data compared to the MISC 2017 data showing the status in November 2017. The difference between the two should indicate the level of implementation in 2016 and 2017. This method is not very accurate since, in addition to the inaccuracies in the statistics and the issue of the JMP statistics being based on population projections from the 2005 census, the access is a combination of many factors such as water points going out of service, new water points being implemented, and repairs being done on water points early not functioning.

The difference in access to safely managed and basic services in rural areas is 47% (2017) less 44% (2015) = 3% x the rural population of 4,189,000 people = 145,890 people. Assuming 250 people per waterpoint, this indicates that an additional 584 water points are providing services at the end of 2017 as compared to the end of 2015.

In terms of investments this implies investments of about 7.3 mUSD assuming USD 50 per person.

2. **Implementation derived from financing**

The flow of financing to rural water investments is not well-known due to the many different implementers as illustrated on Figure 18, as well as the difficulty in separating the funding for rural water investments from the investments in sanitation and in WASH in institutions as described in Chapter 2.1.6 above.

The development of the NRWSSP included an attempt to estimate the existing funding for rural WASH based on information provided by the Ministry of Finance, MDAs, NGO implementers, District Councils and Development Partners. This information has been updated with data on the current WASH funding such as the actual expenditures on the RWSSP implemented by SALWACO and the funding available from DfID for Rural WASH.

Anyway, to illustrate the method and to assess the magnitude of the funding based on financial data, the following estimates can be derived as shown in Table 11
The unit rate of 50 USD per person is used since the financial data covers, in addition to the hardware investments also covers various capacity building activities and overheads.

The two methods indicate that the magnitude of investments in rural water is around 600 to 750 water points per year or 145,000 to 185,000 additional persons having access to water per year. This is lower than the estimates for the implementation of the NRWSSP that indicate that an additional about 200,000 persons per year will need to have access to water services. The NRWSSP investment plan indicate an average investment in new water systems of about mUSD 5 and a similar amount for investment in replacement of existing water systems.

### Conclusions

- the status and progress on rural water can be summarised as:

  - The annual increase in access to water in rural water will need to double from the present less than 2% per year to about 4% per year for Sierra Leone to make progress towards the SDG Targets
  - Especially, the functionality of water facilities needs attention and additional focus is needed on capacity building for community management and private sector maintenance services
  - The 2016 water point mapping seems to indicate that seasonality of water facilities based on shallow groundwater is seriously deteriorating with only 30% of the springs, wells and public standpipes functioning year-round.
  - Improvements are needed by sector management in monitoring and reporting from the many implementers and districts for the sector to be able to accurately monitor progress including unit costs.

### Table 11: Rural water investment estimates based on financial data

<table>
<thead>
<tr>
<th>Estimated Rural Water Funding per Year</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding estimates mUSD</td>
<td>9.2</td>
</tr>
<tr>
<td>Estimated number of persons served based on 50 USD/person</td>
<td>185,000</td>
</tr>
<tr>
<td>Number of water points based on 250 people per WP</td>
<td>736</td>
</tr>
</tbody>
</table>

#### 2.2.6 Small Town Water Supply

The small towns water supply section describes the status and progress on water services for the population in the small towns, defined as settlements with a population of 5,000 to 20,000 persons. Table 12 provides an overview over the number and sizes of the small towns based on the projected populations and settlement sizes from the 2004 population census. According to this data, there are 63 settlements that fall within this category. This includes 20 settlements in Western Rural District of which the majority in accordance with the 2017 GVWC Act will fall under the new GVWC service area.
Table 13 shows the list of towns that are included in the list of SALWACO service areas in the 2017 SALWACO Act. The population estimates are based on the projections of the 2004 population census data – to be updated with the 2015 data when the SSL locality frame is available.

According to this preliminary assessment of population, 9 of the SALWACO specified areas have population above 20,000 people and are therefore considered in urban areas according to the NWSP demarcation of rural/ small towns/ urban settlements.

<table>
<thead>
<tr>
<th>SALWACO towns</th>
<th>District</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1 Songo Town</td>
<td>Port Loko</td>
<td>1,456</td>
</tr>
<tr>
<td>S2 Lungi Town</td>
<td>Port Loko</td>
<td>3,932</td>
</tr>
<tr>
<td>S3 Port Loko Town</td>
<td>Port Loko</td>
<td>30,346</td>
</tr>
<tr>
<td>S4 Lunsar Town</td>
<td>Port Loko</td>
<td>49,120</td>
</tr>
<tr>
<td>S5 Mambolo Town</td>
<td>Kambia</td>
<td>3,741</td>
</tr>
<tr>
<td>S6 Kassirie Town</td>
<td>Kambia</td>
<td>568</td>
</tr>
<tr>
<td>S7 Kychom Village</td>
<td>Kambia</td>
<td>1,926</td>
</tr>
<tr>
<td>S8 Rokupr Town</td>
<td>Kambia</td>
<td>13,421</td>
</tr>
<tr>
<td>S9 Kambia Town</td>
<td>Kambia</td>
<td>19,865</td>
</tr>
<tr>
<td>S10 Kukuna Town</td>
<td>Kambia</td>
<td>4,292</td>
</tr>
<tr>
<td>S11 Gbinti</td>
<td>Bombali</td>
<td>696</td>
</tr>
<tr>
<td>S12 Batkanu</td>
<td>Bombali</td>
<td>1,276</td>
</tr>
<tr>
<td>S13 Mateboi</td>
<td>Bombali</td>
<td>1,311</td>
</tr>
<tr>
<td>S14 Kamakwie</td>
<td>Bombali</td>
<td>9,622</td>
</tr>
<tr>
<td>S15 Kalangba</td>
<td>Bombali</td>
<td>3,967</td>
</tr>
<tr>
<td>S16 Makeni City</td>
<td>Bombali</td>
<td>108,008</td>
</tr>
<tr>
<td>S17 Mile-91</td>
<td>Tonkolili</td>
<td>23,287</td>
</tr>
<tr>
<td>S18 Magburaka Town</td>
<td>Tonkolili</td>
<td>12,661</td>
</tr>
<tr>
<td>S19 Kabala Town</td>
<td>Koinadugu</td>
<td>27,295</td>
</tr>
<tr>
<td>S20 Yele Town</td>
<td>Tonkolili</td>
<td>9,703</td>
</tr>
<tr>
<td>S21 Punduru</td>
<td>Kenema</td>
<td>3,115</td>
</tr>
<tr>
<td>S22 Boajibu</td>
<td>Kenema</td>
<td>6,090</td>
</tr>
</tbody>
</table>

Total Pop 927,368

16 of the SALWACO areas fall in the small towns category and 19 are considered rural towns or communities.

The SALWACO Act prescribes that water services shall be provided in these communities on a full cost recovery basis and this will be a major challenge for SALWACO.
The MWR and SALWACO with support from the WASH Facility carried out a study in 2013-14 on the management options for the small towns. The study recommended the following most appropriate management options:

1. Community managed and operated systems should be used in the smallest towns if they use simple technologies.
2. For the majority of small town water supplies a town Water Board should be established with responsibility for overseeing the management of the water supply system. Each town should be free to decide whether to set up its own Water Department staffed by town council employees or to contract out the day to day operation to a private contractor.
3. SALWACO’s role in operating water supplies in the larger towns should be carefully reviewed and consideration should be given to reducing this role to covering only a handful of the very largest towns.

The specification of the 44 operational areas in the SALWACO Act would need to be assessed in light of the present 15 SALWACO operational areas and it would be appropriate to revisit the management options study in view of the new 2017 SALWACO Act. With the present attitude and practice towards payment for water in rural areas as revealed in the SDG Baseline study, it is likely to be a challenge for SALWACO to operate water services in the minor towns on a full cost recovery basis.

**Access to water services**

The SDG Indicator definitions for access to water services are shown in Table 14.

<table>
<thead>
<tr>
<th>Table 14: SDG Indicator definitions for access to water</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safely managed water</strong></td>
</tr>
<tr>
<td><strong>Basic water</strong></td>
</tr>
</tbody>
</table>

The access to safely managed water is likely to be minimal in the small towns. When the data from the 2015 population census and the SSL locality frame is available, it will be possible to calculate the statistics on access to basic water in the small towns.

**User Perspective and Management Options**

Small towns’ water supply in Sierra Leone remains the “forgotten middle”. Even where water facilities are constructed, management is inadequate, compromising the sustainability. A number of facilities have been built with no consideration for their managerial and financial viability. As part of the Small Towns Management Options study, a series of field visits
identified some fundamental problems that exist across a number of Small Town Water Supply Systems. These include:

- Land ownership disputes; with SALWACO water treatment and supply stations occupying land without landowners’ consent.
- Lack of clarity concerning roles and responsibilities – notably between SALWACO and local councils.
- Overly centralised management structures, with local management structures remaining subservient to SALWACO in Freetown.
- No systems or foresight for revenue generation.
- Poor system coverage and poor-quality construction when rehabilitating water supply networks and treatment systems.

Local communities have expressed willingness to pay for an improved water supply system. This is encouraging but it is important to keep in mind the obligations for SALWACO as new systems are rehabilitated and inaugurated. If management structures for small town water supply systems are to be established SALWACO need to set out how they intend to address each of the issues identified. There are significant opportunities for SALWACO to establish efficient water supply systems that generate revenue. However, the willingness to undergo necessary transitions so SALWACO becomes “fit for purpose” needs to be clearly defined and implemented.

Further analysis of the SDG baseline data will provide insight into the user perspective, water quality and payment for water issues in the small towns. The data available on small towns specifically is from the Small Towns Management Study that provided an assessment of the cost of service provision and the willingness to pay for water services as outlined below:

**Conclusions from the Initial Financial Modelling**

- Maintenance costs are significant and add approximately 60% onto day to day operating costs.
- Tariff levels of at least 15,000 Le/Household/month are needed to cover a stand-post service level if there is some cross subsidy from yard taps and house connections.
- A stand-post tariff of 22,500 Le/Household/month is needed to break even on a 100% stand-post system.
- Pumping costs are the major expenditure when both day to day operation and maintenance are considered. Anything that can be done to remove pumping or reduce pumping pressures will significantly reduce costs. Staff costs are also significant and lean management is needed to break even.
Willingness and Ability to Pay
- The tentative conclusion is that most households are only willing to pay about Le 10,000/Household/Month for a stand-post supply and about Le 20,000/Household/Month for a yard tap or house connection supply.
- The tentative conclusion is that most households should be able to afford a tariff of about Le 30,000/Household/Month.

Functionality and Unit costs

The water point mapping data needs to be assessed with reference to the SSL locality frame to be able to provide results according to the NWSP demarcation of rural/ small towns and urban areas. Without this, it will not be possible to provide functionality data on the functioning of water points and piped systems in the small towns.

Data on drinking water quality in the small towns is not available.

Conclusions on status and progress on small town water services can be summarised as:

- The small towns seem to remain the “forgotten middle” – and there are challenges with the management and the sustainability of service provision. The NRWSSP deals with many of the same challenges for the rural towns with population up to 5,000 and there seems to be need for development of a comprehensive programme and investment plan for small towns with population from 5,000 to 20,000 in line with the strategies provided in the NRWSSP and in continuation of the 2014 Small Towns Management Study.
- Data on the situation in the small towns can be improved when the SSL locality frame is available to allow for analysis of the 2015 Population Census data as well as the SDG baseline and the water point mapping data.

2.2.7 Urban Water Supply

Sierra Leone has a rapidly growing urban population estimated at 2.8% per annum. As a result, Freetown experiences major problems with slums and unplanned development. There is a historic lack of investment in expanding, upgrading and sustaining the water supply infrastructure and in particular in controlling non-revenue water and operational efficiencies.

The NWSP urban water supply target is 74%. With the current access to basic water services estimated at 72% (MISC, 2017), the urban areas are comparatively better served than rural areas.

However, there are many challenges, including: large discrepancies in access in different areas of Freetown and other urban areas, contamination of groundwater though lack of sanitation, high leakage and high percentage of non-revenue water, long periods of downtime and
interrupted supply in many areas of Freetown and lack of piped water services in the other urban areas, an unwillingness to pay, lack of human resources at the utilities, and uncoordinated urban planning.

2.2.7.1 Access to water services

The status of access to water services in urban areas will be measured according to the SDG indicator 6.1.1 for access to safely managed drinking water and the underlying service ladder, in particular the access to basic drinking water services as described in Annex C2: SDG WASH Definitions.

The MISC 2017 data shows that 3% of the urban population has access to safely managed water services defined as the percentage of household members with an improved drinking water source located on premises, free of E. coli and available when needed.

The access to basic water services defined as access to an improved water source within a collection time of 30 minutes is available for 69% of the urban population according to the MISC 2017 data. The statistics provided by the SSL use the definition of urban areas as settlements with population of more than 2,000 people. The statistics for access in urban areas therefore include the rural towns (2,000 to 5,000 people) and the small towns (5,000 to 20,000 people) according to the NWSP definition of settlements where urban areas are defined as settlements with more than 20,000 people.

The historical development in access to basic water services is illustrated in Figure 19 (black line).

There has been a steady but slow improvement from about 65% in year 2000 to the about 72% in 2015. Full access to basic services by 2030 will require a substantial increase in improvements – 7% over the past 17 years as compared to the need for 28% increase needed over the next 13 years.

Achieving the SDG targets for access to safely managed water services will, in addition, require a much higher level of investments to achieve 24/7 service provision of safe water available on premises for all households and institutions.
The urban areas in accordance with the NWSP classification are settlements with more than 20,000 people. There are 11 urban areas in Sierra Leone as shown on Table 15.

These include Waterloo and Freetown in Western Area that is included in the GVWC service area as defined in the 2017 GVWC Act and 9 urban areas included in the list of SALWACO service areas as defined in the SALWACO Act.

The towns included in the SALWACO service areas and population estimates based on projections of the 2004 Census data are listed in Table 16.

When the SSL locality frame is available, the 2015 Population Census data on access to water and sanitation services can be analysed according to settlement size to provide accurate statistics on the level of access in the SALWACO urban services areas and the GVWC service area.

**Utility water service delivery**

The definitions of the KSIs for water services provided by utilities are shown on Table 17.
There are no consistent data available from GVWC and SALWACO for these KSIs for this SPR; however, the improvements to the regulatory framework for water services by the EWSC is likely to make it possible to provide statistics on these five indicators in future ASPRs.

### 2.2.7.2 Electricity and Water Regulatory Commission

The Sierra Leone Electricity and Water Regulatory Commission (EWRC) was established by the Sierra Leone Electricity and Water Regulatory Act, 2011, to regulate the provision of electricity and water services to consumers. The Act entered into force in November 2011. Following the appointment of members of the Commission, the EWRC held its inaugural meeting on 14th of October 2014, and core technical and administrative staff were employed thereafter.

In relation to water services, the regulatory function of EWRC involves the setting of:

- Water supply tariff levels and structures
- Water supply quality of service standards
- Entry and exit requirements.

The EWRC developed seven strategic goal to ensure effective delivery of the mandate of the institution:

- Strategic Goal 1: Ensure that EWRC’s organizational capacity is strengthened
- Strategic Goal 2: Ensure market entry, competition, and universal access;
- Strategic Goal 3: Ensure that utility tariffs are based on efficient cost of service;
- Strategic Goal 4: Ensure quality of service comparable to international standards;
- Strategic Goal 5: Ensure Consumer Protection;
- Strategic Goal 6: Establish effective cooperation with international stakeholders and;
- Strategic Goal 7: Establish effective cooperation with national stakeholders.

Regulation generally is about controlling the behaviour of service providers through the performance of the above three functions, which entail the issuance of licences and permits.
on terms and conditions, drawing up and implementing standards, codes guidelines and any other instrument needed for controlling the activities of the affected entities or regulatees.

The EWRC water sector activities in 2017 focussed on:

1. Issued 12 Licences to Alternative water producers
2. Considered and approved tariff submissions and request by GVWC
3. Considered and approved tariff submissions and request by SALWACO
4. Drafted the following instruments for the regulation of the state-owned on-grid water service providers (namely GVWC and SALWACO):
   - Water (Consumer Service) Regulations
   - Water (Quality of Service) Regulations
   - Drafted the Tariff Guidelines
   - Water Codes
   - Bottled and Sachet Water Production Regulations
   - Certification (Water Supply Industry Professionals) Rules
   - Uniform System of Accounts for Electricity and Water in Sierra Leone
   - SLEWRC Template Compliance Order
   - Water Sector (Licensing Application) Rules
   - Operational development plan (ODP) for the Commission.
5. Held workshops with GUMA, SALWACO and other stakeholders to explain the import of these regulations and request their inputs.
6. Carried out public outreach programmes by organising outreach activities, to raise the awareness of water supply and Electricity regulation in Bo, Kenema and Makeni.

The EWRC is currently in the middle of the implementation of the Regulatory Strengthening Project, one of three projects supported under the mUSD 44.4 Threshold Programme for Sierra Leone, supported by the Millennium Challenge Corporation (MCC). Implementation of the Project started on the 6th of March 2017 and is supposed to end in November 2019.

Alternative water service provider project: a consultancy to conduct a study of water service provisions by small-scale independent providers and independent water entrepreneurs is ongoing and expected to be completed by July 2018. The study will contribute to better understanding of the role of these off-grid entrepreneurs in providing water service; assess the current regulatory environment for these entrepreneurs or alternative water service providers, and describe how they should be regulated; contribute to the development of quality control and pricing mechanisms for these entrepreneurs; and propose a programme to build their capacity to better deliver services, monitor water quality and manage water safety.
2.2.7.3 Guma Valley Water Company (GVWC)

Since 2012 the GVWC, with support from the WASH Facility has been implementing a number of short term performance improvement programmes to turn around the management, operational, commercial and financial performance of the company. The specific aims of the programmes were to reduce leakage, increase revenue collection, improve customer care, and to increase staff moral and financial systems within GVWC.

The National Commission for Privatisation

The National Commission for Privatisation (NCP) Act no. 12, 2012 mandates the NCP to be a policy and decision-making body with regards to divestiture and reform of public enterprises, amongst others the GVWC. The NCP’s supervisory role and interventions are aimed at improving the GVWC’s performance whilst long-term solutions are being sought. Key activities undertaken in 2017 are:

1. Terms and Conditions of Service - NCP is overseeing the review of the current terms and conditions of service due to the present huge outstanding leave and end-of-service benefits owed to current and retired staff respectively and a draft has been prepared.
2. Outstanding Debt Owed to GVWC - Through NCP’s intervention, the non-payment of huge outstanding debts by MDAs has been brought to key stakeholders such as Parliament, Ministry of Finance and State House. Based on this, GVWC is now working with various MDAs to reconcile their accounts so that both Parliament and MOFED could take action on defaulters.
3. Outstanding Obligations to Employees - The NCP has ensured that GVWC has a payment plan in respect of outstanding obligations to retired employee, the retirees are being paid accordingly and outstanding leave days accumulated by staff has been utilised.
4. Technical Adviser/Consultant - In 2017, the NCP had requested the recruitment of a highly specialized water sector technical adviser/consultant from the MCC and the Consultant is presently attached to the NCP to assist in the realignment and strategic reform of GVWC. The Consultant will be understudied by an Analyst of the NCP for a period of 1 year.
5. GVWC Act 2017 - Discussions are ongoing with the MCCU for communication strategy for dissemination of the GVWC Act 2017
6. Corporate Governance Structure - The NCP is in the process of reconstituting the Corporate Governance Structure of the Company by aligning the Board in conformity with the New Act and a Managing Director also appointed in accordance with the provisions in the GVWC Act 2017.
7. Performance Contract - A Performance Contract has been signed with the Managing Director which he will cascade to other Directors and Staff. The Performance Contract outlined specific performance targets and a weighted score of achievement based on
specific benchmarks which shall include non-revenue water, continuity of service, collection efficiency, metering coverage, service coverage in the suburbs, response time to customer complaints. The performance contract also focuses broadly on; general management, revenue collection, general accounting/ finance, water engineering, capital works programme, database management, customer relationship management, maintenance and repair, water quality monitoring, human resources development. GVWC will provide monthly, quarterly and yearly reports and NCP will carry out semi-annual evaluation of the performance of the MD and his team

8. Externally Funded Projects - The NCP Collaborated with the Presidential Delivery Team, MCCU, DFID and other Multilateral agencies to create the environment for efficient delivery of externally funded projects

9. Visitation to GVWC - The Chairman and other staff of the NCP embarked on a conducted tour to Guma Reservoirs and offices in order to have first-hand knowledge of the operations and challenges faced by GVWC, the NCP advised GVWC on mechanisms that should be effected to resolve some of the challenges

10. Way Forward for GVWC - The NCP worked with the GVWC Board and management to do a detailed write up on the way forward for GVWC to improve the financial capacity, management efficiency, to develop strategies to enhance the operational performance and water service delivery of GVWC

11. Water tariffs – NCP through the Board has collaborated with relevant stakeholders for an increase in the water tariffs. EWRC has consented on provisional tariffs and the Commission in 2017 continued with engagement of relevant stakeholders for a further review of tariffs.

12. Proposed Construction of Reservoirs - There is a proposed site for construction of new reservoirs, due diligence on the said land has been completed

13. Discussions - The NCP has actively and productively engaged with the MWR and other stakeholders in the water sector through discussions and conferences to develop strategies to enhance the operational performance of the water sector and discussed with the EWRC with regards to water tariffs

**GVWC Performance Contract (Jan 2017 – March 2018)**

In 2017, the GVWC General Manager signed a Performance Contract with H.E. the President detailing the specific outcomes to which the Company will contribute to the long-term development of Sierra Leone and also to the SDGs and Au 2063 Goals.

The outcomes to which GVWC would contribute include: improvement in the governance and water sector, good corporate governance, improved contribution to the Agenda for Prosperity, improved quality of customer service to citizens; greater capacity in the Company’s Administration; popularization and implementation of relevant policies; enhanced revenue
collection; and accountable transparent and efficient management and judicious utilization of state and donor funds.

The specific contributions of the Company during the contract period are described in the form of outputs that GVWC aims to achieve by March 2018:

1. Pro-poor Policy developed, popularized and implemented
2. The New Guma Valley Water Company Bill 2017, enacted
3. Water Quality throughout the distribution network improved
4. Effective maintenance of the Pro-Poor Community Services throughout the year, facilitated
5. Undertake comprehensive monitoring of weather patterns in catchment areas

Contingent on the availability of state and donor resources, GVWC has committed to implement or oversee the implementation of the following key projects by the end of March 2018:

1. Pro-Poor Interventions at low income communities in Freetown by constructing Water kiosks for effective supply of potable water to the urban poor
2. Institutional Strengthening and Capacity Building of GVWC Staff to effectively carry out its mandate through trainings.
3. District Metering Area (pilot project) and Hydraulic Modelling of GVWC Transmission and Distribution networks to digitalize GVWC infrastructure for effective management and reliable service delivery. These three projects cost a total of mUSD 16.0
4. Rehabilitation of GVWC Existing Infrastructure: Treatment works and facilities, Transmission and Distribution networks to increase access to potable water supply to the people of Freetown (mUSD 54.7)
5. Protection and restoration of GVWC Catchments- to recover 90% of catchments under serious threat in order to enhance sustainability of water supply.
6. Development of Water Supply Master Plan for Freetown including a Feasibility study of the Rokel River Project to provide a sustainable solution to Freetown Water supply and the proposed new city at Mamamah (mEUR 2.5)

Finally, in order to enhance managerial and operational efficiency, GVWC has committed to the achievement of key managerial indicators listed below by the end of March 2018:

1. Improve on its Finance and Stewardship through generating mSLL 30,000. Comply to set budgetary levels by 90% using an improved Institutional framework and control; increasing on appropriation in Aid to mSLL 121,000; improve on its citizen/ customer satisfaction by 80% using an independent assessor; and provide more vigorous supervision of the water catchment areas, supplies etc.
2. GVWC undertakes to increase its rate on compliance with statutory obligations to 50% through continued provisions of a safe and pure drinking water; continued strengthening of efforts towards compliance with NPPA regulations and guidelines, compliance with all water related laws and regulations, set up and comply with Corruption Integrity findings, recommendations and actions.

3. Improve on its corruption eradication drive through: Implementation of the SL-Anti-corruption strategy by 70% through strengthening of mechanism for the implementation of the ACC Systems Review recommendations, Payment for all charges goes through the National Revenue Authority (NRA), establishment of internal Audit Unit and Procurement Units strengthened.

We need status of implementation of the performance contract by December 2017

Project Implementation – Freetown Water
During 2017, considerable investments have been initiated by GVWC. This includes investments in the rehabilitation of the Freetown water infrastructure with support from DFID (GBP 38m), to be implemented together with the Millennium Challenge Corporation (MCC) Water Sector Reform Project (WSRP) that will be supporting operational improvement of the GVWC. The AfDB will be supporting the development of a Master Plan for expansion of Freetown’s water supply.

GVWC/ DfID - Freetown Water Rehabilitation Programme
The Freetown Water Rehabilitation programme is a £38 million programme that will rehabilitate key elements of the Freetown water supply Infrastructure, expected to improve access to safe water for up to 600,000 consumers, most of whom live in low income areas of the city. Project outputs are bundled into nine separate works packages, including improvements at the reservoir, leakage reduction in the bulk transmission system and replacement of the distribution network pipes. The programme is implemented by DFID and GVWC through an Engineering Procurement and Construction consortium led by IMC Worldwide.

The Project was initially divided into 9 Work Packages which comprise of about 60 work activities. Later two additional packages were included. After several discussions some activities and work packages had to be removed after the feasibility study and front-end design was completed because of the limited available funds. A prioritisation list was prepared and below is a summary of all work packages that are prioritised:

<table>
<thead>
<tr>
<th>WP</th>
<th>WORK PACKAGE (WP)</th>
<th>STATUS OF ACTIVITIES AFTER PRIORITISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guma Dam and Treatment Works</td>
<td>95% implementation. The costs of some items have reduced due to de-scoping.</td>
</tr>
<tr>
<td>3</td>
<td>Transmission mains Rehabilitation</td>
<td>Removed with only Juba bridge on. Pipes have been bought, GVWC to carry out remaining works.</td>
</tr>
</tbody>
</table>
Network Management Practices

- 100% implementation. Cost is reduced as scoped was refined.

Distribution mains rehabilitation

- 55% to be implemented

Replacement of Spur Road pumps, Installation of Governors Lodge pump and rising main, and Africanus road pumps. (All with generators)

- 20% will go ahead (Only Spur Road pumps without generator)

Project Management Unit

- 100% implementation

Technical and Environmental studies

- 100% implementation

**MCC Threshold Programme**

The Millennium Challenge Corporation (MCC) has established a USD 44.4m Threshold Program for 4 years consisting of three projects i) the Regulatory Strengthening Project; ii) the Electricity Sector Reform Project; and iii) the Water Sector Reform Project (WSRP). The WSRP with a budget of USD 16m will support:

1. Urban WASH Sector Roadmap and Coordination.
2. Strengthening GVWC’s capacity to perform core business functions and comply with emerging regulatory requirements developed under the Regulatory Strengthening Project. It will address issues with water system condition and performance, utility operations, non-revenue water, customer service, community and consumer outreach, and corruption control.
3. A District Metering Area and Standpipe Demonstration project will establish a controlled district metering area where GVWC can implement and test improved business practices and operationalize a non-revenue water strategy and pilot a PPP model for the operation and management of kiosks.

The support to GVWC is divided into two separate projects:

1. Physical Mapping, Conditions Assessment and Hydraulic Modelling of the distribution network
2. Institutional Strengthening of GVWC, Water Sector Roadmap and Construction of Pilot District Metering Area in the GVWC distribution network

This funding was primarily set up to improve the planning capacity of the institution, the efficiency of operations and the commercial management of the company. The program involves doing Physical Mapping, Condition Assessment and Hydraulic Modelling of the water distribution network. This will help GVWC Engineers to have a better understanding on how to manage the water supply system, especially at this time when demand is far more than supply.

From June 2017 to March 2018 MCCU has supported the following:
### Projects and Tasks

<table>
<thead>
<tr>
<th>Project</th>
<th>Contract</th>
<th>Funding</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Sector Reform Project</td>
<td>Physical Mapping, Distribution System Conditions Assessment and Hydraulic Modelling for GVWC</td>
<td>$1,405,391</td>
<td>Completed physical mapping of GVWC distribution network, including all existing asset such as all pipes above 100mm, public tap stands, meters, valves, pump stations, hydrant bases, reservoir tanks, encroachments and other water system features. Initiated condition assessment of GVWC distribution system – aimed to be completed by September 2018</td>
</tr>
<tr>
<td>GVWC Institutional Strengthening, Urban WASH Sector Coordination and District Metering Area and Water Kiosk Demonstration Pilot</td>
<td></td>
<td>$6,293,233</td>
<td>Signed 27-month contract with Adam Smith International (ASI) worth $6,293,233 in October 2017. The overall objective of this project is to improve revenue generation and services improvements in GVWC</td>
</tr>
<tr>
<td>WASH Sector Support</td>
<td></td>
<td>$15,000</td>
<td>Technical assistance and funding to the MWR to conduct the 2014-2016 Annual Sector Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$69,936</td>
<td>Technical assistance and funding to MWR to enact the three Water Bills – The GVWC 2017, SALWACO 2017 and NWRMA 2017</td>
</tr>
<tr>
<td>Regulatory Sector Strengthening Project</td>
<td>Alternative Water Services (AWSPs) Regulation Landscape Study</td>
<td>$615,648</td>
<td>Signed contract with NIMBA to conduct market study of AWSPs in Freetown, Bo, Makeni and Kenema, assess the institutional and regulatory landscape and contribute to recommendations to regulator AWSPs</td>
</tr>
<tr>
<td>Regulatory Strengthening and Tariff Development Support</td>
<td></td>
<td>$1,579,657</td>
<td>Provided technical support to EWRC on the following activities: 1. EWRC Organisational Development Plan 2. Final electricity and water sector cost-of-service methodologies and tariff frameworks 3. Drafted the following regulation for water utilities, waiting on Parliamentary approval: - License Application Rules and Licensing Terms &amp; Conditions - Quality of Supply Regulations - Consumer Service Regulations</td>
</tr>
</tbody>
</table>

ASI is the consultant for the institutional strengthening project, while SMEC is doing the Physical mapping and modelling of the distribution. ASI mobilised in October 2017 and SMEC in June 2017. The two DMAs at Kingtom and Aberdeen have been selected and currently the technical team is designing the water kiosks, taking inventory of distribution mains and identifying suitable locations for bulk meters.

ASI is also working on the development of a Strategic Performance Improvement Plan that will serve as the blueprint on how to operate the Company in the next 5 years. Also, a capacity building plan has been developed to train staff on how to cope with the challenges and at the same time improve on performance and standards of the Company. Six staffs, selected from the different categories of staff, are currently completing a leaning visit to Ghana Water Company Limited.
Freetown Dry-Season Water Supply Project

The City of Freetown usually faces unprecedented acute water shortages during the dry season and this poses serious socio-economic challenges and compounds the existing threat to the overall development of the country. The Freetown Dry Season Water Supply project was officially launched on the 31st of January 2017 at Baoma.

The Freetown Dry-Season Water Project included:

1. Water Rationing - The city has been divided into 10 Project Operational Areas or Zones with assigned personnel and a specific water rationing schedule implemented in the zones
2. Water Tankering – the water supplied through the piped network can only serve about 60% of the city’s population and tankering to communities that are not served by pipe network is essential since these are the most vulnerable to cholera and other water related diseases. Water tankering supplied 110 existing tanks in communities, schools and hospitals and additional 93 new tanks. A total of 10 bowser were operating on two shifts
3. Leakage Management - 20 hot spot streets in 7 different areas in the West had been identified to replace long spaghetti connections with sub-mains. 6 Teams have carried out repairs of leakages and laying mains.
4. Zonal Monitors - six Zonal Monitors were deployed to enhance coordination, order, and ensures thorough operations in monitoring and assessment.
5. Funding and construction works - The estimated budget funded by the Government of Sierra Leone was mSLL 8,928. Construction works - 4 industrial Boreholes; 22 new solar powered boreholes; 20 rehabilitated boreholes; installation of 250 tanks; supply of material for leaks; Expansion of Morgegba Bowser Collection Point.
6. Challenges – the main challenges relate to: frequent breakdown of bowser pumping
7. machines; some tank managers not effecting prompt payment for refilling of tanks; delay
8. in delivery of water to tanks due to limited number of bowser; delay in payment of 30% advanced payments for works contract; delay in importation of solar equipment; vehicle challenges for leaks management team; identification and allocation of land for tank locations; threat of theft of solar panels
9. Recommendations – the recommendations from the 2017 dry season project include: construction of more solar powered boreholes in deprived communities; procurement of more bowser to meet tankering operations to manage the additional 250 tanks installed in Communities; the Pro-Poor Community Service Unit be enhanced through the provision of additional manpower, vehicles, dedicated water bowser, motor bikes etc; timely disbursement of funds by MoFED
10. Conclusion - the Freetown Dry Season Response 2017 has been a success story as it is quite apparent that there had been appreciable supply of water to various communities in this year’s dry season on demand.
Freetown Water Supply and Sanitation Master Plan and Investment Studies – AfDB
The AfDB together with a Dutch funding agency (D2B) has approved the sum of mEUR 2.5 to do a Master Plan and Investment studies for Freetown Water Supply. This study would bring out the available options for Freetown water supply in terms of identifying long term solutions to the existing water supply situation. It will also outline the necessary investments that would be required for such an improvement. The procurement process to engage a consulting firm for the above studies has started in 2017.

WORLD BANK Funded Project
The World Bank is assisting the Water Sector in addressing areas that were affected during the 14th August 2017 mudslide. The WB will invest approx. mUSD 2.5-3.0 in infrastructure improvements, of which approx. mUSD 1.9 will be for repairs of the damaged Babadorie water system. It also includes extensions of the distribution network to Regent/ Pentagon, Kamayama, Malama, and Sheriff Drive to serve about 32,000 people. Approx. mUSD 0.5 to 1.0 of this amount will be used for construction of boreholes, the supply of water bowsers and installation of public standpipes. GVWC Management and the WB task team had completed the evaluation of bids for engagement of a consultant to help in the design of the project.

Urban WASH Consortium
The Urban WASH Consortium (FWC) (Oxfam, GOAL, Concern, Save the Children, ACF) is active in Freetown and communities in Western Rural. FWC has implemented WASH activities for 985,000 USD in 2017 with funding mainly from DFID. The main activities include:

- Constructed 20 new boreholes that is equipped with solar operated submersible pumps, 10,000 litres tank with basement, fencing of facility and construction of tap stand. The pipe network extension on 20 boreholes is currently underway.
- Rehabilitated/ upgraded 16 existing boreholes in support of GoSL dry season plan for 2017.
- Established 50 water kiosks to support GVWC to do water trucking in communities where there was severe shortage of water during 2017 dry seasons.
- FWC decentralized water governance model study under way. Regular engagement with MWR, GVWC, FCC, WARDC, UNICEF, SALWACO, and other INGOs to develop the model.

2.2.7.4 SALWACO

SALWACO Performance Contract Summary (Jan 2017-March 2018)

In 2017, the SALWACO Director General signed a Performance Contract with H.E. the President detailing the specific outcomes to which the Company will contribute to the long-term development of Sierra Leone and also the SDGs and the AU 2063 Goals.
These outcomes to which SALWACO would contribute include: implementation of the relevant outcomes in the Agenda for prosperity and in the President’s Recovery priorities; greater capacities in the Company’s Administration; more effective evidence based and consultative development; popularization and implementation of relevant policies; enhanced revenue collection; and accountable, transparent and efficient management and judicious utilization of state and donor funds.

The specific contribution of the Company during the contract period are described in the form of outputs that SALWACO aims to achieve by March 2018:

1. New SALWACO Act popularized
2. New Accounting and Commercial Policy Manual internally popularized
3. Controls Policy Manual, Reviewed and Popularized
4. All abandoned water points completely rehabilitated
5. Pro-poor connection facility, provided for the accessibility of portable water for Bo, Kenema and Makeni
6. All works on the Public Sanitation facilities in Koinadugu, Kono, Kambia, Pujehun and Bonthe Districts completed
7. Collaboration with councils for the smooth implementation of the Rural Water Supply and Sanitation Project improved.

Contingent on the availability of State and donor resources, SALWACO has committed to implement or oversee the implementation of the following key projects by the end of March 2018:

1. Construction of Waterloo Gravity Schemes. Target Population 5,000 people at the cost of mSLL 461 (Donor funded)
2. Rehabilitation of Blama Bandawor and Six other Villages Water Supply project. Target Population 15,000 people at the cost of mSLL 10,500 (Donor funded)
3. Supply and Installation of Pipe works reticulation for Blama Water Supply System. Target Population: Same target population serviced by SOTRAD Water and LARICA Investment Limited at the cost of mSLL 7,776 (Donor funded)
4. Construction of 42 Boreholes with Solar Powered Pumps and Hand Pumps in Bonthe, Kono, Kambia, Koinadugu and Pujehun Districts. Target population 10,000 people at the cost to be later determined. (Donor funded)
5. Construction of 43 Boreholes with Solar Powered Pumps and Hand Pumps in Bonthe, Kono, Kambia, Koinadugu and Pujehun Districts. Target population 112,500 people at the cost to be later determined. (Donor funded)
6. Rehabilitation/ Re-Construction of Taima & Njala Water Supply Systems – Lot 1. Parget Population 15,000, at a cost that will be later determined. (Donor funded)

7. Rehabilitation/ Re-Construction of Bonthe & Mattru Jong Water Supply Systems – Lot 2. Parget Population 13,000, at a cost that will be later determined. (Donor funded)

8. Additional 6 Km Distribution Network in Mile 91, at a cost to be later determined. (Donor funded)

Finally, in order to enhance managerial and operational efficiency, SALWACO has committed to the achievement of key managerial indicators listed below by the end of March 2018:

1. Improve on its finance and stewardship through generating mSL 12,500 tariff; comply with set budgetary levels by 97% using an improved institutional framework and control to ensure there is no drift away from planned budgets; given more powers to Finance Department and Internal Audit Committee set; training more staff on Budgetary Planning and Execution and enforce Coordination of related policies i.e. (budgetary and financial regulations); increasing on Appropriation in Aid to mSL 70,000 through proposal writing to linking and/or donor agencies; improve on its citizen/customer satisfaction by 80% through its provision of water to the target population. Periodic engagement of an independent service provider that will from time to time carryout citizen/customer satisfaction surveys and ensure to make the report public; providing more vigorous supervision of the water catchment areas supplied; publication of the report either through print media or electronic media (radio discussions) and obtaining customer call-hotlines from telecommunication companies (Sierratel and Airtel (SL) Ltd. That would allow our customers to make calls and get responses directly from the institution’s assigned personnel.

2. SALWACO citizen/customer satisfaction undertakes to increase its role on statutory obligations to 95% through continued provision of a safe and pure drinking water; continued strengthening of efforts towards compliance with NPPA regulations and guidelines; continued strengthening of the Internal Audit Unit of SALWACO; set up and comply with Corruption Integrity Committee; Institutional Strengthening and capacity building by seeking funds from GoSL and Donor Partners; increase in automation 85% through improvement in Wi-Fi at the Institution’s Headquarter and Regional/sub-offices. Website and domain; training of key personnel (finance officer and ICT Officer) for the operations of the accounting software without outsourcing the maintenance to IT consultant.

3. Improve on its Implementation of the SL Anti-corruption strategy by 90% through strengthening of mechanism for the implementation of the ACC System Review
recommendation; Payment for all charges goes through the National Revenue Authority (NRA); establishment of Internal Control Unit and Procurement Units strengthened.

We need status of implementation of the performance contract by December 2017

**SALWACO Projects**

SALWACO is implementing improvements in water supply (and sludge treatment) in Bo, Makeni and Kenema with support from the AfDB for the implementation of the ‘Three Towns Project’. The objective is to improve access to safe water supply services in the cities of Bo, Makeni and Kenema, from less than 5% to 75% by the end of the project, through rebuilding of the existing infrastructure, and to improve sanitation in schools, health centres and other public places. The project in the three towns include:

- **Rehabilitation and construction of water supply system and sludge treatment facilities in Bo with a target population of 234,991 people.** The work includes rehabilitation of raw water intake and replacement of raw water rising mains; rehabilitation of 10,000 m³/d Water Treatment Plant (WTP); construction of 16,400 m³/d WTP; construction of 5,000 m³ balancing reservoir; administrative building; and faecal sludge treatment facility. The completion at the end of 2016 is 74%.

- **Rehabilitation and construction of water supply system and sludge treatment facility in Makeni with a target population of 122,720 people.** The work includes rehabilitation of raw water intake and replacement of raw water rising mains; rehabilitation of 13,000 m³/d WTP; construction of 2,500 m³ balancing reservoir and bulk water transfer; distribution network; administrative Building, refurbishment of staff quarters and other auxiliary structures; and faecal sludge treatment facility. By the end of 2016, the project is 75% complete.

- **Rehabilitation and construction of water supply system and sludge treatment facility for Kenema with a target population of 196,285 people.** The works include rehabilitation of raw water intake and replacement of raw water rising mains; construction of 24,600 m³/d WTP; construction of 5,400 m³ balancing reservoir and bulk water transfer; distribution network; administrative Building and other auxiliary structures; and faecal sludge treatment facility. By the end of 2016, the project is 76% complete.

The value of the implementation contract for Bo is USD 18.9m with USD 12.5 disbursed by end of 2016 and for the work in Kenema and Makeni, the value is USD 24.9 with USD 19.5 disbursed by the end of 2016.
Conclusions on status and progress on urban water services can be summarised as:

- The access to water services in urban areas is relatively high compared to rural and small towns, however there are large differences in access between wealthy and poor households and different geographical areas.
- To reach the SDGs, the annual rate of increase in access will need to more than double compared to the trend over the last 17 years - huge investments are needed in rehabilitation and expansion of water services in Freetown and other urban areas.
- Improvements in water services in Freetown are expected in the coming years with substantial investments and support programmes to GVWC and EWRC - while improvements in water services in the other 9 urban areas are also urgently needed.
- The ongoing work on developing a roadmap for urban WASH will provide the strategic planning for investments in urban water services and guide and prioritise investments by SALWACO and GVWC.

2.2.8 Sanitation and Hygiene in Rural Communities

The main objective according to the NWSP for sanitation is to improve the health of communities and ensure that the majority of the population (66%) has access to sanitation services by 2015.

Specific objectives include:

- To support and provide sanitation and hygiene education that will improve peoples’ health and quality of life through acceptable hygienic practices.
- To improve communality involvement in sanitation projects for sustainable success.
- To develop and improve the capacity of communities and the involvement of people in community project decision making.
- To minimise pollution from sanitation systems.
- To develop a sustainable approach for financing urban and rural sanitation involving increased community participation.
- To have sanitation systems that are designed and constructed in a manner that they provide effective protection against disease transmission and environmental impact of waste disposal.

The underlying priority actions for rural sanitation and hygiene according to the NWSP include:
- Increase budget for sanitation, in particular for strengthening institutions and undertaking community sensitization programs.
- Complement CLTS with micro-financing to assure uptake.
- Undertake continuous monitoring of uptake of CLTS

The MICS 2017 provide information on the access to sanitation in rural areas. Only 8% of the population in rural areas have access to basic sanitation - defined as using improved sanitation facilities that are not shared. 20% have access to improved facilities that are shared and 45% and 28% use un-improved facilities and open defecation respectively.

The historical development in access to basic sanitation and improved sanitation is shown on Figure 20. The access to basic sanitation is improving very slowly from 4% in year 2000 to 8% in 2015. The definition of indicators for hygiene in households is shown in Table 18. This indicator for basic hygiene measures the presence of hand washing facility with soap and water in the household at the time of survey.

Table 18: Definition of indicators for hygiene

<table>
<thead>
<tr>
<th>Urban/rural (settlement type)</th>
<th>Wealth</th>
<th>Affordability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population with hand washing facilities with soap and water at home</td>
<td>% of population with a hand washing facility with soap and water in the household</td>
<td></td>
</tr>
</tbody>
</table>

Data on hygiene in rural Sierra Leone is available from the MISC in 2010 and 2017 as well as the SDG WASH Baseline survey in 2016. The MISC 2017 indicate that 35% of households have access to handwashing facilities and 15% have handwashing facilities with both water and soap.

*Source: analysis of MICS2017 and JMP data published July 2017

Equity of Service Provision
The data on access to water and sanitation at chiefdom and district level from the 2015 SSL Population Census and the MISC 2017 is not subdivided by rural/ urban and the MISC data is not providing access at chiefdom level. However, when the SSL locality frame is finalised, the future ASPR can include analysis of the equity for rural, small towns and urban respectively based on the 2015 Population Census data. The MICS 2017 data for access to sanitation are provided in Annex D: WASH Access at District levels.

The Population Census data on use of private facilities indicate an average Intra-District Standard Deviation (differences in access between Chiefdoms in a District) of 11% with the highest in Moyamba (20%), Kambia (17%) and Bo (15%) and lowest in Western Urban (3%) and Western Rural (6%).

The Inter-District standard deviation (differences in access to ‘private sanitation’ in different Districts) is in average between all districts 11% and highest in Southern Region at 10% and lowest in Western Area at 4%. The MICS 2017 data show an Inter-District standard deviation of 7% for access to basic sanitation services with the lowest access in Kailahun of 4.4% and (excluding Western Area which is mainly urban) the highest access is Moyamba district with 20.4% of the population having access to basic sanitation services.

Community Led Total Sanitation
The NWSP (2010) does not address CLTS as a key policy objective but mentions its uptake as part of the policy priority areas particularly complementing it with micro financing to assure uptake as well as monitor its uptake) under rural sanitation. The CLTS concept was introduced in Sierra Leone by Kamal Kar in 2008, using a range of Participatory Rural Appraisal (PRA) methods and techniques to ignite a change in behaviour (Kar, K and Chamber, R, Handbook on CLTS). It has so far been triggered and has been scaled up to over 8 districts.

The CLTS approach is non-subsidy, which mobilises the community (mainly through shame disgust and fear among whole communities about the negative effects of open defecation) in order to eliminate open defecation in communities and encourage self-supply of latrines and hand-washing facilities. The approach has virtually taken the form of community mobilisation, and the use of ‘natural leaders’ in the community to drive the process.

The MoHS is updating its policies on Environmental Health & Sanitation, and also their Community Health Worker Policy, The Expanded Sanitary Inspection, Compliance and Enforcement (ESICOME) and further developing the CLTS process - termed CLTS+. Whilst the exact approach to be followed for community sanitation is to be finalised, it is likely it would increase the role of the Community Health Workers in health and hygiene promotion, increase sanitary enforcement through the ESICOME and include Sanitation Marketing and community financing mechanisms.
The WASH KSIs include an indicator for measuring the ‘Open Defecation Free’ (ODF) communities as shown in Table 19.

<table>
<thead>
<tr>
<th>ODF Communities</th>
<th>District</th>
<th>Chiefdom</th>
<th>Community Type (RS, RC, RT, ST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New ODF Communities</td>
<td>Number of new ODF</td>
<td>The number of communities that have achieved ODF status in a year</td>
<td>Chiefdom</td>
</tr>
<tr>
<td>Total ODF Communities</td>
<td>Proportion of ODF</td>
<td>The % of communities that have ODF status</td>
<td>Community Type (RS, RC, RT, ST)</td>
</tr>
</tbody>
</table>

The 2016 WPM and SDG Baseline study included data collection on the ODF status in communities. 23% of the respondents confirmed that their community has been declared ODF, while 55% answered no and 22% don’t know. Of the communities that had been declared ODF, 66% responded that the community is still ODF while 28% responded that the community is no longer ODF. This implies a 28% slippage in the ODF communities. Continued annual follow-up surveys would be needed to provide statistics on the status of ODF communities according to the indicator definitions in Table 19.

In the main, the CLTS programmes have been driven largely by the MoHS and delivered by UNICEF and Plan International projects, under the guidance of MoHS. CLTS is included as part of the activities in the AfDB supported RWSSP (AfDB 2013) and is a key component in the NRWSSP.

Whilst CLTS has shown progress in stemming open defecation, and raising coverage of sanitation, the 2016 SDG Baseline study and the MICS 2017 indicate that only about 8% of the rural population have access to basic sanitation indicating obvious challenges with usage of toilets and hand-washing. The challenges include poor quality of toilets constructed which are often of the non-improved type; low impact of CLTS on other hygiene behaviours; institutionalising and ongoing monitoring of the CLTS process at community and district levels as well as slippage from ODF back to Open Defecation (OD) has been widely reported and acknowledged (SDG Baseline survey indicate a 28% slippage).

The activities in 2017 that has been reported by the implementation partners related to the CLTS processes include:

- Implementation of CLTS in WaterAid projects in Pujehun, and Kailahun districts with triggering ODF activities in 25 Communities with 540 household latrines constructed by the households
- CLTS projects implemented by UNICEF implementation partners in Tonkolili, Kenema, Moyamba, Pujehun, Bonthe, Bombali, Port Loko, Kambia, Western Rural, Bo and Koinadugu districts with a target number of communities declared ODF and celebrated of 668 communities
- Ongoing mobilisation of CLTS processes in 150 communities as part of implementing the RWSSP in Bonthe, Kambia, Koinadugu, Kono and Pujehun
Specific areas of progress over the last few years in Environmental Sanitation include:

- The existing Environmental Health Policy is being reviewed and abridged to ensure that all environmental sanitation components are captured. This gives direction to Councils on environmental sanitation.
- Official approval of the Environmental Health and Sanitation Directorate (EHSD) has been approved and the required staffing and institutional capacity is being developed.
- A Sanitation Strategy and Investment Plan are delayed until the EHSD is fully operational.
- Environmental sanitation activities are planned (activities informed mainly by WASH investment plans of local councils) and funded by central Government transfers in the 19 Local Councils.
- In all 19 District Councils the Environmental Sanitation Component are included in their WASH Plans, are being implemented.
- Training and monitoring gears and tools have been provided to 200 Environmental Sanitation Officers in ESICOME.
- Specific manuals and guidelines on waste management in EVD facilities, and on protecting water resources from wastes have been produced and disseminated.
- Oxfam has: established 117 Community Health Committees (585 members) and 5 WASH Management teams; trained 385 Community Health Workers and 239 Kombra Tok volunteers and distributed 10 million hygiene kits.

The government made a declaration in April 2014 at the Sanitation and Water for All meeting to increase funding in this area. One of the key challenging issues with respect to public financing of the sanitation sub-sector is disaggregating budget for Sanitation.

**Conclusions** on status and progress on rural sanitation can be summarised as:

- The access to sanitation in rural areas is very low despite some progress in the implementation of the CLTS process and subsequent improvements (CLTS+) promoting Sanitation Marketing and Community Health Clubs
- Substantial increase in sanitation activities will be needed for Sierra Leone to move towards achieving the SDG targets of access to sanitation for all.
- The NRWSSP supports the implementation of the CLTS+ process and its implementation will include substantial capacity building support to the MoHS at national and district level to implement the CLTS+ and continued environmental sanitation activities.
- MoHS to provide leadership in identification of structures and approaches that will scale up sanitation
- Enforcement of rural sanitation standards will greatly improve sanitation
2.2.9 Sanitation and Hygiene in Urban Communities

The urban sanitation sector lacks a strategy to accelerate urban sanitation. CLTS is not an option for urban sanitation in Sierra Leone. According to UNICEF, an attempt to introduce CLTS to the semi-urban Western Area of Freetown, had extremely limited success. It was found that the high population density, lack of space, and community cohesion all hindered the success of the program\(^3\).

This implies that other means of speeding up sanitation uptake should be used to encourage low-income and peri-urban populations to construct their own facilities. In these communities, communal facilities, even though considered unimproved, may be an interim solution to the sanitation deficit.

The NWSP target for adequate sanitation in both rural and urban areas is 66% and the present access is far below the 2015 target. The definition of the indicator for access to safely managed sanitation is shown in Table 5 in Chapter 2.2.8. Access to sanitation in urban households will be measured using the indicator definitions shown in Table 6.

The MICS 2017 and the JMP statistics provide information on the access to sanitation in urban areas. 27% of the population in urban areas have access to basic sanitation - defined as using improved sanitation facilities that are not shared. 47% have access to improved facilities that are shared and 22% and 4% use un-improved facilities and open defecation respectively.

The historical development in access to basic sanitation and improved sanitation in urban areas is shown on Figure 22. The access to basic sanitation is improving very slowly from 20% in year 2000 to 27% in 2017.

The definition of indicators for hygiene in households is shown in Table 18 in Chapter 2.2.8. This indicator for basic hygiene measures the presence of hand washing facility with soap and

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water in the household at the time of survey. Data on hygiene in urban areas in Sierra Leone is available from the MISC 2017 in 2010 and indicate that 33% of households in urban areas have access to handwashing facilities as shown in Figure 23.

The 2016 SDG baseline survey indicated that 19% of households have handwashing facilities with water and soap.

Urban Sanitation remains a huge challenge in the sector especially in the areas of sewerage, on-site sanitation, faecal sludge and solid waste management. Basic sanitation coverage in urban area is only 27% (MICS 2017). The major challenges facing this subsector are a comprehensive strategy for urban sanitation, institution arrangement and coordination and funding alignment.

To underpin a strategy and effectively enable service delivery, there needs to be greater clarity in the institutional arrangements, and the building of adequate capacity to handle urban sanitation. The role of sewerage networks in the future technology mix will need to be carefully considered, as it is expensive, tends to benefit only the wealthiest, and poses a challenge in terms of recovering costs. Targeted funding for sanitation have been implemented through project interventions and some these interventions were realigned for the Ebola Emergency and post-Ebola.

The Urban Road Map
The Government with support from MCC is developing the Urban WASH Road Map and the process was initiated in 2017 with the engagement of the Consultant for providing TA for the implementation of the MCC support to GVWC. The Urban Road Map is expected to address WASH generally in all urban areas including all aspects of sanitation and solid and liquid waste management.
Sanitation in Freetown

Freetown is estimated to produce 900-1000 tons of solid waste per day, comprising around 0.5 kg/capita of household waste and an unknown amount by markets and public institutions such as schools, governmental offices and hospitals. No information has been found on the amount of commercial and industrial waste, health care waste from private centres, and building and demolition waste.

The waste storage practices of the resident households are rather poor. Mixed waste which, in some cases, also includes human excreta, is stored in plastic buckets, paper or plastic bags, straw baskets etc. The composition of the waste in low density high income areas is mainly, organic residues (70%), the remaining 30% is composed of dust/ashes, plastics, textile products, glass, metals, paper and cardboard. Low income areas mainly produce dust/ash, organic matter and few plastics. These plastics are bought, in some cases, by itinerant buyers paying some money to the households. Papers from households are occasionally bought but there is not much available. The price is SLL 5000 for load of paper.

Currently, around 40% of the total solid waste of the city is collected by the Freetown Waste Management Company (FWMC) and formal and regulated informal private operators. FWMC collects the waste from government offices, private institutions and takes it to legal and illegal temporary disposal sites. The collection is done with 4 compactors (20 ton), 2 open tippers (30 ton), 1 flat-bed truck (15 Ton) and 1 tractor (12 Ton). In addition, there are containers (average size of 3m$^3$) placed strategically alongside streets. Low income areas are not served by FWMC due to difficult access, lack of equipment, and insufficient numbers of employees available for the service and a lack of funding.$^4$

Over 90% of the population of Freetown in Sierra Leone relies on on-site sanitation facilities such as pit latrines and septic tanks, but only a small proportion of the faecal sludge generated is disposed of safely. Most is illegally dumped into drains or natural waterways or buried, presenting serious health and environmental risks. Cholera outbreaks in Freetown are frequent and in 2012 more than 20,000 people succumbed to the disease, leading to nearly 400 deaths.$^5$

The institutional arrangements for solid waste management are not very clear. This raises several questions with regards to who does what. MoHS provides broad oversight of sanitation even though it is a devolved service. Local councils should be taking control of sanitation. Under the Decentralised Service Delivery Programme supported by the World Bank from 2013, solid waste management has been heavily subsidized. In Freetown however, this is not the case as it happens in all other localities, FWMC was floated to provide much needed

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$^4$ Waste Management Situation Analysis, Freetown WASH Consortium 2013

$^5$ Goal - Faecal sludge management in Freetown
solid waste services but the enormity of meeting the task was great so a private sector (Masada) has been contracted by the Government to provide services in solid waste management.

A number of questions with this has arisen, where does this arrangement leave the Freetown Waste Management Company? What role does Freetown City Council play? Who bears responsibility when the company falls short? All these questions reveal the lack of public transparency and accountability around the services provision and need to be addressed as a matter of urgency.

The DFID funded Expanding Urban Access to Water & Sanitation in Freetown – Phase 2 project (2012 – 17) implemented by the Freetown WASH Consortium (FWC) made progress in improving sanitation and hygiene education for communities in the slum and poor areas of Freetown and the Western Peninsula (Ward-C). The project started in April 2013 with an inception phase. Project activities were adapted significantly from July 2014 to provide emergency humanitarian support during the Ebola crisis in Sierra Leone in 2014/15.

The project was further extended to provide emergency WASH interventions during Sierra Leone’s early recovery from Ebola; and adapted further to respond to the subsequent Presidential Recovery Priority targets in water and sanitation. The key milestones of the project in the area of sanitation are as follows:

- Approximately 66,000 people in low income areas benefitted from better sanitation through the rehabilitation and construction of public and school toilets facilities.
- 200 schools had sanitation facilities repaired or upgraded for the reopening of schools following Ebola.
- Beneficiaries report a significant decrease in the incidence of diarrhoea in under-fives during the life of the project.
- 65,885 people benefitted from solid waste collection.
- The project provided 47,005 victims of the 2015 flooding in Freetown with emergency water and sanitation.
- An estimated 895,951 people received messages on positive hygiene behaviour

However, a major result: 25,246 households in target city sections whose latrine were to be upgraded was cancelled due to Ebola. The project has further challenges in households’ behavioural change. Whilst the project increased the proportion of households in targeted city sections with access to handwashing facilities, there was not a substantial increase in handwashing knowledge. Of more concern is that the number of people reporting that they washed their hands with soap three times a day was actually lower than the baseline. This is a good lesson for the WASH sector that behavioural changes will not be achieved in the short-term but required sustained efforts in the medium to long-term.
Through sanitation interventions FWC reached 131,885 beneficiaries and a total of 20 public toilets and 20 school toilet blocks (40 toilets) were constructed/ rehabilitated. The WASH in School project was implemented in close collaboration with Ministry of Science and Technology. This project focused on immediate repair and maintenance of WASH facilities in 200 schools to ensure back to school drive post Ebola crisis. Through this project the Consortium was able to reach 78,651 beneficiaries. In support to the Ministry of Water Resources, FWC in conjunction with local Civil Society Organisations, GVWC and other key WASH actors lobbied and designed pro poor WASH investment that was included in 24-month post Ebola Recovery Plan.

In Freetown, over 100 youth teams were trained by FWC and provided with household waste collection equipment and took part in Operation Clean Freetown. Despite the EVD outbreak, the collection and transportation of waste continued. Two skip loaders were purchased and the 10 trained waste collection youth groups remained functional throughout the outbreak covering.

**Faecal Sludge Management**

Freetown City Council (FCC) and GOAL is implementing a Faecal Sludge Management (FSM) project in Freetown. FCC’s municipal development plan aims to improve WASH facilities and strengthen FSM. This will be achieved by working with existing service providers and improving faecal sludge treatment and disposal. FCC has established a FSM unit to regulate private sector involved in the emptying of septic tanks and there has been work on building business practices in the private operators and designing plans for short/ medium and longer plans.

The Theory of Change is that if the regulatory environment for FSM is robust and responsive to the demands of city residents, and there are strengthened private sector entities with effective service level agreements utilizing appropriate technology engaging along the sanitation chain, then more Faecal Sludge will be appropriately managed.

The project implemented by GOAL aims to build a viable management model for the improved collection, primary disposal and transportation of FS to a disposal point in order to decrease the quantity of untreated faecal sludge being released into the environment of Freetown. An economically viable and technologically appropriate FSM system will lead to improved pit emptying, sludge transport, and better waste management services. This in turn, will lead to health and environmental benefits for the 1.2 million people of Freetown and increased economic opportunities along the faecal sludge value chain.

While the primary focus of the engagement was to explore a suitable management model for mobile Faecal Sludge transfer stations, this was adapted as no viable business model could be found and there was strong community resistance to transfer stations, resulting in none ever being functional. The details of the activities in 2017 are provided in Table 20.
## Table 20: Implementation of Faecal Sludge management in Freetown

<table>
<thead>
<tr>
<th>Objective</th>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strengthened regulatory environment and improved public infrastructure</td>
<td>April 2017</td>
<td>Supported the FSM Unit within the Freetown City Council (FCC) to conduct Steering Committee Meetings to bring together government, UNICEF, and NGO stakeholders to focus on FSM in Freetown.</td>
</tr>
<tr>
<td>for FSM</td>
<td>May 2017</td>
<td>Drafted Standard Operating Procedures (SOPs) for the FSM Unit, Private Sector (Vacuum Truck Operators and Manual Pit Emptiers), and the Call Centre and introduced it to stakeholders.</td>
</tr>
<tr>
<td></td>
<td>June 2017</td>
<td>Undertook situational analysis study of King Tom, Freetown’s only designated faecal sludge dumpsite.</td>
</tr>
<tr>
<td></td>
<td>October 2017</td>
<td>Co-Facilitated high-level stakeholder meeting with FCC to bring together government ministries, local government, private sector, health care workers, NGOs, and community chiefs, to distribute the Freetown Shit Flow Diagram, share results of an assessment report of the only faecal sludge disposal sites and treatment in Freetown, and develop a working group for collaborative work. This resulted in renewed interest by the African Development Bank (AfDB) and the World Bank.</td>
</tr>
<tr>
<td></td>
<td>November 2017</td>
<td>Supported establishment and launch of the Call Centre within the FSM Unit to connect customers with private sector service providers.</td>
</tr>
<tr>
<td>2. Strengthened Private Sector Entities in collection and transport of FS</td>
<td>March 2017</td>
<td>Contracted an international consultant to develop business plans for three top performing Vacuum Truck Operators (VTOs) and to evaluate the business viability of one transfer station.</td>
</tr>
<tr>
<td></td>
<td>June 2017</td>
<td>Trained and distributed new equipment to four groups of Manual Pit Emptiers (MPEs) to provide increased safety and hygiene for their work.</td>
</tr>
<tr>
<td></td>
<td>July 2017</td>
<td>Reviewed the financial services available to VTOs in Sierra Leone and linked top performing VTOs with relevant services</td>
</tr>
<tr>
<td></td>
<td>August 2017</td>
<td>Linked VTOs to investor, A Call to Business, for loan opportunities</td>
</tr>
<tr>
<td></td>
<td>September 2017</td>
<td>Developed a report on the financial viability of public latrines managed by FCC and performed an engineering assessment to rehabilitate latrines.</td>
</tr>
<tr>
<td>3. Increased community awareness, acceptance and use of appropriate FSM</td>
<td>February 2017</td>
<td>Presented results of barrier analysis on the disposal of solid waste in latrines and septic tanks in Freetown at the international FSM4 Conference</td>
</tr>
<tr>
<td>infrastructure and services</td>
<td>February 2017</td>
<td>Conducted a community baseline awareness study assessing the types of latrine/toilet facility, current method of emptying, and knowledge of FSM rules and regulations</td>
</tr>
<tr>
<td></td>
<td>November 2017</td>
<td>With FCC and Ministry of Health and Sanitation – Health Education Department (MoHS-HED), developed a mass media campaign (billboards, TV, radio, community mobilisation) to advocate for the FCC FSM Call Centre and improved sanitation practices. Messages in the campaign encourage households to empty their latrines and septic tanks on time, not to ignore a broken latrine or septic tank, not to throw garbage into their latrine, and to telephone the call centre where people can get information on service providers.</td>
</tr>
</tbody>
</table>

### Sanitation in Bo, Makeni and Kenema

The Three Town Water Supply project funded by AfDB and DFID has a component of sanitation which includes the construction of waste treatment plant in Bo, Makeni and Kenema.
Welthungerhilfe continued in its operation of solid waste management in Bo city. Solid waste services were improved in Bo, where 72% of the city’s waste is now being collected. Welthungerhilfe will phase out their support Solid Waste Management to Bo city council by the end of March 2018. To achieve this, work will need to be accelerated in developing a new landfill site, with recycling and composting facilities, on the outskirts of the city.

Activities in Makeni and Kenema will need to move from strategic planning to implementation prior to next year’s elections to develop sufficient momentum for the incoming administration to build on tangible progress.

**Sewerage Services**

Sewerage services for Freetown was the responsibility of GVWC under the 1961 GVWC ordinance. In recent times, GVWC has shied away from this responsibility and has been taken away in the 2017 GVWC Act. Without the right investment and care, the sewage system in the city centre of Freetown is old and defunct. The responsibilities for sewerage still fall under the MoHS even though not much is happening for now with the sewage system.

The current KSIs for sewerage services as defined in Table 21.

<table>
<thead>
<tr>
<th>Sewerage Service Provision by Utilities</th>
<th>Table 21: Definition of KSIs for Sewerage Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Ratio</td>
<td>Total annual operational expenditures/ total annual revenues for sewerage services</td>
</tr>
<tr>
<td>Access to sewerage services</td>
<td>Proportion of households in utility service area connected to sewer network</td>
</tr>
<tr>
<td>SDG6.3.1 Proportion of wastewater safely treated</td>
<td>Proportion of discharge water samples fulfilling discharge quality standards</td>
</tr>
<tr>
<td>Proportion of sludge from septic tanks and toilets deposited in environmental safe manner</td>
<td>Proportion of discharge water samples fulfilling discharge quality standards</td>
</tr>
<tr>
<td>Number of new connections</td>
<td>Number of new connection per year</td>
</tr>
</tbody>
</table>

**Conclusions** on status and progress on urban sanitation can be summarised as:

- There is the need for a comprehensive strategy for urban WASH including hygiene, sewerage, on-site sanitation, faecal sludge and solid waste management to address the current challenges. This include developing appropriate standards and designs as well as pro-poor strategy, communication strategy, payment for services and monitoring systems.
- Financing and capital investment for urban sanitation are hugely required if sanitation is to be given greater visibility. As it stands now, investments in sanitation are low across the board and have only been augmented by donors recently.
- Solid Waste Management has so far received some attention in urban areas but not in a comprehensive manner and especially in areas of solid waste management. Other areas such as sewerage services will need attention in the future.
- Access to basic household sanitation in urban areas is low at 24% and it has barely increased over the last 15 years. A substantial increase in sanitation activities will be needed for Sierra Leone to move towards achieving the SDG targets of access to sanitation for all.

2.2.10 WASH in Schools
Safe and child-friendly water, sanitation and hygiene (WASH) in schools are a major challenge in Sierra Leone. Ensuring that there are suitable WASH facilities and practices in schools is fundamental to gender equality, child health, and to the enhancement of educational achievement. The country did not meet the MDG for adequate access to WASH facilities and now coupled with the SDGs expanded requirement for WASH in Schools it now faces with increasing challenges and pressures to improve WASH in Schools.

The 2016 SDG Baseline survey provided good data on the access to WASH in Schools and unfortunately there is no new data available for the preparation of this 2017 ASPR. The description of the situation related to WASH in schools is therefore based on the 2016 data.

Access to Improved and Safe Water Supply
The definition of the SDG indicator for access to basic water in schools is shown in Table 22. The 2016 SDG Baseline survey included data on access to WASH in schools. The results are presented in the WASH Baseline Report 2016 and summarised in Table 23.

<table>
<thead>
<tr>
<th>Table 22: Definition of SDG Indicator for access to Basic Water in Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic water in schools</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 23: Location and accessibility of school water points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main drinking water source</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Improved</td>
</tr>
<tr>
<td>Piped</td>
</tr>
<tr>
<td>Protected Spring</td>
</tr>
<tr>
<td>Protected well</td>
</tr>
<tr>
<td>Public tap/standpipe</td>
</tr>
<tr>
<td>Rainwater collection</td>
</tr>
<tr>
<td>Tube well/borehole</td>
</tr>
<tr>
<td>Unimproved</td>
</tr>
</tbody>
</table>
Table 23 shows approximately three quarters (74.3%) of the schools surveyed had access to an improved drinking water source. Access to basic water according to the SDG definition (access for all) is 56.6% for schools covering the access within and near less than 50m near school premises i.e. 39.4% & 16.1%. The survey also reveals that the pupil either have to trek longer distances to fetch improved water (18.2) or have no access to improved water service in or near the school premises (25.7%). It is thus crucial that WASH stakeholder needs to double their effort to deliver safe water to schools.

Sanitation

The definition of the SDG indicator for access to basic sanitation in schools is shown in Table 24.

Table 24: Definition of SDG Indicator for access to Basic Sanitation in Schools

<table>
<thead>
<tr>
<th>Sanitation facilities in schools</th>
<th>Proportion of pupils enrolled in schools that provide basic sanitation services</th>
<th>% of pupils enrolled in primary and secondary schools with functional separated sanitation facilities for males and females on or near premises</th>
<th>Urban/rural Gender</th>
<th>Primary/ Secondary Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic sanitation in schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 2016 SDG Baseline survey included data on access to basic sanitation in schools. The results are presented in the WASH Baseline Report 2016 and summarised in Table 25.

Table 25: Separated sanitation facilities in schools by type

<table>
<thead>
<tr>
<th>Sanitation facilities in schools</th>
<th>Are male and female toilet facilities in separate blocks?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Improved sanitation</td>
<td>41.8%</td>
<td>30.4%</td>
</tr>
<tr>
<td>Flush to piped sewer system</td>
<td>1.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Flush to pit (latrine)</td>
<td>1.0%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Flush to septic tank</td>
<td>2.6%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Pit latrine with slab</td>
<td>19.5%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Ventilated Improved Pit latrine (VIP)</td>
<td>16.4%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Composting toilet</td>
<td>1.4%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Unimproved sanitation</td>
<td>9.5%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Flush to unknown place / Not sure / Don’t know where</td>
<td>0.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Hanging toilet- Hanging latrine</td>
<td>7.1%</td>
<td>5.0%</td>
</tr>
<tr>
<td>No facility- Bush- Field</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Pit latrine without slab / Open pit</td>
<td>1.4%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Bucket</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

*Source: SSL SDG Baseline report 2016*
Table 25 shows that 41.8% of the sanitation facilities in the schools surveyed were functional single-sex improved sanitation facilities, so the access to basic sanitation according to the SDG indicator definitions is 41.8%, although the survey was not specific on the total number per unit toilet. This is critical in determining the scale of access to sanitation facilities to the pupil.

For the most part the schools that have improved latrines keep them well maintained, in less than a fifth (17.6%) of these schools were the latrines described as dilapidated. In only a fifth (21.5%) of schools with improved pit latrines were the pits found to be full or nearly full. Over a third (37.3%) of schools have a caretaker that maintains the toilets.

In terms of accessibility for disabled pupils, only a quarter of schools (24.4%) had facilities for disabled pupils.

Hygiene
The definition of the SDG indicator for access to hygiene in schools is shown in Table 26.

<table>
<thead>
<tr>
<th>Urban/rural</th>
<th>Proportion of pupils enrolled in schools with basic hand washing facilities</th>
<th>% of pupils enrolled in primary and secondary schools with functional handwashing facilities, soap (or ash) and water available to girls and boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary/Secondary Schools</td>
<td>Hand washing in schools</td>
<td>% of pupils enrolled in primary and secondary schools with functional handwashing facilities, soap (or ash) and water available to girls and boys</td>
</tr>
<tr>
<td>Primary/Secondary Schools</td>
<td>Menstrual hygiene management in schools</td>
<td>% of pupils enrolled in primary and secondary schools with adequate and appropriate sanitary facilities for washing and change management and disposal of menstrual waste. These facilities must offer privacy, safety and dignity to menstruating students and teachers</td>
</tr>
</tbody>
</table>

The 2016 SDG Baseline survey included data on access to hygiene in schools. The results are presented in the WASH Baseline Report 2016 and summarised in Figure 24.

The survey results show that handwashing facilities were observed in 57.2% of the schools and in 29.9% of these have both soap and water. This implies that the access to basic handwashing according to the SDG indicator definition is 17.1%.

*Source: SSL SDG Baseline report 2016*
The access to Menstrual hygiene management in schools is shown in Table 27. Less than 10% of the schools surveyed had menstrual hygiene facilities.

*Source: SSL SDG Baseline report 2016

### 2017 WASH Interventions in Schools

The main stakeholders’ intervention in the schools’ WASH in 2017 is the saving life Programme funded by DFID. The project focusses mainly on primary schools.

Table 28 presents the number of school targeted in various districts in the country. Eleven of the 14 districts in the country benefited from this intervention with the exception of Kono and Kailahun. It is excepted that these districts might also benefit from other interventions, which as at the time of the preparation there were no data on intervention in these districts in any.

<table>
<thead>
<tr>
<th>District</th>
<th>No of Schools</th>
<th>Water Point Commissioned</th>
<th>Sanitation Blocks completed</th>
<th>SHC Commissioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombali</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Tonkolili</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Kambia</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Port Loko</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Koinadugu</td>
<td>61</td>
<td>61</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Bo</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Pujehun</td>
<td>17</td>
<td>0</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Moyamba</td>
<td>43</td>
<td>43</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Bonth</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Kenema</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Western Area</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>296</strong></td>
<td><strong>278</strong></td>
<td><strong>294</strong></td>
<td><strong>276</strong></td>
</tr>
</tbody>
</table>

*Source: UNICEF Sierra Leone

Table 27: Menstrual hygiene facilities in schools

<table>
<thead>
<tr>
<th>Are basic facilities for menstrual management present?</th>
<th>% of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7.8%</td>
</tr>
<tr>
<td>No</td>
<td>83.4%</td>
</tr>
<tr>
<td>No response</td>
<td>8.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

The Saving Life programme targets a total of 269 schools for either the rehabilitation or construction of water point facilities and as 2017 278 water point facilities were commissioned/ handed over to the school management committee (SMC).

In addition, the project also constructed or rehabilitated and handed over 294 toilet/sanitation facilities to the schools and also facilitated the establishment and the commissioning of 296 school hygiene committees.

The SLP focus mainly in primary schools and also it is not certain whether all primary schools in the target areas benefited to these improved WASH service. To achieve the SDGs in school
WASH more of this support to schools including JSS and SSS should be provided by the government and its donor partners keeping in sight the SDG standards.

**Standards, guidelines and designs for School WASH**

The MEST, MWR and MoHS with support from UNICEF and other Education Development Partners, carried out a school needs assessment early in 2015 which included WASH facilities, to provide up to date information on the status of schools for evidence-based planning for the reopening of schools.

The assessment was set to identify gaps requiring quick actions to be deployed to ensure the resumption of schools in a safe and protective manner, within the shortest possible timeframe and provide guidance on the measures that need to be in place for the schools to serve as safe and protective environment for children.

The MEST, MWR and MoHS in collaboration with UNICEF through the WASH working group committee developed standards and Guidelines for WASH in school activities as there are so many WASH interventions by partners that needs to be standardized across the country.

The sector has also developed standards for water supply in schools through the MEST. Whilst the NWSP (2010) suggests a provision of 4.5l/pupil per day, the WASH in School standards provides for considerably more than this and may merit further sector discussion. The emphasis is a hand dug well with hand pump and the WASH in School standards recommends 1.5l/pupil/day for drinking, 1.5l/pupil/day for handwashing, 2.5l/person/day for anal cleansing, and 2-8l/hole/day for toilet cleaning. The Supply chains and maintenance services are similar to that for the community water supplies.

Some of the main barriers to significant progress include: lack of teacher ‘champions’, inadequate funding, overemphasis on hardware rather than educational ‘software’ approaches, poorly targeted manuals (i.e. suitable for primary but not secondary schools), and inadequate hardware.

Operation and maintenance of the school WASH infrastructure is a challenge, with water-point functionality statistics being considerably lower for schools than communities. There is sometimes uncertainty at district level regarding the responsibility for O&M between MWR, MoHS, MEST and local councils for the WASH in schools. Schools often struggle to generate significant funds through the School Management Team to use for maintenance. Funds are provided through MEST/ Local councils. The maintenance services in terms of parts and mechanics available for the school WASH infrastructure is the same as for communities. The WASH in schools should be enhanced to increase the coverage for functional, safe and sustainable WASH services in schools.

Recent progress made especially as part of the post Ebola Recovery Program in 2015 and 2016 were as follows:
839 primary schools were provided with child-friendly WASH facilities, including 170 schools in support of the ‘Early Recovery’ and the safe reopening of schools. School Health Clubs to manage sanitation facilities were started in all 839 schools and approximately 248,000 pupils in 1,050 primary schools are promoting sanitation and hygiene in their schools and catchment communities through school-led total sanitation.

The FWC project made a significant contribution to the Ebola response in Freetown WASH in Schools including 110 primary schools benefited from improved water and sanitation facilities.

Progress in some School WASH programmes this last year was halted due to the EVD outbreak. Schools in Sierra Leone were closed during the outbreak meaning that all of Oxfam’s school health club activities were stopped. Furthermore, it was not possible for Oxfam to construct school latrines during the outbreak because contract workers were unwilling to work, were engaged elsewhere or allocated funds were reassigned to the EVD response. Many NGO WASH development staffs were re-assigned to EVD emergency response.

Save the Children had an existing School WASH programme from 2013. Despite the EVD outbreak most of the activities were completed, resulting in the construction of 63 school latrines and 7 wells. Furthermore, additional funding in 2015 enabled further progress to be made in latrine construction and rehabilitation at another 28 schools. Save the Children also supported the re-opening of schools, working closely with the MEST and has procured more than 700 handwashing stations (30-litre buckets with lids and tap, soap, and spare taps) in Kailahun and Pujehun districts.

In 2014, GOAL facilitated the construction of 6 latrine blocks in three primary schools in Lower Bambara chiefdom. Each primary school received 2 blocks with 3 drops holes per block. One of the drop holes is designed to be exclusively used by disabled pupils. GOAL also established School Health Clubs (SHCs) and School Management Committees (SMCs) in the three targeted schools and trained them on School Sanitation Hygiene Education. A total of 651 students and 13 teachers from the three schools were reached through this activity.

Living Water International constructed 23 sanitation facilities in 20 schools. They have created child health clubs with 700 members and have trained 68 communities in hygiene and sanitation.

Community Action for the Welfare of Children (CAWeC) had seven planned WASH activities for 2014, four of which related to schools. CAWeC were able to train 120 health club members and 20 focal teachers, from 10 schools. They were also able to partially construct 18 latrines and 7 wells. Work was halted on the latrines and wells because donor funds were diverted to the EVD response.

Action Contre la Faim (ACF) installed water supply systems, latrines and urinals at 5 schools and provided hygiene promotion at 26 schools.
Conclusions on status and progress on school WASH can be summarised as:

- The 2016 SDG Baseline survey provides information on the status of WASH in Schools and the access to basic services is a challenge: just over 30% of the schools have access to basic water; about 40% of the schools have access to basic sanitation; 17% have handwashing facilities and less than 10% have access to menstrual hygiene management.
- Substantial work has been done by the MEST and WASH partners in the development of standards and guidelines for WASH in schools.
- The NRWSSP include a comprehensive programme for WASH in schools in the rural communities (with population up to 5,000 people) and a programme of a similar magnitude would be needed to improve access to WASH in schools in urban areas.
- 2017 main progress to improve access to Safe WASH facilities is achieved through the Saving Life Program coordinated by UNICEF and funded by DFID.

2.2.11 WASH in Health Care Facilities

WASH in Health Care Facilities remains a challenge in Sierra Leone. This poses a threat to both the patients and clinical staff. Partners of WASH in Health facilities conducted a comprehensive assessment of health in health facilities in 2015. This assessment provides detail information on the status of WASH in health facilities. The 2016 ASR report discuss this in detail and progress thereof. The 2016 ASR and the SDG WASH baseline report are used as background information and thereby assess the progress made in 2017 in WASH in Health Care Facilities.

2016 SDG Baseline Survey of WASH in Health Care Facilities

Water

The definition of the SDG indicator for access to basic water in schools is shown in Table 29.

<table>
<thead>
<tr>
<th>Basic water in Health Care Facilities</th>
<th>Proportion of beneficiaries using health care facilities with basic water services</th>
<th>% of beneficiaries using health facilities with a functional improved water source on premises and water points accessible to all users at all times</th>
<th>Urban/rural</th>
<th>Gender</th>
<th>Type of Health Care Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On premises</td>
<td>65.2%</td>
<td>9.6%</td>
<td>11.7%</td>
<td>1.0%</td>
<td>87.6%</td>
</tr>
<tr>
<td>Improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piped</td>
<td>12.2%</td>
<td>1.0%</td>
<td>0.8%</td>
<td>0.5%</td>
<td>14.5%</td>
</tr>
</tbody>
</table>

The 2016 SDG Baseline survey included data on access to WASH in health care facilities. The results are presented in the WASH Baseline Report 2016 and summarised in Table 30 and Table 31.
How far is the nearest water point from the health facility?

<table>
<thead>
<tr>
<th>Source</th>
<th>On premises</th>
<th>&lt;50 metres</th>
<th>&gt;50 metres</th>
<th>Don’t know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Spring</td>
<td>0.5%</td>
<td>0.0%</td>
<td>0.8%</td>
<td>0.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Protected well</td>
<td>36.3%</td>
<td>6.9%</td>
<td>7.9%</td>
<td>0.3%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Public tap/standpipe</td>
<td>3.8%</td>
<td>0.5%</td>
<td>1.3%</td>
<td>0.0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Rainwater collection</td>
<td>0.8%</td>
<td>0.0%</td>
<td>0.5%</td>
<td>0.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Tube well/borehole</td>
<td>11.7%</td>
<td>1.3%</td>
<td>0.5%</td>
<td>0.3%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Unimproved</td>
<td>5.1%</td>
<td>1.8%</td>
<td>5.3%</td>
<td>0.3%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Surface water</td>
<td>0.5%</td>
<td>0.5%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Unprotected well</td>
<td>2.8%</td>
<td>1.0%</td>
<td>1.8%</td>
<td>0.0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Other unprotected source</td>
<td>1.8%</td>
<td>0.3%</td>
<td>1.5%</td>
<td>0.3%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Total</td>
<td>70.3%</td>
<td>11.4%</td>
<td>17.0%</td>
<td>1.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Two thirds (65.2%) of the health facilities surveyed have an improved water source on the premises, and 69% of improved water sources were reported as always having water available, so water from improved sources is available for about 45% of the health facilities. A large majority (86.5%) of facilities described their water source as being accessible to all users (both in patients and outpatients) at all times. However, 12% of health facilities are using an unimproved water source and 15% report that their water is rarely or never available from the source they use. The most prevalent reasons for this are water point being damaged or broken (23.0%), it being dry due to seasonality (30.0%) or having no supply (18.0%).

### Table 31: Availability of water in health facilities

<table>
<thead>
<tr>
<th>Source</th>
<th>Always available</th>
<th>Often available</th>
<th>Rarely available</th>
<th>Never available</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved</td>
<td>68.5%</td>
<td>7.4%</td>
<td>5.3%</td>
<td>5.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Piped</td>
<td>10.4%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Protected Spring</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Protected well</td>
<td>39.1%</td>
<td>4.3%</td>
<td>3.8%</td>
<td>3.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Public tap/standpipe</td>
<td>4.6%</td>
<td>0.5%</td>
<td>0.0%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Rainwater collection</td>
<td>1.0%</td>
<td>0.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Tube well/borehole</td>
<td>12.2%</td>
<td>1.0%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Unimproved</td>
<td>6.1%</td>
<td>2.0%</td>
<td>2.5%</td>
<td>1.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Surface water</td>
<td>1.3%</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Unprotected well</td>
<td>2.8%</td>
<td>1.0%</td>
<td>1.3%</td>
<td>0.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other unprotected source</td>
<td>2.0%</td>
<td>0.5%</td>
<td>0.8%</td>
<td>0.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>74.6%</td>
<td>9.4%</td>
<td>7.9%</td>
<td>7.1%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

*Source: SSL SDG Baseline report 2016*

### 2017 Interventions

**Following the 2015 assessment of WASH in Health Care Facilities:** A concerted effort undertaken by the WASH sector (MHS, MWR and International NGOs) stakeholders in 2015 was to conduct an evidence-based assessment of the status of WASH in Health Care Facilities in the country. As Figure 25 reveals a good number of all the districts (except Kambia with 70% without) have clinics with access to water supply in their compounds, which account between

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62% and 82%, respectively. However, a significant number of the districts clinics do not have access to safe water supply. This range between 19 % and 70% with Bombali representing lowest number of clinics without water in their compounds while Kambia scored the highest number clinics without water in their compounds. While there is a strong evidence of the existence of water supply in clinics, but their functionality is a serious challenge.

Reportedly, about 92% of the boreholes and 43% of protected hand-dug wells function throughout the year. However, more than half of the popular hand-dug well (57%) do not function throughout the year. There is also an issue with all Public Health Units in meeting the basic WASH Standard and Guidelines for Water supply in Public Health Units.

![Figure 25: Percentage of PHUs with water in compound](image)

Based on this assessment, UNICEF and its implementing partners rehabilitated/ constructed and complete 176 water point including water storage tanks (Table 32) in the clinics in 2017. Table 32 presents the water points and storage tanks installation completed by UNICEF’s implementing partners in 176 clinics in 11 of the 14 districts in the country, which include rural Western Area district. Only Kono and Kailahun district were not included in this intervention. It is expected that these districts might have benefited from some other intervention, which as at the time of compiling of the 2017 ASR report there was no information with respect to these interventions in these two districts.

### 2016/17 interventions in WASH in Health Care Facilities.

Based on this assessment, UNICEF and its implementing partners rehabilitated/ constructed and complete 176 water point including water storage tanks (Table 32) in the clinics in 2017. Table 32 presents the water points and storage tanks installation completed by UNICEF’s implementing partners in 176 clinics in 11 of the 14 districts in the country, which include rural Western Area district. Only Kono and Kailahun district were not included in this intervention. It is expected that these districts might have benefited from some other intervention, which as at the time of compiling of the 2017 ASR report there was no information with respect to these interventions in these two districts.
Sanitation

The definition of the SDG indicator for access to basic sanitation in health care facilities is shown in Table 33.

Table 33: Definition of SDG Indicator for access to Basic Sanitation in Health Care Facilities

<table>
<thead>
<tr>
<th>Basic sanitation in Health Care Facilities</th>
<th>Proportion of beneficiaries using health care facilities providing basic sanitation services</th>
<th>% of beneficiaries using health facilities with functional improved separated sanitation facilities for males and females on or near premises</th>
<th>Urban/rural Gender Type of Health Care Facility</th>
</tr>
</thead>
</table>

The 2016 SDG Baseline survey included data on access to basic sanitation in health care facilities. The results are presented in the WASH Baseline Report 2016 and summarised in Table 34.

Table 34: Separated sanitation facilities in health care facilities by type

<table>
<thead>
<tr>
<th>Sanitation facilities in health facilities</th>
<th>Do you have latrines that are for women only?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Improved</td>
<td>62.4%</td>
<td>28.7%</td>
</tr>
<tr>
<td>Flush to Piped Sewer System</td>
<td>3.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Flush to Septic Tank</td>
<td>10.9%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Flush to Pit Latrine</td>
<td>2.0%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Ventilated improved Pit Latrine</td>
<td>20.4%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Pit Latrine with Slab</td>
<td>25.4%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Composting Latrine</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Unimproved</td>
<td>4.6%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Pit Latrine Without Slab/Open Pit</td>
<td>3.1%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Flush to Elsewhere</td>
<td>1.5%</td>
<td>0.4%</td>
</tr>
<tr>
<td>No facility</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>67.0%</td>
<td>29.8%</td>
</tr>
</tbody>
</table>

Almost all health facilities (95.7%) have toilet facilities, and 91.2% of these are improved. Of the facilities surveyed, 88.5%
were found to be in use and 82.3% were found to be well maintained. However only 21.8% of health facilities have a budget for the maintenance of health facilities.

**The status of faecal disposal in clinics remains a challenge.** Open Pit latrines and followed by Ventilated Improved Pit (VIP) latrines are the most dominant in these clinics in all the Districts despite their attendant public health risks Figure 23.

![Figure 26: Distribution (%) of the Types of latrines in PHUs by district](image)

The pour flushes and flush toilet facilities, the minimum standard required for Public Health Units are the least subscribed to in most Public Health Units in the District as illustrated in Figure 23.

A very significant number of these toilets are either in a bad state of disrepair or non-functioning. The analytic situation of the pit latrines is not significantly different from VIP latrines. Here about 22% and 59% either need repair or are not functioning. The highest of the cases of the non-functioning VIP latrines are in Kailahun and Pujehun and Port Loko with 78%, 88% and 73%, respectively. Only Bo reported no case of non-functioning toilet, although 57% of them need to be repaired.

**Hygiene**

The definition of the SDG indicator for access to hygiene in health care facilities is shown in Table 35.

*Source: SSL SDG Baseline report 2016*
The 2016 SDG Baseline survey included data on access to hygiene in health care facilities. The results are presented in the WASH Baseline Report 2016 and summarised in Table 36.

Almost all health facilities (97.0%) have handwashing facilities available. Table 36 shows the placement of these within facilities.

Three quarters (75.6%) of the handwashing stations surveyed had soap, half (50.0%) had detergent and 12% had chlorine.

The access to Menstrual hygiene management in Health Care Facilities is shown in Table 37. About 40% of the Health Care Facilities surveyed had menstrual hygiene facilities.

2017 Progress Sanitation and Hygiene in Clinics

The status of sanitation in clinics has significantly improved as a result of the UNICEF’s coordinated project. Table 38 illustrate that sanitation facilities including toilets, shower, laundry and incinerators were rehabilitated or constructed in 176 Clinics across 11 districts in the country. Evidence of interventions in Kono and Kailahun district is not available as at the time of compilation of this report.
What is currently less clear are the WASH standards required for lower-level categories of Peripheral Health Unit (PHU), such as Community Health Posts (CHPs) and Maternal and Child Health Posts (MCHPs), which may not be required to meet BEmONC service levels. It is expected that this will be defined over the coming months in the working group on WASH in Health Care Facilities and is likely that the lower-level facilities would need to have access to a minimum of a well/borehole with a hand pump. While we cannot ascertain the standards used in the construction of these WASH facilities in clinic premises, it is expected they meet the standard recently agreed in the sector for WASH in Health Care Facilities.

**Conclusions** on status and progress on WASH in Health Care Facilities can be summarised as follows:

- Progress in 2017 set significant milestones in the WASH in Health Care Facilities in particular the UNICEF interventions in 11 districts excluding Kono and Kailahun.
- The sector should therefore intensify the delivery of WASH in Health Care Facilities by ensuring that all Clinics are provided with adequate WASH facilities that meet the sector standards.
2.3 WASH Management

The WASH Management section for this report focuses on two key areas: Monitoring and Evaluation (M&E) and the ‘Governance and Accountability’ issues.

These activities are key to improving the decision-making in management of WASH for both the recurrent activities and for the effective and efficient implementation of programmes. An effective and operational WASH M&E information systems is critical for evidence-based WASH planning and decision making. On the other hand, governance and accountability enhances the effectiveness and efficiency in the delivery of good quality WASH services. This section examined the sector performance in these critical areas for the effective functioning of WASH delivery services in Sierra Leone.

2.3.1 Monitoring and Evaluation

The NWSP identifies M&E as a crucial pillar to increase efficiency, effectiveness, and sustainability of the sector, enhance accountability and transparency, and eventually improve living conditions for Sierra Leoneans in line with the A4P.

The MWR set up ‘the Water Information and Management Unit’ to provide the lead role in M&E of the WASH sector in Sierra Leone. The unit has a M&E officer who is complemented by district engineers that also double as District WASH M&E officers and assisted by the district mapping officers.

The other ministerial stakeholders (MHS and MEST) also have M&E officers that are expected to effectively and jointly coordinate their efforts for the effective management of the M&E system of the sector. The MHS, Environmental Directorate that has the responsibility for the M&E of sanitation and hygiene is presently developing a sanitation M&E system using an Excel spreadsheet. While this spreadsheet is useful to identify this subsector indicators, it uses in the sector will defeat the ongoing efforts for the widespread use of a cloud-based M&E Information System in the WASH sector.

Leadership and the culture for WASH M&E are still weak in terms of routine monitoring. There remains a need for a very strong support and acceptance for routine WASH M&E based on the national framework and incorporating the roles and responsibilities of all institutions and ensuring coordination across programmes.

National WASH Sector M&E Framework: The National WASH Sector M&E Framework is perceived to consist of the following building blocks:

1. The Foundation – common definitions for indicators and common location codes
2. The ‘M’ part – common monitoring tools and formats used for data collection on all WASH aspects
3. The ‘E’ part – effective sharing of data for evaluation. Use of data for evidence-based planning and for objective assessment of strategies and policies

The M&E framework include specialised systems for regulation of water services as well as specialised systems for monitoring and regulation of water resources.

The vision is that common data collection tools (mobile phones with standard templates) are used by all WASH implementers for community level activities such as sample surveys (like the MICS and Demographic and Health Surveys by SSL), Knowledge Attitude and Practice (KAP) and Willingness and Ability to Pay (WAP) studies as well as data collection on water point mapping, CLTS reporting and standard progress reporting on implementation according to Community Project Cycle activities.

The data is automatically uploaded to WASH databases managed by a service provider. The common data is available for analysis by all WASH partners such as the Districts for preparation of district work plans, WASH MDAs for progress reporting, national level planning and evaluation of strategies etc. and NGOs for progress reporting on their activities etc.

This overall set-up of common WASH databases has to be complemented by detailed systems for water utilities and regulation of water services and for management and regulation of water resources. This is illustrated on Figure 27.

Figure 27: M&E Framework

The present apparent Gaps in the M&E Framework specifically for rural WASH are related to:

1. Inconsistent use of indicator definitions
2. Inadequate operational standard data collection and reporting tools that are universally and consistently used by all WASH implementers
3. Inadequacies in the quality of data have resulted in limited evidence based and coordinated planning and inadequate use of monitoring data for assessment and improvements of policies and strategies.

The proposed NRWSSP will support the rural WASH sector in bridging the gaps and establish an effective M&E Framework for rural WASH and for the monitoring of performance of the NRWSSP.

The implementation of the M&E framework for the WASH sector has started in 2016 with some key activities such as consensus building on definition of indicators and implementation of data collection for updating the 2012 water point mapping and a national baseline survey on the SDG WASH indicators. The scope of the national WASH M&E Framework is described in more detail in the final report on ‘Assessment of the WASH Sector Monitoring and Evaluation in Sierra Leone and the Development of Proposal for Support and Strengthening’.

The web-based tools and data management platform for the Sierra Leone WASH data have been established and the data collection for updating the water point mapping and baseline data collection for the SDG WASH indicators was carried out in 2016. The data platform is illustrated on Figure 25.

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6 ‘Assessment of the WASH Sector Monitoring and Evaluation in Sierra Leone and the Development of Proposal for Support and Strengthening’, March 2016, MWE/ AfDB.
Monitoring WASH data is essential as it provides knowledge about the status of WASH services, coverage, and functionality. However, knowledge is not enough. The data must be valued and used to enable appropriate action to be taken. In the absence of full implementation of the M&E Framework, the WASH sector in Sierra Leone is largely reliant on the JMP and the SSL MICS surveys and population census to assess progress.

This SPR has been prepared using the proposed indicators and also taking into account the indicators defined for SDG 6 targets. Further consultations on assessing and prioritising the indicators is needed and it will be important to consider that the monitoring of water resources and regulation of water abstraction and discharges will require substantial efforts when the National Water Resource Agency is fully operational. The water resources management indicators are therefore limited to the SDG6 indicators and other preliminarily defined key indicators.

Likewise, the regulatory framework for regulated water services by established water utilities such as Guma and SALWACO will require a detailed definition of performance indicators. The
EWRC is in the process of developing the regulatory framework for operationalising the regular performance monitoring and this will define the indicators for regulated water services.

The 2016 WASH Mapping update and the SDG Baseline survey marked a major achievement for the WASH sector. However, the 2016 WASH baseline was not updated in 2017 and left the gap as to how much actual progress was attained in 2017. For the WASH M&E Framework to be operational and become a decision-making tool, it should be updated on a regular basis to provide data for decision makers and planners. To date, the M&E data collection and data management tools still need to be operationalised across all the WASH MDAs, Districts’ M&E/Engineers and mappers, and implementation partners (NGO). This should be part of the on-going activities of District Engineers/M&E officers, Mappers, NGOs to ensure the effective functioning of the M&E System/Framework as illustrated above.

The only major data available to determine progress in the WASH sector is the SSL Multi-Indicator Cluster Survey (MICS 6). The sixth round of the MICS 6 Survey conducted in 2017 illustrate the progress made towards access to improved water sources in general. The finding indicate that the sector is gaining momentum with over 67% of households having access to improved water supply service.

However, the country is overtly losing in the sanitation and hygiene fronts, which thereby limit gains made in the improved access to water supply service. As the MICS (2017) report shows, about 97% of households drinking water is contaminated with E-Coli. Progress is also reported in the access to improved and share toilet facilities accounting for just a little less than 50%. However, only about 24% of households has handwashing facilities with soap or detergent.

<table>
<thead>
<tr>
<th>MICS INDICATOR</th>
<th>SDG</th>
<th>Module</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIVE IN A SAFE AND CLEAN ENVIRONMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WS. 1</td>
<td>Use of improved drinking water sources</td>
<td>WS</td>
<td>Percentage of household members using improved sources of drinking water</td>
<td>67.8</td>
</tr>
<tr>
<td>WS. 2</td>
<td>Use of basic drinking water services</td>
<td>1.4.1</td>
<td>Percentage of household members using improved sources of drinking water either in their dwelling/yard/plot or within 30 minutes round trip collection time</td>
<td>59.5</td>
</tr>
<tr>
<td>WS. 3</td>
<td>Availability of drinking water</td>
<td>WS</td>
<td>Percentage of household members with a water source that is available when needed</td>
<td>71.3</td>
</tr>
<tr>
<td>WS. 4</td>
<td>Faecal contamination of source water</td>
<td>WQ</td>
<td>Percentage of household members whose source water was tested and with E. coli contamination in source water</td>
<td>89.6</td>
</tr>
<tr>
<td>WS. 5</td>
<td>Faecal contamination of household drinking water</td>
<td>WQ</td>
<td>Percentage of household members whose household drinking water was tested and with E. coli contamination in household drinking water</td>
<td>97.0</td>
</tr>
</tbody>
</table>
In its recent mission, ADB Task Team Leader (TTL) commended the WRD M&E/Officers/Engineers in their efforts in monitoring the on-going RWSS and the three town Water Supply Project. However, the monitoring information of these District M&E is not accessible at WRD headquarters because the monitoring data is easily accessible in the cloud for WASH stakeholders to access same. This made progress has made progress in the sector is little known by decision-makers and stakeholders.

The effective coordination for a more unified M&E system remain a challenge in the sector. Key among this challenge is a buy-in of the cloud/Android M&E tool and the use of the tools for M&E data collection by all WASH stakeholders. The application of these tools will create a universal access to WASH M&E data and information to all stakeholders and thereby improve evidence-based planning and decision-making.

However, the sector has continued to make progress towards a single M&E Information System (MEIS) that will be accessible to all stakeholders in the sector. In 2013, the Water Directorate started the formulation of Key Sector Indicators for monitoring of the performance in the sector and subsequently develop the WASH M&E Framework. A WASH sector workshop was also organised to align the WASH sector indicators to the SDGs.

An SDG Baseline survey and Water point mapping update was conducted using a web-based platform (AKVO) for data collection, analysis and reporting. The baseline survey and the use of AKVO cloud management information system opens a new and big opportunity for the

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<table>
<thead>
<tr>
<th>MICS INDICATOR</th>
<th>SDG</th>
<th>Module</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WS. 6 Use of safely managed drinking water services</td>
<td>6.1.1</td>
<td>WS – WQ</td>
<td>Percentage of household members with an improved drinking water source on premises, whose source water was tested and free of E. coli and available when needed</td>
<td>1.5</td>
</tr>
<tr>
<td>WS. 7 Handwashing facility with water and soap</td>
<td>1.4.1 &amp; 6.2.1</td>
<td>HW</td>
<td>Percentage of household members with a handwashing facility where water and soap or detergent are present</td>
<td>23.5</td>
</tr>
<tr>
<td>WS. 8 Use of improved sanitation facilities</td>
<td>WS</td>
<td></td>
<td>Percentage of household members using improved sanitation facilities</td>
<td>48.2</td>
</tr>
<tr>
<td>WS. 9 Use of basic sanitation services</td>
<td>1.4.1 &amp; 6.2.1</td>
<td>WS</td>
<td>Percentage of household members using improved sanitation facilities which are not shared</td>
<td>16.5</td>
</tr>
<tr>
<td>WS. 10 Safe disposal in situ of excreta from on-site sanitation facilities</td>
<td>WS</td>
<td></td>
<td>Percentage of household members with an improved sanitation facility that does not flush to a sewer and ever emptied</td>
<td>89.4</td>
</tr>
<tr>
<td>WS. 11 Removal of excreta for treatment off-site</td>
<td>6.2.1</td>
<td>WS</td>
<td>Percentage of household members with an improved sanitation facility that does not flush to a sewer and with waste disposed in-situ or removed</td>
<td>9.6</td>
</tr>
<tr>
<td>WS. 12 Menstrual hygiene management</td>
<td>UN</td>
<td></td>
<td>Percentage of women age 15-49 years reporting menstruating in the last 12 months and using menstrual hygiene materials with a private place to wash and change while at home</td>
<td>91.7</td>
</tr>
<tr>
<td>WS. 13 Exclusion from activities during menstruation</td>
<td>UN</td>
<td></td>
<td>Percentage of women age 15-49 years reporting menstruating in the last 12 months who did not participate in social activities, school or work due to their last menstruation</td>
<td>20.1</td>
</tr>
</tbody>
</table>

Source: MICS6 data
WASH M&E stakeholders to be able to make available M&E information to all interested stakeholders at a click of a button. In addition, the WASH SDG baseline, if regularly updated will not only improve evidence-based decision-making and planning but will also provide crucial information for the sector performance that will showcase progress or not in the sector during the annual WASH conference.

2014 to 2017 M&E Activities

The activities planned and implemented by the M&E Unit in 2017 are listed in Table 40.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Focal person and lead institution</th>
<th>Challenges</th>
<th>Aspiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalization and harmonization of National and District Indication</td>
<td>Mohamed Bah, MWR and MoHS</td>
<td>Lack of funding and the participation of other sector players.</td>
<td>Having a unify framework for monitoring the sector.</td>
</tr>
<tr>
<td>Routine Monitoring of council activities</td>
<td>WD</td>
<td>No, Funds and clear roles and responsibility</td>
<td>improve M&amp;E information management and communication</td>
</tr>
<tr>
<td>Monitoring of Services providers (SALWACO &amp; GVWC) Activities</td>
<td>WD</td>
<td>No Funds</td>
<td>Effective services delivery</td>
</tr>
<tr>
<td>Monitoring Ebola WASH response</td>
<td>WD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed Sierra Leone SDG's paper</td>
<td>Mohamed Bah and MoFED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment of Country Led M&amp;E</td>
<td>MWR, MoHS, UNICEF and IRC</td>
<td></td>
<td>Country ownership rather than a project activity</td>
</tr>
<tr>
<td>Development of the National WASH M&amp;E Framework and the Gaps and Needs Assessment</td>
<td>Mohamed Bah with support from AfDB appointed Consultant</td>
<td>Work delayed due to EVD</td>
<td>The framework is still to be implemented</td>
</tr>
<tr>
<td>WASH Baseline and Water Point Mapping.</td>
<td>MWR, SSL and Partners</td>
<td>Coordination, late disbursement and the activities was implemented during draining season</td>
<td>Assessing and stack taking of wash status</td>
</tr>
<tr>
<td>6th Round of the MIC Survey Conducted</td>
<td>SSL and UNICEF</td>
<td></td>
<td>Determine inter-census progress in access to improve and safe water supply and sanitation</td>
</tr>
</tbody>
</table>

The MWR M&E Unit has since 2014 developed the ‘WASH M&E Framework’ with assistance from the AfDB and has implemented an update of the WPM and carried out the SDG Baseline survey in 2016. The Sierra Leone WASH SDG Baseline survey was conducted as a nationally representative survey providing baseline data for the SDGs implemented jointly by the WASH Sector institutions and SSL. Interviews were conducted in 10,562 households, as well as in
health facilities and schools in all districts. Sanitation service providers and retailers were also interviewed, in order to better understand factors affecting this market.

The 2016 WPM survey was completed alongside with the SDG Baseline and aimed to update the water point mapping completed in 2012. Data from over 31,374 waterpoints were collected across all districts. This provides a baseline for continued monitoring of waterpoints as data can be disaggregated down to chiefdom and section level. Data was collected on waterpoint type, functionality and seasonality of waterpoints. It was found that 78% of waterpoint nationwide are functional, while approximately 50% are seasonal. This report gives a brief outline of the findings, but the complete dataset is available from [http://washdata-sl.org](http://washdata-sl.org)

**2017 Report**  
Evidence of progress in setting up of the M&E Information system (MEIS) is still painfully slow. After the progress made in conducting the SDG baseline, the only meaningful progress is the national MICS conducted in 2017 that generated detail information on WASH indicators of Access to improved water supply and sanitation as well as the status of households’ water quality and hygiene.

<table>
<thead>
<tr>
<th>Conclusions on status and progress on WASH M&amp;E can be summarised as:</th>
</tr>
</thead>
<tbody>
<tr>
<td>− The WASH MDAs and implementation partners have defined the national WASH M&amp;E Framework and have carried out the 2016 Water Point Mapping update and the SDG WASH Baseline survey. While these are major achievements, the operationalisation of the data collection and data management tools still needs to be achieved across all the WASH implementation partners</td>
</tr>
<tr>
<td>− The difficulties in collecting actual data on project implementation by the various MDAs, Districts and NGO implementing partners for the SPR is an indication that there is still not a functioning WASH M&amp;E system in Sierra Leone.</td>
</tr>
<tr>
<td>− The development of the detailed data management systems for water resources management and for regulated water services will need sustained efforts and collaboration by all WASH MDAs and partners to ensure that the data becomes an integrated part of the M&amp;E Framework</td>
</tr>
</tbody>
</table>

**2.3.2 Governance and Accountability**
Effective governance and accountability of WASH interventions require a transparent access to information to improve joint decision making about WASH management and service delivery. An effective governance of water resources and services requires the adherence to transparency, the rule of law as well as to checks and balances, to ensure that not only
consumers and implementers but also elected officials and those in public service account for their actions and answer to those they serve.

On the other hand, accountability and transparency demand stakeholders’ participation and coordination with each other in an inclusive, transparent and accountable manner as a necessary precondition for more sustainable water, sanitation, and hygiene interventions and services.

Transparency which is a condition for improving accountability and minimising corruption refers to openness of governance processes and free access to official information. Increased access to information enables citizens to understand the work of government and service providers, and more transparency can put pressure on all to be accountable and perform better.

The 2013 ASR WASH Conference reiterated previous WASH commitments to improving governance and accountability in the WASH sector in line with the intents of the NWSP. These ensured that the public is informed, that policies, programmes and projects sufficiently consult users and reflect their needs in design and implementation, that government and implementing partners are accountable in WASH delivery, and that CSOs and NGOs have adequate capacity to perform their advocacy role as well as implementing partners.

The two key sector leaders in WASH delivery, the Ministries (MWR and MoHS) have taken some strides through the establishment of platforms in facilitating participation of national civil society and international NGO inclusion in the routine coordination and are involving sector policy implementation processes through the fortnightly WASH coordination meetings even though the outbreak of the EVD disrupted this trend as NGOs and CSOs mostly focused on humanitarian activities during 2014 and part of 2015. This brought about its own opportunities as the EVD WASH Coordination Group emerged and fostered collective action by NGOs and CSOs under Ministerial leadership at the national level and supporting Local Councils and District Ebola Response Committees in WASH Coordination. The year 2017 has not seen a resumption of this WASH coordination activity at the central and district level.

At the higher level of Governance and the institutionalisation of good practices in the sector, frameworks exist for all sector actors to conform and comply with. What is however missing is that mutual accountability at all levels is still evolving. The 2014-16 ASPR which are still relevant to 2017, underscored the need for a greater commitment across the sector for systematic reporting of progress in the sector on a routine basis and not to wait for the annual sector review to scramble for information on the sector progress.

Second, Government must define progress markers, set out the reporting framework and lead the drive to encourage all partners to report on a routine and consistent basis. Third, Donors and International NGO partners should demonstrate their commitment to support policies
and strategies in the sector and remain open to provide information about their activities as well as provide answers to relevant questions from government. Donors such as DFID has a web-site portal where one will be able to access progress including DFID support in Sierra Leone. The WASH sector should evolve such that all information on activities progress in the implementation and achievement should be access in a freely available web-enabled management information system database.

The WASH ministries generally have a cadre of professional staff and are mostly professional in their approach even at this stage of their evolution, but they are also known for being massively under-funded and under-equipped even though with the drive to promoting the importance of investing in the sector, the situation is slowly changing, but there is still more progress to be made through targeted capacity building initiatives.

In addition to this, the fragmentation of sector responsibilities across ministries causes problems. For example, MWR have oversight responsibilities for water resources and safe drinking water but not for sanitation (water related) and hygiene, making WASH issues difficult to tackle in isolation. With multiple structural, management and funding problems to address, and with limited access to resources, good governance concerns do not always seem like a top priority even though it is a must. MWR and MoHS are still some distance away in trying to consistently get all partners (donor and INGOs/ NGOs and other associated MDAs) in a coordination arrangement and provision of information on their interventions and progress thereof with some regularity.

Better sector governance at the local level is dependent on changes in the way local councils and implementing partners operate. Some officials hide behind administrative rules and regulations, raising obstacles and objections to all new suggestions. Others simply do not have the funds to do what is needed for the effective coordination M&E data collection and management. All are more cautious about how new ideas like regular dialogues with communities or multi-stakeholder meetings will affect their workloads, deliverable and self-development.

These factors are identified by partners (NGOs and CBOs) as the key barriers to achieving sustainable good governance. Partners have a good understanding of the realities and limitations of local councils but the roles they can play are limited. They can build capacity in prospective and specific areas of NGO expertise, and advocate at district and national levels on issues such as participation, transparency and accountability, particularly for the ongoing reforms in the sector. In the past four years only seven local councils (Kenema, Kailahun, Koinadugu, Tonkolili Kambia, Moyamba and Bonthe districts) had experienced with consistent facilitating sector coordination.

In Sierra Leone, making local government effective in the sector will require just a bit of streamlining. Decentralization of responsibilities and finances is already a great step forward,
but this can be successful only if there are also a critical mass of well qualified, well-equipped and, most importantly, well-managed staff, to undertake all planned work.

Public Financial Management (PFM) Reform (PFMR), which is a key target for donors and recipient governments to improve the management of limited resources is an on-going intervention by the government of Sierra Leone. In particular, Financial Management Information Systems (FMIS) aim to improve budgeting by linking it to government approved strategy, and to improve expenditure and revenue execution and recording to support regular reporting by government and its entities. It seeks to improve openness, accountability and transparency.

The local government finance unit is another important unit of government to improve accountability. In addition, sustainable reform generally requires continuous and extensive capacity building for public servants at all levels. Sector reforms in WASH service delivery need to be passionately addressed by national government, in cooperation with multilateral and/or bilateral donors/development partners who may provide both technical advice and financial support.

In many developing countries, the support of bilateral and multilateral donors and UN agencies play a key role in facilitating good WASH sector governance and ensure that it is sustainable. This is not only a matter of promoting good governance and providing financial and technical support to governments and NGOs. It is also important that they promote good governance by setting a good example themselves by becoming more accountable and transparent in their operations, and more open to dialogue with a wider range of stakeholders. It is also critical that major WASH sector donors reflect on how they can achieve much better coordination of their activities, projects and approaches, so that these are coherent, prevent fragmentation and minimize the bureaucratic burden on government.

The strategies of NGOs need to recognize that they will not be able to address all the elements required for good governance achievements to become sustainable. Yet without these changes, their own achievements are vulnerable to changes in local and national circumstances. To address this, they need to ensure that those with the ultimate power to ensure their wider objectives are addressed are targets for their advocacy.
In conclusion:

- WASH Sector Management has the potential to improve significantly if all sector implementers (MDAs, Districts and NGOs) use the data collection and reporting tools that are envisaged in the M&E Framework and all implementers are willing to share information.

- The transparency provided by using the M&E Framework will need to be supplemented by continued efforts at all levels to improve accountability and good governance. Only by ensuring transparent and accountable procurement processes and high-quality contract management and implementation supervision, can the private sector develop to provide high quality and cost-effective services.

- The obligations of WASH Implementation Partners to contribute within a Government/local Government led planning and reporting framework is crucial for reaching the SDG targets as there is substantial implementation capacity in the WASH NGOs that the sector needs to benefit from.

- The implementation arrangements should be documented in Service Level Agreements (SLAs) between the implementing partners, the District Councils and the respective MDAs - and the implementation of these SLAs must be tracked using Android base software and a national WASH MIS Database.
2.4 WASH in Emergencies

The WASH in emergency section attempts to give a holistic picture of the WASH activities related to emergencies such as Ebola, Floods, Drought and Cholera, etc. depending on the situation during the reporting year.

The scale of the Ebola epidemic has brought the sharp focus of the importance of WASH in emergencies and the need for contingency planning and preparedness for an emergency at all times. The focus of the 2017 report is to examine structures and plans that are in place to address emergencies.

The lessons learnt from the Ebola outbreak is that emergencies if not planned for has the tendency to engulf and derail development efforts of the sector. For example, many of the WASH activities in 2014-2015 were either reassigned or delayed as the government and other WASH agencies responded to the outbreak of the Ebola Virus Disease (EVD).

The SDGs also affirmed and underscore the need to address emergencies that takes a cue from the Millennium Development Goal. The SDG target 11.5 asserts that:

“By 2030, significantly reduce the number of deaths and the number of people affected and decrease by [x] per cent the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations”.

This will be measured by.

- SDG Indicator 11.5.1: Significant or the lowest possible number of people killed, injured, displaced, evacuated, relocated or otherwise affected by disasters.
- SDG Indicator 11.5.2: Significant or the lowest possible number of housing units damaged and destroyed by any disaster.

Sierra Leon like most Sub-Saharan countries are prone to disasters that are either man-made or natural or both. The 10 years civil war brought in its wake human and environmental emergencies and lessons learnt thereof. A key outcome of the lessons learnt is the establishment of the office of National Security (ONS). The ONS’s Disaster Management Department (DMD) is charged with central responsibility of coordinating and the management in collaboration with MDAs and Donors of national emergencies resulting from major disasters both natural and man-made.

As disaster management and risk reduction are considered to be multi sectoral, multi-faceted and multi-disciplinary, the DMD at ONS collaborate with the public sector, private sector, UN Agencies, NGOs, Local Government Councils and Local Communities in identifying risk, vulnerability and hazards and in the implementation of actions.
In 2006 the Disaster Management Policy was formulated, which set-out a framework for emergency preparedness and coordination. Coordination, through the National Disaster Management Department in the Office of National Security with the lead government institution to coordinate and facilitate all issues pertaining to disaster risk management. The roles and responsibilities of various ministries, departments and agencies including WASH were articulated.

WASH in emergencies has been a key focus area in the post war and post-Ebola. In 2016 following the 2015 floods, a national policy for floods preparedness was formulated. The intent of this policy is to ensure that Sierra Leone puts in place all necessary preparations to limit the impact of a Flood in the country, and to set-up structures capable enough to deliver a multi-agency response when a flood occurs. The aim is to deliver a coordinated and integrated national effort to minimize the impact of a Flood and provide support and care to all those may be impacted by the flood event at a given time.

In 2017, the department of Disaster Management developed a National Disaster Preparedness and Response Plan (NDPRP) with the aim to establish a comprehensive all-hazard approach to national incident management of activities including preparedness, prevention, mitigation, response and recovery. The plan provides a framework of interaction between the State, NGOs, UN Agencies, Private sector, Community-Based Organisations and Youth Groups. It also among other coordination related matters established a mechanism to maximise the integration of incident-related prevention, mitigation, preparedness, response and recovery. It spells out the process and methodology for implementing and managing national recovery and mitigation programmes and support.

Also, in 2017 the Ministry of Health and Sanitation formulated the National Health Strategic Plan (NHSP 2017-2021). The NHSP among other key focus areas also underscored the importance of health in emergencies to be coordinated by the environmental sanitation department jointly with other stakeholders.

The 2017 Flood and mud slide emergency was like no other in terms of scale and ill-preparedness to address the disaster of this magnitude. In the mist of this huge challenge government/ ONS was able to rally stakeholders to deal with the threat in an unprecedently good time. The WASH sector with support from donors and lead by UNICEF the following actions were undertaken:

- UNICEF supported the formalization of the WASH pillar coordination platform. WASH actors were deployed to specific geographical areas to ensure proper coverage.
- The rain water harvesting system in the Kaningo temporary displacement centre was repaired and additional plastic tanks (6,000 litres) were installed in the Lumley area.
- The three broken toilets at the Kaningo holding centre were repaired and made all the toilets fully functional and the mobile latrines were also decommissioned.
• The construction of temporary gender disaggregated latrines at the temporary displacement centre in the Soio elementary school in Regent were completed.
• The regular supply of water to the two main temporary displacement centres by the Guma Valley Water Company was maintained on a constant basis.
• Hygiene education at the two centres as well as in the communities that are within the vicinity of the centres was provided.
• UNICEF, through its implementing partners ADP and GOAL, supported the provision of WASH services in health facilities in four hospitals and in an additional six peripheral health units.

**In summary:**
- Sierra Leone is prone to emergencies with attendant consequences, as the country has little ability to predict disasters of subsequent dry and rainy seasons. There is therefore the desired need for the WASH sector to annually plan for emergencies such as Floods, Mud-slides, Cholera, Droughts, etc.
- The EVD and the mudslide emergencies have been a big wake-up calls for the sector. It informed the need to improve coordination and the need to improve and sustain WASH services in institutions and communities.
- The Mudslide and flooding that follows also tested the effectiveness of the WASH in emergencies. In spite of difficulties which call to question the lack of national fund for emergencies, with support from donors both within and without averted, attendants negative impact to the national tragedy.
3 CURRENT STATUS OF WATER RESOURCES MANAGEMENT

This chapter presents the status and progress in relation to water resources management in areas such as water quality, water quantity monitoring, IWRM and trans-boundary activities.

Sierra Leone is well endowed with water. It has a mean annual rainfall of 2,526mm (FAO, 2005), which amounts to approximately 80-100km\(^3\)/year when accounting for evapotranspiration losses (Carter et al., 2014; MWR, 2015). However, without significant surface water storage or major aquifers, much of the runoff discharges to the sea unused. Sierra Leone also suffers from temporal uneven distribution of rainfall (as much as 90% of the annual discharge of all the rivers occurs from May to November (GoSL, 2004a). This means that concerns over dry season water demands (such as commercial agriculture) are legitimate, because from February to April river flows are at their lowest.

The Water Point Mapping survey (Hirn, 2012) showed that in 2012 37% of waterpoints mapped were non-functional and 51% were seasonal (i.e. they fail to deliver water all year round) and the proportion of seasonal waterpoints is increasing as shown in Chapter 2.2.5 above. Therefore, Water Security – ‘the assurance of sufficient quantity and quality of water for all the uses to which water is put; combined with low risk from water-related hazards (floods and droughts)’ requires significant attention within the WASH sector.

The Government’s commitment to achieving water security for its people is evidenced by the establishment of the NWRMA and the determination to re-establish hydrological monitoring, with the ambition to create national monitoring networks for precipitation, river flows and groundwater.

3.1 Enabling Environment

This chapter presents the enabling environment in terms of the Policy, Legal and Strategic Framework; and the issues concerning Institutional Capacity at regional, national, local government and community level as well as aspects of Planning and Finance for Water Resources Management in Sierra Leone.

Sierra Leone is well-endowed with water. It has a mean annual rainfall of 2,526mm (FAO, 2005), which amounts to approximately 80-100km\(^3\)/year when accounting for evapotranspiration losses (Carter et al., 2014; MWR, 2015); without significant surface water storage/ major aquifers, much of the runoff discharges to the sea unused. This country also suffers from temporal uneven distribution of rainfall – as much as 90% of the annual discharge of all the rivers occurs from May to November (GoSL, 2004a); meaning that concerns over dry

\(^7\) Definition taken from the DFID funded Water Security Project, Sierra Leone.
season water demands (e.g. commercial agriculture) are legitimate, because from February to April river flows are at their lowest.

The Legal Framework for the National Water Resources Act 2017 has now been promulgated. This proposed resource regulator (NWRMA), now requires to be established to get it functioning. As such it now requires addressing Institutional Development and Capacity issues relating to regional, national, local government/ community level as well as aspects of Planning and Finance for Water Resources Management in Sierra Leone.

### 3.1.1 Policies
Effective Water Resource Management is a key policy prescription in the NWSP that will promote the optimal, sustainable and equitable development and use of water resources. The policy recognizes the fact that an Integrated Water Resources Management (IWRM) approach is required to ensure that water does not become a constraint to national development.

The Water (Control and Supply) Act of 1963 that has been the main legislative instrument guiding sector activity is outdated and does not account for more recent changes in WASH policy. This focus of this Act was to “provide for the control of natural water supplies and to regulate the supply of water to the public”, with little focus on drinking water supply; there was no agency or national authority responsible for overseeing the country’s water resources.

The rapidly growing demand and diversified water use, is making water become increasingly scarce with consequences on quality. This is aggravated by current practices whereby planning, development and management of the resource are approached from a sectorial perspective without proper coordination among the relevant stakeholder institutions. The core objective of the NWSP Policy for Water Resources Management is to develop a comprehensive framework for promoting the optimal, sustainable and equitable development and use of water resources.

### 3.1.2 Institutional Capacity
The MWR perform policy and sector leadership functions. The MWR’s Water Directorate provide technical and back-up support to local councils and the broader WASH sector. The WASH sector leaders (MWR and MoHS) do not directly supervise the regulatory agencies and the service delivery agencies. Instead, they set the policy framework within which all sector actors must operate. At the policy levels roles and responsibilities are clearly delineated but will require stronger exercise of such roles and build the necessary systems to ensure the policy provisions are implemented.

The National Water Resources Management Agency (NWRMA) as expressed in the NWSP will ensure the sustainability of the water resources and thus allowing the service providers to concentrate on the core mandate of providing safe drinking water for the people. The NWRMA is an agency with functions to regulate and manage water resources as well as providing for
the equitable, beneficial, efficient and sustainable use and management of the country’s water resources. The NWRMA Act of 2017 has established the agency by law and will need operationalization.

The WASH sector Regulators (EWRC and NWRMA) need some independence from external supervision in order to ensure fairness and objectiveness in their operations, while public and private service delivery should not be subject to government management if they are to be commercially viable.

3.1.3 Planning and Finance

The NWRMA planning and financing process starts with the agency’s strategic planning or business planning processes of the commission in the first couple of years. Such a plan provides a step by step consistent approach to getting the agency started doing business consistently.

Before the promulgation of the law and setting up of the agency in earnest, some projects in water security which sought to create a repository of documents and some community-based water resources management processes had been implemented. There is the need to set up catchment and basin boards as a key first steps of the agency. With the agency’s plans, it will need to seek funding from Government for its plans.

This process of planning is then applied to the Government of Sierra Leone’s planning budgeting and planning cycle which starts with a policy forum to articulate Government’s priority sectors for that budget year. Simultaneously, a budget call circular from the Ministry of Finance (MoFED) is made which provides budget ceilings and sets the macro framework for the budget year. A final budget is then prepared based on the indicative ceilings provided for funding.

The challenge here is that with the current absence of a governance structure and staff of the agency as well as a strategic plan for the agency, facilitating a comprehensive budget for the agency in itself is still yet to be determined. Allocations focus normally on Government’s priority areas in relation to the resources available to fund those priority areas.

The NWRMA now exists by law, but because the board has not been constituted and staff recruited, allocations cannot be made to institutions that do not exist. The hope is that the agency board will have to be constituted and an attempt made to draw up a plan and budget for the operationalization of the agency.

The sector actors at the highest level must ensure that the preparations are laid out to get the agency up and running as soon as possible. In addition, the Agency would require more support with some basic capacity to get it to perform its basic functions consistently. This need to be identified and mobilised as quickly as possible.
3.2 WRM: Status and Progress

This chapter presents the status and progress in relation to water resources management in areas such as water quality, water quantity monitoring, IWRM and trans-boundary activities.

The Government has initiated water resources management activities since 2012 by the implementation of two projects addressing Water Security: i) The Ministry of Water Resources Water Security Project; and ii) Bumbuna Watershed Management Authority Water Resources Management Project. Both projects were funded by DFID and started in October 2012 and January 2013 respectively. The activities focussed in the Rokel-Seli River Basin and three documents have been published detailing the importance of Water Security Planning and a workable strategy:

Vol II: Water resources monitoring in Sierra Leone - the 'why' and how' of water resources monitoring
Vol III Data and hydrological understanding generated in the Water Security project

The Water Security Project had the overall aim of ‘putting in place the foundations for water security in Sierra Leone’, meaning, the assurance of sufficient quantity and quality of water for all the uses to which water is put. This, combined with low risk from water-related hazards (floods and droughts) constitutes water security.

The Water Security Project has been working in the middle reaches of the Rokel-Seli River Basin and has been addressing the following main issues:

- how to begin to re-establish water resources monitoring in Sierra Leone;
- how to most usefully analyse, interpret and present hydro-meteorological data;
- how to involve all stakeholders in decision-making over water management;
- how to guide Government as it considers its policies and procedures for national-scale water resources management.

Sound water resources management requires near continuous assessments of water availability, with institutions that are able to monitor, collate, analyse and act on the data. Hydro-meteorological monitoring must solve real water management issues and be enforced through legislation and regulation. In Sierra Leone there are significant obstacles including; limited institutional capability, inadequate recurrent finance, a lack of water resources and water supply infrastructure, and high inter-annual seasonality.

Monitoring activities are essential because pressures on water resources are increasing, and resources are limited in their regional and seasonal availability. Good forecasting and planning is essential, especially during the dry season.
The Water Security Projects have the combined aims of laying the foundations for improved water resources management in Sierra Leone and providing a grounded demonstration of how Sierra Leone can develop transboundary and national water security plans from local level initiatives. Through the projects it is has been possible to identify what aspects of monitoring works within Sierra Leone at present (e.g. local level monitoring of rainfall gauges) and gives an indication of recurrent costs associated with hydro-meteorological monitoring, and an agreed design for monitoring networks.

### 3.2.1 Water Quality

This chapter provides information on the data and plans for monitoring and surveillance of surface and groundwater quality. It also provides information on how to improve water supply water quality monitoring from all sources that includes, piped water, hand dug wells, boreholes and spring boxes as Sierra Leone works towards achieving SDG6 of providing safe water for all. The SDG6 goals also include targets and indicators for ambient water quality as shown in Table 41.

<table>
<thead>
<tr>
<th>Water Resources Management</th>
<th>Water Quality</th>
<th>SDG6.3.2 Ambient water quality</th>
<th>Proportion of bodies of water with good ambient water quality</th>
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The MWR with the establishment of the NWRMA is in the process of establishing the framework for comprehensive monitoring of water quality and quantity and presently there are no substantial data on the ambient water quality in Sierra Leone.

During 2017, the MOWR has been carrying out related activities such as:

**Planning for the National Water Quality Study**

The Ministry of Water Resources in collaboration with WASH-NET and Freetown WASH Consortium is planning to undertake a National Water Quality Study and to produce a Guideline for Drinking Water Quality Monitoring. A term of reference has been produced for the consultant that should undertake the study. Key areas that the national water quality study is expected to investigate are:

a. **Policies**: there are a number of organisation that play some roles regarding water quality. The consultant is expected to look at their current roles that are related to water quality, what are their policy mandates and functions regarding water quality and to identify the overlapping roles and create a platform for improved collaboration with established clearly defined roles

b. **WASH Stakeholders Assessment**: there is a challenge regarding the compliance of WASH partners to water quality testing. The consultant is expected to investigate the perception of WASH partners regarding water quality monitoring and the challenges if any they faced and what are the reasons why they are not complying to water quality monitoring testing.
The consultant is expected to come with a strategy that will improve on the compliance of WASH partners to do water quality testing and also how MOWR can improve on the regulation of water quality testing

c. Sustainable Financial Model for the Management of the Water Quality Labs: currently the laboratories are charging for water quality tests at a cost-recovery price to procure consumables and even at that price, the labs cannot raise sufficient funds. Also, it appears there are no clear management strategy for the laboratories. The consultant is expected to come up with sustainable financial model for the management of the laboratories

d. Assessment of MOWR water quality laboratories and staff: currently, many of the labs are without sufficient either instruments or reagents. There are also capacity issues of water quality staff as many have retired. The consultant is expected to carry out a detail inventory assessment and assess the staff capacity regarding qualifications and whether they receive regular salary. The consultant is expected to report on the available and functional instruments and reagents, identify the gaps of instruments and reagents that should be procured and recommend training needs or recruitment of water quality technicians.

e. Investigate whether the laboratories adhere to best practice for water quality assessment and monitoring: currently there are no national guidelines for water quality monitoring and testing in Sierra Leone. International guidelines are mostly used. It is expected that the consultant to produce a National Drinking Water Quality Guideline.

National Water Quality Steering Committee
The MOWR has established a National Water Quality Steering Committee, comprised of key member like the MOHS, GVWC, SALWACO, EPA, UNICEF, FWC, WASH-NET, MAFFS, MLCP, CDC, Sierra Leone Standards Bureau. The steering committee has an established term of reference and functions include: to oversee the implementation of the National Water Quality Study, collaborate on emergency response and also to promote the platform for coordinated response to water quality issues.

National Water Safety Plan
As Sierra Leone equally works towards its SDG6 goal of providing safe water for all, the MOWR in collaboration with UNICEF has decided to implement a National Water Safety Plan for water supply systems in Sierra Leone. The water supply system that will be covered are piped water, spring boxes, hand dug wells and boreholes and institutional water supply systems. A term of reference has been developed by the MOWR for the consultant and implementation of the first Sierra Leone National Water Safety Plan will commence in 2018. The implementation will involve the formation of a National Water Safety Plan steering committee, an inception workshop for the implementation of the national water safety plan, a demonstration project that comprises of mixed water supply systems across four regions of Sierra Leone and a final
report with a national strategy for the roll out of the National Water Safety Plan across Sierra Leone.

**Capacity Building and International Collaboration**

Staff from the Water Resources Unit participated in the following water quality and water resources management trainings and workshops:

a. **Workshop on the Draft Directive for The Management of Shared Water Resources in West Africa and the Presentation of the Fouta Djallon Atlas in Dakar Senegal, May 2017:** The purpose of the workshop was to validate the Draft Directive for The Management of Shared Water Resources in West Africa and the Presentation of the Fouta Djallon Atlas in Dakar Senegal. The management of the shared water resources in West Africa is a framework that outlines the management of water resources in West Africa. It also identified the water resources potentials of the shared water resources and the current on-going activities in these basins.

b. **Study Tour to Ghana’s Water Resources Commission for the establishment of the National Water Resources Management Agency in Sierra Leone, September 2017:** With the signing of the NWRMA Bill into an Act in 2017, the MOWR embarked on a mission to facilitate the formation of the National Water Resources Management Agency which includes the setting of clear roles and functions of staff and the agency. The purpose of the study tour at the Water Resources Commission which has similar roles and functions of the NWRMA was to understand how they implement their activities regarding the monitoring and enforcement of water quality regulations. The study tour includes the investigation of how water quality stations are established, data are collected, analysed and reported. In addition, this also includes the establishment of a National Water Quality Index.

c. **Sub-regional training workshop on Enhancing Skills of Water Professionals in the Assessment, Monitoring and Management of Water Quality in Agenda 2030 SDGs (3rd to 4th October 2017, Ghana):** The purpose of this training was to build the capacity of water quality professionals in West Africa in the assessment, monitoring and management of water quality. This is important as all the African Countries are Signatories to the global SDGs of providing safe water to all and as well as managing the ambient water quality of their ecosystems.

d. **Regional Workshop for the Validation of IWRM Indicators of ECOWAS regional water observatory (25th – 27th October 2017, Lome Togo):** The purpose of the workshop is to validate a set of indicators agreed by members states of ECOWAS in Integrated Water Resources Management. Amongst the indicators are water quality indicators that were selected to monitor the water quality for water supply as well as water resources management which should be implemented in Sierra Leone.
e. GEMS/UN Water Monitoring programme and network design for surface water bodies in Kenya, December 2017: The purpose of this workshop is to build the capacity of water professionals across Africa in monitoring and implementation of SD6.3.2 which is proportion of water bodies with ambient water quality. The training was for surface water and involves the designing of a whole water quality monitoring program from the setting up of objectives, to the establishment of a surface water monitoring network.

Emergency WASH Response (Mudslide)
One of the major response in the emergency WASH response to the mudslide is water quality assessment, monitoring and treatment. The MOWR in collaboration with CARE embarked on water quality assessment of affected communities and holding centres. In addition, the MOWR also tested and monitored the water quality of GVWC that was mostly trucked to affected communities and holding centres. Results from the water quality assessment were alarming with most of the water sources highly contaminated with faecal matter. The assessment results also indicated that piped water from GVWC was without a free residual chlorine. The recommendation from the water quality assessment led to various intervention regarding the provision of improved water sources in the communities like the construction of boreholes, hand dug wells, spring boxes and rainwater harvesting systems. In addition, the responses also include the chlorination of trucked water and community storage tanks. Also, households were given chlorine tablets to purify their water at their homes. Furthermore, there was a large-scale hygiene sensitisation in the affected communities and holding centres. No outbreak of cholera or any related water borne diseases was recorded.

Certification of Newly Constructed or Rehabilitated Waterpoints
The MOWR Water Quality Laboratories certified a number of newly constructed or rehabilitated water points across Sierra Leone using the national lab in Freetown and some of the districts labs. However, a major challenge is that not all the labs are stocked with all the reagents and instruments to carry out the required test for all the physical, chemical and bacteriological parameters. Also, one of the major challenges is that there is less compliance of WASH partners to undertake water quality testing for the water sources they commissioned. Most of the water quality certification was done by the central laboratory.

3.2.2 Water Quantity
This chapter provides information on the data and plans for monitoring and surveillance of surface and groundwater quantity. The SDG6 goals include targets and indicators for the level of water stress and the WASH KSIs suggest the indicators as shown in Table 42 for water resources monitoring. The KSIs are suggestions from the development of the overall national WASH M&E Framework and will need further consultation and refinement as the NWRMA progresses in the development of the monitoring systems.
The following is a summary description of the activities in 2017 related to water resources monitoring.

**The Climate Change Water Project (UNDP/GEF)**

The project aims at Building Adaptive Capacity to Catalyse Active Public and Private Sector Participation to Manage Exposure and Sensitivity of Water Supply Services to Climate Change. The overall focus is on capacity building for climate resilient decision-making in the water sector with two key outcomes:

- **Outcome 1**: Critical public policies governing the management of water resources revised to incentivize climate smart investment by the private sector, to be achieved through specific technical capacity development activities and igniting informed public and private sector dialogues. Based on focused capacity needs assessments a suite of professional updating activities has been designed especially for staff of the MOWR, the GVWC and other specified key target groups.

- **Outcome 2**: water supply infrastructures in Freetown and Pujehun, Kambia and Kono districts made resilient against climate change induced risks focuses on pioneering innovations that particularly address the dry season water supply problems, which are likely worsened by anticipated climate change impacts.

With the end of the climate change and early warning systems project, this project was able to provide funding for the installation of staff gauges in 13 surface water monitoring stations country-wide. The installation of staff gauges is to provide information on water level which will in turn help to determine the quantity of water and flood forecasting. The aim is also to help calibrate the automatic hydrological monitoring stations to be installed.

**Joint Mission of the World Meteorological Organisation (WMO), Global Runoff Data Centre (GRDC), UK Met Office, and AfDB to Assess the Capacity and Capability of the Meteorological and Hydrological Services of Sierra Leone**

A team of technical expert from the WMO and other global partners organised a mission to Sierra Leone in November 2017 to obtain information into the performance of the hazards monitoring and early warning processes and products in the context of the 14th August floods and landslides. The mission aimed to obtain insights into national policies, programmes and
practices related to integrated flood management and status of national flood mitigation plans and provide recommendations to the Sierra Leone Meteorological Department (SLMD), the MOWR and the relevant authorities as well as their partners on how to further improve hazard monitoring and forecasting and early warning as well as integrated flood management practices in other to reduce damage, loss of life and livelihoods from future natural hazards. The terms of reference of the visit was to assess the existing meteorological and hydrological facilities and services, in particular:

a. Meteorological and hydrological observing network
b. Communication facilities for meteorological and hydrological data transmission and reception on national and regional levels
c. Data processing and weather/flood forecasting, flash flood forecasting and assessment of susceptibility to landslide activities and facilities in use; its technical capacity and capabilities
d. Climate database management
e. The availability of land cover, land use, soil type and historical landslide data
f. Pre-defined localised thresholds and impacts for warning as part of the forecasting system issuance and targeting of exposed population
g. Cross-institutional cooperation in disaster prevention measures including flood risk mapping, preparedness and early warning
h. Available human resources.

Findings of the Mission: the team found that no water level or discharge data are recorded by the ministry resulting in:

1. No statistical products available
2. No forecasting products are generated or provided
3. No thresholds for triggering warnings or related actions have been identified
4. No flood risk maps are generated
5. No skills for landslide prediction are available
6. No post-flood survey of the 14 August 2017 event (landslides) was done

As such the only intervention during the event was to implement WASH programme to supply water from boreholes and tankers to the affected communities.

The team recommended the need to focus efforts on disaster risk reduction with strong collaboration with SLMD and Office of National Security (ONS). The team further noted a major issue of organizational weakness of both SLMD and MOWR due to the absence of adequately trained personnel in sufficient numbers to meet the demand for services and recommends the need to strengthen institutional structures and improve technical capacity.
AfDB project:
The procurement process for the construction of 7 Hydrological monitoring Stations, 25 groundwater monitoring station and equipment for the re-establishment of the hydrological monitoring network in the districts of Kono, Pujehun, Bonthe, Kambia and Koinadugu have commenced under the RWSSP with support from AfDB.

3.2.3 IWRM and Sustainability

The capacity development for re-establishment of the improved monitoring systems for water quality and quantity as described above are building blocks towards addressing water resources management in an integrated manner and work towards sustainability of the water resources.

The SDGs contains targets and indicators for integrated water resources management and ecosystems as shown in Table 43 and Table 44 below and the water resources monitoring systems would in the future need to provide information on these aspects.

<table>
<thead>
<tr>
<th>Water Resources Management</th>
<th>SDG6.5.1 Indicator Definition for IWRM</th>
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<tbody>
<tr>
<td>IWRM</td>
<td>Degree of integrated water resources management implementation (0-100)</td>
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<tr>
<th>Water Resources Management</th>
<th>SDG6.6.1 Indicator Definition for Ecosystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecosystems</td>
<td>Change in the extent of water-related ecosystems over time</td>
</tr>
</tbody>
</table>

At a regional and international level, there have been activities for the promotion of IWRM as outlined below:

Climate Change Conference of Parties Twenty Third Session Nov 2017

The United Nations Climate Change Conference, Bonn 2017, was to bring together representatives of the world's governments, international organizations and civil society to advance the Paris agreement of the Convention and to scale up climate action, particularly during the years leading up to 2020, so that the key objective of the Paris Agreement can be achieved – to keep the maximum global average temperature rise to as close as possible to 1.5 degrees Celsius. The Conference was hosted by the Government of Germany and took place at Bonn, in Germany. The COP23 Session brought together global Climate Change experts and negotiators from different line ministries, climate change actors, NGO's and international globally; since Climate change is a cross cutting issues.
3.2.4 Water Resources Regulation

The new NWRMA will introduce water resource regulation in Sierra Leone, and the regulatory framework is still to be established.

The SDG6 contain some targets related to water resources regulation, such as SDG 6.4.1 Change in water-use efficiency over time. This and the suggestions in the WASH M&E Framework for indicators related to water resources regulation are shown in Table 45.

<table>
<thead>
<tr>
<th>Water Resources Regulation</th>
<th>Water Abstraction</th>
<th>Water Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completeness of Water Abstraction Regulations</td>
<td>Proportion of abstractions (m³/annum) covered by valid water use permits</td>
<td>per main catchment areas</td>
</tr>
<tr>
<td>Compliance with Water Abstraction Regulations</td>
<td>Proportion of abstraction permit holders comply with abstraction conditions</td>
<td></td>
</tr>
<tr>
<td>SDG6.4.1 Water Use Efficiency</td>
<td>Change in water-use efficiency over time</td>
<td></td>
</tr>
</tbody>
</table>

Table 45: Indicator Definitions for Water Resources regulation

<table>
<thead>
<tr>
<th>Water Abstraction</th>
<th>Water Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completeness of Water Discharge Regulations</td>
<td>Proportion of discharges (m³/annum) covered by valid water discharge permits</td>
</tr>
<tr>
<td>Compliance with Water Discharge Regulations</td>
<td>Proportion of discharge permit holders comply with discharge conditions</td>
</tr>
</tbody>
</table>

There is presently no information on the water abstraction and water discharge available; however, the definition of the indicators is included to show the type of data that will be required in future SPRs for reporting on water resource regulation.

3.2.5 Transboundary Water Resources Management

The SDG6 also contain targets related to transboundary water resources management: SDG 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation as shown in Table 46.

<table>
<thead>
<tr>
<th>Water Resources Management</th>
<th>Transboundary SDG6.5.2 Transboundary water resources management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transboundary</td>
<td>Proportion of transboundary basin area with an operational arrangement for water cooperation</td>
</tr>
</tbody>
</table>

Table 46: SDG Indicator Definition for Transboundary Water Resources Management

In Sierra Leone, the transboundary water resources management activities have concentrated on the Mano and the Moa/ Makona River Basins. With the support from the International Union for the Conservation of Nature (IUCN), the Mano River Union (MRU) through member countries is implementing an initiative called BRIDGE “Build River Dialogue and Governance” to put in place a consultative body to better manage the Moa/ Makona and the Mano River Basins.

Better water resources management of the Moa/ Makona and the Mano River Basins requires better organization of stakeholders on the ground to make concerted efforts for the management of resource and to prevent any potential conflicts and pollution related to its use.
Finalization of data collection and in-dept transboundary diagnosis on (industrial and artisanal) mining and the production of energy (hydroelectricity, charcoal and firewood) on the two basins and the impact on water, land and the population

A consultancy was conducted with support from the BRIDE project to conduct an In-Dept diagnostics study of the transboundary impacts of the Moa/ Makona and Mano River Basins in 2017 to address potential environment and social impacts on site specific Valued Environmental Components (VEC) and provide mitigation measures as well as action plans to enhance mitigation measures and regional cooperation in control of transboundary water pollution within the context of “Catalysing a workable programs for sustainable natural resource exploitation around the basin”.

A study report was produced that presented a detailed and comprehensive transboundary diagnosis report integrating; a baseline of mining and energy in the concerned basins, roots analysis, the impacts and current and proposed mitigation measures to be considered. Proposals of participatory and joint actions for sustainable management of natural resources in the basins (including incentive measures and the cooperation with the private sector in the sectors of energy and mines) sustainable management of natural resources with clear details on analysis of the impact of mining on water resources and related sectors. Proposals for enhanced mitigation measures, positive incentives measures, and their effective and transparent implementation, for the sustainable exploitation of natural resources in the context of integrated management of transboundary water resources with the involvement of all stakeholders.

The validation of this report by Sierra Leone, Liberia and Guinea is expected sometime 2018.

**Mano River Union Transboundary Water Basin Authority**

Consequence upon the meeting of the 4th Session of the Ministerial Follow-up Committee of the Permanent Framework for IWRM Coordination and Monitoring in West Africa which was held on 27 November 2015, in Dakar, a resolution “Resolution 10” which was part of the consideration of the 10th session of Technical Experts Committee was adopted on the promotion of new transboundary basin organisations in West Africa. As such, the Mano River Union (MRU) is in the process of setting up the Mano River Transboundary River Basins Authority.

The purpose of the establishment of the trans-boundary river basins authority for the MRU is to provide a permanent institutional platform for exchanges, consultations, recommendations and decisions for Member States of the Union on integrated management of trans-boundary water resources, forests and animals. In addition, the River Basin Authority will be the implementing agency of the MRU policy for the welfare of riparian communities of river basins, with due consideration for resources and development projects, as well as the need to protect and preserve river basins.
In view of the above and with support from WRCC-ECOWAS, MRU has conducted a feasibility study for the creation of a trans-boundary river basins authority for the MRU member states, the report is expected to be validated in early 2018. The overall objective of the study is to identify the conditions for the establishment, under the auspices of the MRU Secretariat, of a trans-boundary basins authority taking account of all basins shared by Member States by identifying all the technical, legal, institutional and financial provisions for its sustainable operationalization. The specific objectives of the study include:

- Carrying out a baseline inventory of all basins shared by Member States: state of water and related resources, governance, socio-economic environment, etc.
- Defining the legal, institutional and financial requirements for establishing a trans-boundary basins organization under the MRU
- Identifying possible sources of technical and financial support for its sustainable operation once established
- Developing of road map for the establishment of such organization; and
- Identify any risks that may hinder the establishment of the basin Authority.

**Mano River Union Ecosystem Conservation and International Water Resources Management (IWRM) Project**

The IUCN is the GEF Partner Agency in charge of the implementation of the “Mano River Union Ecosystem Conservation and IWRM Project” (GEF ID: 4953). The Project was validated by GEF Secretariat in December 2016 and approved by IUCN in February 2017.

The project aims to strengthen the management of transboundary natural resources for sustainable ecological benefits and improved livelihoods for adjacent forest communities. It will also support local communities in the development of alternative means for income generation, which will lead to increased forest cover and its associated benefits at local and global levels (ecosystem services, biodiversity, carbon sink). Of the projects’ particular importance to the water sector can be mentioned:

1) Development of a detailed stakeholder analysis of the water sector in the targeted transboundary basins
2) Support to the establishment of a transboundary committee in the (i) Moa-Makona, (ii) Great Scarcies basins
3) Establish national and regional technical advisory teams for the management of the preparation of the Transboundary Diagnostic Analysis and Strategic Action Plan processes in the targeted basins
4) Development of the Transboundary Diagnostic Analysis
The project was launched on the 3rd July 2017 in Freetown, Sierra Leone with the overall objectives of informing participants about the objectives and expected results of the project implementation and to plan the actions to be implemented in year 1 of the project.

**In Conclusion:**

- Operationalising the monitoring of water resources is a challenge in Sierra Leone and the new NRWMA will need substantial support to develop the monitoring systems and the regulatory framework for water resources abstraction and discharges.

- The MWR has carried out a number of projects and activities to improve the monitoring of water resources and promote IWRM generally and in particular Transboundary water resources management in the Mano river basin.
4 CONCLUSIONS AND THE WAY FORWARD

The detailed descriptions in the Chapters above provide a snapshot of the situation in Sierra Leone in relation to WASH service provision and to Water Resources Management.

The MICS 2017 has provided comprehensive information on the access to WASH services and has provided all the statistical information for the preparation of the 2017 ASPR. This is a very important input, since the WASH M&E framework is not yet operationalised, and the many stakeholders are not providing information in a comprehensive and consistent format on their activities.

Important information on the WASH performance was provided by the 2016 Water Point Mapping and SDG Baseline data, however, any updates on this are not available since the WASH implementers, the MDAs, the District Councils and the many NGO Implementing Partners are not yet using the data collection and data management tools that were established in 2016.

The conclusions are presented on two aspects:
1. The conclusions on the progress, challenges and priorities as presented in the chapters above
2. Recommendations on the structure and methods for producing future ASPRs

4.1 The conclusions on the progress, challenges and priorities

For Sierra Leone to achieve the national WASH targets and sustainable management of water resources, the national sector leadership will need to revitalise the earlier commitments to the institutional reforms – the sector does not need revolution; rather it needs to consistently implement the reform process that started with the formulation of the NWSP.

The establishment of the legal framework for the sector is a major achievement. This includes the introduction of regulation for service provision with the establishment of the EWRC; the introduction of regulation of water resources with the establishment of the NWRMA; and the amendments to the mandates of the major water utilities GVWC and SALWACO. Naturally, the challenges will now be to fully operationalise the regulatory frameworks and establish effective service delivery by the utilities.

2017 also saw the completion of the NRWSSP - a comprehensive programme defining the actions needed for Sierra Leone to reach the SDGs for rural WASH in 2030 and the NRWSSP now needs to be implemented. The year also saw the start of developing the Urban Road Map covering comprehensive plans for all components of WASH in urban areas.
The 2104 Small Towns Management Study clarified the challenges with the management and the sustainability of service provision and these issues are similar to the challenges addressed in the NRWSSP for the rural towns with population up to 5,000.

The overall policy, legal and programmatic framework:

- The WASH sector has completed the overall legal framework as prescribed by the NWSP and is now facing the challenges of operationalising the new legal instruments for service regulation and service provision as well as management of water resources.
- A comprehensive implementation programme (the NRWSSP) has been developed for the rural WASH sub-sector to achieve the SDGs and plans for the urban WASH subsector are being developed.
- The NRWSSP prescribes comprehensive capacity development for District and National Level Sector Coordination for rural WASH and this is yet to be operationalised. While these coordination procedures will be applicable also for the small town and urban areas outside Freetown, attention is needed for effective coordination in the ‘Urban WASH’ subsector.
- The MWR would need adequate resources and capacity to implement a truly Government-led sector coordination and planning framework.

Institutional mandates and capacity:

- The WASH sector is progressing substantially in the implementation of the institutional reforms prescribed by the NWSP; however, the sector is facing serious capacity challenges at national and district level. The capacity development is ongoing across the WASH institutions and comprehensive support programmes are on the way for water service regulation and for water services in Freetown.
- The NRWSSP presents a comprehensive capacity building programme for Rural WASH actors at local, district and national levels. A similar comprehensive support programme would be needed for SALWACO to fulfil its new mandate of managing operations in 44 centres on a full cost recovery basis and providing technical assistance to District Councils.
- The EHSD in the MoHS will need capacity building to address the serious challenges related to access to sanitation and hygiene in urban areas as well as for rural sanitation and hygiene as described in the NRWSSP.

Community management and sustainability of service provision

- While the community management policy and the need for user payment for services is generally recognised as appropriate to ensure sustainable services, there are large challenges in the implementation of this and a consistent approach across all implementers and considerable capacity building will be needed.
- The focus on implementation of new water points will need to be complemented with a comprehensive approach on capacity building to ensure that communities gain permanent access to WASH Services.
Private Sector in WASH Service Provision

- The private sector will play a vital role in provision of cost effective and good quality WASH services and considerable capacity building is needed to change from the present situation with limited competition and low-quality services. For this change to happen, the market has to develop - so increased investments with consistent use of the private sector is needed.
- This can be further facilitated by standardisation on equipment and parts; standard designs and specifications; good quality, accountable and transparent supervision and commissioning procedures; a legal and regulatory framework for national certification; as well as promotion of associations of WASH private sector actors facilitate consultative mechanisms - only by consulting in a structured manner with the private sector actors can the public sector know how to facilitate good and competitive service provision!

WASH Planning and Funding

It is presently difficult to get an accurate overview over the WASH planning and funding since:
- Government funding for WASH is an integrated part of the funding to various MDAs and not easily identified e.g. separate funding for rural sanitation, rural water, school WASH etc.
- Information on Development Partner funding is likewise mostly not separated in the same sub-sectors and often projects cover integrated WASH activities and therefore not easy to identify e.g. funding for rural water vs rural sanitation.
- NGO partners with own funding or funding through multinational organisations are often reluctant to reveal budgets and actual expenditures.
- The planning cycle of Development Partners and NGOs can be different from the Government financial years and therefore the funding and expenditure figures are not comparable for the same timeframes.

Despite all these difficulties, this 2017 SPR attempts to provide an overview of the WASH funding. The estimated overall funding is about 70 mUSD for 2017 with the majority, about 90% is from Development Partners.

In conclusion, the present planning is dis-jointed with many implementers doing their own planning without adequate coordination at national and district levels - and without reporting on physical and financial progress.

Achieving the SDGs will need coordination and comprehensive effort by all partners including openness and transparency in the planning and reporting on financial aspects. It will need increased funding but most of all it will require improved effectiveness in the service delivery
The Status and Progress on WASH Service Delivery
For rural areas (rural settlements and rural communities <2000 people) the MISC 2017 data shows access to safely managed water services to be 1% and the access to basic services (using an improved water source within a max collection time of 30 minutes) is 47%.

The targets for the MDGs were 69% and the NWSP target was 74% for 2015 and these have not been reached by far. Functionality and seasonality are serious and growing problems for rural water services. Comparison between the 2012 and the 2016 water point mapping shows that especially water sources based on shallow groundwater are increasingly not providing water year-round.

The status and progress on rural water can be summarised as:
- The access to water in rural areas has increased from approximately 25% in year 2000 to 47% in 2017 and to reach the SDG targets of 100% in year 2030 this annual rate of increase would need to double.
- Especially, the functionality of water facilities needs attention and additional focus is needed on capacity building for community management and private sector maintenance services.
- The 2016 water point mapping seems to indicate that seasonality of water facilities based on shallow groundwater is seriously deteriorating with only 30% of the springs, wells and public standpipes providing water year round.
- Improvements are needed by sector management in monitoring and reporting from the many implementers and districts for the sector to be able to accurately monitor progress including unit costs and implementation efficiencies.

Water Services in Small Towns
Conclusions on status and progress on small town water services can be summarised as:
- The small towns seem to remain the “forgotten middle” – and there are challenges with the management and the sustainability of service provision. The NRWSSP deals with many of the same challenges for the rural towns with population from 2,000 to 5,000 and there seems to be need for development of a comprehensive programme and investment plan for small towns with population from 5,000 to 20,000 in line with the strategies provided in the NRWSSP and in continuation of the 2014 Small Towns Management Study.
- Data on the situation in the small towns can be improved when the SSL locality frame is available to allow for analysis of the 2015 Population Census data as well as the SDG baseline and the water point mapping data.

Urban Water Services
The MICS 2017 data for access to water services in urban areas show 3% access to safely managed water and 69% access to basic water services - water from an improved source within a total collection time of 30 minutes. The SSL statistics are available for urban areas.
defined as settlements with population of more than 2,000 people and therefore covers the NWSP demarcations of rural towns (2,000 to 5,000 persons), small towns (5,000 to 20,000 persons) as well as the urban areas with population > 20,000.

The targets for the MDGs were 69% and the NWSP target was 74% for 2015 and these are close to having been reached.

The status and progress on urban water services can be summarised as:
- The access to water services in urban areas is relatively high compared to rural areas, however there are large differences in access between wealthy and poor households and different geographical areas
- There has been a steady but slow improvement from about 65% in year 2000 to the about 72% in 2017. To reach the SDGs, the annual rate of increase in access will need to increase four-fold – 7% over the past 17 years as compared to the need for 28% increase over the next 13 years - so huge investments are needed in rehabilitation and expansion of water services in Freetown and other urban areas.
- Improvements in water services in Freetown are expected in the coming years with substantial investments and support programmes to GVWC and EWRC – while improvements in water services in the other 9 urban areas are also urgently needed.
- The Government have taken important strategic planning actions with the ongoing development of the Urban Road Map and the Master Plan for Freetown water supply.

Sanitation and Hygiene in Rural Communities
The NWSP target for adequate sanitation in both rural and urban areas is 66%. Evidently there is much work to be done in the access to sanitation in both rural and urban especially in considerations of the target for universal access by 2030 prescribed by the SDGs. Morbidity and mortality from WASH-related preventable diseases remain high.

The MISC 2017 statistics provide information on the access to sanitation in rural areas. Only 8% of the population in rural areas have access to basic sanitation - defined as using improved sanitation facilities that are not shared. 20% have access to improved facilities that are shared and 45% and 28% use un-improved facilities and open defecation respectively.

Data on hygiene in rural Sierra Leone is also available from the MISC 2017 and indicate that 15% of households have handwashing facilities with water and soap and an additional 20% have handwashing facilities. The 2016 SDG baseline survey showed a more positive picture with 16.4% having handwashing facilities with both soap and water and 35% of households having handwashing facilities. The extensive EVD campaigns could have affected these results positively and the challenge will now be to sustain the gains as indicated by the lower figures for 2017 as compared to 2016.

Conclusions on status and progress on rural sanitation can be summarised as:
– The access to sanitation in rural areas is very low despite some progress in the implementation of the Community Led Total Sanitation (CLTS) process and subsequent improvements (CLTS+) promoting Sanitation Marketing and Community Health Clubs

– The 2016 Water Point Mapping and SDG Baseline study included data collection on the Open Defaecation Free (ODF) status in communities. 23% of the respondents confirmed that their community has been declared ODF and of these there appear to be a slippage of 28%.

– Substantial increase in sanitation activities will be needed for Sierra Leone to move towards achieving the SDG targets of access to sanitation for all.

– The NRWSSP supports the implementation of the CLTS+ process and its implementation will include substantial capacity building support to the MoHS at national and district level to implement the CLTS+ and continued environmental sanitation activities.

Sanitation and Hygiene in Urban Communities

Urban Sanitation remains a huge challenge in the sector especially in the areas of sewerage, on-site sanitation, faecal sludge and solid waste management. The NWSP target for adequate sanitation is 66% and the present access is far below the 2015 target.

The MICS 2017 statistics show that 27% of the population in urban areas have access to basic sanitation – defined as using improved sanitation facilities that are not shared. 47% have access to improved facilities that are shared and 22% and 4% use un-improved facilities and open defecation respectively.

The indicator for basic hygiene measures the presence of hand washing facility with soap and water in the household at the time of survey. Data on hygiene in urban areas in Sierra Leone is also available from the MISC 2017 and this indicate that 50% of households in urban areas have access to handwashing facilities out of which 33% have water and soap. This is an improvement on the 2016 SDG baseline survey that indicated that 35% of households had handwashing facilities out of which 16.4% had the handwashing facilities with both soap and water.

Conclusions on status and progress on urban sanitation can be summarised as:

– Access to basic household sanitation in urban areas is low at 27% and it has barely increased over the last 15 years. A substantial increase in sanitation activities will be needed for Sierra Leone to move towards achieving the SDG targets of access to sanitation for all.

– The complex issues of sanitation in urban areas are a huge challenge and the Urban Roadmap is expected to provide guidance on how to address the challenges of solid and liquid waste management including faecal sludge disposal sewerage.

– There is clearly a need for WASH stakeholders to have a comprehensive strategy for urban WASH including hygiene, sewerage, on-site sanitation, faecal sludge and solid waste
management to address the serious challenges. This include developing appropriate standards and designs as well as pro-poor strategy, communication strategy, payment for services and defining KSIs for monitoring progress in addressing the challenges.

**Access to WASH Services Combined**

For the first time in Sierra Leone, the MICS 2017 has data for households with access to ‘Basic WASH Services’ – defined as households having access to all three WASH components: basic water, basic sanitation as well as handwashing facilities with water and soap.

The health benefits from access to all three components of WASH at the same time is obvious and it is striking statistics that only 5% of the population in Sierra Leone have access to all three WASH services – this emphasises the need for the integrated approach addressing all components of access to water, adequate sanitation facilities and hygiene education. The access is 9% in Urban areas and very low at 2% in rural areas.

The MICS 2017 also provide data on access to WASH services according to wealth quintiles. Not surprisingly the access is highest for the wealthiest, however it is surprising that only 16% of the richest households have access to the full range of basic WASH services.

These statistics are an indication to Government that the upcoming massive investments in water services in Urban areas and in particular in Freetown, will need to be accompanied with a comprehensive investment in sanitation and hygiene to provide health benefits for the population.

**WASH in Schools**

- The 2016 SDG Baseline survey provides information on the status of WASH in Schools and the access to basic services is a challenge: just over 30% of the schools have access to basic water; about 40% of the schools have access to basic sanitation; 17% have handwashing facilities and less than 10% have access to menstrual hygiene management.

- Substantial work has been done by the MEST and WASH partners in the development of standards and guidelines for WASH in schools.

- The NRWSSP include a comprehensive programme for WASH in schools in the rural communities (with population up to 5,000 people) and a programme of a similar magnitude would be needed to improve access to WASH in schools in urban areas.

- 2017 main progress to improve access to Safe WASH facilities is achieved through the Saving Life Program coordinated by UNICEF and funded by DFID.

**WASH in Health Care Facilities**

Conclusions on status and progress on WASH in Health Care Facilities can be summarised as:

- Progress in 2017 set significant milestones in the WASH in Health Care Facilities in particular the UNICEF interventions in 11 districts excluding Kono and Kailahun.
The sector should therefore intensify the delivery of WASH in Health Care Facilities by ensuring that all Clinics are provided with adequate WASH facilities that meet the sector standards.

WASH Management

Monitoring and Evaluation

- The WASH MDAs and implementation partners have defined the national WASH M&E Framework and have carried out the 2016 Water Point Mapping update and the SDG WASH Baseline survey. While these are major achievements, the operationalisation of the data collection and data management tools still needs to be achieved across all the WASH implementation partners.
- The difficulties in collecting actual data on project implementation by the various MDAs, Districts and NGO implementing partners for the SPR is an indication that there is still not a functioning WASH M&E system in Sierra Leone.
- The development of the detailed data management systems for water resources management and for regulated water services will need sustained efforts and collaboration by all WASH MDAs and partners to ensure that the data becomes an integrated part of the M&E Framework.

Governance and Accountability

- WASH Sector Management has the potential to improve significantly if all sector implementers (MDAs, Districts and NGOs) use the data collection and reporting tools that are envisaged in the M&E Framework and all implementers are willing to share information.
- The transparency provided by using the M&E Framework will need to be supplemented by continued efforts at all levels to improve accountability and good governance. Only by ensuring transparent and accountable procurement processes and high-quality contract management and implementation supervision, can the private sector develop to provide high quality and cost-effective services.
- The obligations of WASH Implementation Partners to contribute within a Government/local Government led planning and reporting framework is crucial for reaching the SDG targets as there is substantial implementation capacity in the WASH NGOs that the sector needs to benefit from.
- The implementation arrangements should be documented in Service Level Agreements (SLAs) between the implementing partners, the District Councils and the respective MDAs - and the implementation of these SLAs must be tracked using Android base software and a national WASH MIS Database.
WASH in Emergencies

The WASH in emergency section attempts to give a holistic picture of the WASH activities related to emergencies such as Ebola, Floods, Drought and Cholera, etc. depending on the situation during the reporting year. The focus of the 2017 report is to examine structures and plans that are in place to address emergencies. In summary:

- Sierra Leone is prone to emergencies with attendant consequences, as the country has little ability to predict disasters of subsequent dry and rainy seasons. There is therefore the desired need for the WASH sector to annually plan for emergencies such as Floods, Mud-slides, Cholera, Droughts, etc.
- The EVD and the mudslide emergencies have been a big wake-up calls for the sector. It informed the need to improve coordination and the need to improve and sustain WASH services in institutions and communities.
- The Mudslide and flooding that follows also tested the effectiveness of the WASH in emergencies. In spite of difficulties which call to question the lack of national fund for emergencies, with support from donors both within and without averted, attendant negative impact to the national tragedy.

The Status and Progress on Water Resources Management

Chapter 3 provides information on the enabling environment, the present status and progress on Water Resources Management in Sierra Leone. Reference is made to the indicators for achieving the targets under SDG6 and the KSIs defined for WASH in Sierra Leone related to Water Resources Management. Although it is not possible at this stage to provide quantitative values for most of the indicators, these are included to indicate the type of data that will be needed in future SPRs.

The National Water Resources Management Agency (NWRMA) is yet to be established following the enactment of the Water Resources Management Act 2017, and institutional capacity for water resources management is therefore presently anchored in the Water Directorate in the MWR. Substantial activities on improving the water resources and water quality monitoring system have been carried out in 2017 including:

- The MWR Water Security Project putting in place the foundations for water security in Sierra Leone
- Planning for the Water Quality Study and establishing a National Water Quality Steering Committee
- Development of a National Water Safety Plan
- Capacity building activities related to water quality and international collaboration covering areas such as ‘Directive for The Management of Shared Water Resources in West Africa’, ‘Study Tour to Ghana’s Water Resources Commission’, ‘Enhancing Skills of Water Professionals in the Assessment, Monitoring and Management of Water Quality in
Agenda 2030 SDGs’, ‘Validation of IWRM Indicators of ECOWAS regional water observatory’, and ‘Water Monitoring programme and network design for surface water bodies’

- Emergency WASH response to the mudslide is water quality assessment, monitoring and treatment
- Certification of Newly Constructed or Rehabilitated Waterpoints
- The Climate Change Water Project (UNDP/GEF) aiming at Building Adaptive Capacity to Catalyse Active Public and Private Sector Participation to Manage Exposure and Sensitivity of Water Supply Services to Climate Change.
- Joint Mission of the World Meteorological Organisation (WMO), Global Runoff Data Centre (GRDC), UK Met Office, and AfDB to Assess the Capacity and Capability of the Meteorological and Hydrological Services of Sierra Leone
- Completion of the Hydrogeological Mapping project implemented under the RWSSP by SALWACO with support from the AfDB
- The implementation of the construction of 7 Hydrological monitoring Stations, 25 groundwater monitoring station and equipment for the re-establishment of the hydrological monitoring network in the districts of Kono, Pujehun, Bonthe, Kambia and Koinadugu have commenced under the RWSSP with support from AfDB.
- The Climate Change Conference of Parties Twenty Third Session in November 2017 in Bonn bringing together representatives of the world's governments, international organizations and civil society to advance the Paris agreement of the Convention and to scale up climate action
- Finalization of data collection and in-dept transboundary diagnosis on mining and the production of energy on the Moa/ Makona and Mano River Basins and the impact on water, land and the population
- Feasibility study for the creation of a trans-boundary river basins authority for the Manu River Union member states – the Mano River Union Transboundary Water Basin Authority
- Mano River Union Ecosystem Conservation and International Water Resources Management (IWRM) Project

**In Conclusion on water resources management:**

Operationalising the monitoring of water resources is a challenge in Sierra Leone and the new NRWMA will need substantial support to develop the monitoring systems and the regulatory framework for water resources abstraction and discharges

The MWR has carried out a number of projects and activities to improve the monitoring of water resources and promote IWRM generally and in particular Transboundary water resources management in the Mano river basin
Conclusion and recommendations

Based on the long list of conclusions and recommendations above, the top priorities are:

A. Implement the NRWSSP - including all the capacity building to private and public sector and in particular the full operationalisation of the WASH M&E Framework.

B. Develop a comprehensive programme and investment plan for the Small Towns in line with the strategies provided in the NRWSSP for Rural Towns and in continuation of the 2014 Small Towns Management Study.

C. Support the development of an Urban WASH Roadmap leading to: i) development of a strategy and detailed plans for addressing sanitation in all urban areas including on-site sanitation, sewerage, sludge management and solid waste; ii) development of a water services investment plan for the new GVWC Service Area covering Freetown and majority of Western Rural; and iii) development of a strategy and investment plan for SALWACO urban service areas.

D. Support the institutional development of the NWRMA and capacity building for monitoring of water resources management including regulation of water discharges and abstractions.

4.2 Recommendations on the structure and methods for producing future ASPRs

4.2.1 Who is responsible for preparing the ASPR?

The ASPR must be regarded as one of the main outputs from the WASH M&E Framework - and therefore the vision should be that the M&E Framework will provide the data needed to prepare the ASPR - and therefore the institution overseeing the development and maintenance of the WASH M&E Framework (‘Water Information and Management Unit’ under the MWR) should be capacitated to produce the ASPR as a regular annual deliverable based on the data from the WASH M&E Framework.

This is not the case presently. The present report has largely been prepared by Consultants engaged by the MWR with some inputs from the WASH MDAs and guided by a Steering Committee and consultations with key sector stakeholders.
4.2.2 The data foundation for the ASPR

Data from Statistics Sierra Leone
The statistics for the 2017 ASPR are based on the data available from the 2017 MICS and well as referring to the WPM and SDG Baseline Survey carried out by the WASH Partners and SSL in 2016.

There is no 2017 update on the WPM and SDG Baseline data since the WASH implementation partners, the MDAs, the District Councils and the many NGO Implementing Partners are not utilising the data collection and data management tools established in 2016 for the WPM and SDG Baseline.

The 2016 SDG baseline included data on WASH in households, schools and clinics. The MICS and DHS focus on household data only and does not provide information on progress on WASH in the institutions. The ideal situation would be that follow-up surveys on the SDG baseline are carried out annually at the end of the year and where this can be combined with the MICS or DHS that would be an advantage.

Fortunately, SSL is planning the implementation of the ‘Demographic and Health Survey’ (DHS) towards the end of 2018 and the WASH MDAs should encourage the SSL to use the comprehensive WASH questionnaire from the 2017 MICS for the DHS and if possible also include WASH in schools and clinics.

In the years where the SSL will not be carrying out surveys with WASH related questionnaires such as the MICS and DHS, it is recommended that the WASH stakeholders avail funding for SSL to carry out follow-up surveys on the 2016 SDG Baseline.

The provision of data in the MICS 2107 on combined access to water, sanitation and handwashing is a major step forward and should be maintained. Substantive monitoring of the achievement of the WASH SDG targets also include that households have access to all components of WASH at home as well as in schools and clinics. SSL should be encouraged to develop the tools be able to monitor the combined access at home, school and clinics.

The analysis of population data and access to WASH according to the classification of rural, small towns and urban specified in the NWSP is not yet possible since the SSL has not yet finalised the localities frame that will enable analysis per community size. This reduces the ability of the WASH sector to develop good planning tools that respond to the classification in the NWSP.

Data from WASH Implementing Partner
The 2017 ASPR was prepared during the first half of 2018 and is based on data collected from WASH implementation partners, MDAs and Development Partners. A general data collection format was used and circulated to all partners in the beginning of 2018. The data format is
described in Annex B: WASH Implementation Data Collection Tool. Only few partners provided comprehensive data despite many attempts to encourage reporting. The partners submitting information are mentioned in Chapter 1.2.1. In addition, UNICEF provided detailed information on all the projects supported by UNICEF with DfID funding, but not data on actual expenditures.

The MDAs and the Districts were also requested to provide information using the data collection tool. This was not successful, and no MDAs or District Councils provided the data.

In view of the multitude of partners operating in the WASH sector in Sierra Leone, the detailed data collection for the 2017 ASPR has not been successful. The difficulty in getting progress and financial data from the implementation partners is a clear indicator for the challenges in operationalising the WASH Sector M&E Framework.

The WASH M&E Framework and these challenges are further described in Chapter 2.3.1. It is recommended that the WASH M&E Framework and the reporting obligations for WASH partners is included in the agenda for the 2018 Annual Sector Conference. This should include critics and feedback from the Partners on the data collection tools and how to administer these tools in an efficient manner for future data collection.

The KSIs including the SDG WASH indicators should be used consistently in the future SPRs and even if the quantifiable data is not available these indicators should be mentioned as a reminder for the development of the data systems that this is what the sector institutions are expected to report on - nationally and internationally.

To provide a consistent overview over the annual achievements, the data (financial and physical progress) must be separated in the respective sub-sectors (rural water, small town water, urban water, rural sanitation, urban sanitation, school WASH, clinic WASH) and the physical progress must be measured according to the definitions of the KSIs (number of persons served with basic services, number of installations etc.)

It would be expected that the development of the regulatory frameworks for water services and water resources by EWRC and NWRMA, in the future will be providing data on the KSIs for water services and water resources management. It is recommended that the MWR ensures that the detailed development of these regulatory frameworks and the related monitoring tools are done in view of the KSIs earlier developed by the WASH Stakeholders or at that the KSI definitions are refined as a result of the detailed work in the developing these frameworks.

The WASH stakeholders working on solid waste management could work on improving the KSIs on solid and liquid waste, and faecal sludge management to fully describe the challenges and achievements and related data collection tools. This should enable the waste management aspects to be covered more comprehensively in the future ASPRs.
In summary the recommendations for the development of the future ASPRs:

- Recognise the ASPR as a main output from the WASH M&E Framework. Prioritise the development of the M&E Framework and capacitate the MWR ‘Water Information and Management Unit’ to produce the ASPR as a regular annual deliverable.

- Until the M&E Framework and the data management tools are used universally, undertake an annual data collection based on the format that was attempted to be used for the 2017 - and use this consistently with all MDAs, Districts, Development Partners and implementing NGOs. Improve the data collection format based on feedback from the Partners.

- Encourage SSL to: i) continue using the comprehensive WASH questionnaires from the MICS 2017 in all future sample surveys including the 2018 DHS; ii) strive to undertake WASH surveys on an annual basis and time these towards the end of the year to provide consistent annual data on access to WASH Services; develop tools for measuring combined access to WASH – water, sanitation and hygiene at home, school and clinics; and iv) complete the localities frame to be able to analyse data according to the classification in rural, small towns and urban used in the NWSP.

- Finalise the list of KSIs and WASH SDG Indicators is line with the development of the regulatory frameworks for water services and water resources management. Use the KSIs consistently in the development of the M&E Framework and the reporting in the SPR - and in all future surveys and censuses carried out by SSL and any other WASH partners.

- Establish a working group by WASH stakeholders in solid and liquid waste and faecal sludge management to develop KSIs that fully describe the challenges and achievements on waste management and develop the related data collection and analysis tools.
## Annex A: Abbreviations and Terminology

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4P</td>
<td>Agenda for Prosperity</td>
</tr>
<tr>
<td>ACF</td>
<td>Action Contre la Faim</td>
</tr>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>CAWec</td>
<td>Community Action for the Welfare of Children (organisation)</td>
</tr>
<tr>
<td>CCC</td>
<td>Community Care Centre (Ebola)</td>
</tr>
<tr>
<td>CHC</td>
<td>Community Health Clubs</td>
</tr>
<tr>
<td>CHW</td>
<td>Community Health Workers</td>
</tr>
<tr>
<td>CLTS</td>
<td>Community Led Total Sanitation</td>
</tr>
<tr>
<td>DFID</td>
<td>Department for International Development - United Kingdom</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Economic Community of West Africa States</td>
</tr>
<tr>
<td>EHC</td>
<td>Ebola Holding Centre</td>
</tr>
<tr>
<td>EHOs</td>
<td>Environmental Health Officers</td>
</tr>
<tr>
<td>EHSD</td>
<td>Environmental Health and Sanitation Directorate</td>
</tr>
<tr>
<td>EUH</td>
<td>Ebola Holding Unit</td>
</tr>
<tr>
<td>ESICOME</td>
<td>Expanded Sanitary Inspection &amp; Compliance</td>
</tr>
<tr>
<td>ETC</td>
<td>Ebola Treatment Centre</td>
</tr>
<tr>
<td>EVD</td>
<td>Ebola Virus Disease</td>
</tr>
<tr>
<td>EWRC</td>
<td>Electricity and Water Regulatory Commission</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation (UN)</td>
</tr>
<tr>
<td>FAOSTAT</td>
<td>Statistics division of the FAO</td>
</tr>
<tr>
<td>FCC</td>
<td>Freetown City Council</td>
</tr>
<tr>
<td>FWC</td>
<td>Freetown WASH Consortium</td>
</tr>
<tr>
<td>GBP or £</td>
<td>Pound Sterling (UK)</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GEF</td>
<td>Global Environment Fund</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information System</td>
</tr>
<tr>
<td>GIZ</td>
<td>Gesellschaft für Internationale Zusammenarbeit (German donor)</td>
</tr>
<tr>
<td>GoSL</td>
<td>Government of Sierra Leone</td>
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<tr>
<td>GVWC</td>
<td>Guma Valley Water Company</td>
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<tr>
<td>HCW</td>
<td>Health Care Workers</td>
</tr>
<tr>
<td>HDC</td>
<td>Health Development Committee</td>
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<tr>
<td>HDI</td>
<td>Human Development Index</td>
</tr>
<tr>
<td>HSC</td>
<td>Health Services Commission</td>
</tr>
<tr>
<td>IDB</td>
<td>Islamic Development Bank</td>
</tr>
<tr>
<td>INGO</td>
<td>International Non-Governmental Organisation</td>
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<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature</td>
</tr>
<tr>
<td>IWA</td>
<td>International Water Association</td>
</tr>
<tr>
<td>IWRM</td>
<td>Integrated Water Resources Management</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>JMP</td>
<td>Joint Monitoring Programme</td>
</tr>
<tr>
<td>KAP</td>
<td>Knowledge, Attitudes and Practices</td>
</tr>
<tr>
<td>KSI</td>
<td>Key Sector Indicators</td>
</tr>
<tr>
<td>Le</td>
<td>Leone (currency)</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MCC</td>
<td>Millennium Challenge Corporation</td>
</tr>
<tr>
<td>MDAs</td>
<td>Ministries, Departments and Agencies</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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<tr>
<td>MEST</td>
<td>Ministry of Education Science and Technology</td>
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<tr>
<td>MEWR</td>
<td>Ministry of Energy and Water Resources (former)</td>
</tr>
<tr>
<td>MICS</td>
<td>Multiple Integrated Cluster Survey</td>
</tr>
<tr>
<td>MLGRD</td>
<td>Ministry of Local Government and Rural Development</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry of Energy</td>
</tr>
<tr>
<td>MoFED</td>
<td>Ministry of Finance and Economic Development</td>
</tr>
<tr>
<td>MoHS</td>
<td>Ministry of Health and Sanitation</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MRU</td>
<td>Mano River Union</td>
</tr>
<tr>
<td>MWR</td>
<td>Ministry of Water Resources</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NRWSSP</td>
<td>National Rural Water Supply and Sanitation Programme</td>
</tr>
<tr>
<td>NWRMA</td>
<td>National Water Resources Management Agency</td>
</tr>
<tr>
<td>NWSP</td>
<td>National Water and Sanitation Policy</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance</td>
</tr>
<tr>
<td>ODF</td>
<td>Open Defecation Free</td>
</tr>
<tr>
<td>PDT</td>
<td>Presidential Delivery Team</td>
</tr>
<tr>
<td>PHAs</td>
<td>Public Health Aides</td>
</tr>
<tr>
<td>PHUs</td>
<td>Public Health Units</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
</tr>
<tr>
<td>RWSSP</td>
<td>Rural Water Supply and Sanitation Project (AfDB)</td>
</tr>
<tr>
<td>SALWACO</td>
<td>Sierra Leone Water Company</td>
</tr>
<tr>
<td>SCP</td>
<td>Sector Coordination Platform</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>SLA</td>
<td>Service Level Agreement</td>
</tr>
<tr>
<td>SPCT</td>
<td>WASH Sector Policy Coordination Team</td>
</tr>
<tr>
<td>SPR</td>
<td>Sector Performance Report</td>
</tr>
<tr>
<td>SSL</td>
<td>Statistics Sierra Leone</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children Fund</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>VIP</td>
<td>Ventilated Improved Pit (Latrine)</td>
</tr>
<tr>
<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
</tr>
<tr>
<td>WASHNET</td>
<td>Water, Sanitation and Hygiene network</td>
</tr>
<tr>
<td>WB</td>
<td>World bank</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>WRM</td>
<td>Water Resource Management</td>
</tr>
<tr>
<td>WSRP</td>
<td>Water Sector Reform Project (MCC supported)</td>
</tr>
<tr>
<td>WTP</td>
<td>Water Treatment Plant</td>
</tr>
</tbody>
</table>
WASH Definitions (as defined in the National Water and Sanitation Policy, July 2010)

**Rural Water Supply**: Is a service provided to communities of 150-5,000 people with minimum level of service 20 litres per capita per day within 250 meters fetch, serving about 250-500 persons per water point. (The Policy also recognises the WASH needs in settlements of less than 150 people to be addressed by self-supply approaches)

**Peri-Urban Water Supply (also referred to as Semi-Urban or Small Towns)**: Represent settlements with population of between 5,000-20,000 with a fair measure of social infrastructure and some level of economic activity with minimum supply standard of 60 litres per capita per day with reticulation and limited or full house connections.

**Urban Water Supply**: Provides 100 litres per capita per day for urban areas with population greater than 20,000 inhabitants to be served by full reticulation and consumer premises connection.

**Sanitation**: For the purpose of avoiding ambiguity and having clarity to all stakeholders who will be involved in the implementation of the policy strategies stated in this policy document, the term Sanitation broadly refers to the principles and practices relating to the collection, removal or disposal of human excreta, refuse and waste water.

**Adequate Sanitation**: For purpose of this Policy and the fact that the options for achieving adequate sanitation services vary widely, the term Adequate Sanitation refers to the provision and maintenance of systems or facilities of disposing of human excreta, waste water and household refuse, which is acceptable and affordable to the communities. These include toilet facilities and accessories; pipes and treatment works. The facilities must meet construction set standards, should be hygienic and easily accessible, with no adverse elements on the environment.

The following classification of rural localities have been used in the NRWSSP:

- **Rural Settlements**: small communities with population of less than 150 people – these will initially be targeted with supported Self-Supply water technologies and CLTS+ activities

- **Rural Communities**: communities with more than 150 people and less than 2,000 people. These will be targeted with communal water supply facilities, typically hand-dug wells or hand-drilled/ machine-drilled boreholes with hand pumps as well as supported Self-Supply water technologies for households demanding higher service levels and for water for productive uses. These communities will also be targeted for CLTS+ activities

- **Rural Towns**: communities with more than 2,000 people and less than 5,000 people. These will be targeted with communal water supply facilities, typically piped systems based on solar-pumping from boreholes or gravity systems from springs or surface
water sources. The rural towns will also be targeted for supported Self-Supply water technologies for households demanding higher service levels and for water for productive uses. These communities will also be targeted for CLTS+ activities.
### Data collection for the 2017 WASH Sector Performance Report

**Annex B: WASH Implementation Data Collection Tool**

Data collection for the 2017 WASH Sector Performance Report as appropriate, use a separate form per institution; and per project; and per district.

<table>
<thead>
<tr>
<th>District/ Council:</th>
<th>Category of Report</th>
<th>Reporting Year</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Area Urban &amp; Rural</td>
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</tbody>
</table>

#### Institution:
Freetown WASH Consortium (OXFAM, Action Against Hunger, Concern Worldwide & Save the Children International)

#### Project Title:
Improving WASH Services in Western Area Urban and Western Area Rural Districts in Sierra Leone

#### Sub-sector:
- Rural <5,000
- Small Town 5-20,000
- Urban >20,000

#### Category of Report:
- Water Supply
- Sanitation
- Hygiene
- Education

#### Reporting Year:
- Planned Budget (kUSD) 1,101
- Actual Exp (kUSD) 1,101

#### Targets for - outputs per sub-sector:
- District/ Council: Freetown WASH Consortium (OXFAM, Action Against Hunger, Concern Worldwide & Save the Children International)
- Improving WASH Services in Western Area Urban and Western Area Rural Districts in Sierra Leone
- Urban/Rural division
- Community/Town
- School WASH
- Health Centre WASH

<table>
<thead>
<tr>
<th>Sub-sector</th>
<th>Urban/ Rural division</th>
<th>Community/ Town</th>
<th>School WASH</th>
<th>Health Centre WASH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural &lt;5,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Town 5-20,000</td>
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<td></td>
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<tr>
<td>Urban &gt;20,000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>% Expenditure/sub:</th>
<th>Water Supply</th>
<th>Sanitation</th>
<th>Education</th>
<th>Water Supply</th>
<th>Sanitation</th>
<th>Education</th>
<th>Water Supply</th>
<th>Sanitation</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>89%</td>
<td>3%</td>
<td>8%</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### No of Persons
- 3774
- 24,455
- 8729

#### No of Water Points
- 36

#### No of Latrines
- 10

#### ODF Communities triggered
- Other

#### Other
- Other

#### Activities
- General description of the project and the activities that are carried out:
- The Freetown WASH Consortium in this phase III programme is undertaking the following major activities:
  - Construction of 20 new boreholes with pipe network extension and Upgrading/rehabilitation of existing boreholes.
  - Establishment of emergency water kiosks.
  - Development of decentralized water governance model.
  - Development of public toilet governance model based on international standards.
  - Pilot sanitation marketing in urban and peri-urban communities.
  - Mitigation, preparedness and response to disaster.
  - Support 102 youth groups in solid waste management through Operation Clean Freetown (OCF) project.
  - Hygiene promotion campaigns.
  - Advocacy for budget increase in WASH sector.

#### Achievements
- General Qualitative description of the achievements:
- Construction of 20 new boreholes that is equipped with solar operated submersible pumps, 10,000 litres tank with basement, fencing of facility and construction of tap stand.
- The pipe network extension on 20 boreholes is currently underway.
- Rehabilitation/upgraded 16 existing boreholes in support of GoSL dry season plan for 2017.
- Established 50 water kiosks to support GVWC to do water trucking in communities where there was severe shortage of water during 2017 dry seasons.
- FWC decentralized water governance model study under way.
- Regular engagement with MoWR, GVWC, FCC, WARDC, UNICEF, SALWACO, and other INGOs to develop the model.
- Responded to August 2017 mudslide and flood emergency by providing NFI kits, bottled water, water trucking, rehabilitated 10 damaged latrines and reached 26,777 affected people.
- Under OCF project 102 youth groups were formed, trained by MASADA in operating solid waste management and disposal; two business support companies ACTB and AFFORD trained youth groups in financial and business management. All youth groups were equipped with adequate cleaning tools and tricycle to operate their business in 60 wards across Western Area Rural and Urban.
- In collaboration with WASH Net the consortium was able to produce WASH profile that was shared with MoWR, MoHS and parliamentarians during the budget preparation season; together with WASH Net consortium is supporting MoWR to develop the National Water Quality Monitoring Strategy. The study is ongoing.
## Annex C1: KSI Definitions

The proposed definitions for the Sierra Leone WASH Indicators incorporating the definitions for the SDG6 WASH Indicator definitions:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Indicator</th>
<th>Definition</th>
<th>Disaggregation</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Water Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to water services</td>
<td>SDG6.1.1 Proportion of population using safely managed drinking water services</td>
<td>% of population (households, schools, clinics) using drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority contamination</td>
<td>Urban/rural (settlement type)</td>
<td>Data to be provided by SSL census and sample surveys (MICS, DHS) complemented by special baseline and sample surveys when needed</td>
</tr>
<tr>
<td>1.1 Household Water Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safely managed water</td>
<td>Proportion of population using safely managed drinking water services in households</td>
<td>% of population using drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority contamination</td>
<td>Urban/rural (settlement type)</td>
<td>Data to be provided by SSL census and sample surveys (MICS, DHS) complemented by special baseline and sample surveys when needed</td>
</tr>
<tr>
<td>Basic water</td>
<td>Proportion of population using basic drinking water services</td>
<td>% of population using drinking water from an improved source provided collection time is not more than 30 minutes for a roundtrip including queuing</td>
<td>Urban/rural (settlement type)</td>
<td>Basic water is the terminology used for the SDGs instead of 'improved' as used earlier for the MDGs</td>
</tr>
<tr>
<td>1.2 Extra-household Water Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic water in schools</td>
<td>Proportion of pupils enrolled in schools with basic water services</td>
<td>% of pupils enrolled in primary and secondary schools with a functional improved drinking water source on or near premises and water points accessible to all users during school hours</td>
<td>Urban/rural</td>
<td>Data to be provided by MEST school census Information can also be provided on number of schools rather than % of pupils</td>
</tr>
<tr>
<td>Gender Primary/ Secondary Schools</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Aspect</th>
<th>Indicator</th>
<th>Definition</th>
<th>Disaggregation</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic water in Health Care Facilities</td>
<td>Proportion of beneficiaries using health care facilities with basic water services</td>
<td>% of beneficiaries using health facilities with a functional improved water source on premises and water points accessible to all users at all times</td>
<td>Urban/rural Gender Type of Health Care Facility</td>
<td>Data to be provided by MOHS MIS on health centre infrastructure and SSL sample surveys (MICS, DHS)</td>
</tr>
<tr>
<td>2. Sanitation Services and Hygiene</td>
<td>Safely managed sanitation SDG6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water</td>
<td>% of population (households, schools and clinics) using an improved sanitation facility which is not shared with other households and where excreta are safely disposed in situ or transported and treated off-site and using hand-washing facility with soap and water</td>
<td>Urban/rural (settlement type) Wealth Affordability</td>
<td>Data to be provided by SSL census and sample surveys (MICS, DHS) complemented by special baseline and sample surveys when needed</td>
</tr>
<tr>
<td>2.1 Household Sanitation Services</td>
<td>Safely managed sanitation Proportion of population using safely managed sanitation services</td>
<td>% of population using an improved sanitation facility which is not shared with other households and where excreta are safely disposed in situ or transported and treated off-site</td>
<td>Urban/rural Gender</td>
<td></td>
</tr>
<tr>
<td>Basic Sanitation</td>
<td>Proportion of population using a basic sanitation service</td>
<td>% of population using improved facilities which are not shared with other households</td>
<td>Affordability</td>
<td></td>
</tr>
<tr>
<td>2.2 Extra-Household Sanitation Services</td>
<td>basic sanitation in schools Proportion of pupils enrolled in schools that provide basic sanitation services</td>
<td>% of pupils enrolled in primary and secondary schools with functional improved separated sanitation facilities for males and females on or near premises</td>
<td>Urban/rural Gender Primary/ Secondary Schools</td>
<td>Data to be provided by MEST school census Information can also be provided on number of schools rather than % of pupils</td>
</tr>
<tr>
<td>Basic sanitation in Health Care Facilities</td>
<td>Proportion of beneficiaries using health care facilities providing basic sanitation services</td>
<td>% of beneficiaries using health facilities with functional improved separated sanitation facilities for males and females on or near premises</td>
<td>Urban/rural Gender Type of Health Care Facility</td>
<td></td>
</tr>
<tr>
<td>Aspect</td>
<td>Indicator</td>
<td>Definition</td>
<td>Disaggregation</td>
<td>Notes</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>2.3 Hygiene in households</strong></td>
<td>Hand washing at home</td>
<td>Proportion of population with hand washing facilities with soap and water at home</td>
<td>% of population with a hand washing facility with soap and water in the household</td>
<td>Urban/rural (settlement type) Wealth Affordability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Menstrual hygiene management in schools</td>
<td>Proportion of pupils enrolled in schools with basic menstrual management facilities</td>
<td>% of pupils enrolled in primary and secondary schools with functional handwashing facilities, soap (or ash) and water available to girls and boys</td>
<td>Urban/rural Gender Primary/ Secondary Schools</td>
</tr>
<tr>
<td><strong>2.4 Hygiene in Schools</strong></td>
<td>Hand washing in schools</td>
<td>Proportion of pupils enrolled in schools with basic hand washing facilities</td>
<td>% of pupils enrolled in primary and secondary schools with functional handwashing facilities, soap (or ash) and water available to girls and boys</td>
<td>Urban/rural Gender Primary/ Secondary Schools</td>
</tr>
<tr>
<td></td>
<td>Menstrual hygiene management in schools</td>
<td>Proportion of pupils enrolled in schools with basic menstrual management facilities</td>
<td>% of pupils enrolled in primary and secondary schools with adequate and appropriate sanitary facilities for washing and change management and disposal of menstrual waste. These facilities must offer privacy, safety and dignity to menstruating students and teachers</td>
<td>Urban/rural Gender Primary/ Secondary Schools</td>
</tr>
<tr>
<td><strong>2.5 Hygiene in Clinics</strong></td>
<td>Hand washing in health care facilities</td>
<td>Proportion of beneficiaries using health care facilities with basic hand washing facilities</td>
<td>% of beneficiaries using health care facilities with adequate hand hygiene supplies (running water, liquid soap, single use towels/ alcohol-based hand rinse) available at key locations</td>
<td>Urban/rural Gender Type of Health Care Facility</td>
</tr>
<tr>
<td></td>
<td>Menstrual hygiene management in health care facilities</td>
<td>Proportion of beneficiaries using health care facilities with basic menstrual management facilities</td>
<td>% of beneficiaries using health facilities with improved separated sanitation facilities for females that provide privacy; soap, water and space for washing hands, private parts and clothes; and places for changing and disposing of materials used for managing menstruation</td>
<td>Urban/rural Type of Health Care Facility</td>
</tr>
<tr>
<td>Aspect</td>
<td>Indicator</td>
<td>Definition</td>
<td>Disaggregation</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Functionality of Water Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functionality</td>
<td>Proportion of hand pumps operational</td>
<td>% of hand pumps delivering water at time of survey</td>
<td>By type of Hand Pump (India MkII/ Kardia, . . . )</td>
<td>Data to be provided by continuously updated WPM data in combination with sample surveys carried out in the dry season and in the rainy season</td>
</tr>
<tr>
<td></td>
<td>Proportion of piped water systems operational</td>
<td>% of public standpipes delivering water at time of survey</td>
<td>Pumped System/ Gravity Fed System By District</td>
<td></td>
</tr>
<tr>
<td><strong>Water Quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Quality</td>
<td>Proportion of water points delivering bacteriologically safe water</td>
<td>% of water samples fulfilling the bacteriological water quality standards</td>
<td>By type of water point (Well; Well HP; BH/HP; BH/PSP; Gravity/PSP) Location (District/ type of settlement) Season (rainy/dry)</td>
<td>Data to be provided from WQ testing by WD as part of commissioning of new facilities + periodical WQ sample surveys</td>
</tr>
<tr>
<td></td>
<td>Proportion of water points delivering chemically safe water</td>
<td>% of water samples fulfilling the chemical water quality standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proportion of water points delivering physically safe water</td>
<td>% of water samples fulfilling the physical water quality standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity of Service Provision</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intra-District Equity</td>
<td>Mean chiefdom deviation in access from district average</td>
<td>Average of the absolute deviation of access to services in chiefdoms within a district from the district average</td>
<td>By household/ school/ clinic access to water/ sanitation/ hygiene (all WASH access indicators)</td>
<td>Data to be provided from SSL census and sample surveys. Disaggregation of data per Chiefdom requires a larger sample size than normally used by SSL for MICS and DHS</td>
</tr>
<tr>
<td>Inter-District Equity</td>
<td>Mean district deviation in access from national average</td>
<td>Average of the absolute deviation of access to services in districts from the national average</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value for Money</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per Capita Cost</td>
<td>Per Capita Capital Cost of Water System Implementation</td>
<td>Capital cost of new water facilities divided by the number of persons served by the facility</td>
<td>Type of technology District Divide hardware and software</td>
<td>Date to be provided from Standard Progress Reporting on</td>
</tr>
<tr>
<td>Aspect</td>
<td>Indicator</td>
<td>Definition</td>
<td>Disaggregation</td>
<td>Notes</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(training for community management)</td>
<td>implementation of water facilities. Consider 'life cycle costs'?</td>
</tr>
<tr>
<td>Specific Construction Cost</td>
<td>Unit cost of specific technologies</td>
<td>The final delivery/ installation cost of specific water components</td>
<td>BH Drilling/ Well construction/ Pipe laying/ Software costs etc By District</td>
<td></td>
</tr>
<tr>
<td>ODF Communities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New ODF Communities</td>
<td>Number of new ODF Communities per year</td>
<td>The number of communities that have achieved ODF status in a year</td>
<td>District Chiefdom Community Type (RS, RC, RT, ST)</td>
<td>Date to be provided from Standard Progress Reporting on implementation of CLTS</td>
</tr>
<tr>
<td>Total ODF Communities</td>
<td>Proportion of Communities ODF</td>
<td>The % of communities that have ODF status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding for WASH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-Budget WASH Funding</td>
<td>Annual on-budget funding for WASH Services</td>
<td>Government Annual Budget allocation (including DP Grants and Loans) for WASH Services</td>
<td>per district per sub-sector rural/ urban/water/ sanitation &amp; hygiene/ schools/ clinics</td>
<td>Data to be provided from MOFED/ LGFD budget and financial reporting and Parliamentary Health Budget Committee</td>
</tr>
<tr>
<td>Off-Budget WASH Funding</td>
<td>Annual off-budget funding for WASH Services</td>
<td>Total annual funding from DPs, NGOs and Civil Society Organisations for WASH Services not registered in the Government’s Annual Budgets</td>
<td>Annual reporting on funding should be included in SLAs. Standard Progress Reporting tool to provide data on direct implementation</td>
<td></td>
</tr>
<tr>
<td>Sector Management and Coordination</td>
<td>SDG6.a.1 Government coordination</td>
<td>Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.b.1 Community participation</td>
<td>Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Water Service Provision by Utilities**
<table>
<thead>
<tr>
<th>Aspect</th>
<th>Indicator</th>
<th>Definition</th>
<th>Disaggregation</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viability of Service Provision</td>
<td>Operating Ratio</td>
<td>Total annual operational expenditures/ total annual revenues for water services</td>
<td>Water utility (Guma/ SALWACO and others)</td>
<td>Require good financial and operational MIS in utilities</td>
</tr>
<tr>
<td>Operating efficiencies</td>
<td>Non-revenue water</td>
<td>Quantity of water not generating revenue (m³/annum) divided by quantity of water produced (m³/annum)</td>
<td>per water system</td>
<td>Require bulk water and customer metering</td>
</tr>
<tr>
<td>Reliability of Service Provision</td>
<td>Service time</td>
<td>Proportion of time with service in a year (total number of hours with service/ (365 x 24)</td>
<td>per water system (or per service area for larger systems like Guma)</td>
<td>Require good operational data and monitoring of network pressure and flows</td>
</tr>
<tr>
<td>Water Quality</td>
<td>Water Quality at delivery points</td>
<td>Proportion of samples at delivery points fulfilling water quality standards</td>
<td>per supply area</td>
<td>Data by periodic sample surveys by water utilities and checks by Regulator</td>
</tr>
<tr>
<td>Service Expansion</td>
<td>Number of New Connections</td>
<td>Number of new connections per year</td>
<td>per water system and by type of connection</td>
<td>Date from utility annual reports to Regulator on service expansion</td>
</tr>
<tr>
<td>Sewerage Service Provision by Utilities</td>
<td>Operating Ratio</td>
<td>Total annual operational expenditures/ total annual revenues for sewerage services</td>
<td>per operator of sewerage systems</td>
<td>Presently no reporting on sewerage services - require formalising regulation of the few systems in Freetown</td>
</tr>
<tr>
<td>Service Coverage</td>
<td>Access to sewerage services</td>
<td>Proportion of households in utility service area connected to sewer network</td>
<td>per system</td>
<td></td>
</tr>
<tr>
<td>Pollution</td>
<td>SDG6.3.1 Proportion of wastewater safely treated</td>
<td>Proportion of discharge water samples fulfilling discharge quality standards</td>
<td>per system</td>
<td></td>
</tr>
<tr>
<td>Faecal Waste Disposal</td>
<td></td>
<td>Proportion of sludge from septic tanks and toilets deposited in environmental safe manner</td>
<td>per district/ town</td>
<td>Safe disposal of sludge should be included in sample surveys on access to sanitation</td>
</tr>
<tr>
<td>Service Expansion</td>
<td>Number of new connections</td>
<td>Number of new connection per year</td>
<td>per system and by type of connection</td>
<td>Presently no reporting on sewerage services</td>
</tr>
<tr>
<td>Water Resources Monitoring</td>
<td>SDG6.4.2 Level of Water Stress</td>
<td>Freshwater withdrawal as a proportion of available freshwater resources</td>
<td>per main catchment areas</td>
<td>Require reestablishment of hydrological networks</td>
</tr>
<tr>
<td>Aspect</td>
<td>Indicator</td>
<td>Definition</td>
<td>Disaggregation</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Water Retention</strong></td>
<td>Total run-off coefficient (as a measure for erosion and catchment degradation)</td>
<td>Annual volume of run-off over total annual volume of rainfall</td>
<td></td>
<td>(MET/MWR) per catchment and loggers for ground water (MWR) Empowerment of NWRMA and Trans-boundary committee. Cross sectoral cooperation with forestry/agriculture etc and capacity building at all levels</td>
</tr>
<tr>
<td><strong>Water Resources Monitoring</strong></td>
<td>Completeness of Monitoring Data</td>
<td>Proportion of surface water, groundwater, climate (rainfall/evaporation etc.) and water quality monitoring data available compared to the Monitoring Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Resources Regulation</strong></td>
<td>Completens of Water Abstraction Regulations</td>
<td>Proportion of abstractions (m$^3$/annum) covered by valid water use permits</td>
<td>per main catchment areas</td>
<td>Monitoring systems are yet to be established for regulation of water abstraction and discharge</td>
</tr>
<tr>
<td></td>
<td>Compliance with Water Abstraction Regulations</td>
<td>Proportion of abstraction permit holders comply with abstraction conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SDG6.4.1 Water Use Efficiency</td>
<td>Change in water-use efficiency over time</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Discharge</strong></td>
<td>Completens of Water Discharge Regulations</td>
<td>Proportion of discharges (m$^3$/annum) covered by valid water discharge permits</td>
<td>per main catchment areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance with Water Discharge Regulations</td>
<td>Proportion of discharge permit holders comply with discharge conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Resources Management</strong></td>
<td>IWRM</td>
<td>Degree of integrated water resources management implementation (0-100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SDG6.5.1 IWRM Implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Quality</strong></td>
<td>SDG6.3.2 Ambient water quality</td>
<td>Proportion of bodies of water with good ambient water quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ecosystems</strong></td>
<td>SDG6.6.1 Extent of ecosystems</td>
<td>Change in the extent of water-related ecosystems over time</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transboundary</strong></td>
<td>SDG6.5.2 Transboundary water resources management</td>
<td>Proportion of transboundary basin area with an operational arrangement for water cooperation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex C2: SDG WASH Definitions

The Sustainable Development Goals (SDGs) are setting targets for access to WASH globally. The SDGs define access to drinking water, sanitation and handwashing according to the ladder describing service levels/standards of access as illustrated on Figure 29: WASH Ladders for access.

The definitions of the ‘Safely managed’ and ‘Basic’ steps in the ladder are summarised in Table 47 below.

Detailed information on the definitions, description of the target language and plans for monitoring are available in the ‘JMP WASH in the 2030 Agenda’ publications.

Table 47: SDG WASH Indicator Definitions

<table>
<thead>
<tr>
<th>Service level</th>
<th>Water</th>
<th>Sanitation</th>
<th>Handwashing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safely Managed</td>
<td>Drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority contamination</td>
<td>Use of an improved sanitation facility which is not shared with other households and where excreta are safely disposed in situ or transported and treated off-site</td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>Drinking water from an improved source provided collection time is not more than 30 minutes for a roundtrip including queuing</td>
<td>Use of improved facilities which are not shared with other households</td>
<td>Hand washing facility with soap and water in the household</td>
</tr>
</tbody>
</table>
Annex D: WASH Access at District levels

The Statistics Sierra Leone MICS 2017 provides detailed data on various aspects of access to WASH services at national, rural/urban. Regional and district levels. This annex presents an extract of the key data on access to basic services.

Table 48: Rural/ Urban, Regional and District level data on use of basic and limited drinking water services.

<table>
<thead>
<tr>
<th>Use of basic and limited drinking water services</th>
<th>Area</th>
<th>Region</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to source of drinking water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users of improved drinking water sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water on premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to and including 30 minutes</td>
<td>Total</td>
<td>Urban</td>
<td>East</td>
</tr>
<tr>
<td>Up to and including 30 minutes</td>
<td>13</td>
<td>21.9</td>
<td>11.4</td>
</tr>
<tr>
<td>More than 30 minutes</td>
<td>46.9</td>
<td>53.5</td>
<td>56</td>
</tr>
<tr>
<td>DK/ Missing</td>
<td>7.1</td>
<td>10</td>
<td>7.7</td>
</tr>
<tr>
<td>Missing</td>
<td>0.7</td>
<td>1.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Percentage using basic drinking water services</td>
<td>1.7</td>
<td>2.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Users of unimproved drinking water sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water on premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to and including 30 minutes</td>
<td>Total</td>
<td>Urban</td>
<td>East</td>
</tr>
<tr>
<td>Up to and including 30 minutes</td>
<td>1.7</td>
<td>2.2</td>
<td>1.3</td>
</tr>
<tr>
<td>More than 30 minutes</td>
<td>25.5</td>
<td>8.9</td>
<td>18.5</td>
</tr>
<tr>
<td>DK/ Missing</td>
<td>4.7</td>
<td>1.9</td>
<td>4.3</td>
</tr>
<tr>
<td>Missing</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Percentage using basic drinking water services</td>
<td>0.7</td>
<td>0.2</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: Statistics Sierra Leone – MICS 2017
### Table 49: Use of basic and limited Sanitation at National, Rural/Urban, Regional and District Levels

<table>
<thead>
<tr>
<th>Use of basic and limited sanitation services</th>
<th>Users of improved sanitation facilities</th>
<th>Users of unimproved sanitation facilities</th>
<th>Open defecation (no facility, bush, field)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not shared</td>
<td>Shared by 5 households or less</td>
<td>More than 5 households</td>
</tr>
<tr>
<td>Total</td>
<td>16.5</td>
<td>18.4</td>
<td>9.8</td>
</tr>
<tr>
<td>Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>27</td>
<td>26.3</td>
<td>17.5</td>
</tr>
<tr>
<td>Rural</td>
<td>8</td>
<td>12.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East</td>
<td>12.7</td>
<td>20.7</td>
<td>9.5</td>
</tr>
<tr>
<td>North</td>
<td>10.5</td>
<td>17.8</td>
<td>4.8</td>
</tr>
<tr>
<td>South</td>
<td>12.9</td>
<td>14.5</td>
<td>3.2</td>
</tr>
<tr>
<td>West</td>
<td>28.3</td>
<td>20.3</td>
<td>22.6</td>
</tr>
<tr>
<td>District</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kailahun</td>
<td>4.4</td>
<td>15.3</td>
<td>13.1</td>
</tr>
<tr>
<td>Kenema</td>
<td>17.5</td>
<td>27.2</td>
<td>9.8</td>
</tr>
<tr>
<td>Kono</td>
<td>13.5</td>
<td>16.4</td>
<td>5.5</td>
</tr>
<tr>
<td>Bombali</td>
<td>8.3</td>
<td>28.4</td>
<td>7.9</td>
</tr>
<tr>
<td>Kambia</td>
<td>8.9</td>
<td>8.8</td>
<td>18</td>
</tr>
<tr>
<td>Koinadugu</td>
<td>11.8</td>
<td>20.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Port Loko</td>
<td>14.5</td>
<td>16.8</td>
<td>5.7</td>
</tr>
<tr>
<td>Tonkolili</td>
<td>7.9</td>
<td>10.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Bombali</td>
<td>21.4</td>
<td>17</td>
<td>5.2</td>
</tr>
<tr>
<td>Bonthe</td>
<td>9.8</td>
<td>15.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Moyamba</td>
<td>20.7</td>
<td>14.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Pujehun</td>
<td>7.3</td>
<td>7.9</td>
<td>2</td>
</tr>
<tr>
<td>Western Area Rural</td>
<td>24.4</td>
<td>19</td>
<td>12.1</td>
</tr>
<tr>
<td>Western Area Urban</td>
<td>30</td>
<td>20.9</td>
<td>27.4</td>
</tr>
</tbody>
</table>

Source: Statistics Sierra Leone – MICS 2017
### Table 50: Use of handwashing facilities with water and soap at National, Rural/Urban, Regional and District Levels

<table>
<thead>
<tr>
<th>Handwashing facility with soap and water on premises</th>
<th>Fixed facility observed</th>
<th>Mobile object observed</th>
<th>No handwashing facility observed in the dwelling, yard, or plot</th>
<th>Handwashing facility observed and water available</th>
<th>Soap available</th>
<th>Ash/mud/sand available</th>
<th>Percentage of household members with handwashing facility where water and soap are present’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>14.4</td>
<td>27.3</td>
<td>57.5</td>
<td>74.4</td>
<td>63.3</td>
<td>3.2</td>
<td>23.5</td>
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<tr>
<td><strong>Area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Urban</td>
<td>17.4</td>
<td>32.3</td>
<td>49.5</td>
<td>79.7</td>
<td>74.9</td>
<td>1.7</td>
<td>33.4</td>
</tr>
<tr>
<td>Rural</td>
<td>12.1</td>
<td>23.2</td>
<td>64</td>
<td>68.4</td>
<td>50.2</td>
<td>4.9</td>
<td>15.5</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East</td>
<td>12.1</td>
<td>20.5</td>
<td>66.6</td>
<td>74.3</td>
<td>61.2</td>
<td>4</td>
<td>17.8</td>
</tr>
<tr>
<td>North</td>
<td>11.7</td>
<td>33.3</td>
<td>54.6</td>
<td>69.3</td>
<td>56.1</td>
<td>5.2</td>
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</tr>
<tr>
<td>South</td>
<td>18</td>
<td>21.2</td>
<td>60</td>
<td>73.7</td>
<td>53.8</td>
<td>2.7</td>
<td>19</td>
</tr>
<tr>
<td>West</td>
<td>17.7</td>
<td>30.3</td>
<td>50.8</td>
<td>81.8</td>
<td>81</td>
<td>0.4</td>
<td>34.9</td>
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<tr>
<td><strong>District</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kailahun</td>
<td>1.1</td>
<td>14.4</td>
<td>84.1</td>
<td>79.2</td>
<td>44.1</td>
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<td>Kenema</td>
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<td>16.7</td>
<td>71.7</td>
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<td>67.8</td>
<td>8.7</td>
<td>17.2</td>
</tr>
<tr>
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<td>23.8</td>
<td>31.8</td>
<td>42.4</td>
<td>66.6</td>
<td>60.9</td>
<td>1.6</td>
<td>29.5</td>
</tr>
<tr>
<td>Bombali</td>
<td>10.2</td>
<td>52.9</td>
<td>36.7</td>
<td>76</td>
<td>65.5</td>
<td>10.7</td>
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<tr>
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<td>6.6</td>
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<td>4.5</td>
</tr>
<tr>
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<td>19.2</td>
</tr>
<tr>
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<td>60.7</td>
<td>42.9</td>
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<td>18.7</td>
</tr>
<tr>
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<td>66</td>
<td>81.6</td>
<td>66.4</td>
<td>3</td>
<td>19.8</td>
</tr>
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<td>56.6</td>
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<td>34.7</td>
<td>1.2</td>
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<tr>
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<td>28.9</td>
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<td>53.8</td>
<td>61.7</td>
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<td>18.5</td>
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<td>73.6</td>
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<td>Western Area Rural</td>
<td>15.5</td>
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<td>81.8</td>
<td>73</td>
<td>1</td>
<td>30.9</td>
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<tr>
<td>Western Area Urban</td>
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<td>50.7</td>
<td>81.8</td>
<td>84.6</td>
<td>0.1</td>
<td>36.7</td>
</tr>
</tbody>
</table>

Source: Statistics Sierra Leone – MICS 2017
Annex E: References


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