



**GOVERNMENT OF THE  
REPUBLIC OF SIERRA LEONE**

**MINISTRY OF ENERGY AND WATER RESOURCES**

**THE NATIONAL WATER AND SANITATION POLICY**

**JULY 2010**

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## ACRONYMS and ABBREVIATIONS

AfDB	African Development Bank
BADEA	Arab Bank for Economic Development in Africa
CBOs	Community Base Organizations
CEDAW	Convention on the Elimination of Discrimination against Women
CLTS	Community Led Total Sanitation
CBO	Community Based Organisation
CSO	Country Status Overview
DAC	Development Assistance Committee
DACO	Development Assistance Coordination Office
DFID	Department for International Development
DHMT	District Health Management Team
DMO	District Medical Officer
DSAs	Donor Support Agencies
EC	European Commission
EIA	Environmental Impact Assessment
EWRA	Energy and Water Regulatory Authority
FCC	Freetown City Council
FWSC	Freetown Water and Sanitation Company <sup>1</sup>
GDP	Gross Domestic Product
GF4A	Global Framework for Action (aka SWA = Sanitation and Water for All)
GoSL	Government of Sierra Leone
GVWC	Guma Valley Water Company
HIV	Human Immunodeficiency Virus
IDB	Islamic Development Bank
IRCBP	Institutional Reform and Capacity Building Project
INGO	International Non-Governmental Organisation
JICA	Japanese International Cooperation Agency
Le	Leones (unit of Currency in Sierra Leone)
MDAs	Ministries, Departments and Agencies
MEWR	Ministry of Energy and Water Resources
MDG	Millennium Development Goals
MICS	Multiple Integrated Cluster Survey
MoEYS	Ministry of Education, Youth and Sports
MoF&ED	Ministry of Finance and Economic Development
MoHS	Ministry of Health and Sanitation
MoLE	Ministry of Lands and Environment
MoLG	Ministry of Internal Affairs, Local Government and Rural Development
MSWGCA	Ministry of Social Welfare, Gender and Children Affairs
MoWH&I	Ministry of Works, Housing and Infrastructure
MTEF	Mid-Term Expenditure Framework
NEWPPCU	National Energy, Water Policy Planning and Coordinating Unit
NGO	Non-Governmental Organization
NWRB	National Water Resources Board
ODF	Open Defecation Free (villages)

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<sup>1</sup> Formerly known as GVWC

O&M	Operation and Maintenance
OPR	Output to Purpose Review
PETS	Public Expenditure Tracking Survey
PFM	Public Financial Management
PFMU	Public Financial Management Reform Unit
PHU	Peripheral Health Unit
PRSP	Poverty Reduction Strategy Paper
PROWACO	Provincial Water Supply Company <sup>2</sup>
RWS	Rural Water Supply
SALWACO	Sierra Leone Water Company
SL	Sierra Leone
SSL	Statistics Sierra Leone
SWA	Sanitation and Water for All
TA	Technical Assistance
U5/MR	Under Five Mortality Rate
URB	Utilities Regulatory Board
UN	United Nations
UNDAF	UN Development Assistance Framework [to be superseded by Joint UN Vision]
UNDP	United Nations Development Programme
UNICEF	United Nations International Children Fund
UWS	Urban Water Supply
VIP	Ventilated Improved Pit Latrine
VDC	Village Development Committee [aka CDC: Community Dev Committee]
WASH	Water Sanitation and Hygiene
WASHComm	WASH Committee (Community or Village Level)
WHO	World Health Organisation
WRMB	Water Resources Management Board
WSD	Water Supply Division
WATSAN	Water and Sanitation

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<sup>2</sup> Formerly known as SALWACO

## DEFINITION of TERMS USED

### Classification of Water Consumption Standards

This Policy has classified Water Supply services into three Socio-Economic profiles of the target population as follows:

***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.

***Peri-Urban Water Supply (Semi-Urban):***

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.



# INTRODUCTION

## I. The Policy Development Process

The process of preparing this Water and Sanitation Policy was undertaken in a participatory manner involving a broad base of stakeholders with the purpose of ensuring comprehensiveness and acceptability of the document. Identification of relevant stakeholders, specifically for preparation of the draft Policy was a critical first step in the whole exercise.

Stakeholders were categorised into three groups, namely, **type 1**: those who worked on the preparation of the draft document: (experts from relevant Ministries and Government Organisations), **type 2**: those who were consulted in the process of preparing the draft policy. These included decision makers in the above-mentioned institutions, Local Councils' representatives, Donor organisations supporting the water sector, NGOs and other organisations involved in provision of water supply services and **type 3**: those who formed part of the wider consultation on the draft policy which included civil society organisations and public views.

## II. Structure of this Document

In order to prepare the National Water and Sanitation Policy for implementation, the contents of the Policy document are re-arranged and divided into three parts as follows:

### **PART A: Current Situation.**

This self describing part is intended to present the current situation in this sector until June 2008 when the Policy was approved. In practise, this part is expected to present the analysis of the situation and lessons learnt. Detailed analysis of the situation was not part of policy development process therefore it is not included.

### **PART B: The WASH Policy and Statements**

This part presents all statements contained in the Policy document without alterations. Additions suggested are clearly marked for inclusion during Policy review in the future. These are presented according to the classifications and service delivery outlay as stated in the Policy.

### **PART C: The WASH Strategic Plan**

In preparation for the formulation of the National Master Plan and Annual Action Plans, there is need to identify all Challenges and Strategic Statements that are made in the Policy document. This part consists of the challenges and strategies that are identified in the Policy document. All additions or slight alterations that were unavoidable are clearly marked and it is suggested that they are considered during Policy review process in the future.

## **PART D: The WASH Policy Implementation Plan**

This part of the document is the second stage towards the implementation of this Policy. Like many policy documents, this part is not intended to present detailed time-frame of activities that will be carried out towards attaining the objectives of this Policy.

The main aim of this Part is to inform and seek approval of the Cabinet for what the MEWR intend to undertake in partnership with stakeholders in the WASH Sector. A Service Provider will be selected to provide technical assistance to the MEWR in the development a comprehensive a National Action Plan for the WASH Sector “Sierra Leone.

### **III) Project Identification Numbers**

- The numbering system used for titles is intended to make the document reader friendly, enable the reader to quote certain Policy Statements. The numbering system will make editing of the content less cumbersome during subsequent reviews.
- The numbering system used in Part C of this document will also be used to identify Activities, Programmes/Projects during the implementation stage. The numbering system is kept consistent with the thematic areas of activities that were identified in the Policy and these are as follows:
  1. Water Resources Management
  2. Urban Water Supply and Sewerage
  3. Rural Water Supply
  4. Hygiene and Sanitation
  5. Legal, Regulatory and Institutional Framework

# **PART A**

## **CURRENT STATUS**

### **1 INTRODUCTION**

#### **1.1 General Overview**

Water is a basic natural resource, which sustains life and provides for various social and economic needs. Safe drinking water and good sanitation practices are basic requirements for human health. Water is a socially vital economic good that needs increasingly careful management for sustainable economic growth and reduction of poverty. Access to safe and adequate water to meet basic human needs is a fundamental human right.

Sierra Leone possesses enormous water resources which are contained in over twenty major rivers. These include Rokel, Moa, Sewa, Little Scarcies, Pampana, Great Scarcies and Mano, with lengths ranging from 40 kms to 290 kms. Four of these rivers namely, Moa, Little Scarcies, Mano, and Great Scarcies have their sources in the neighbouring countries of Guinea and Liberia. However, inadequate efforts have been made to ensure optimal planning and economic use of the resources. Water resources management in Sierra Leone is very limited and carried out on a sectoral basis, under which each institution involved in water related issues has its own separate legislation for management of the resources.

The social and economic circumstances prevailing today in Sierra Leone have made exacting demands upon the country's water resource base and the environment and its sustainability is threatened by various human induced activities. Over the last decade these demands have intensified with the increase in population in urban areas, and the development of economic activities such as industries and mining which require water as an input.

Despite the abundant water resources, access to safe drinking water is very limited as a result of unavailable or limited functional infrastructure for water supply. Today only about 32% of the rural population has access to a reliable water supply. Due to poor operational and maintenance arrangements, most of the urban water supply schemes are not functioning properly. The water supply coverage for urban areas, in particular Freetown, the capital city is about 50%. The poor state of the water services in Freetown do not meet the needs of its population which increased during the period of civil war.

The sewerage and sanitation situation in the country is also highly unsatisfactory. Sewerage infrastructure is confined to Freetown where it is limited, old and inadequate to meet the ever increasing demand. The institutions responsible for provision of sewerage services have insufficient human resources as well as financial ability to carry out their responsibilities.

The sanitation situation in Freetown not served by the sewerage system and in the rest of the country is not satisfactory. An estimated 3.43 million Sierra Leoneans do not have

access to adequate sanitation facilities. The estimated number of people who do not have adequate sanitation in urban areas is about half a million. Diseases associated with lack of safe water, poor hygiene and sanitation are major causes of sickness and death in the country. In addition to the adverse impact on the health of the population, sanitation has a serious economic impact on household economies, keeping families in the cycle of poverty, illness, illiteracy and lost income. The national cost of lost productivity, reduced educational potential and curative health costs is a major drain on the Sierra Leone economy. Generally, inadequate water supply, lack or insufficient sanitation facilities, such as poor facilities for safe disposal of water and other domestic waste and lacking or poor toilet facilities together with unhygienic practices represent the sanitation challenges in Sierra Leone.

## **1.2 Water and Sanitation in the context of the Sierra Leone Development Vision 2005, PRSP and MDGs**

The Sierra Leone Vision 2025, the Poverty Reduction Strategy Paper (PRSP) and the Millennium Development Goals (MDGs) aim at achieving a high quality livelihood for the people of Sierra Leone, attaining good governance through the rule of law and developing a strong and competitive economy.

### **1.2.1 Vision 2025**

Core strategic objectives that must be provided for in all plans, policies and programmes, including the water, sewerage and sanitation sector, as applicable, are to:

- Attain competitive private sector-led economic development with effective indigenous participation.
- Create a high quality of life for all Sierra Leoneans.
- Build a well educated and enlightened society.
- Create a tolerant, stable, secure and well-managed society based on democratic values.
- Ensure exploitation and effective utilization of national resources while maintaining a healthy environment.
- Become a science and technology driven nation.

### **1.2.2 PRSP and AGENDA for CHANGE**

Water is one of the most important agents to enable Sierra Leone to achieve its vision for social and economic development including poverty eradication, and attaining water and food security. The PRSP objectives for the water and sanitation sector are to:

- Provide safe drinking water and sanitation facilities for deprived communities in rural and urban areas.
- Rehabilitate and reconstruct existing water facilities.
- Provide adequate liquid and solid waste disposal facilities in urban areas.
- Increase community awareness of good hygiene practices relating to collection and storage of drinking water, use and maintenance of sanitary facilities and other environmental sanitation issues.

### **1.2.3 Millennium Development Goals (MDGs)**

Water is a key factor in the socio-economic development and the fight against poverty. Deliberate efforts are therefore needed in the management of the resources in order to sustain the desired socio-economic development and to achieve target 10 of the MDGs which aims at halving, by 2015, the proportion of people without sustainable access to safe drinking water.

This Policy document aligns water and sanitation policy objectives with Sierra Leone's Development Vision 2025, PRSP's objectives and MDGs.

## **1.3 Key Institutions and Legislations in the Water and Sanitation Sector**

Water resources management in Sierra Leone is carried out on a sectoral basis; each institution involved in water related activities has its own legislation on management of resources.

### **1.3.1 Present key sector institutions**

There are several institutions which have various responsibilities connected to the water and sanitation sector. These include:

#### **(i) Ministry of Energy and Water Resources**

The Ministry of Energy and Water Resources plays a major role in urban and rural water supply through the Water Supply Division (WSD). The Ministry also exercises supervisory control over Sierra Leone Water Company (SALWACO) and it is responsible for water policy, planning and coordination. All water supply services in urban as well as rural areas in the country outside Freetown for over three decades have been under the WSD. The water supply services vested under WSD in 1963 are gradually being hived off, with the establishment of SALWACO in 2001 and the enactment of the new Local Government Act (2004).

#### **(ii) Ministry of Internal Affairs, Local Government and Rural Development**

Under the new Local Government Act 2004, the responsibility for rural urban centres and rural water supply provision has been devolved to Local Government (Local Councils). The local councils are therefore in the process of taking over the responsibilities of rural, urban and peri-urban water supply.

#### **(iii) Ministry of Mineral Resources**

The Ministry is responsible for ensuring that the mining activities are environmental friendly. The Ministry also undertakes geological mapping, prospecting and exploration operations, which have impact on water resources exploration and planning.

#### **(iv) Ministry of Lands and Environment (MoLE)**

Key responsibilities of the MLCP include mapping of catchments areas, watersheds, rivers and lakes.

#### **(v) Ministry of Agriculture and Food Security**

The Ministry through its Land and Water Department conducts studies and collects data on ground water and surface water sources, and encourages irrigation for agricultural farming.

**(vi) Ministry of Health and Sanitation**

It is responsible for public health and sanitation in the country. By its mandate, it is responsible for conducting health studies and reporting incidences of water borne communicable diseases; water quality testing; and investigating sources of water pollution.

**(vii) Ministry of Finance and Economic Development**

The Ministry is responsible for the coordination of national development policies. It is also responsible for mobilization of both internal and external sources of funds for development and co-ordinates all external aid.

**(viii) Ministry of Transport and Aviation**

The Ministry's responsibilities cover hydro and meteorological activities through its maritime administration activities. It oversees control of inland waterways, issuance of navigation licenses and safety of nautical navigation.

**(ix) Environmental Commission**

The Environmental Commission has statutory national responsibility for environmental protection, control and management. It is responsible for the coordination of all environmental activities in the country and acts as a link between key institutions of the Government involved in the environment sector, notably, the Ministry of Agriculture and Food Security, Ministry of Lands and Country Planning, Ministry of Mineral Resources, and Ministry of Marine Resources.

**(x) Guma Valley Water Company (GVWC)**

GVWC provides water supply services to the City of Freetown delivering water from mainly Guma Dam supplemented by ground water resources. It is the largest provider of potable water and a major stakeholder in the water sector.

**(xi) Sierra Leone Water Company (SALWACO)**

SALWACO is responsible for water supply services in six urban areas namely Bo, Kenema, Koidu, Makeni, Kabala and the International Airport at Lungi. However, it has recently become involved in rural water supply projects.

**(xii) Ministry of Marine Resources**

The Ministry has exclusive mandate for management and control over fisheries and other aquatic resources within the fishery waters of Sierra Leone. It is responsible for planning, developing, managing and conservation of all living and non-living aquatic resources of the country.

**(xiii) Donor Agencies and Non-Governmental Organisations**

Donor organisations and Non-governmental organizations (NGOs) play an active role in water supply and resources management, especially in rural areas. However, the NGOs activities in water sector have not been well coordinated by the Ministry responsible for water.

**(xiv) Office of National Security**

The Disaster Management Department in the Office of National Security is responsible for the coordination of all disasters management activities, including water related disasters.

### 1.3.2 Legislations

Legislations affecting the water and sanitation sector in Sierra Leone comprise of the following:

- (i) **The Guma Valley Water Act (1961):** An Act which established Guma Valley Water Company (GVWC), a company owned by the Government and Freetown City Council that provides water supply services to the city of Freetown.
- (ii) **The Water (Control and Supply) Act (1963):** An Act which vested water supply undertakings in the Water Supply Division (WSD) of the Ministry of Energy and Power for all water supply services in urban centres except for Freetown as well as rural areas in the country. The Act also imposes some water resources management responsibilities on the WSD.
- (iii) **The Sierra Leone Water Company Act (2001):** An Act which established Sierra Leone Water Company (SALWACO) to provide water supply services in the District towns of Bo, Kenema, Koidu, Makeni, Kabala and the International Airport at Lungi, thus hiving-off some of the responsibilities of WSD to SALWACO.
- (iv) **The Environmental Protection Act (2000):** An Act which empowers the Minister of Lands, Country Planning and the Environment to make regulations and guidelines which protect the environment. The Act makes provision for the Minister to make regulations and guidelines for waste management.
- (v) **Local Government Act (2004):** An Act which enables the establishment of nineteen local councils and provides for decentralisation and devolution of functions, powers and services to local councils. The Act devolves the water supply and sanitation responsibilities to District and Town Councils.
- (vi) **Public Health Act 1996 and the 2004 Addendum:** An Act which vests the responsibility for environmental sanitation in the Ministry of Health.
- (vii) **Mines and Mineral Act, 2003 and the Forestry Regulation Act 1999:** Acts which also cover water related issues.

Most of the above-mentioned water and water related legislations are outdated and inadequate to meet the growing water resources challenges facing the country today and the near future. The legislations need review and revision as appropriate in order to become harmonised with this new national policy and the proposed new Water Act.

## **1.4 WATER RESOURCES MANAGEMENT**

### **1.4.1 Water Resources Potential**

#### **Surface water**

Sierra Leone is endowed with vast water resources consisting of both surface and groundwater resources. Surface water resources in the country include rivers, lakes and wetlands. The rivers include Rokel, Moa, Sewa, Waanje, Mabole, Little Scarcies, Pampana, Bagbe, Great Scarcies, Mongo, Mano, Jong, Bagru, Teye, Tabe, Male, Yambatui, Bafin, and Kukuli with lengths ranging from 40 km to 290 km. Of these, four have their sources in the neighbouring countries of Guinea and Liberia. These are Great Scarcies, Little Scarcies, Moa and the Mano.

Most of the country receives annual rainfall of more than 3000mm. Mean annual rainfall is as high as 3000mm but can be as low as 1800mm in the north east. The wet season months are May to November and the dry season is from December to April. However, despite an abundance of water resource it is unevenly distributed, thus in dry seasons the resources are inadequate to meet water needs in various areas of the country.

#### **Ground water**

It is understood that the country has plentiful ground water widespread in almost the whole of Sierra Leone. However, specific information on the country's ground water resources is inadequate to form a basis for any significant undertaking on the utilization of the resources as a major supplement for surface water for many parts of the country, especially in semi-arid water scarce areas.

### **1.4.2 Renewable Water Resources**

Sierra Leone's annual renewable water resources are 160,000 million cubic metres. Based on population of 4.9 million in year 2004 to an estimated population of 9.9 million by year 2025, annual average available water per capita will be reduced by 49.7% to 16,000 cubic metres per person per year. Notwithstanding this reduction, the country will still be having a high water per capita showing that population increase would not cause water scarcity as water per capita would still be significantly higher than the water scarcity level defined as 1,700 cubic metres per person per year.

### **1.4.3 Water Resources Depletion**

Depletion of water resources in Sierra Leone arises mainly from deforestation activities and poor land uses. The resources are also threatened by rapid population growth, pollution from mining, increased uncoordinated industrial activities, environmental degradation causing soil erosion, drainage of wetlands, and pollution of rivers.



## **1.5 URBAN WATER SUPPLY AND SEWERAGE**

### **1.5.1 Overview of Water Supply Services**

Water supply services in Sierra Leone's urban areas have deteriorated considerably. This is mainly caused by lack of investment in the sector over a long period, poor financial management, ineffective institutional set-up, lack of effective and skilled manpower, and the fact that the water sector has not been accorded the necessary priority.

For a long time the water supply system for the City of Freetown has been in a poor state, inadequate and unable to meet the demand. Of the present water production, about 50% is estimated to be unaccounted for, lost through leakages and illegal use. Leakage and wastage within consumer premises are significant and customers' metering is limited to only a few consumers. The rate of water losses emphasises the fact that the distribution system is in poor condition. There is a high state of disrepair caused principally by lack of significant investment over the past years.

There are thirty-five non-functional "Degremont type" water facilities that were installed in small towns in various parts of the country about 30 years ago. Urban areas with the exception of Freetown, Bo and Kenema which have partially functioning water supply systems albeit with grossly inadequate water services, do not have operational water supply services.

The urbanization rate in Sierra Leone exceeds current levels of urban water supply. In Freetown GVWC's average daily output is 18 million gallons per day as against a daily estimated demand of 35 million gallons/day. Water is rationed to many areas in the City with almost no customers getting 24-hour supply. In the peri-urban areas and the densely populated poor urban areas customers receive supplies once a month or none at all. Nationally, only about 50% of the urban population have access to water from improved water sources. With rapid and uncoordinated expansion of urban settlements, more urban residents are likely to continue depending on vendors and tanker services, at costs far in excess of utility rates.

In addition water supply sources are no longer able to meet current demand, as is the case of Guma Dam in Freetown. Furthermore, the quality of water is increasingly being polluted as a result of contamination by human as well as industrial activities.

### **1.5.2 Overview of Sewerage Services**

The development of sewage systems is very limited and confined to Freetown where sewerage infrastructure covering part of the central business district is old and inadequate to meet the ever increasing demand. The rest of the population relies on pit latrines and Water Closet (WC) systems connected to septic tanks.

The responsible institution (WSD) for the provision of sewerage services in Freetown has insufficient human resources as well as financial ability to carry out these responsibilities.

## **1.6 RURAL WATER SUPPLY**

### **1.6.1 Overview**

Assessment of the rural water supply situation indicates that most schemes are inoperative due to insufficient funding, inappropriate technology, lack of community involvement, inadequately trained personnel, and insufficient tools and equipment. Despite the efforts by the Government over the past five years with the assistance of NGOs presently only about 32% of the rural population has access to reliable water supply services. Water supply services situation in rural areas is generally poor. The impact that this state of affairs has on the health of the population is colossal. Diarrhoeal disease, intestinal infections, typhoid and cholera result are a rural of poor water services. Over 50% of child mortality is associated with the prevailing poor water and sanitation services.

## **1.7 HYGIENE AND SANITATION**

### **1.7.1 General Overview**

Sanitation is an important and critical development issue, which, like other pertinent development issues needs serious consideration for sustainable development of the country's economy and management of water resources. Sanitation improvement is an imperative intervention needed to improve living conditions leading to a full healthy and productive life among the population. Sanitation improvement needs to be addressed in the context of an integrated development strategy, especially with water development strategies as the two are inevitably linked.

### **1.7.2 Present situation**

The challenges related to sanitation in Sierra Leone involve various issues, from the low level of service coverage and quality, to the lack of a legislative-institutional framework and the low level of financial investments. The need for sanitation can be seen throughout the country, even though the major deficits are especially found in the small towns and in the rural areas.

Lack of access to safe water, sanitation and hygiene education are the root causes of poverty as it is the poor, especially women and children, who suffer most due to poor living conditions and diseases. Hygiene education greatly improves the health impact of water and sanitation interventions, as providing water alone has minimal impact. Hygiene education in the country has barely been provided.

Apart from the effects of the sanitation problem on health as stated above, sanitation had a serious economic impact on household economies, keeping families in the cycle of poverty, illness, illiteracy and lost income. The national cost of lost productivity, reduced educational potential and curative health costs is a major drain on the Sierra Leone economy.

Until recently, unlike water supply, sanitation was not popular subject at any level in Sierra Leone societies and Government. It has consequently been lacking the priority that it should enjoy in relation to the burden that it places on society. Furthermore, as in the water sector there have been a number of structures with marginal responsibility for sanitation. The confusion surrounding whether full sanitation responsibility should fall under Ministry of Health, Environment Commission, Local Government or the Ministry responsible for water has not been fully addressed.

Sierra Leone is going through a process of decentralization. Under the Local Government Act (2004) and in line with the Local Government (Assumption of Functions) Regulations, 2004, responsibilities for sanitation provision were decentralized, with Local Councils assuming full responsibilities on sanitation aspects in 2005. However Local Councils are still in the process of building capacity and are yet to determine what this role might mean in practice and how they will implement this demanding responsibility. There are therefore concerns regarding human resources as the sector adopts decentralized service provision. Local government bodies, with limited technical capacity as well as financial resources will likely struggle to fulfil the roles assigned to them by the Law.

### **1.7.3 Recent efforts**

Over the past few years the Government and external support agencies have made efforts to promote sanitation and seek ways to create social and political will in support of sanitation programmes. Some have evaluated the few existing sanitation projects and programmes to determine what lessons could be learned and be used for future projects. These efforts have contributed to sector thinking on principles and best practices, particularly as they relate to community and household-based approaches to sanitation.

Development partners in collaboration with the Government, NGOs and a few local civil society organizations have implemented and documented pilot sanitation projects that have demonstrated the effectiveness of a particular programming approach, technology, or management model. Slight progress has also been made in improving the linkage between donor organizations and NGOs which mostly operate at community levels.

Despite the efforts, the Sanitation assessment by UNICEF in 2005 showed that sanitation coverage still lags behind water supply coverage throughout the country. The majority population, about 70% of those lacking adequate sanitation services live in rural areas.

Cognisant of the aforementioned challenges, the Government is determined and seeks to fulfil its responsibility to ensure that the majority of Sierra Leoneans have access to adequate sanitation services.

## **PART B**

### **POLICY STATEMENTS**

#### **2 THE POLICY: WATER, SANITATION and HYGIENE (WASH)**

The current situation on water resources management ascertain the fact that an integrated water resources management approach is needed to ensure that water does not become a constraint to national development. Like in many societies in Africa, water was regarded as a free commodity in Sierra Leone, considered unlimited in quantity. However, with continued population growth, disorderly fast urbanisation especially in the capital city, Freetown and rapidly growing and diversified water use, the abundant resource is becoming increasingly artificially scarce and often of inferior quality.

This trend is aggravated by current practices whereby planning, development and management of the resource are approached from a sectoral perspective without coordination among the relevant stakeholder institutions. This has often resulted in non-optimal and unsustainable use of the resource.

The principal objective of the Policy for Water Resources Management is to develop a comprehensive framework for promoting optimal, sustainable and equitable development and use of water resources. Specific challenges, policy objectives and strategies for water resources management are:

##### **2.1 RATIONALE FOR THE POLICY**

Sierra Leone faces increasing challenges for managing the water and sanitation sector, as a consequence of the lack of a national policy, organized and coordinated legal, regulatory and institutional frameworks and deficiency in the provision of both urban and rural water supply and sanitation facilities and services.

The Government of Sierra Leone has therefore given high priority to the development of a National Water and Sanitation Policy to provide overall direction for addressing the challenges the sector faces currently and in the future.

##### **2.2 POLICY OBJECTIVES**

This water and sanitation policy responds to the urgent need in Sierra Leone for integrated and cross-sectoral approaches to water management and development as well as the provision of safe and adequate water and adequate sanitation facilities. In particular, it advocates:

- The fundamental human right of access to safe and adequate water to meet basic human needs
- Provision of education to improve hygiene practices and increased access to adequate sanitation facilities
- Careful management of water as a socially vital economic good to sustain economic growth and to reduce poverty

- A participatory approach that will help the conservation and protection of water resources in the country.

### **2.2.1 The broad objectives of the Water and Sanitation Policy:**

- (i) To develop a comprehensive framework for management of water resources and sustainable development of water supply and sanitation services within an effective legal and institutional framework.
- (ii) To address cross-sectoral interests in water resources through integrated and participatory approaches in the planning, development and management of the water resources.
- (iii) To improve the provision of safe water supplies and sanitation facilities in urban and rural areas through a coordinated approach, with long term objective of achieving high coverage of piped borne water supply in the country.
- (iv) To ensure stakeholders participate in the management of water resources and in the planning, construction, ownership, operation and maintenance of community based domestic water supply schemes in rural areas.
- (v) To put in place implementation strategies for sustainable development and management of water resources in the gradual changing role of the Government from a major service provider to that of coordinator, policy maker and guidelines formulator.

### **2.2.2 Specific Policy Objectives for Water Resources Management**

The core objective of the Policy for Water Resources Management is to develop a comprehensive framework for promoting the optimal, sustainable and equitable development and use of water resources. Specific policy objectives for water resources management are:

- (i) To vest in the country and provide every citizen equal right to access and use the nation's natural water resources.
- (ii) To ensure effectiveness and efficiency of water resources utilization.
- (iii) To promote management of water conservation, and quality standards of water resources.
- (iv) To develop a water management system that protects the environment, ecological system and biodiversity.
- (v) To develop appropriate and sustainable procedures for water resources assessment.
- (vi) To develop sustainable integrated plans for water resources development.
- (vii) To develop a Data Bank and information for development of water projects.

- (viii) To carry out research and technological development.
- (ix) To undertake training and human resources development.
- (x) To develop disaster prevention and management plans.
- (xi) To promote regional and international cooperation on utilization of trans-boundary water resources.
- (xii) To increase utilisation of groundwater resources.
- (xiii) To develop sustainable financing of water resources management activities.

### **2.2.3 Specific Policy Objectives for Urban Water Supply and Sewerage**

The major objective is to achieve sustainable development and management of urban water supply and sewerage services. Specific policy objectives are:

- (i) To improve water supply coverage for the urban population from the current average level of 47% to 74% by year 2015.
- (ii) To improve sewerage and non-sewerage sanitation coverage for the population in urban centres from 31% to 66% by 2015.
- (iii) To prevent wasteful water use, through enhanced water demand management.
- (iv) To improve water and sewage disposal services in low income areas.
- (v) To develop waste water treatment systems that meet established environmental standards.
- (vi) To encourage private sector participation in provision of water and sanitation related services.
- (vii) To improve accountability in water supply services.
- (viii) To develop human resources for carrying out sustainable water supply and sewerage services.
- (ix) To improve capacity on research on appropriate technology for local condition, durable use of sustainable materials for water supply such as good quality galvanised steel water supply pipes.
- (x) To develop strong mechanisms for collaboration among urban water suppliers and stakeholders.
- (xi) To improve the financial viability of urban water service providers so that they become financially self sustainable to the extent that they cover their operational costs and gradually contribute towards investments in their networks.

#### **2.2.4 Specific Policy Objectives for Rural Water Supply**

The broad rural water supply sub-sector policy objective is to improve health and alleviate poverty of the rural population through improved access to adequate safe water. The specific objectives are:

- (i) To improve access to reliable water supply services for the rural population from the present 32% and achieve the overall national target of 74% by year 2015.
- (ii) To ensure that communities participate in the planning, construction, ownership, operation and maintenance of their water supply schemes.
- (iii) To encourage and promote appropriate technology for rural water supply schemes.
- (iv) To gradually increase communities' obligations for paying for operations and maintenance costs of water schemes.
- (v) To establish domestic water supply minimum service levels.
- (vi) To provide adequate water for other rural economic activities.
- (vii) To develop other water supply technologies such as rainwater harvesting.
- (viii) To encourage fair representation of women in planning, decision making and management of water schemes.
- (ix) To promote participation of the private sector in the delivery of water supply related goods and services.
- (x) To develop appropriate mechanisms for monitoring rural water supply activities.
- (xi) To enable local community ownership of rural water supply schemes.
- (xii) To establish fora for coordination and collaboration among various rural water stakeholders.
- (xiii) To mobilize adequate financing in a sustainable manner for increasing rural water supply services.
- (xiv) To increase communities' participation in financing their water supply programs.

### **2.2.5 Specific Policy Objectives for Hygiene and Sanitation**

The main objective 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:

- (i) To support and provide sanitation and hygiene education that will improve peoples' health and quality of life through acceptable hygienic practices.
- (ii) To improve communality involvement in sanitation projects for sustainable success.
- (iii) To develop and improve the capacity of communities and the involvement of people in community project decision making.
- (iv) To minimise pollution from sanitation systems.
- (v) To develop a sustainable approach for financing urban and rural sanitation involving increased community participation.
- (vi) 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.

### **2.2.6 Specific Policy Objectives for Institutional, Legal and Regulatory Framework**

Sustainable water resources management, urban and rural water supply services and improvement of sanitation and hygiene require an effective institutional setup and legal framework which addresses the growing challenges in the sector. Specific objectives are:

- (i) To establish institutional roles and responsibilities of the various institutions involved in implementation of the Water and Sanitation Policy.
- (ii) To establish National Water Resources Board responsible for water resources management ensuring coordination, equitable resource allocation and conflict prevention.
- (iii) To establish a regulatory regime for regulating water supply and sewerage services which effectively balances economic, financial and social objectives.
- (iv) To enact a new Water Law which creates an enabling environment for all those involved in the sector, public and private, at present and future.
- (v) To review existing water related legislations which are outdated.



## **2.3 POLICY STATEMENTS ON WATER RESOURCES MANAGEMENT**

### **2.3.1 Water and Socio-economic Development**

Water is a fundamental resource for health and various social economic development activities, such as industrial production, hydropower production and mineral processing. This policy addresses the importance of water to the following sectors, and recognises the need for multi-sector water use planning for promotion of socio-economic activities within these sectors.

### **2.3.2 Domestic Water Supply**

Sierra Leone's population was estimated at about 4.9 million in 2004, of which about 70% live in the rural areas. Presently water services coverage for urban supply is about 47% and for rural water supply it is about 32%. The coverage in the provision of safe water is undesirably low especially when compared with the West Africa sub-region of average 58% coverage. This contributes to the highest rates of infant and child mortality in the world. In some areas of the country water is so scarce that even water for personal hygiene cannot easily be found. The people especially women and children, walk long distances because of inadequate water supplies.

The projected population in the year 2025 is estimated to double, with 60% living in rural areas. The growth in population will further challenge domestic water supply, sewerage and sanitation services if appropriate measures are not taken.

### **2.3.3 Agriculture**

One of the main objectives of the PRSP is to increase the year round supply of food through domestic food production. Agriculture which depends mostly on rainfall for its water source remains susceptible to drought as well as the inadequate and erratic nature of rainfall. Irrigated agriculture protects against drought and ensures food security. In the year 2007 the Agriculture sector contributed about 30% of the GDP. Sierra Leone has 5.4 million hectares of land suitable for agricultural production, which constitutes about 74% of the total country land area. Only 35% (1.996 million ha.) of the available cultivable land is under cultivation.

Modern agriculture could be a means for poverty alleviation as more people go into cultivation of irrigated crops especially paddy which is the country's staple food. In 2004, out of the total population of 4.9 million, 1.72 million (in a range of 15-64 years) were economically engaged in 21 economic activities in which 1.44 million people were engaged in agriculture related activities.

The Sierra Leone Development Vision 2025 envisages transforming the economy from a low productivity agricultural economy to a high productivity one which will ensure food security and increase the sector's contribution to GDP. This implies that adequate and reliable water supplies will be available for the growth of this sector.

### **2.3.4 Mining**

Mining is an important economic sector for Sierra Leone and is growing rapidly. The sector has attracted a number of foreign as well as local investors. The vision for the mineral sector for the next twenty years is to have a strong, vibrant, well-organized mining sector.

The contribution of the mining sector to the GDP is expected to increase from Le 20.5 billion in the year 2007 to Le 26.2 billion in 2008. The increase in the growth of the sector is a result of the Government's efforts to improve the mining sector by creating an attractive environment for both small and large scale investors.

The Government's role is to continue to provide conducive environment to ensure a rapid expansion of this sector, including motivating and promoting large and small-scale mining operations which are environmentally friendly. A large quantity of water is used during processing and discharged thereafter, which if contaminated, can pollute water sources.

The growth of the mining sector will have a significant impact on water resources management and supply, in terms of potential pollution of water resources due to industrial effluents if not properly disposed of and allowed into water sources without sufficient treatment.

### **2.3.5 Energy**

Almost all of the electricity produced in the country is currently from thermal plants and a hydropower scheme which serves Bo and Kenema. The Bumbuna Hydropower project is almost complete and additional potential for hydropower is available for development, for instance, mini-hydro schemes, which the Government would like to explore in the future. Development of hydropower in some rivers would require agreements among riparian countries. Main hydropower issues would include management of reservoirs, conflicts with downstream and upstream users, and negative impacts on the environment.

### **2.3.6 Fisheries**

Sierra Leone is rich in marine and inland fishery resources. The fisheries sector has a lot of economic and social significance to the country as it contributes greatly towards poverty alleviation and food security. It also provides employment and livelihood to a substantial number of people (46,042 in year 2004). The sector contributes 21% to the Agricultural GDP (agriculture, fisheries, livestock and forestry).

### **2.3.7 Environment**

In-stream flows or environmental flows and levels are necessary for riparian biodiversity, wetland systems, freshwater-seawater balance in deltas and estuaries. Reduction of water volume affects aquatic life. The effluents created by urban water use, if not treated, pollute surface and groundwater resources. Additionally, overexploitation of water resources which does not take into account other uses is also a source of environmental degradation.

There are numerous permanent and seasonal freshwater swamps in the country. These enable the development of special types of plants and animals which are important for environmental conservation. They usually contain rare species of plants, fish and other

animals. The importance of wetlands is manifested by such activities as tourism and fishing. They also play an important role in the hydrological cycle, sediment retention, and nutrient re-cycling and microclimate stabilization. The deltas of coastal rivers are especially important as nursery areas for aquatic life, tourism and recreation (e.g. No.2 River).

### **2.3.8 Wildlife and Tourism**

Tourism is among the sectors with great economic growth potential for Sierra Leone. The country has white and beautiful unpolluted beach areas which offer an outstanding experience for tourists and for recreation purposes. Severe depletion of water will disrupt the lives of animals, and would also adversely impact on the tourism industry and therefore the national economy.

### **2.3.9 Forestry**

Forests include tropical lowland rain forests found mainly in forest reserves in the Freetown peninsula hills and other locations in the eastern half of the country, which covers only about 5% of the land area of the country. Forests also include Farm Bush, the most extensive type of vegetation (more than 55% of the country) which covers most of southern Sierra Leone. The forests are under enormous pressure from expansion of agricultural activities, fires and other human activities. The forests offer habitat for wildlife, natural ecosystem and genetic resources, and have an important effect on the conservation of water resources. Forestry contributes 9% of Agricultural GDP.

### **2.3.10 Health**

The health sector is relatively grossly undeveloped. Improving the health status of Sierra Leoneans is one of the biggest challenges facing the Government. In order to improve access to quality health care for all, the Government has embarked on construction of peripheral health units (PHUs), and rehabilitation and construction of secondary hospitals in the districts. Adequate water supply for these planned projects would be prerequisite for standard operations.

### **2.3.11 Navigation**

There are a few navigable rivers which can be used for transportation of goods from up country to various destinations in the country. The rivers are Waanje, Jong, Little Scarcies and Rokel. River transportation is operated mostly by small boat owners. The river services provided are inefficient and highly risky. Even though river transport could be important to the economy, lack of adequate safety measures has constrained the development of this system of transportation.

## **2.4 POLICY STATEMENTS ON WATER SUPPLY and SEWERAGE**

### **2.4.1 Major Issues**

The major challenges facing the urban sub-sector include:

- Increasing the urban water supply coverage to 74% through revival of the existing non functioning water supply schemes and developing new water supply facilities.
- The pressing need for improved management in operations and maintenance of water supply.
- Increasing the quality of water supply services.
- Difficulty in setting tariffs to recover costs in view of high levels of unaccounted for water estimated at over 50%.
- Inadequate revenue and investment.

The Government is determined to stop the falling trends in water supply coverage and quality through programmes of rehabilitation, expansion and improvement. This requires consistent high levels of investment from the Government and support from development partners.

Presently, the major players in urban water sub-sector are Guma Valley Water Company, Water Supply Division, Local Councils and Sierra Leone Water Company (SALWACO). Their performance and recommended reforms are as follows:

### **2.4.2 Guma Valley Water Company (GVWC)**

Guma Valley Water Company operates with a lot of difficulties. Problems facing the company are insufficient water production, an old and inadequate distribution system and insufficient funding. The low level of funding is attributed to problems in billing and revenue collection, loss of water through leakage and illegal connections. Other contributory factors are unrealistically low tariff and high operating costs, especially water chemical costs. For many years now water tariffs have been very low and investment funding from the Government has been inadequate. Financial management practices need improvement.

Funding agencies have contributed to the development of water supply system and more recently to financial restructuring but without a comprehensive overall strategy. As a result, solutions to the water supply system have tended to be done in a piecemeal manner and therefore no significant achievements have been made. However, efforts to address this have commenced with the funding of the rehabilitation and improvement of distribution network by development partners.

#### **2.4.2.1 Private Sector Participation (PSP)**

To redress GVWC's problems, major investment is required in the infrastructure of the system. This should be coupled with institutional strengthening and improvement

in operations and maintenance for GVWC to be able to respond to the rapidly growing water supply responsibilities. GVWC's management needs to be held more accountable by establishing a performance contract between the Government and the Company.

To complement the above-mentioned restructuring efforts, private sector involvement in GVWC operations will be needed to supplement the capacity available within the company and therefore accelerate achievement of key performance indicators/targets. Activities such as meter connections and repairs, water bill distribution, and stand pipe management could be undertaken by private firms.

### **2.4.2.2 Alternative Water Sources**

The prime source of the water supply system to Freetown is the Guma dam and water treatment plant. In order to serve the demand for water in Freetown better, a long term strategy is needed to increase supply from additional sources as the current source is not sufficient to serve the growing population of Freetown now and even more so in the future. Alternative sources should be explored.

### **2.4.3 The Water Supply Division (WSD)**

The water supply services in Sierra Leone except within the limits of supply of Guma Valley Water Company as defined in the Guma Valley Water Act, 1961 was vested in the Ministry responsible for water under the Water (Control and Supply) Act, 1963. For more than thirty years both urban (except Freetown) and rural water supply services in the country were provided by the Water Supply Division of the Ministry of Energy and Power until recently when this responsibility was gradually hived-off with the establishment of SALWACO in 2001 and the enactment of the new Local Government Act (2004).

Due to insufficient funding of water activities over the years, WSD performance has been unsatisfactory leading to inadequate water supply services in many areas in the country.

#### **2.4.3.1 Sewerage Services Responsibility**

The development of sewage systems is very limited and confined to Freetown where sewerage infrastructure covering part of the central business district is old and inadequate to meet the ever increasing demand. The rest of the population relies on pit latrines and Water Closet (WC) systems connected to septic tanks.

The responsible institution (WSD) for the provision of sewerage services in Freetown has insufficient human resources as well as financial ability to carry out these responsibilities

## **2.4.4 Local Councils**

As part of the devolution process, all urban water supply activities (except Freetown) and peri-urban water supply schemes were to be devolved to Local Councils by 2008. However, due to capacity constraint, among other factors, the devolution process of water supply responsibilities has not been achieved.

Efforts are being undertaken to build capacity and streamline the roles and responsibilities of the Ministry of Local Government and the district councils with an objective of efficiently discharging their obligations for water and sanitation related activities. However, both the District Councils and the rural communities need adequate time for significant capacity building and support to be able to take over satisfactorily the responsibility for managing the water supply services.

### **2.4.4.1 Mandate and Responsibilities**

It is observed that the transfer of urban water supply responsibilities from SALWACO and WSD to the Ministry of Local Government (District Councils) needs re-examination with a view to allow sufficient time for capacity building in the districts, that will make it possible for the districts to take over the responsibilities. Institutional changes such as those intended in the Local Government Act in respect of water services require appropriate operational mechanisms that provide for clearly defined mandates and responsibilities so as to be successful. These aspects were not adequately addressed in the transfer of urban water supply responsibilities to district councils. It is only now that these issues are being considered and will definitely take a considerable period of time to be adequately accomplished.

## **2.4.5 Sierra Leone Water Company (SALWACO)**

SALWACO is responsible for water supply services in urban areas of Bo, Kenema, Koidu, Makeni, Kabala and the International Airport at Lungi as stipulated in SALWACO Act. Its operational performance has been unsatisfactory almost since its establishment. Almost all water schemes under SALWACO are either shut down or operating on an ad hoc basis.

Due to management problems and lack of adequate financial resources needed for fuel and spare parts for water plants as well as for purchase of chemicals for water treatment, operations of water plants under SALWACO and WSD have been on and off for a number of years. Following the closure of operations of some of these plants, the condition of water treatment facilities including treatment plants, water tanks, and water pipes has deteriorated severely.

### **2.4.5.1 Mandate and Responsibilities**

With immediate and long term water supply objectives, SALWACO should be strengthened both in human as well as financial resources and subjected to operational reforms including instituting managerial accountability through a performance contract and be required to perform its current responsibilities under its Act and those which were devolved to the Local Councils through the Local Government Act, 2004, i.e. urban (except Freetown) and rural water supply services. This will entail reviewing of the Local Government (Assumption of Functions) Regulations, of the Local Government Act, 2004.

## **2.5 POLICY STATEMENTS ON HYGIENE and SANITATION**

The main objective is to improve the health of both urban and rural communities through increased access to sanitation services and improved hygiene practices. In order to achieve this, access to adequate sanitation service levels need to be increased to at least 66% of the population by 2015.

For the above same purpose 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 Sierra Leone 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.

This section provides a framework for the development of strategies to improve sanitation services at all levels. It focuses on community (i.e. households, commercial premises, institutions such as mosques, churches, educational and health institutions) sanitation in both urban and rural areas and it excludes waste and wastewater from industrial sources, as these are addressed in other documents and legislations (e.g. the Environmental Protection Act 2000).

### **2.5.1 Urban and Rural Sanitation Principles**

The following sanitation policy principles shall apply to both urban and rural communities.

#### **2.5.1.1 Basic Human Right**

The Government will develop a conducive environment under which all Sierra Leoneans can access basic sanitation services.

#### **2.5.1.2 Household Commitment**

Sanitation improvements require changes in behaviours and attitudes towards fundamental principles of sanitation and hygiene by individuals. Household sanitation will be considered first as a household responsibility and each household will be expected to contribute significantly to provision of household basic sanitation facilities.

#### **2.5.1.3 Balanced Resource Allocations**

Available national resources secured through Government sources, Donor organizations, external support agencies and NGOs to support the provision of basic sanitation services would be rationally distributed in the country, taking into account the level of sanitation development in each district.



#### **2.5.1.4 Water is a Socially Vital Economic Commodity**

The provision of sanitation services must take into account the need for sustainable good quality water in the country. Sanitation services must be undertaken in such a way that they do not undermine long term sustainability and development of water resources.

#### **2.5.1.5 Integrated Development Approach**

Sanitation development cannot be sustainably undertaken in isolation from other sectors. There is close inter-linkage between water supply and sanitation and the two aspects should be inseparably developed involving all key stakeholders.

#### **2.5.1.6 User Pays**

To ensure sustainable of sanitation facilities and where appropriately required, fair charges will be transparently established for payment by users.

#### **2.5.1.7 Polluter Pays**

Polluters must pay for clean-up costs of the impact of their pollution on the environment.

#### **2.5.1.8 Health Improvement**

Improving sanitation is not a one day undertaking. It is a continuous process which must be accompanied by promotional activities as well as health and hygiene education programmes. The aim will be to bring about changes in people's behaviours and attitudes towards sanitation and hygiene practices and to encourage and assist them to improve their health and quality of life.

#### **2.5.1.9 Environmental Standards**

Adherence to established environment standards should be observed in all sanitation development activities. Protection of the environment by appropriate legal mechanism shall be applied, including, when necessary prosecution of individuals and institutions which provide inadequate services which impact negatively on the environment.

#### **2.5.1.10 Community Responsibility**

Improved sanitation is unlikely to be achieved if the majority of households in a community are not involved. Communities should take sanitation as their responsibility, and this must be stressed in sanitation and hygiene educational programmes.

## **2.6 POLICY STATEMENTS ON LEGAL, REGULATORY and INSTITUTIONAL FRAMEWORK**

### **2.6.1 Objective**

The main objective is to create an enabling environment for dealing with the challenges facing the water and sanitation sector and for meeting the objectives set out in this Policy document. Specific focus centres on updating and revising the various legislations impacting the sector, creating a transparent regulatory regime and defining the roles and responsibilities of the key institutions and stakeholders.

### **2.6.2 Institutional Framework**

To ensure that the roles and responsibilities of all stakeholders involved in the water and sanitation sector are clearly defined and allow for coordination and collaboration between stakeholders for the benefit of the national economy and the population of Sierra Leone.

Effective implementation of this National Water and Sanitation Policy requires a clear definition of roles as well as inter-institutional coordination and collaboration. This is realizable by defining the roles and responsibilities of the various institutions responsible for implementing and providing guidelines for various water uses and services as well as for environmental health and sanitation. The following sections summarise the future key functions of the principal stakeholders in the water and sanitation sector.

### **2.6.3 Ministry of Energy and Water Resources**

#### **2.6.3.1 Mandate and Responsibilities**

- i. The Ministry of Energy and Water Resources (MEWR) is the lead Government institution responsible for water. Its main functions focus on ensuring that all citizens have access to adequate water services. Notwithstanding the gradual changing role of the Government from a major service provider to that of a coordinator, policy and guidelines formulator, the Ministry shall continue to be responsible for overseeing the nation's water resources.
- ii. The Ministry shall determine and develop policy, and from time to time review policy and legislations. It will also be responsible for sector coordination and integration, cross-sectoral planning, evaluation of programmes for water supply and sourcing adequate funds for water projects. The Ministry shall be the custodian and implementer of the Water Laws. It shall be the overall authority on all water and water related issues.

### **2.6.3.2 Renaming**

New organisation structure for the Ministry which will take into consideration the proposed reforms in the water sector, both legal and institutional as outlined in this policy document for the Ministry to effectively perform the above-mentioned responsibilities would be needed.

### **2.6.3.3 The Water Department**

- i. A fully-fledged Water Department with four (4) high level **Sections** should be established in the Ministry and these should be namely:
  - 1. Policy, Research and Planning.**
  - 2. Urban Water Supply and Sewerage.**
  - 3. Rural Water Supply.**
  - 4. Water Resources Management.**
- ii. The Water Department shall be responsible for monitoring the implementation of all Water Policy strategies and ensure that the policy objectives are achieved within the established time frame.
- iii. Upon the establishment of the Water Department, all water related duties and responsibilities will be performed by the Department.
- iv. Cognisant of the changing role of the Government as stated above and also in cognisance of the need for legally, financially and managerial autonomous entities for provision of water supply services, all functions and responsibilities of WSD including those which had been devolved under the Local Government Act, 2004, will be performed by SALWACO and NWRB. The Water Supply Division will also be strike-off from the Ministry's Organisation structure. Relevant expertise and experience of the WSD will be absorbed in the proposed key organs in the water sector, namely, the Water Department, NWRB, GVWC, SALWACO and EWRA.
- v. In carrying out these responsibilities, the Ministry through its Water Department will closely work with institutions involved in water related activities.

### **2.6.3.4 National Water Resources Board (NWRB)**

- i. Water resources management requires an effective institutional setup to perform the following core functions:
  - (a) Water resources exploration,
  - (b) Water resources assessment both in quantity and quality, monitoring and evaluation,
  - (c) Water allocation,
  - (d) Pollution control and other cross-sector activities such as catchments management, planning and development.

- (e) Provide permits for all activities related to provision of water supply facilities including extraction and sales in collaboration with SLEPA, Standard Bureau etc.
- ii. Water resources can only effectively be managed within river basins or catchment areas. Since administrative boundaries divide catchment basins, and because water is a strategic national resource, water resource management will be a national function and will be carried out directly by a central agency.

### **2.6.3.5 Establishment of National Water Resources Board**

The National Water Resources Board will be established and become the overall responsible institution for Water Resources Management continuum from upstream freshwater sources to freshwater-seawater interface. It will be responsible for implementing the WRM strategies. The NWRB will be small, employing technical and expert personnel and initially will be funded by Government (through its Budget) and Development partners. Its functions among others will be to:

- (i) Develop equal and fair procedures in access and allocation of the water resources, ensuring that social and productive sectors and the environment receive their adequate share of the water resources.
- (ii) Develop principles and procedures for managing the quality and conservation of water resources, as well as improve and protect the ecological systems and wetlands. It will be responsible for pollution control.
- (iii) Carry out water resources research and determine appropriate technology in collaboration with local and international research institutes.
- (iv) Carry out an inventory of water experts, human resource needs-assessment and develop training programs in collaboration with the Ministry responsible for water and other stakeholders and ensure that the sector has adequate number of experts for the implementation of different water sector activities.
- (v) Carry out needs assessments and strategies for utilization of trans-boundary water resources in collaboration with trans-boundary water bodies.
- (vi) Raise public awareness and broaden stakeholders' participation in the planning and management of water resources at national, district and community levels.
- (vii) Be overall responsible for Water Resources Management (WRM) continuum from upstream freshwater sources to freshwater-seawater interface, in collaboration with relevant stakeholder institutions. It will be responsible for implementing the WRM strategies.

- (viii) In collaboration with Ministry responsible for water seek financial resources to meet the costs for water resources management.

#### **2.6.3.6 The Energy and Water Regulatory Authority (EWRA)**

- i. The Regulatory Authority will be responsible for regulating the water and sewerage services...
- ii. It will not regulate the provision of sanitation services.

#### **2.6.3.7 Guma Valley Company Limited (GVWC)**

- i. Guma Valley Company Limited (GVWC) will continue to be responsible for overall water supply services in Freetown.
- ii. Its roles, responsibilities and mandates stated in the Guma Valley Water Company Limited (1961) Act will be reviewed and revised to harmonize them with the new Water Law and the Regulatory regime which will be established.
- iii. The company will also be responsible for sewerage services for Freetown City.

#### **2.6.3.8 Sierra Leone Water Company (SALWACO)**

- i. SALWACO will be responsible for provision of water supply services in the District towns of Bo, Kenema, Koidu, Makeni, Kabala and the International Airport at Lungi as provided in the SALWACO Act.
- ii. In addition, SALWACO will be strengthened and legally mandated to perform additional responsibilities including provision of water supply and sewerage services to all urban centres (except Freetown) and the provision of water supply services in rural areas.
- iii. It has been engaged in a number of rural water supply schemes, implementing rural projects funded by the Government and Donor agencies. To formalize this additional responsibility both SALWACO and Local Government Acts will be revised to legalize the additional mandate.

### **2.6.4 Ministry of Health and Sanitation**

- i. The [Ministry of Health and Sanitation](#) shall continue to be responsible for Sanitation and Hygiene Policy formulation through its Environmental Health Division. It will also be responsible for developing sanitation strategies.

- ii. Due to the strong linkage between water and sanitation services as well as public health, the [Ministry of Health and Sanitation \(MoHS\)](#) will play a leading role in monitoring aspects of sanitation and hygiene.
- iii. It will closely work with the Ministry of Internal Affairs, Local Government and Rural Development which is responsible for leading the implementation of the sanitation and hygiene strategies, together with the Ministry responsible for water (Policy and planning section) to ensure that integrated water, sanitation and hygiene education/promotion programmes are implemented by Local Councils, urban and rural communities in accordance with the Policy objectives.
- iv. In addition, the Ministry of Health's responsibilities in respect to sanitation will include:
  - (a) Overall coordination of sanitation activities at national level. Ministry of Health through its Department of Environmental Health shall take the lead in the promotion of sanitation and hygiene programmes, in close co-operation with the Ministries responsible for Water, Local Governments, Education, and other key stakeholders, including Donor organizations, NGOs and Civil Society Organizations.
  - (b) Provision of technical advisory service on setting basic minimum standards and levels of service.
  - (c) Solicitation of funds for sanitation projects.
  - (d) Development of criteria for allocation of national funds, which will ensure optimal utilisation of funds obtained in form of grants or loans for sanitation improvement programmes.
  - (e) Development of a framework for technical assistance for sanitation projects.
  - (f) Preparation of sanitation guidelines.
  - (g) Promotion and advocating of sanitation improvements programmes at national level.
  - (h) Development of monitoring and evaluation of sanitation activities national wide.

### **2.6.5 Ministry of Internal Affairs, Local Government and Rural Development**

The provisions of the Local Government Act 2004, devolves the responsibilities for urban, peri-urban and rural water supply, involving rehabilitation of the Degremont treatment water supply schemes, construction of gravity schemes, construction of drilled and tube wells, sanitation and hygiene to Local Councils.

The devolution process of water related activities should be completed by the end of 2008.

- i. The Local Councils are the focal entities of the Government at the district level and are the statutory implementers of broad and specific policy objectives of the development process within their jurisdictions. Local Councils' human resources capacity is gradually being enhanced with an objective to enable them adequately to perform policy strategies for both water supply and sanitation in collaboration with the Ministry responsible for water and MoHS.
- ii. It is however evident that, effort to build up human as well as financial resources of the Local Councils for the past four years, has not adequately attended to the capacity needed to provide efficient water supply services. This, together with the need for autonomous water supply entities, has necessitated the reconsideration of the transfer of water supply services to Local Councils, hence the requirement for review of the Local Government (Assumption of Functions), 2004 Regulations, specifically on the Main Functions and Activities of the Ministry of Energy and Power to be devolved. The review will legally vest into SALWACO the devolved MEWR's functions with respect to water supply services.

#### **2.6.5.1 Roles and Responsibilities**

- i. The Ministry of Internal Affairs, Local Government and Rural Development will perform the role of collaboration and advisory to the Ministry responsible for water and to Water Sector institutions on Water Resources Management and Water supply projects development, through established WATSAN departments/Committees at various levels.
- ii. The Ministry of Internal Affairs, Local Government and Rural Development (MoLG) has the responsibility to ensure that Local Council functions effectively with respect to implementation of sanitation programmes.
- iii. Local Government responsibilities in respect of sanitation shall include:
  - a) Provision of communal infrastructure involving planning, programming, and financing.
  - b) Operation and maintenance of infrastructure (excluding those operated by autonomous organizations).
  - c) Tariff setting, collection of revenues of unregulated sanitation services.
  - d) Maintenance of public health through education, pollution prevention and control mechanisms.
  - e) Facilitation of community involvement in sanitation programmes.
  - f) Facilitation of the establishment of and capacity building of District and Community Water and Sanitation (WATSAN) committees.
  - g) Monitoring progress of the sanitation programmes and the related activities of local councils.

## **2.6.6 Ministry of Finance and Economic Development**

There will be close cooperation among the Ministry of Finance, the Ministry responsible for water and the Ministry of Health to facilitate the Government obligation of soliciting and secure adequate funds of various types from donor organizations and development partners for capital investments, rehabilitation, training and capacity building in the water supply and sanitation sector.

## **2.6.7 Ministry of Agriculture and Food Security**

The Ministry will work closely with the NWRB for determining water needs for irrigation farming.

## **2.6.8 Ministry of Marine Resources**

In collaboration with the NWRB the Ministry will continue to be responsible for planning, developing, managing and conservation of all living and non-living aquatic resources including fisheries and fish culture and regulates activities for both in-land water and marine fishing.

## **2.6.9 Ministry of Lands and Environment**

Mapping of catchments areas, watersheds, rivers and lakes will be carried out by the Ministry with the involvement of the NWRB.

## **2.6.10 District Water and Sanitation (WATSAN) Committees**

- i. Local Councils shall be responsible for implementing water resources plans, protection and conservation of natural resources at district level, establishment of bye-laws on the management of water resources, and conflict resolution in accordance with established laws and regulations.
- ii. District Water and Sanitation (WATSAN) Committee will be statutorily established, comprising water and sanitation sector stakeholders to carry out the above-mentioned tasks

## **2.6.11 Community Water Committees**

- i. Communities play a major role in the water and sanitation sector because they are the primary users, guardians and managers of water sources.
- ii. Participation of both men and women in decision-making, planning, management and implementation of water resources management and development will be enhanced through statutory establishing village/community water and sanitation committees.



### **2.6.12 Donor Organizations and Development Partners**

- i. Development of water supply and sanitation schemes needs substantial financial investments. Such investments could only be available and accessible to the Government from Donor Organizations and Developing Partners.
- ii. The Government will collaborate with these institutions and ensure availability of the needed funds for water and sanitation sector.
- iii. The Government will ensure there is coordination and synergies are obtained from the various developments.

### **2.6.13 Non-Governmental and Civil Society Organizations**

- i. Non-governmental organizations (NGOs) have over many years played an important role in Sierra Leone water sector. Their contribution to the water sector is more pronounced in rural areas where many NGOs have been working, providing all types of water and sanitation services.
- i. The Government will closely collaborate with NGOs through the Planning Section of the Ministry responsible for water and sanitation to enhance the role of NGOs and Civil society organizations in the water and sanitation activities.
- ii. Specifically, the Government will seek the assistance of NGOs in Sierra Leone to effectively carry out various water supply, sanitation and hygiene activities, including;
  - a. Training and capacity building
  - b. Assisting communities with the planning and implementation of water and sanitation projects
  - c. Providing health, hygiene and sanitation education promotion, and
  - d. Financing of water and sanitation projects.

### **2.6.14 Households**

- i. Primary responsibility for household sanitation provision rests with the household itself, and all levels of government interventions are basically in the role of facilitating this, or of carrying out those functions which are more efficiently executed at a community level, district or national level.
- ii. Households will be required to observe this responsibility.

### **2.6.15 Private Sector**

- i. The intention of this Policy is wherever possible to increase the role of the private sector in the development and provision of water supply and waste disposal services and sanitation activities.
- ii. The improvement of water and sanitation services cannot be seen as a Government obligation by itself. While many of the water supply and sanitation improvements may require significant support from Government and its agencies, it is intended that in carrying out such activities there will be partnerships between public and private sector organisations.
- iii. The Private Sector contribution could include, but is not limited to:
  - (a) Project design and contract supervision
  - (b) Construction by large and small contractors
  - (c) Construction, operation and maintenance of facilities such as sewage works and public toilets.
  - (d) Preparation of communications materials
  - (e) Training and capacity building
  - (f) Supply of materials and equipment
  - (g) Research on improvement of sanitation facilities and approaches
  - (h) Provision of consultancy services (technical assistance)
  - (i) Monitoring and evaluation
  - (j) Project financing
  - (k) Meter connections and repairs
  - (l) Distribution and collection of water bills
  - (m) Management of stand pipes

## 2.7 COORDINATION AND COLLABORATION

- i. The need for close collaboration among the Ministry responsible for water, the Ministry of Health and relevant Government Ministries and institutions, Donor and Non-Government Organizations, Civil society organizations and the private sector is a prerequisite for the achievement of the policy objectives.
- ii. Whereas it would be the responsibility of the Ministry responsible for water and the Ministry of Health for assuring essential functions related to water and Sanitation respectively where structures or relevant agencies are unable to do so, this will be done in such a way as to support the agencies with an objective that at appropriate time they would continue with their obligations under their legal establishments.
- iii. Equally, highest level of co-operation will be maintained between the Ministry responsible for Water, Sanitation, Local Councils and other stakeholders in the development of water, hygiene and sanitation services on an equitable and efficient basis.
- iv. To ensure effective cooperation and collaboration, the Ministry responsible for water will take a leading liaison role between the Government and water sector stakeholders while the Ministry of Health will perform similar responsibility for health, hygiene and sanitation.

## **PART C**

### **POLICY OBJECTIVES, CHALLENGES and STRATEGIES**

#### **3.1 WATER RESOURCES MANAGEMENT**

##### **3.1.1 Water resources allocation and use**

###### **3.1.1.1 Common use of water resource**

**Objective:** To vest in the State all water in the country and provide every citizen equal rights to access and use the nation's natural water resources.

**The challenges:**

These include:

- (i) Keeping up the fundamental human right of access to safe and adequate water to meet basic human needs.
- (ii) Establishing fair and equal procedures for access to and allocation of water resources so that social and economic activities are optimised for the benefit of the national economy.

**Strategies:**

- (i) A new Water Law and Regulations will be put in place to ensure that, like many other natural resources, by constitution and law, all water in the country is vested in the State of Sierra Leone and every citizen has an equal right to access and use natural water resources for his and the nation's benefit.
- (ii) Institutions and mechanisms will be established to ensure fair and equal allocation of water resources.

###### **3.1.1.2 Prioritization of water uses**

**Objective:** To ensure efficiency of water resources utilization so that social and productive sectors and the environment receive their adequate share of the water resources.

**The Challenge:**

There is increasing competition for water resources arising from population growth and migration from rural to urban centres, growth in economic activities including industries, mining and agriculture.

The challenge is to establish criteria for prioritizing water allocations to ensure that socio-economic activities and the environment receive their fair share of water on the basis of its availability and alleviate conflicts by users.

**Strategies:**

- (i) Water management approaches will focus on how best water is used beneficially and efficiently. Water allocations and use shall be carried out considering the principles of sustainability so that the resources remain viable for the use of the present and future. Water should be prioritised as follows:
  - Adequate quantity and acceptable quality water for basic human needs will receive first priority.
  - Water for the environment to protect the ecosystems that underpin the country's water resources, now and in the future will attain second priority and will be reserved.
  - Other uses such as agriculture, industrial production, hydropower production, mining, livestock keeping, fish production and processing, fish farming etc will be subject to social and economic criteria which will be reviewed from time to time.
  - Utilization of trans-boundary water resources will be based on the principle of equity, right and rationality in accordance with agreements among the riparian states, and by respecting the principles of international obligations on trans-boundary water resources.
- (ii) The Ministry of Lands in collaboration with the National Water Resources Board (NWRB) will carry out resource mapping to support better allocation and use, and the need to protect sources and resources.
- (iii) Water use permits shall be issued only for a determined beneficial water use. Procedures, criteria and guidelines for issuing the permits will be prepared and made operational by the NWRB.
- (iv) Trading of water rights, application of economic incentives and pricing for water use shall be gradually built into the management system as a means for managing demand requirements.

### **3.1.2 Conservation of Water Resources.**

**Objective:** To promote management of water conservation.

**The Challenge:**

Principles and procedures for managing conservation of water resources (Rivers, reservoirs, wetland and springs) are not adequate. Stringent measures have not been taken to ensure that water resources are used in a sustainable manner. The

main challenge is to ensure that water resources are used and conserved in a sustainable manner.

**Strategies:**

- (i) Urban and rural water supply service providers, hydropower producers, irrigators, industries, mining operators, etc will be required to improve the efficiencies of their water abstractions and distribution systems to avoid undue wasteful use of the resource.
- (ii) NWRB will develop and put in place appropriate principles and procedures for conservation of water resources.

### **3.1.3 Water quality management and pollution control**

**Objective:** To have water resources with an acceptable quality.

**The Challenge:**

Increased human activities including poor land use practices, as well as pollution of water sources impact negatively on the quantity and quality of the available water resources. The main challenge is to ensure that water resources are kept at an acceptable quality.

**Strategies:**

- (i) Water quality management, monitoring and assessment will be undertaken systematically at both catchments and non-catchments areas so as to identify the extent and status of the quality of the water resources so that problems are detected early and remedial actions employed timely.
- (ii) Practical and cost effective water quality and pollution control monitoring programs (including networks) will be developed and implemented. Factories, municipal authorities, large irrigation schemes and mining operations will be required to collect and keep accurate records of the quality of effluents discharged into receiving water bodies.
- (iii) The “polluter pays” principle shall apply in conjunction with other legal and administrative actions. Environmental standards for in-stream flows, industrial effluents and other waste discharges for meeting environmental objectives will be developed and enforced.
- (iv) Creation of public awareness for protecting water resources from pollution including that resulting from inappropriate use of agrochemicals and informal small scale business activities will be undertaken.

### 3.1.4 Groundwater Resources

**Objective:** To have systematic and sustainable development and use of groundwater resources.

**The Challenge:**

There is insufficient data and knowledge on the potential of groundwater resources in terms of quantity and quality. This could lead to underutilization of the resource. There has not been strict adherence to procedures and guidelines governing the development of this resource, thus threatening its sustainability. The challenge is to develop and increase groundwater uses, as it is technically more feasible and relatively cheaper.

**Strategies:**

- (i) Hydro-geological surveys will be carried out which will facilitate sustainable development and use of the resources.
- (ii) Continuous assessment, research, and monitoring of groundwater exploration and drilling activities will be strengthened.
- (iii) Procedures and guidelines governing groundwater development and management, including exploration and drilling activities as well as operation of projects, which use groundwater resources will be established and disseminated.

### 3.1.5 Water and the Environment

**Objective:** To develop a water management system that protects the environment, ecological system and biodiversity.

**The Challenge:**

Water is critical to ecological systems and to the maintenance of the environment. The ecological systems include wetlands, floodplains and coastal zones. Such systems serve important hydrological and ecological functions such as biophysical filters, safeguard biological diversity, and maintain sea and freshwater balance. Management of this system is an integral part of water resources management. However procedures and guidelines in the country to protect the environment, ecological system and biodiversity and ensure sustainability of the ecological systems are not adequately adhered to. Water related activities will have to be planned to cause least detrimental effects on the natural environment.

The key challenge is the determination and allocation of adequate water for environmental purposes.

**Strategy:**

Scientific research on the Ecological systems and Biodiversity will be carried out and adequate information gathered which will be used to determine the quantity and levels of water needed to maintain the health and viability of ecosystems and biodiversity.

### 3.1.6 Water Resources Assessment

**Objective:** To have appropriate and sustainable procedures for water resources assessment.

**The Challenge:**

Assessment of water resources, both surface and groundwater, quantitatively and qualitatively is an essential input into water resources planning process. The challenge is to ensure that assessment and analysis of water resources availability and the impact of climate change and catchments degradation on water resources are carried out satisfactorily.

**Strategies:**

- (i) Appropriate and sustainable procedures will be developed for carrying out assessments of water resources. The assessment should be at all levels with comprehensive collection and assembly of information on the quantity, quality, character, location and patterns of use, and response of the resource to use and user demands, pollution and water quality degradation processes. The assessment should also include water use projects and those for mitigating water related disasters such as floods and droughts.
- (ii) Assessment on the status of surface and groundwater resources in terms of quantity and quality and its use will be defined regularly on the basis of river basin and in conjunction with aquifer boundaries; and the information made easily accessible to users, stakeholders and decision makers by the NWRB.

### 3.1.7 Water resources planning and development

**Objective:** To have sustainable integrated plans for the use and development of water resources.

**The Challenge:**

To date the development of water resources in Sierra Leone has been sectorally oriented, without consideration of the demands of other sector users. The challenge is to determine the interests of all sectors in water resources and to coordinate the development and use of water resources for the benefit of the nation.



**Strategies:**

- (i) Water resources planning will be done in an integrated multi-sectoral approach. The main levels of planning shall be National, District and Community or User level. Plans shall take into consideration land use-water-environmental linkages. The Ministry responsible for water (Planning and Policy section) will undertake the coordination role in collaboration with NWRB.
- (ii) Development of large water schemes must meet the objectives of water resources management and will be subject to an Environmental Impact Assessment (EIA) and final approval by the Environmental Commission upon consultation with the National Water Resources Board. This will apply to the construction of dams, large rainfall harvesting schemes, water intakes, river diversion works, pumping stations, water well drilling, groundwater abstraction and use, and inter-basin water transfers.

### 3.1.8 Data and Information

**Objective:** To develop a Data Bank and information for planning and development of water projects.

**The Challenge:**

An effective integrated water resources management system must be able to provide timely and correct information on the quantity, quality and resource use. Presently there are no data gathering networks due to lack of resources and tools, thus affecting the system of collecting data and information. This weakness has resulted in a lack of unified, adequately coordinated information management for water resources management.

The main challenge is ensuring availability of adequate and timely data for users at all levels.

**Strategies:**

- (i) An effective system of data collection, processing, storage and dissemination will be established at national and district levels for use by all stakeholders. Mechanisms for coordinating and disseminating sector research will be developed and institutionalized by the NWRB.
- (ii) Regulatory authority and NWRB will be empowered by law to obtain information from water users.

### 3.1.9 Research and Technological Development

**Objective:** To increase knowledge, information and communication on suitable technologies and research findings among water resource users.

### **The Challenge:**

Currently there is little research being undertaken, it lacks coordination and the findings are not disseminated to users. This weakness could result in technologies which may not be appropriate to Sierra Leone being used in the country.

The main challenge is to promote and support scientific, technological and socio-economic research, including the development and use of appropriate technologies and practices for sustainable water resources development.

### **Strategies:**

- (i) The National Water Resources Board in collaboration with international research institutions will carry out water resources research, appropriate technological development and water related socio-economic aspects. NWRB will ensure that knowledge and information obtained is communicated to stakeholders.
- (ii) The Government will encourage interdisciplinary and participatory research that recognises the need for a link between technology and communities.

## **3.1.10 Training and Human Resources Development**

**Objective:** To have adequate numbers of qualified personnel who can competently implement various water resources activities.

### **Challenges:**

Expertise on water issues among water users and decision makers at all levels is essential for effective water resources management. There is a need to have qualified experts in the fields of hydrology, hydrogeology, water quality, water law, water conflict resolution, who can identify and implement the best water technologies, and aspects of water resources planning and management. The country lacks adequate graduates from high learning and technical institutions to effectively manage the Water sector.

The main challenges are to:

- (i) Ensure training and retention of adequate numbers of qualified professionals.
- (ii) Ensure adequate capacity in relation to administrative, financial, technical and logistical requirements.

### **Strategies:**

- (i) An inventory of water expertise and needs-assessment will be carried out and training programs will be prepared and implemented.
- (ii) Performance based human resource and public service reform initiatives to attract and retain talent in the sector will be implemented as part of the institutional reform initiatives.
- (iii) Training of communities in water resources management will be carried out by local councils in collaboration with NWRB.

### **3.1.11 Disaster Prevention and Management**

#### **Objectives:**

- (i) To develop flood mitigation plans, safety procedures for dams and minimisation of the negative impacts of dry seasons.
- (ii) To protect water resources against accidental pollution.

#### **Challenges:**

##### **(i) Floods**

Water disaster management has been on limited, typically to a specific disaster or event, often based on inadequate untimely information, thus focusing on remedial actions rather than on preventive approaches. Early warning systems are inadequate.

##### **(ii) Dam Safety Monitoring**

Dams are important structures for storing water, regulating flows and containing floods. However, operation of reservoirs without following established rules threatens the safety of dams and could be a source of wastage of water. Currently there are no guidelines and regulating mechanisms on dam safety issues, registration and ownership.

##### **(iii) Droughts**

The country experiences a dry season during the months of December to April each year. In some years the dry season has been so severe causing diminished flows in rivers and low water levels in reservoirs and resulting in reduced or very limited availability of water for users. In many cases there have been no early warnings and inadequate drought monitoring and no mitigation plans.

##### **(iv) Accidental pollution of water sources**

Disasters associated with accidental spills of poisonous and hazardous materials into surface and groundwater resources could occur from burst or leaked oil pipes, damaged chemical industries or spillage from transportation vehicles and vessels. This could lead to serious pollution of water sources and thus ecosystems and biodiversity, and may seriously affect the health of people and animals. There are no rules and guidelines on handling and transportation of poisonous and hazardous materials.

#### **Specific challenges include:**

- (i) Developing early warning systems for drought and floods.
- (ii) Developing mitigation plans.
- (iii) Stopping the ongoing developments in areas susceptible to floods.

**Strategies:**

- (i) Flood prone areas will be identified and mapped, and the public will not be allowed to undertake development in hazardous flood prone areas.
- (ii) Dry season monitoring and mitigation plans will be prepared by Office of the National Security in collaboration with other sector departments and agencies such as Sierra Leone Meteorological Department.
- (iii) Procedures, guidelines and parameters for water allocations during severe dry seasons will be established to mitigate the potential negative impacts.
- (iv) The new water legislation shall provide for dam safety procedures. Dam owners and potential developers shall be required to prepare and implement dam safety monitoring plans in accordance with the established procedures.
- (v) Rules and procedures for transportation of hazardous materials will be established in collaboration with the Environmental Commission.

### 3.1.12 Trans-Boundary Water Resources

**Objective:** To promote regional and international cooperation in the planning, management and utilization of the shared water resources.

**The Challenge:**

Sierra Leone is riparian to trans-boundary water bodies (e.g. Mano River Union Secretariat) with neighbouring countries. Large abstractions and use of trans-boundary water resources require understanding and agreement among the riparian states. In order to do so, a needs assessment and strategy for utilization of these resources should be carried out as each of the trans-boundary water bodies exhibits unique characteristics, and water management challenges. These assessments are yet to be prepared for the trans-boundary Rivers.

The major challenge is to undertake trans-boundary water use assessments and to establish cooperation mechanisms governing the management of internationally shared water resources with the aim that collaboration with riparian countries ensures the shared resources will be developed for the benefit of all the countries concerned.

**Strategy:**

The Ministry responsible for Water (Water Resources Management section) will work closely together with the NWRB and riparian state institutions to develop a framework for assessment, management and utilization of trans-boundary water resources, based on the need for fostering regional cooperation. Technical collaboration on areas of research, data collection and information exchange will be promoted.

### 3.1.13 Financing of Water Resources Management

**Objective:** To have sustainable source and ensure financial sustainability of water resources management activities.

**The Challenge:**

Water resources management activities namely, water resources exploration, assessment, water allocation, pollution control, monitoring and evaluation, regulation and enforcement, environmental protection, planning and development, and other cross-sector activities such as catchment management, river basin planning and development entails a variety of technical, administrative and legal activities that cost money to implement and that must be adequately financially funded. As in many developing countries, lack of sufficient financial resources has been a major constraint for sound water resources management in the country.

The **main challenge** is to ensure water resources management is adequately funded

**Strategies:**

- (i) Raw water abstraction for commercial uses will be charged for. The level of charges and criteria to be used will be established/approved by the NWRB and will be reviewed from time to time.
- (ii) The Government will mobilise financial resources to finance water resources management activities from budgetary allocations and grants from development partners to supplement funds generated from water users.
- (iii) Establishment of mechanisms for revenue collection/cost recovery in order to alleviate the burden of Operation and Maintenance activities on the GoSL, including Private Sector participation in the production of water

## 3.2 URBAN WATER SUPPLY AND SEWERAGE.

The major policy objective is to achieve sustainable, effective and efficient development and management of urban water supply services. Specific objectives, challenges and strategies of the policy in the context of developing and managing urban water supply and sewerage services are:

### 3.2.1 Water Sources and Infrastructures

**Objective:** To develop infrastructure for sustainable, affordable and efficient water supply, sewage and waste water disposal systems in urban centres.

**The Challenges:**

Water sources and infrastructure for most urban water supplies and sewerage systems (in Freetown) are old, inadequate and poorly functioning; and cannot cope with the increasing demand. As a result water delivered is inadequate and sometimes of poor quality. The main challenges include:

- (i) Developing new sources of water supply for Freetown and other urban areas
- (ii) Rehabilitation and expansion of existing infrastructure in urban areas
- (iii) Improving operations and management of urban water supply entities
- (iv) Realization of minimum water usage of 35 litres a day per person

**Strategies:**

- i. The Government will increase financing of rehabilitation and expansion of urban water systems through budgetary allocations.
- ii. The Government will seek more financial support from development partners on huge water projects in urban areas, such as the development of new water supply source for Freetown.
- iii. Development and expansion of water supply systems shall consider development of sewerage systems at the same time in urban areas.
- iv. Increased managerial accountability will be introduced by establishing Performance Contracts.
- v. Sewerage services should be provided by organisations operating under commercial principals. In Freetown, the services should be hived-off from Water Supply Division (WSD) and be vested into a strengthened GVWC. Sewerage services to be developed in urban areas should be operated and managed by urban water supply entities.

### 3.2.2 Water Demand Management

**Objective:** To prevent wasteful water use.

#### The Challenge

Water demand in urban areas is increasing at a higher rate than the rate of expansion of water supply services. The main challenge is to reduce the high level of physical losses and to create awareness of the use of water as a scarce resource.

#### Strategies:

- (i) Leakage control measures (including acquiring leakage detection equipment, more improved approach to metering, and rationing), appropriate tariffs setting to discourage wastage and encourage efficient use of water and mass education on use and conservation of water will be undertaken by water supply entities.
- (ii) Enhanced water demand management will be undertaken by water supply entities.

### 3.2.3 Water for Low Income Groups and Community User Groups

**Objective:** To improve access to affordable water and sewerage disposal services in low income areas.

#### The challenge:

People living in underprivileged urban areas rarely benefit from adequate water supply services. They collect water from kiosks or buy it from vendors at a cost higher than that for the house connections.

The **challenge** is to achieve equity in access to water supplies for peri-urban and urban poor to meet their basic needs at an affordable cost.

#### Strategies:

- (i) Low-income groups will be identified by water supply entities in collaboration with Local Councils and plans and programmes to provide water supply and sewerage disposal services to peri-urban areas shall be drawn up by water supply entities.
- (ii) Pro poor service obligations will become part of the water supply entities' performance contracts.

- (iii) Tariffs will be designed to provide for a life line tariff and cross-customer group subsidies to ensure that low income groups get the services at an affordable tariff.
- (iv) Awareness programmes on safe water use will be developed and implemented by Local Councils involving civil society organisations.
- (v) NGOs and CBOs will be encouraged to collaborate with the Government and urban water supply entities in financing, developing and managing water supply and sewerage disposal services in low income urban areas.

### 3.2.4 Waste Water Disposal and Environmental Management

**Objective:** To have waste water treatment systems which meet established environmental standards.

**The challenge:**

Water supply services in urban areas result in the production of waste water. Waste water treatment and disposal in urban areas has not been accorded due priority. Common methods of disposal of public waste water are through septic tanks and pit latrines. The challenge is to put in place sustainable collection mechanism, treatment and disposal of sewage and waste water to prevent contamination of groundwater sources and the environment.

**Strategies:**

- (i) Sewerage systems and sludge disposal facilities will be constructed by the Government and old ones will be rehabilitated.
- (ii) Cesspit emptying services will be established and/or contracted to private operators. Cesspit emptiers will be required to discharge only at sewage treatment facilities.
- (iii) Legal enforcement mechanisms with regard to waste water disposal will be strengthened.
- (iv) A framework of cooperation shall be established to ensure that water supply entities, industries and other institutions cooperate in the research and development of least cost technologies for waste water treatment and recycling.
- (v) Industries shall be required to use environmentally friendly raw materials with less toxic elements and adopt cleaner production technology.



### 3.2.5 Commercialisation and Private Sector Participation

**Objective:** To encourage commercial management and private sector participation in provision of services related to water supply and sewerage.

**The challenge:**

The challenge involves creating a conducive environment for the commercialisation of entities responsible for water supply and encouraging local private sector to effectively participate in the provision of services associated to urban water supply, sewerage and non-sewerage services. Activities such as meter connections and repairs, water bill distribution, and stand pipe management as well as operations and maintenance tasks could be undertaken by private firms.

**Strategies:**

- (i) Water entities will be established as legally, financially, managerially and operational autonomous entities separate from operational control by Central and Local Government.
- (ii) The new Water Law will provide for commercialisation of water entities and create an enabling framework for private sector participation in all water sector activities.
- (iii) Government will actively promote the development of an effective local private sector to provide high quality services in the water sector.

### 3.2.6 Accountability to and by the Public

**Objective:** Improve accountability of both urban water supply entities and customers.

**The challenge:**

Water supply entities are responsible for and therefore accountable to the customers for the provision of water supply services in the sense that the customers receive reliable and adequate services all the time including accurate and timely bills. On the other hand, timely payments of water and sewerage bills, rational and economic water use are the responsibilities of the customers to the water supply entities.

The main challenge involves establishing mechanisms which will ensure that entities are accountable to their customers and that customers meet their obligations.

**Strategies:**

- (i) Awareness raising, mass education, effective consultations and information sharing with stakeholders on water conservation and security will be promoted by water supply entities.
- (ii) Mechanisms for protection and safeguarding water supply and sewerage infrastructure by involving communities and the general public will be established by water supply entities.
- (iii) All water entities will be issued licenses, by the regulator, setting out their performance obligations, reporting requirements and tariff adjustment procedures. The regulator will monitor each entity's performance and enforce the provisions of the license.
- (iv) Consumers' consultative councils will be established under the proposed new Regulatory Authority Act in which accountability mechanisms will be established.

### 3.2.7 Capacity Building

**Objective:** To develop human resources for carrying out efficient and sustainable water supply and sewerage services.

**The challenge:**

The water supply entities face the challenge of ensuring that they are adequately, appropriately and properly staffed and that staff are adequately remunerated.

**Strategies:**

- (i) In collaboration with the Government and technical institutions the water supply entities will carry out tailor-made training programmes in water and water related fields at different levels of expertise.
- (ii) Entities will develop remuneration packages which will attract and maintain qualified personnel into the water sector.

### 3.2.8 Research and Technological Development

**Objective:** To improve capacity on research and technological development.

**The challenge:**

Very little research on technologies in use in the sector has been done in the country. The main challenge to the Government is to provide support and create an enabling framework so that capacities of the research institutes and university departments dealing with water sector issues can be enhanced effectively.

**Strategies:**

- i. The Government will continue to strengthen and support research institutions and universities through provision of funding for equipment and instruments used in the water sector research to enable them undertake sufficiently relevant research.
- ii. Collaboration with sector stakeholders, local and international research institutions will be strengthened. Mechanisms for coordinating and dissemination of sector research will be developed and institutionalized involving the NWRB and the Regulator.

### 3.2.9 Co-ordination and Collaboration

**Objective:** To develop strong mechanisms for collaboration among urban water suppliers and stakeholders.

**The challenge:**

It is essential to keep stakeholders aware of sector problems, successes and needs to encourage exchange of solutions and experiences and to provide mechanisms for joint action. Lack of effective co-ordination and collaboration has caused duplication of effort and misallocation of available resources. The existing co-ordination and collaboration mechanisms practiced by various players in the sector are generally project oriented. Rarely is information shared between projects.

The challenge is to establish forums for coordination and collaboration among water supply entities and stakeholders.

**Strategy:**

Relevant urban water sub-sector stakeholders will be identified by the Ministry responsible for water (Urban water supply section) in collaboration with the Regulatory Authority and water supply entities. Collaboration and consultation mechanisms will be established by the Regulatory Authority.

### 3.2.10 Financing of Urban Water Supply and Sewerage Services

**Objective:** To improve revenue generation from sale of services for water supply and waste water removal and ensure that water entities are financially sound.

**The challenges:**

Generally, investment resources allocated to water supply entities by the Treasury for water supply and sewerage services have been inadequate to meet investment and even basic operations and maintenance requirements. Both GVWC and SALWACO are currently unable to operate commercially and therefore are unlikely to generate funds for investment requirements.

Over the past years tariffs for urban water and sewerage services have been very low resulting in low revenue, inadequate to meet even the basic operations and maintenance requirements. On the one hand provision of water has been seen as a social service, resulting in low willingness to pay, making revenue collection very difficult. On the other hand urban water entities have been weak in billing, metering water use, revenue collection, and preventing leakages and wasteful use.

The main **challenges** include:

- i. Reducing the high level of unaccounted for water.
- ii. Improving the financial position of urban water supply entities to be able to meet their operating costs and generate funds for rehabilitation of supply systems.
- iii. Improving the management of the macro-economy to attract support from multilateral funding agencies and development partners.

**Strategies:**

- (i) Mechanisms for adjusting tariffs (levels and structure) concurrently with the efficient cost of service taking into consideration the cost recovery principle will be established.
- (ii) Each water entity will be required to implement a programme for metering and connection to water supply systems.
- (iii) Cost of providing new water connections will be made affordable to encourage more connections.
- (iv) Mechanisms to ensure the timely payment of water bills by sub-vented organizations and appropriate actions for payment defaulters will be established and implemented.
- (v) The Government will identify and source the required financing to cover investments in the water supply and sewerage systems.

### 3.3 RURAL WATER SUPPLY

The broad rural water supply sub-sector policy objective is to improve health and alleviate poverty of the rural population through improved access to adequate and safe water. Specific objectives, challenges and strategies for rural water supply are:

#### 3.3.1 Access to reliable water supply

**Objective:** To ensure sustainable provision of and access to potable water to rural communities.

**Challenge:**

The main challenge is to achieve and maintain accelerated coverage through community ownership and management arrangements so as to meet the national water service coverage target of 74% by year 2015.

**Strategies:**

- (i) The Government through SALWACO will continue to provide technical as well as financial support for the development of rural water supply schemes. SALWACO will be strengthened to efficiently perform its current responsibilities and rural water supply services which were under Water Supply Division (WSD) and afterwards devolved to Local Councils.
- (ii) Identification of water schemes and their implementation will be demand driven and community based. The strategy will provide for communities to gradually contribute towards the capital cost and ensure payment for operations, repair and replacement costs of their facilities, mindful of the need to ensure affordability, equity and fairness for the poor and vulnerable.

#### 3.3.2 Community Participation

##### 3.3.2.1 Planning and ownership

**Objective:** To ensure that communities participate fully in the planning and ownership of water supply schemes.

**The challenge**

Water supply and sanitation facilities provided without the active participation of the beneficiaries in planning and management are often not properly operated and maintained and hence are unsustainable. In the past years ownership of the facilities including water wells was neither perceived to be, nor legally vested in user communities. This has led to lack of commitment to the maintenance of the facilities by the users.

The challenge is to ensure communities are empowered to initiate, own and manage their water schemes including water wells.

**Strategies:**

- (i) The new water legislation will provide for community ownership of rural water supply schemes.
- (ii) Legal registration of water user entities will be instituted to ensure that communities are the legal owners of their water supply schemes including water wells.
- (iii) Communities will be trained to acquire skills in planning, management and supervision of their water schemes.
- (iv) Participation will involve civil society at all levels.

### **3.2.2.2 Choice of technology**

**Objective:** To have appropriate and affordable technology for rural water supply schemes.

**The Challenges:**

Failure of some of the rural water supply schemes has been attributed to inappropriate technology, poor location of facilities, and lack of social acceptability and affordability. The challenges are:

- (i) To determine appropriate technology that suits rural operations, particularly which require low investment costs and least costly in operations and maintenance.
- (ii) To standardise the technology.

**Strategies:**

- (i) During project planning and design, communities will be assisted to make appropriate technology choices that suit them and which require low investment costs and are least costly in operation and maintenance.
- (ii) Where possible, the responsible institution (NWRB) will standardise the technology, e.g. for water pumps.

### **3.3.2.3 Sustainability of Operation and Maintenance**

**Objective:** To ensure communities pay for operations and maintenance of services and schemes are managed effectively.

**The Challenges;**

For sustainability of water schemes, communities will be required to pay full operations and maintenance (O&M) costs as well as to manage their schemes. The main challenges of O&M are:

- (i) To ensure O&M activities are carried out by communities to ensure continued optimal use of installed facilities.
- (ii) To ensure effective supply chain arrangements for spare parts are available and close to community users.
- (iii) To motivate communities into full and effective participation in planning and managing their water schemes

**Strategies:**

- (i) Communities will be assisted by Local Councils to establish mechanisms to pay for the costs of O&M costs. At the stage of project conception, the indicative magnitude of the O&M costs will be discussed with the communities to match the level of service and technology selected with the willingness and ability of the community to operate, maintain and manage the chosen option.
- (ii) The Government will provide sufficient support to institutions that train pump mechanics, operators and managers of community systems.
- (iii) Upon demand from the communities, the Local Councils will assist the communities to establish sustainable arrangements for spare parts for community water schemes, operation and maintenance tasks.
- (iv) Communities will be educated and facilitated to enable them to manage operations of water schemes. The Rural Water Supply Section of the Ministry responsible for water will take a leading coordinating role in collaboration with SALWACO, Local Councils, NGOs and Civil Society organisations.

### **3.3.3 Domestic Water Supply Minimum Service**

**Objective:** To establish domestic water supply minimum service levels.

**The Challenge**

There is no established minimum water use in rural areas. Per capita water use per day in rural areas with adequate water and in acutely water scarce areas should be established for optimal planning of rural water supply services.

The challenge is to finalise the ongoing discussions by water stakeholders on key indicators which involves agreement on the following minimum water usage:

- (i) Rural Community: 15 litres per day per person

- (ii) Small town community: 25 litres per day per person
- (iii) Rural area schools: 4.5 litres per day per pupil

**Strategy:**

The Ministry responsible for water (Rural Water Supply Section) will expedite completion of determining the basic level of service for domestic water supply in rural areas in terms of potable water per capital per day which will also include distances of water points from the furthest homestead and persons served per outlet.

### **3.3.4 Water for other use**

**Objective:** To provide adequate water for other rural economic activities.

**The Challenge:**

Almost all of the livestock found in rural areas is in semi-arid regions especially in the Northern Province. Often water for livestock is not included in designs of community water supplies. Lack of water for livestock could result in constant migrations by livestock keepers in search of water. This can lead to contamination and destruction of water sources, which in turn can initiate or enhance water use conflicts among water users.

The challenge is to fairly allocate water for other usage in an environment of high demand of water for domestic needs.

**Strategy:**

Water usage other than domestic usage (e.g. water for livestock) will be included in rural water supply designs and areas for such usage shall be established in the provision of water supply services.

### **3.3.5 Development of Alternative Water Supply techniques**

**Objective:** To improve water availability to rural areas through the development of other water supply technologies such as rainwater harvesting.

**The Challenge:**

The challenge is to promote the development of other water supply technologies such as rainwater harvesting.

**Strategies:**

- (i) Research on alternative water supply technologies including rainwater harvesting technology will be carried out.



- (ii) New technologies will be promoted through awareness and training of various stakeholders.

### 3.3.6 Gender Sensitivity

**Objective:** To encourage fair representation of women in planning, decision making and management of water schemes.

**The Challenge:**

Women have the most to benefit from, and have the greatest interest in improved water supply and sanitation services due to their traditional functions of child and home care and the importance of water in the home environment. Women play a major and leading role in household management; they are responsible for water collection and maintaining household hygiene. In the rural areas women bear the burden of searching for water from long distances and are guardians of the environment. However, this pivotal role has seldom been addressed and reflected in institutional arrangements for the development and management of water supply and sanitation services.

The challenge is to ensure that women are involved in all stages of water project management and at all levels of decision making.

**Strategies:**

- (i) A programme to raise awareness of the importance of women's participation will be carried out., Women will be trained and empowered to actively participate at all levels in water programs including, planning, supervision, decision making and management.
- (ii) The Water and Sanitation Committees should be gender balanced.

### 3.3.7 Private Sector Participation

**Objective:** To promote participation of the private sector in the delivery of goods and services

**The Challenge:**

Rural water supply development and delivery has over the past decades been dominated by the public sector and more recently Non-Governmental Organizations (NGOs), with sometimes unsatisfactory results and limited long term sustainability. The private sector in Sierra Leone is at its infancy and its involvement in water supply services has been limited.

The main challenge is to ensure the private sector increases its participation in provision of water supply services in a sustainable manner.

**Strategies:**

- (i) Regulations pertaining to enhancing private sector participation in water supply services in rural areas will be established.
- (ii) Upon demand of the communities, Local Councils will advise communities on options to resolve their specific operational challenges including the involvement of the private sector and if necessary, assist communities in procuring sustainable operational arrangements.

### 3.3.8 Monitoring and Evaluation

**Objective:** To develop appropriate mechanisms for monitoring rural water supply activities.

**The Challenge:**

The main challenge is to continuously monitor and evaluate rural water supply service delivery to capture lessons learnt and to plan for future improvements.

**Strategy:**

- (i) The Ministry responsible for water (Rural Water Supply section), in collaboration with Local councils will ensure that communities' monitoring capacity will be developed involving comprehensive reporting and feedback mechanisms.
- (ii) Participatory monitoring and evaluation will be carried out at the district and community levels.

### 3.3.9 Community ownership

**Objective:** To enable legal community ownership of rural water supply schemes.

**The Challenge:**

The Ministry responsible for water through the Water Supply Division (WSD), Donor Support Agencies (DSAs) and Non Governmental Organizations (NGOs) have been planning and constructing rural water supply schemes, with minimum participation of the beneficiary communities. Over the past years, the Government has been the owner and operator of most of these schemes leading to lack of commitment by the beneficiaries to safeguard the facilities. Issues of ownership and management of water schemes are central in the sustainability of rural water supply schemes and should be thoroughly addressed. The challenge is to enable the communities to own their rural water supply schemes.

**Strategies:**

- (i) As a principle, ownership of communities will be made legitimate in the new Water Law.
- (ii) Relevant regulations under which rural water user entities can be legally registered as owners will be established.

### 3.3.10 Co-ordination and Collaboration

**Objective:** To establish fora for coordination and collaboration among various rural water stakeholders.

**The Challenge:**

The existing token co-ordination and collaboration mechanisms practiced by various players in the rural water supply sub-sector are generally project oriented. Rarely is information shared between projects. The challenge is to keep stakeholders aware of problems, successes and needs to encourage exchange of solutions and experiences and to provide mechanisms, for joint action.

**Strategies:**

- (i) Relevant stakeholders will be identified and given roles and responsibilities for sector coordination and collaboration.
- (ii) Well defined co-ordination and collaboration mechanisms accessible to all stakeholders will be established by the Ministry responsible for water (Rural water supply section).

### 3.3.11 Financing rural Water Supply Programs

**Objectives:**

- (i) To mobilize adequate financing in a sustainable manner for increasing rural water supply services.
- (ii) To increase communities' participation in financing their water supply programs.

**The Challenge:**

The challenge is to have sufficient financing to develop more rural water schemes and maintain them including existing ones with, as a long term objective, increasing financial contribution from the communities until the communities assume full financial responsibilities for their water supply schemes.

**Strategies:**

- (i) The Government gradually will continue<sup>3</sup> to play a leading role in financing water projects in rural areas.
- (ii) The Government will increase its sector funding through budgetary allocations.
- (iii) The Government will ensure Local Councils dedicate a portion of their funds for contribution to capital costs of water projects for poor and vulnerable communities.
- (iv) The traditional supply-driven approach will be replaced by a demand-responsive approach to service provision. Financial support for water supply will be initiated and requested by the respective communities themselves. The communities shall demonstrate their ability to sustain their schemes before they can access financial support.
- (v) Communities will establish mechanisms to contribute a portion of the capital costs in cash and in kind, for new schemes, for rehabilitation, replacement and systems expansion.

## 3.4 SANITATION

The main objective is to improve the health of both urban and rural communities through increased access to sanitation services and improved hygiene practices. In order to achieve this, access to adequate sanitation service levels need to be increased to at least 66% of the population by 2015.

### 3.4.1 Health improvement

**Objective:** To support and provide sanitation and hygiene education that will improve people's health and quality of life through acceptable hygienic practices.

**The Challenge:**

The main challenge is to raise awareness amongst the population of the need for sanitation improvements so that they will invest their own resources into those improvements and adopt good hygiene practices.

**Strategies:**

Sanitation and hygiene information, education and awareness will be targeted at all levels and;

- (i) Shall be an integral part of all community water supply and sanitation improvement projects.
- (ii) Will be specifically targeted at high risk groups such as women and carers of infants and small children, educational institutions as well as health institutions and at the beneficiaries of new water supplies.
- (iii) will specifically address:
  - **personal hygiene;** such as washing hands after using the toilet and before the preparation of food;
  - **household hygiene;** keeping the home and toilet clean, disposal of refuse and solid waste, cleanliness in areas where food is stored and prepared, and ensuring that food and drinking water is kept covered and uncontaminated; and
  - **Community hygiene:** issues related to excreta and solid waste (refuse), food vendors and the keeping of animals.
- (iv) Will be developed based on operational research and a good understanding of the wide range of health problems, different communities and cultures in Sierra Leone.
- (v) Will enhance the training of health personnel in effective hygiene education methods. Health personnel will play a strong role in the promotion of health and hygiene, particularly at community levels.

- (vi) Will be sensitive to specific local issues, such as rural and urban differences and cultural factors. Based on this, relevant promotional information will be developed so that desirable behaviour changes will be brought about through consultations, within the context of people's everyday lives.
- (vii) Will be primarily implemented by Local Councils with support from the Ministry of Health, the Ministry responsible for water, Ministry of Local Government, Ministry of Education, Donor Organisations, NGOs and Civil organisations.
- (viii) Programmes will be monitored and regularly evaluated for their effectiveness by MoHS in collaboration with the Ministry responsible for water. A network of Environmental Health Officers shall be established.

### **3.4.2 Community Participation and Capacity Building**

#### **Objectives:**

- i. To improve community involvement in sanitation projects for sustainable success.
- ii. To develop and improve the capacity of the people in community to make decisions.

#### **The Challenges:**

- i. To achieve sustainable improved sanitation requires the commitment not only of Government and development partners but of every individual household. However, not every household is fully aware of the damaging effects of inadequate sanitation on the community; hence they may not commit adequately their time, energy and money for sanitation improvements. The challenge is to ensure total commitment and involvement of communities in sanitation programmes for long term success.
- ii. There is severe shortage in Sierra Leone of well trained health and environmental personnel who could undertake sanitation projects as well as train and enhance capacity building from national to community level.

#### **Strategies:**

- i. Communities will be involved in decision making on levels of service, capital and operating costs. Such decisions shall be made in an informed and transparent manner.
- ii. Social and cultural factors which may affect sanitation practices in some communities will be addressed.
- iii. Emphasis on community involvement in the planning, decision making and implementation stages of sanitation projects for increased commitment to and ownership of projects will be made.

- iv. Women shall be involved in the decision making processes at all levels and sanitation programmes shall take into account special requirements of women, disabled, elderly and children.
- v. Schools and other educational institutions will be major community focal points for sanitation promotion, and health and hygiene education.
- vi. Possibilities of including water and sanitation in the curricula of primary and secondary schools and professional training courses will be considered.
- vii. Environmental health officers will be trained and deployed at the district level to assist in water and sanitation promotion programmes at community levels. In doing so, the Government will seek support of NGOs as they have considerable experience in various aspects of community-based sanitation and health capacity building programmes.

### 3.5 ENVIRONMENTAL SUSTAINABILITY

This Policy covers only issues direct related to the environmental sustainability of sanitation systems and not all environmental issues in Sierra Leone.

**Objectives:** To minimise pollution from sanitation systems.

**The Challenges:**

Inappropriately designed, constructed and inadequately maintained sanitation systems constitute a range of pollution risks to the environment, especially to surface and ground water resources, which in turn pose a threat to health. The challenge is to ensure that sanitation systems are designed and constructed in a way that would minimise potential pollution throughout their life cycle.

**Strategies:**

- (i) Potential for a negative environmental impact of sanitation systems shall be considered during the selection and design process.
- (ii) The environmental impact of all sanitation systems will be closely monitored on an on-going basis. Monitoring programmes will be designed within the context of the established regulatory framework and specific conditions prevailing in the community.
- (iii) Any activity that would result in the deterioration of the quality of a water resource must be immediately reported to community Water and Sanitation (WATSAN) committees and carefully assessed.
- (iv) Large scale sanitation projects shall be subject to an environmental impact assessment (EIA).
- (v) Environmental education shall form an integral part of sanitation projects.
- (vi) The provision of adequate sanitation will be incorporated in the revised sanitation legislation.
- (vii) Local Councils will be given the mandate through by-laws to take effective action against identified causes of epidemics, and other infective diseases especially those caused by lapses in environmental sanitation standards.



### **3.6 FINANCING OF SANITATION ACTIVITIES**

**Objectives:** To develop a sustainable approach for financing urban and rural sanitation, involving increased community participation.

**The Challenge:**

The Government's responsibility is limited to providing citizens with a level of sanitation service sufficient to safeguard and promote public health. Beyond that, improvements should be carried out by autonomous organizations responsible for sanitation improvements. The main challenge is to finance the capital investment which is needed for different types of infrastructure, since the Government's financial resources are limited, autonomous organizations with responsibilities for sanitation improvements cannot easily borrow money for investment and the majority of the population is poor having limited ability to provide significant financial contributions.

**Strategies:**

#### **3.6.1 Strategies for Financing Urban Sanitation**

- (i) Capital expenditure will be financed by Government from budgetary allocations and funds sourced as loans and grants from development partners.
- (ii) Operating expenditure (operations, maintenance, replacements, and administration) shall be financed by operating income, from consumer charges.
- (iii) Community sanitation will be funded by both the communities and Local Councils. Government grants will be available through District Councils.

#### **3.6.2. Strategies for Financing Rural Sanitation**

- (i) The Government will assist Local Councils to cover rural sanitation programmes as part of the national sanitation improvement programme.
- (ii) Assistance from donor organizations and NGOs will be sought for rural sanitation funding.
- (iii) Rural communities will be encouraged to contribute in monetary and in kind towards community sanitation projects.

### 3.7 TECHNOLOGY

**Objectives:** 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 Challenge:**

In view of the lack of appropriate guidelines for developing and operating sound sanitation systems the challenge is to develop and implement guidelines to achieve this objective.

**Strategies:**

The Government in collaboration with stakeholders will develop the following:

- i. Guidelines for the planning and implementation of urban and rural sanitation projects.
- ii. Guidelines for the selection of appropriate sanitation systems and facilities.
- iii. Guidelines for private sector participation in and sanitation services.
- iv. Guidelines for septic tank systems
- v. Guidelines for VIP and other toilets facilities including provision of affordable top quality mobile toilets to urban centres for maintaining and sustaining a clear and healthier environment.
- vi. Capacity to monitor construction standards.

## 4 LEGAL, REGULATORY AND INSTITUTIONAL FRAMEWORK

### 4.1 LEGAL FRAMEWORK

**Objective:** To enact a new unified water legislation (Water Law) which creates a level playing field for all those involved in the sector, public and private, present and future.

**The Challenge:**

The Water (Control and Supply) Act (1963) and associated regulations do not adequately meet present and emerging challenges for the sector. The main challenge is to modernise the legislations and associated regulations and rules so as to create an enabling legal framework for dealing with the challenges facing water and sanitation sector.

**Strategies:**

In order to have an effective legal framework the following will be done:

- (i) The Water (Control and Supply) Act (1963) will be reviewed and replaced by a new Water Law.
- (ii) The new Water Law shall vest in the State all water resources in the country and provide every citizen equal right to access and use of the nation's natural water resources.
- (iii) In the new law the mandate of the Ministry responsible for water, the National Water Resource Board, the Energy and Water Regulatory Authority will be clearly defined to enable them to enforce and follow-upon regulations and operating rules governing water sector activities.
- (iv) In the process of establishing the new Water Law, existing laws related to water supply and sewerage services and sanitation shall be reviewed and harmonized to accommodate changes that are taking place in the sector. The following Acts will be reviewed:
  - The Guma Valley Water Act (1961)
  - The Sierra Leone Water Company Act (2001)
  - Public Health Act 1996
  - Forestry Regulation Act 1999
  - Local Government Act 2004
- (v) Where necessary relevant customary laws and practices related to the water and sanitation sector will be incorporated into the new Water Act

## 4.2 REGULATORY REGIME

**Objective:** To create a transparent and independent regulatory regime including the establishment of an independent regulatory authority with appropriately qualified personnel for regulating the water supply and waste disposal activities.

### **The Challenge:**

Existing legislations provide for regulation of commercial water supply and sewerage services. However, with the increasingly autonomous water supply entities the existing legislations do not address all issues relating to water supply and sewerage services delivery. Autonomous entities and private sector participation in urban and rural water supply and sewerage services delivery without effective regulation may result in high tariffs, poor performance, lack of extension of services and conflicts between water suppliers and customers.

The main challenge in view of this, is to create an appropriate regulatory framework in order to serve both customers' and operators' interests.

### **Strategy:**

An independent multi-sector regulatory authority, combining the energy and water sectors i.e. an Energy and Water Regulatory Authority (EWRA) shall be established for regulating, among others, water supply and sewerage services. Briefly the major functions of the authority in relation to water supply and sewerage services shall be:

- i. Protecting the interest of consumers.
- ii. Protecting the financial viability of efficient water supply entities.
- iii. Promoting the availability of regulated services to all consumers including low income and disadvantaged consumers.
- iv. Enhancing public knowledge, awareness and understanding of the regulated services in the sector.
- v. Educating stakeholders on the rights and obligations of customers and regulated suppliers.
- vi. Issuing, renewing and cancelling licences.
- vii. Establishing standards for water supply services.
- viii. Regulating rates and charges for the services.
- ix. Monitoring the performance of regulated entities in relation to investments, quality and quantity of services, cost of services and efficiencies of production and distribution.
- x. Enforcing Regulatory Act provisions.