



*Empowered lives.  
Resilient nations.*

# **SIERRA LEONE 4<sup>th</sup> NATIONAL HUMAN DEVELOPMENT REPORT 2019**

**BUILDING RESILIENCE FOR SUSTAINABLE  
DEVELOPMENT**

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## Foreword, Minister of Planning & Economic Development

The people of Sierra Leone are well aware of the consequences of fragility and vulnerability. Our country's history is riddled with shocks from across sectors, such as the civil war, natural disasters, macroeconomic shocks, and governance shocks. The journey towards resilience and our development aspirations begin with the people.

The Government's commitment to investing in the human capital of the people of Sierra Leone can be seen in the Medium-term National Development Plan (MTNDP) 2019-2023, Education for Development, and its accompanying flagship programme, Free Quality School Education. By investing in individual and societal capabilities, the Government seeks to enhance our resilience and reduce persistent vulnerabilities. *Cluster Seven: Addressing vulnerabilities and building resilience* of the MTNDP articulates our approach to plan for and mitigate the effects of future shocks.

The Government welcomes Sierra Leone's fourth Human Development Report 2019 under the theme: 'Building Resilience for Sustainable Development'. Dating back to the first National Human Development report in 1996 under the theme 'From Civil Conflict to National Security', the Government has been committed to taking on-board the ideas and recommendations of these constructive documents.

The 2019 edition of Sierra Leone's Human Development Report will be the first to include Human Development Indices (HDI) and the Multidimensional Poverty Index (MPI) at the district level. This evidence-based approach will help inform policies across a variety of ministries, departments, and agencies (MDAs), as well as help to target programmes towards those who are most in need.

The Government welcomes the recommendations of this report, especially the need to establish a disaster risk management agency and develop a resilience-sensitive long-term development plan that updates the current Vision 2035 and remains consistent with the SDGs and Africa Agenda 2063.

We greatly appreciate the significant contributions of UNDP and Government MDAs. We thank all the other stakeholders – development partners, UN agencies, academia, the private sector, local communities and civil society – who have added insights to this important national document.

Dr. Francis M. Kai-Kai  
**Minister of Planning & Economic Development**

## Preface, UNDP Resident Representative

This National Human Development Report (NHDR), ‘Building Resilience for Sustainable Development’, is the fourth NHDR Sierra Leone has produced since the publication of the first global HDR in 1990. The 1990 HDR was prophetic when it observed that ‘an irresistible wave of human freedom is sweeping across many lands... [that] political systems and economic structures are changing [for the better] ... and people are beginning to take charge of their own destiny’. The momentum and trajectory of this human progress have persisted since, despite the countervailing forces.

Sierra Leone epitomizes this resilient progress. In 1996, at the end of the first phase of its 11-year civil war, the country produced its first NHDR. With Sierra Leone dusting off the ashes of unimaginable violence, the report, ‘From Civil Conflict to National Security’, focused on how the country could chart a new path to peace, security, healing and reconciliation. As hope for peace strengthened, the country focused its second NHDR in 1998 on ‘Poverty Eradication and Sustainable Human Development’ but the resurgence of the civil war from 1999 to 2002 rudely disrupted implementation of its recommendations. The third NHDR in 2007, ‘Empowering Local Government for Sustainable Human Development and Poverty Eradication’ focused on governance and service delivery as the bedrock for the sustainable eradication of poverty.

However, just as Sierra Leone was being praised for its post-war economic progress and double-digit growth, the country was hit simultaneously by an Ebola Virus Disease (EVD) epidemic and the global 2014-2015 crash in iron ore commodity prices. Ebola killed over five thousand men, women and children and left communities devastated. The economy contracted savagely by 20 percent of GDP. Today, Sierra Leone is continuing to recover from the social and economic effects. Notably, it has enjoyed sustained peace since 2002 and three successive transfers of power from one political party to another. In 2018 the country was ranked on the Global Peace Index as the most peaceful country in West Africa and the third most peaceful in Africa.

This fourth NHDR tells the story of Sierra Leone, not just as a nation that has suffered numerous human tragedies, but also as one that has also demonstrated remarkable resilience. The report captures the country’s strengths as well as its vulnerabilities, and defines a pathway to build on its strengths, minimize its vulnerabilities, and harness its vast potential through developing a resilience-

sensitive long-term development plan. The report presents Human Development Indices (HDI) and Multidimensional Poverty Indices (MPI) at the district level for the first time in Sierra Leone. At its core is the assertion that Sierra Leone cannot achieve real sustainable development without exploring and addressing its social, economic, political, and environmental vulnerabilities, and building resilient governance systems.

The report was produced under the leadership of the Ministry of Planning and Economic Development in close collaboration with other ministries, departments and agencies (MDAs). Development partners, UN agencies, academia, the private sector, labour unions, the media and civil society and local communities also actively participated in the consultations leading to the design. UNDP is deeply grateful for the strong partnership and support it continues to enjoy with the Government, all development partners, and the people of Sierra Leone.

Samuel Gbaydee Doe, PhD

**UNDP Resident Representative**

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The development of Sierra Leone's fourth Human Development Report 2019 'Building Resilience for Sustainable Development' has had a long journey and weathered many shocks, including EVD and the 2018 elections. It involved the efforts of many individuals and organizations whose support and contributions are highly appreciated.

UNDP would like to recognize the invaluable contribution of the Sierra Leone NHDR task force composed of technical experts from the Government of Sierra Leone, the UN Country Team, academia and civil society, which steered the process by reviewing working drafts and checking the accuracy of information and data. Special thanks are due to the team from the Ministry of Planning and Economic Development (MoPED) and Dr Sheka Bangura in particular.

Further thanks go to the UNDP country office senior management and the team led by the UNDP Resident Representative (initially Sunil Saigal and later Samuel Doe) and Sudipto Mukerjee (Resident Representative in Bangladesh) who started the process. Special appreciation goes to the following staff of the Strategic Advisory unit who worked with MoPED staff during the process: Moses Sichei (Senior Economic Advisor), Milton Korseh-Hindowa (National Economist) and Fodie Sheriff (Research Associate). Other programme and operation teams have provided valuable input, particularly the communications unit, which supplied the photographs as well as editorial support.

We are indebted to the team of consultants who tirelessly dedicated their time and energy to provide professional and technical expertise to collect, analyse and interpret the data and write the report. The team of consultants was comprised of Dr Godwin Hlatswayo (lead international consultant) and Dr Fred Konteh (national consultant), who were supported by other contributors who prepared background chapters, and the editor, Paul Forster.

Many other organizations and individuals generously shared data, research materials and insight, which helped inform the report, and acted as peer reviewers. Some patiently read through long drafts and made substantive comments. Special thanks go to the Sierra Leoneans in 16 districts who shared their insights during the national consultations and validation exercises.

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## Executive Summary

Sierra Leone's fourth Human Development Report 2019 focuses on building resilience for sustainable development. This focus is justified by the harsh fact that Sierra Leone's post-independence history is replete with episodes of shocks, which quickly reversed efforts made in achieving human development. First, the brutal civil war between 1991 and 2002, negated many of the immediate post-independence efforts, leaving damaged infrastructure, at least 70,000 people dead and 2.6 million people internally displaced. It also delayed the start of the implementation of the Millennium Development Goals (MDGs). Second, cholera outbreaks (in 1994-95, 2004, 2006, 2007, 2008 and 2012) sickened and killed many, with the most severe event in 2012 causing 392 deaths and affecting the neighbouring country of Guinea. Third, the impressive post-war efforts in building resilience were tested in 2014-2015 by the twin crises of the EVD epidemic and the coincidental collapse of the global price of iron ore, the country's leading export commodity. EVD exposed the weaknesses in the health system to withstand shocks and led to the formation of the first ever UN Mission for Ebola Emergence Response (UNMEER) in September 2014, barely six months after the drawdown of the UN political mission – UN Integrated Peace Building Office in Sierra Leone (UNIPSIL) – in March 2014. The post-Ebola recovery efforts, which ended in June 2017, also affecting the momentum of the implementation of the Sustainable Development Goals (SDGs). Finally, in August 2017, heavy torrential rains led to a devastating mudslide on Sugar Loaf mountain in Freetown, which killed over 1,000 people.

The report asserts that real sustainable development in Sierra Leone cannot be achieved without exploring and addressing the country's vulnerabilities by building resilience. It identifies systemic and perennial sources of vulnerability and notes that most of them are anthropogenic – a function of human behaviour. The report argues that sustained enhancement of individual and societal capabilities to withstand shocks (i.e. resilience) is necessary to reduce persistent vulnerabilities in Sierra Leone. As most shocks are anthropogenic, the key to developing resilience to ensure that human choices and actions do not create further vulnerabilities in future. It further argues that unless a comprehensive multi-hazard approach consistent with implementing the SDGs is followed, addressing vulnerabilities in Sierra Leone will be challenging.

The report presents Human Development Indices (HDI) and Multidimensional Poverty Index (MPI) at the district level for the first time in Sierra Leone. Furthermore, it explores the types of policies

and institutional reforms that can build resilience into society's core, with particular reference to vulnerable groups. Each chapter offers specific recommendations, but the key overall recommendations follow.

**(i) Encourage positive change of culture, attitude and behaviour.**

Many cultural, attitudinal and behavioural characteristics were inadvertently acquired during the civil war, especially by the youth, that are detrimental to sustainable development. Sierra Leone can potentially follow the path of other nations, such as Singapore, Japan and Rwanda, which have developed through cultural renewal and disavowing those values which proved unhelpful, while building on positive cultural values including those acquired through globalization. To achieve the changes in culture, attitude and behaviour necessary, the state must lead by example with public servants fulfilling their side of the social contract (in terms of effective and equitable delivery of social services) while espousing and demonstrating positive values of patriotism, integrity, trustworthiness, transparency, accountability, fairness and justice in their dealings with the people. Culture change strategies can be driven in a targeted manner and channelled through socializing agencies (notably the family, schools and religious institutions) and in the community.

**(ii) Move away from siloed security-based systems to an integrated multi-hazard planning, monitoring and response system.**

An integrated multi-sectoral multi-hazard system is required that goes beyond the security-based system in the Office of National Security (ONS). This system should have the appropriate institutional structure to monitor, prepare and respond to all known shocks as opposed to the current ONS system which is heavily-security focused. The system should be based at MoPED and chaired at the Chief Minister/Vice Presidency level. Each component in such a system needs to have its own early warning structures with key indicators that are regularly monitored and reported. For instance, in a macroeconomic vulnerability system, key indicators would include key strategic food reserves (especially rice) and stocks of petroleum products. Aggregated and scored, these indicators would then be used to classify national vulnerability status into three levels: (1) Stable and no risks (2) Alert and significant risks and (3) National disaster. A legal framework for the system should be established in the country's national multi-sector hazard planning Act.

**(iii) Upscale existing social protection initiatives to build resilience of households.**

Existing social protection programmes need to be expanded and efficient delivery assured. This is predicated on high levels of poverty and chronic and acute malnutrition among children, the elderly,

and people living with disabilities, and the incidence of teenage pregnancy and early marriage. To reduce over-reliance on donor funding and to ensure sustainability, the Government needs to factor the costs and benefits of a core social protection package into the national budget.

**(iv) Ensure robust resilience-sensitive national development planning that transcends political cycles.**

Key recommendations for national development planning include:

- Develop the legal framework to guide future national development planning i.e. an Act of Parliament on the National Development Planning System, covering long-term planning, medium-term planning and the short-term planning linked to the Medium-Term Expenditure Framework (MTEF).
- Develop a resilience-sensitive long-term development plan that updates the current Vision 2035 and ensures consistency with the SDGs, Africa Agenda 2063 and the New Deal for Engagement in Fragile States. The development of the long-term plan should be informed by tools for integrated national planning such as the Integrated Simulation Tool for policy coherence and integration to achieve SDGs (iSDGs) with regular scenario planning, including ‘stress testing/pessimistic’ scenarios. It should also be consistent with the medium-term plans based on medium-term macroeconomic models.
- Address the remaining challenges within the institutional structure for national development planning. When MoPED was hived out from Ministry of Finance (MoF) in 2018 it was tasked to, among other things, lead the national development planning process. For national planning to be successful the country should address the issues that led to the ineffectiveness of the then Ministry of Development and Economic Planning. If not, MoPED may not be able to induce major transformative change. For this to occur, adequate financing, qualified staff and cordial relations between MoF and MoPED are essential.

**(v) Enhance the capacity of a resilience-sensitive professional public service.**

The public sector is not only the means by which the Government develops policies and programmes to address the needs of the country, but critically it is also the vessel through which these policies are translated into tangible benefits for the people. Key recommendations include:

- Build the capacity of the civil service for multi-hazard planning and response;
- Ensure that the working environment for public servants is improved, including reliable internet, electricity and water;

- Put in place systems to discourage patronage networks and identity politics that are impediments to developing a professional and nonpartisan civil service;
- Provide continuous training for public servants;
- Deliver clear business continuity and succession planning that transcends political cycles. This includes preventing the removal of government assets and key records when government changes from one political party to another. The National Assets and Government Property Commission (NAGPC) needs to have the capacity to act.

**(vi) Develop a robust national data ecosystem that supports resilience-building.**

To fully harness data for building resilience, a holistic strategic approach is required where every component of the data ecosystem is directed towards the shared goal of establishing a conducive environment for leveraging data and partnerships for sustainable development priorities while leaving no one behind. Key areas to focus on include:

(a) Regular collection of key statistics:

- Build a robust system for collecting economic statistics, including labour force, establishment surveys, trade statistics and monetary statistics. The production of regional GDPs and supply and use tables for the country is vital;
- Conduct regular population and housing censuses, which acquire and record information from all the population. The first post-war Population and Housing Census (PHC) was conducted in 2004 and the latest was conducted in 2015, one year late due to the EVD epidemic. In line with the Open Data Initiative, data should be made widely available;
- Conduct regular integrated household surveys, which provide reliable data on demographic and socio-economic characteristics of the population. With data collection taking one year, the last Sierra Leone Integrated Household Survey (SLHIS) was completed in 2011 and the most recent is underway in late 2019;
- Conduct regular agricultural surveys;
- Conduct regular education censuses;
- Develop robust systems of collecting and collating administrative data for different MDAs;
- Acquire civil registration and vital statistics;
- Acquire geospatial data, including all data in previous categories.

(b) The use of new technologies to reduce the cost of collecting data and improve speed and accuracy is critical. This includes exploiting high-resolution satellite imagery, unmanned aerial

vehicles (drones), crowd sourcing, smartphone and tablet-based data collection, and 'big data' and data mining approaches.

- (c) The current legal, legislative and policy frameworks governing the production, dissemination and use of data need to be revised to incorporate data from non-state actors.
- (d) Planning units in all MDAs need to be established and staffed with statisticians and economists who collect data and are custodians of all strategic planning documents. These units will then work with Stats SL, MoPED and MoF.

**(vii) Engender appropriate structural economic transformations that drive inclusive growth and greater productivity.**

To encourage inclusive growth, economic diversification is required towards sectors with two key characteristics: high productivity and high forward and backward linkages with sectors where many Sierra Leoneans participate. Key potential sectors include agriculture and agro-processing, manufacturing, and tourism. Entry into regional and global value chains and broader regional economic integration needs to be promoted, as well as the expansion of skills training, the diffusion of new technology, and investment in infrastructure, among other areas. The Small and Medium Enterprises Development Agency of Sierra Leone (SMESL) established in 2015 needs to scale up its efforts to stimulate business to sustain growth and tackle youth unemployment.

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## Acronyms

ABC	Attitudinal and Behaviour Change Secretariat
ACC	Anticorruption Commission
AfDB	African Development Bank
AFRC	Armed Forces Revolutionary Council
BECE	Basic Education Certificate Examination
CFSVA	Comprehensive Food Security and Vulnerability Analysis
CRVS	Civil Registration and Vital Statistics
CSO	Civil Society Organizations
CTO	Chief Technical Officer
ECOWAS	Economic Community of West African States
DHS	Demographic and Health Survey
DMD	Disaster Management Department (in ONS)
DRM	Disaster Risk Management
DSS	Double-Shift Schooling
EPI	Environmental Performance Index
EVD	Ebola Virus Disease
EWS	Early Warning System
EYS	Expected Years of Schooling
FAO	Food and Agriculture Organization
FCS	Food Consumption Scores
FEWNET	Farming Early Warning System Network
FGM	Female Genital Mutilation
FQE	Free Quality Education
FSU	Family Support Unit (in Sierra Leone Police)
GDI	Gender Development Index
GDP	Gross Domestic Product
GFSI	Global Food Security Index
GHI	Global Hunger Index
GII	Gender Inequality Index
GNI	Gross National Income
GoSL	Government of Sierra Leone
GPI	Global Peace Index

GVWC	Guma Valley Water Company
HDI	Human Development Index
HDR	Human Development Report
HDRO	Human Development Report Office of UNDP
HI	Herfindal Index
HRC	Human Rights Commission
IHDI	Inequality-Adjusted Human Development Index
IIAG	Ibrahim Index of African Governance (by Mo Ibrahim Foundation)
ILO	International Labour Organization
INDC	Intended Nationally Determined Contribution
IPRSP	Interim Poverty Reduction Strategy Paper
JSS	Junior Secondary School
LIPW	Labour Intensive Public Works
LNOB	Leave No One Behind principle (of SDGs)
MDA	Ministries, Departments and Agencies
MDGs	Millennium Development Goals
MEWR	Ministry of Energy and Water Resources
MICS	Multi-Indicator Cluster Survey
MoF	Ministry of Finance
MoHS	Ministry of Health and Sanitation
MoPED	Ministry of Planning and Economic Development
MoYA	Ministry of Youth Affairs
MPI	Multi-Dimensional Poverty Index
MSWGCA	Ministry of Social Welfare, Gender and Children's Affairs
MTEF	Medium-Term Expenditure Framework
MTHE	Ministry of Technical and Higher Education
MTNDP	Medium-Term National Development Plan
NaCSA	National Commission for Social Action
NDPRP	National Disaster Preparedness and Response Plan
NAGPC	National Asset and Government Property Commission
NAYCOM	National Youth Commission
NEC	National Electoral Commission
NERS	National Ebola Recovery Strategy (July 2016-June 2017)

NGO	Non-Governmental Organization
NHDR	National Human Development Report
NPSE	National Primary School Examination
NRS	National Recovery Strategy (2002-2003)
OECD	Organization for Economic Cooperation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
ONS	Office of National Security
OPHI	Oxford Poverty and Human Development Initiative
PHC	Population and Housing Census
PHU	Peripheral Health Units
PR	Proportional Representation
PRSP	Poverty Reduction Strategy Paper
PSGs	Peace and State Building Goals
RSLAF	Republic of Sierra Leone Armed Forces
RUF	Revolutionary United Front
SALWACO	Sierra Leone Water Company
SDGs	Sustainable Development Goals
SGBV	Sexual and Gender-Based Violence
SLIHS	Sierra Leone Integrated Household Survey
SME	Small and Medium Size Enterprises
SLMET	Sierra Leone Meteorological Department
SSS	Senior Secondary School
TRC	Truth and Reconciliation Commission
TVET	Technical and Vocational Education Training
UNAMSIL	United Nations Mission to Sierra Leone
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNIPSIL	United Nations Integrated Peacebuilding Office in Sierra Leone
UNMEER	United Nations Mission for Ebola Emergence Response
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme
WHO	World Health Organization

# PART I: SETTING THE STAGE

## 1. INTRODUCTION

**“Sustainable development and achievement of SDGs will remain elusive or significantly delayed so long as hazards are left unchecked... It is difficult to maintain social and economic progress if development gains are so regularly and profoundly wiped out.”**

UN Deputy Secretary General, 1 November 2017



The famous Cotton Tree in the city centre, a historic symbol of Freetown. Photo: UNDP Sierra Leone

The Republic of Sierra Leone exudes an iconic past and the capital city, Freetown, commemorates the nation’s slave-trade history with the Cotton Tree landmark and King’s Yard Gate. Both were known as places of refuge for returned slaves in the 18th and 19th centuries and have been resilient to various shocks over the years.

Nevertheless, Sierra Leone has suffered from years of instability, including 11 years of brutal civil war between 1991 and 2002, which destroyed much of its infrastructure and caused at least 70,000 casualties and 2.6 million people displaced. Following the end of the war, the country embarked on ambitious efforts to consolidate peace, stability, economic management and democratic governance. Subsequent to Sierra Leone’s success in peacebuilding – as proven by the drawdown of the UN

mission in 2014 – a consensus emerged among the international development community that Sierra Leone had escaped from crisis and was on a steady positive trajectory towards becoming a resilient and stable country.

By 2014, three successful Presidential, Parliamentary and Local Council elections that met international credibility standards had taken place, with relatively peaceful post-election transitions. Governance, gender, environment, and many other social indicators were also improving. Moreover, through improved governance of its natural resources (diamonds and other minerals), the country had successfully implemented two Poverty Reduction Strategies (PRS) and had started implementation of the third (Agenda for Prosperity). All helped the country move from a failed state towards development. This was confirmed by two fragility assessments of Peace and State Building Goals (PSGs) which were undertaken in 2012 (GoSL, 2012) and 2016 (GoSL, 2016a). Both showed that Sierra Leone was in the transition stage on the New Deal fragility spectrum.<sup>1</sup>

Despite the impressive post-war gains, the country's state of resilience continues to be tested by frequent shocks, including natural disasters, and health and economic crises. These are detailed in subsequent chapters of this report. One persistent example includes frequent flooding during the rainy season, especially in August and September, which causes contamination of water sources. This not only leads to direct loss of lives but also results in frequent cholera outbreaks, as occurred in 2004, 2006, 2007, 2008 and 2012. More dramatically, in August 2017, torrential rain led to a devastating mudslide on Sugar Loaf mountain that killed more than 1,000 people on the outskirts of Freetown (see chapter 10).

Similarly, in May 2014, Sierra Leone was affected by an EVD outbreak, which exposed the weaknesses in the existing health system to health shocks. In September 2014 the subsequent epidemic led to the UN Security Council approving the first ever UN Mission for Ebola Emergence Response (UNMEER). Coincidentally, the country also faced a major economic shock with the collapse in the global price of iron ore, the country's leading export commodity. This exposed the country's macroeconomic vulnerability resulting from high export commodity concentration and lack of diversification in the economic structure. GDP growth plummeted to minus 20.5 percent in 2015 from growth of 4.6 percent in 2014, reversing the gains made since the end of civil war and posing a significant threat to human development and poverty reduction. As part of the efforts to

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<sup>1</sup> The fragility spectrum: 1 - Crisis, 2 - Rebuild and reform, 3 - Transition, 4 - Transformation, and 5 - Resilience.

accelerate recovery from these twin shocks, in July 2015 the then President launched a two-year transitional recovery plan, the Presidential Recovery Priorities (PRP), which ended in June 2017.

All these episodes reflect deep structural factors that reduce Sierra Leone's resilience to the shocks analysed in this report.

## **1.1 Rationale for the Report**

Sierra Leone has been on a long journey towards reducing vulnerabilities and building resilience. This has been accomplished through the implementation of reforms, policies and programmes aimed at improving living conditions, addressing the causes of conflict and poverty, and tackling human development challenges. These initiatives have been encapsulated in various national development plans as well as regional and global development agendas: Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), and Africa Agenda 2063. The latter provides a collective vision and roadmap for Africa's development, emphasizing the role of integrated economic, social and environmental approaches to continental aspirations. The three most recent national development plans are the Agenda for Change (2008-2012), the Agenda for Prosperity (2013-2018) and the Education for Development plan (2019-2023).

However, recent shocks such as EVD, the collapse of iron ore prices, frequent flooding and the 2017 mudslide disaster reveal that human development in Sierra Leone is not yet sustainable and significant efforts are needed to reduce vulnerability to shocks and build resilience.

This fourth Sierra Leone National Human Development Report, with the theme of Building Resilience for Sustainable Development, reviews lessons learned from the recent shocks and explores comprehensive approaches to build resilience with a view to avoiding setbacks to human development. It comes at an opportune time and will provide critical input on policy options for building resilience as the country implements its current national development plan, which takes into consideration SDGs, Africa Agenda 2063 and the New Deal for Engagement in Fragile States.

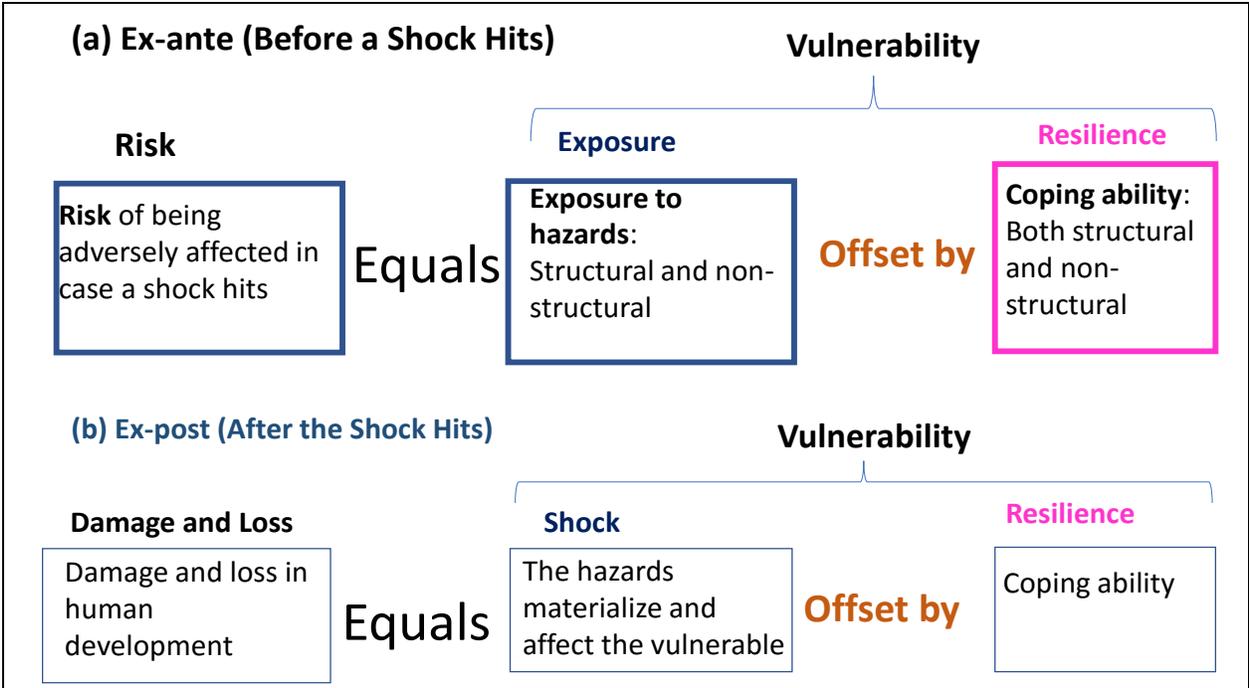
# 1.2 Conceptual Framework and Methodology

## 1.2.1 Conceptual Framework

Human development is the central objective of governments all over the world. Sierra Leone has pursued this objective during the post-war period with some notable achievements. However, as the country is exposed to multiple hazards, its progress in human development cannot be sustained unless the vulnerabilities to shocks are addressed by building resilience.

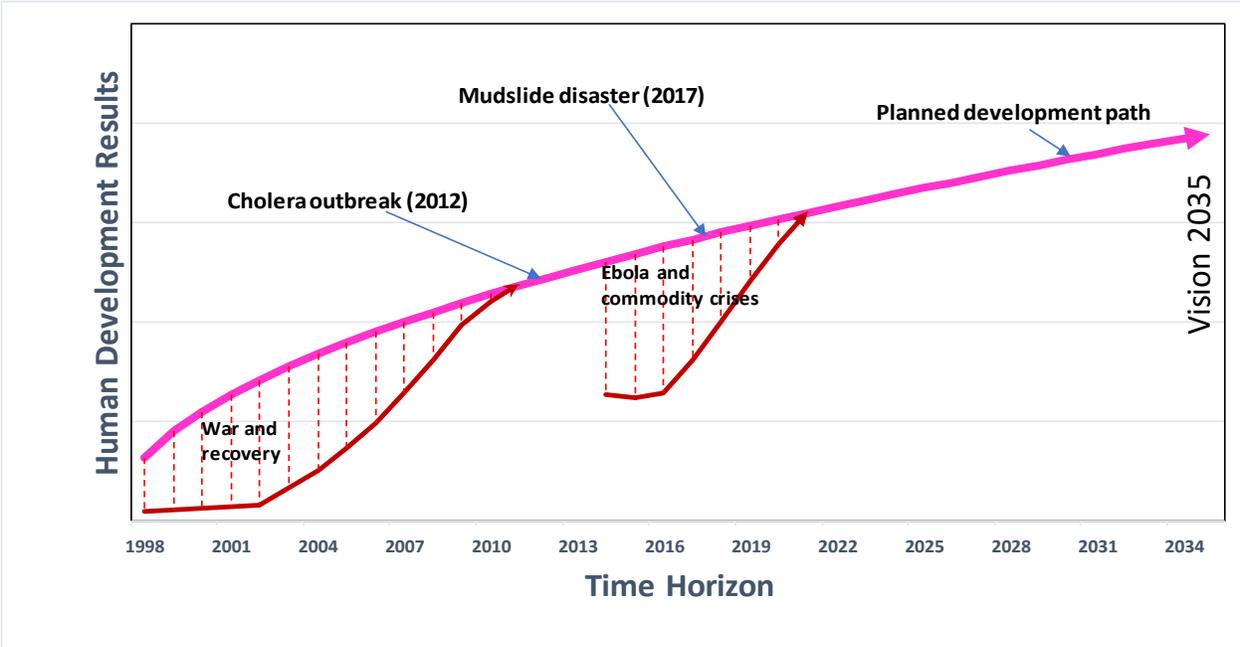
Figure I.1 shows the fundamental equation used as the organizing framework of the report. This states that even before a shock hits, the risk of being adversely affected by it is equal to vulnerability, which in turn is equal to the exposure to hazards less resilience. After the shock hits, the actual damages and losses are equal to vulnerability (i.e. the hazard equals the shock less the resilience – the ability to be able to mitigate, recover and adapt to the shock). Thus, if there is zero resilience (i.e. high vulnerability) the damages and losses are very high. Conversely, if there is high resilience, the impact of the shock will be minimal.

**Figure I.1: Fundamental Equation of Vulnerability and Risks**



Source: Authors’ own conceptualisation

**Figure 1.2: Frequent Shock-Induced Development Setbacks**



Source: Authors’ own conceptualisation. The red dotted lines indicate the extent to which human development deviates from the trajectory (pink line).

Figure 1.2 shows that the impact of shocks significantly reduces human development and prolongs the duration it takes to achieve critical milestones. Sierra Leone’s first major shock was 11 years of brutal civil war between 1991 and 2002 which led the country to deviate from its planned development path. While the country was still recovering from the civil war, cholera outbreaks in 2004, 2006, 2007, 2008 and 2012 posed further lesser challenges. The second major shock was the concurrent EVD epidemic and commodity price crash in 2014 and 2015. Then, while the country was still recovering from these twin shocks, the mudslide disaster occurred in August 2017.

Considering the above, the organizing framework of this report focuses on how to build resilience. Each chapter attempts to answer critical questions in three areas. First, what risks or hazards exist? Second, which groups are vulnerable to the risks and why are they vulnerable? Third, what policy options can be recommended to reduce vulnerabilities and build resilience?

## 1.2.2 Key Concepts and Principles

The following concepts are central to this report.

### **Human Development**

Human development is all about people. It is a process of expanding freedoms, enlarging their choices, enhancing their capabilities and improving their opportunities.

### **Risk**

Risk is the likelihood of suffering from harm or loss. It is the combination of the probability of an event and its negative consequences. Where there is risk, shocks and stresses potentially affect, in different ways, the state of systems, communities, households and/or individuals. The impact of a risk on a system depends on the shock itself and on the vulnerability and resilience of the system (figure 1.1).

### **Hazards/shocks**

Hazards/shocks are events that cause adverse effects. They include health shocks, economic shocks, natural disasters, climate change, and conflict and civil unrest.

### **Exposure**

Exposure indicates the presence of people, livelihoods, environment, and economic, social or cultural assets that could be adversely affected. However, exposure does not necessarily mean vulnerability.

### **Resilience**

Resilience is the ability of individuals, households, communities and the nation to anticipate, absorb, accommodate and recover from the effects of a hazard/shock in a timely and efficient manner while adapting and transforming their structures and means for living in the face of long-term stresses, change and uncertainty.

### **Vulnerability**

Vulnerability is the susceptibility to damage when exposed to hazards/shocks (UNDP, 2014). Vulnerability increases in the case of reduced resilience. Thus, it is possible to be exposed to hazards but not be vulnerable due to resilience.

## **Sustainable development**

Sustainable development is the organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the resources and ecosystem services which the economy and society depend on. The desired result is a state of society where living conditions and resource use meet human needs without undermining the integrity and stability of the natural systems. It means that development can meet present needs without compromising future generations.

## **Leave No One Behind**

The Leave No One Behind (LNOB) principle of the SDGs means prioritizing explicit action to end extreme poverty, curb inequalities, confront discrimination, and deliver progress for the furthest behind. People get left behind when they lack the choices and opportunities required to participate and benefit from development progress. All people living in extreme poverty, in any form, are left behind, together with those enduring disadvantages that deny or limit their choices and opportunities relative to others in society. Key elements that inform the LNOB principle include all forms of discrimination (e.g. based on gender, ethnicity, age, class, disability and religion); geography (physical isolation, vulnerability, deprivation or inequity due to area of residence); socio-economic status (disadvantages in terms of income, wealth, life expectancy, educational attainment or chances to stay healthy, be well-nourished, be educated, along with access to energy, clean water and sanitation, social protection, financial services, and vocational training); shocks and fragility specific to some people (e.g. vulnerability and exposure to the effects of climate change, natural hazards, violence, conflict, displacement, health emergencies, economic downturns); and governance-related factors (e.g. national and/or sub-national institutions that are ineffective, unjust, exclusive, corrupt, unaccountable and/or unresponsive, along with laws, policies and budgets that are inequitable, discriminatory or regressive, including taxes and expenditures).

## **Integratedness/Interconnectedness**

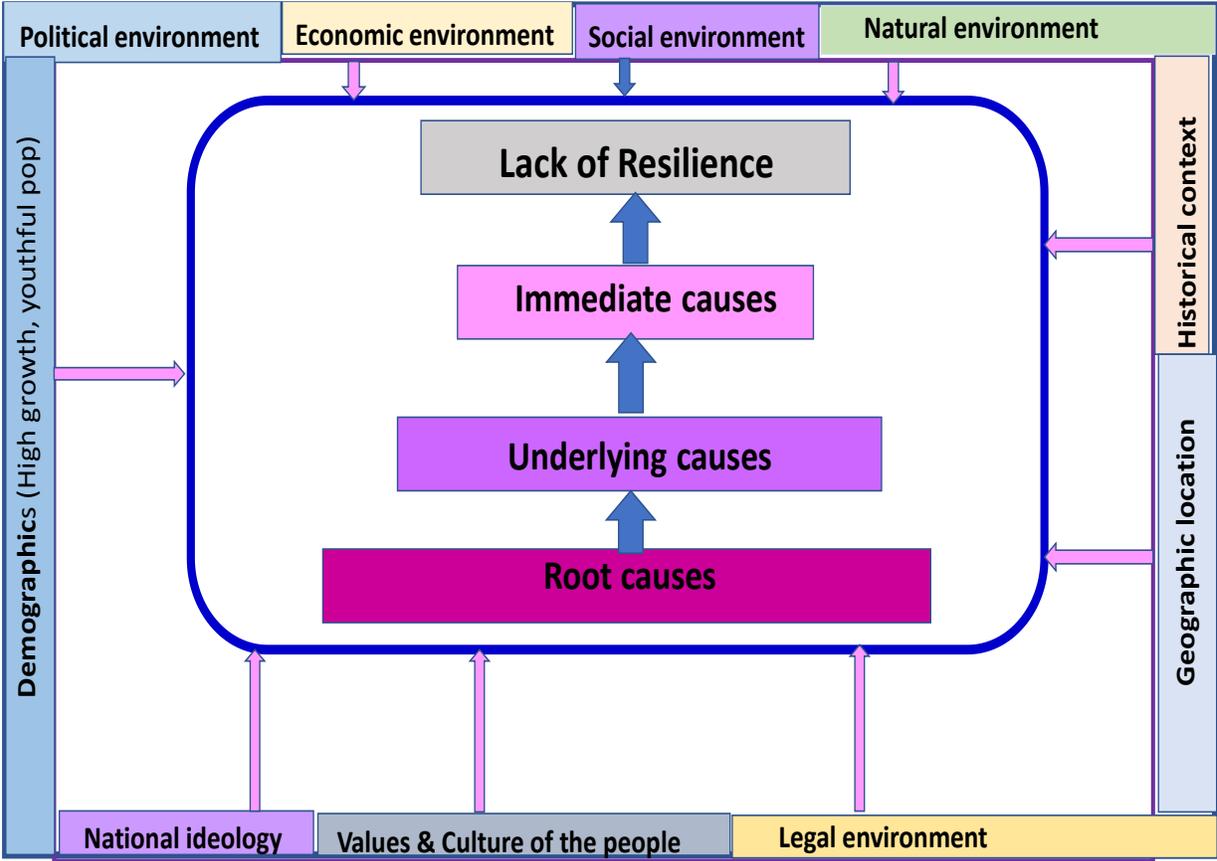
This Integratedness/Interconnectedness principle of the SDGs articulates the importance of moving away from siloed approaches to building resilience by adopting a broader multi-sectoral perspective.

## **Theory of Change for resilience building**

The report's Theory of Change provides a comprehensive description of how and why resilience can be built. It accepts that vulnerability in Sierra Leone is a complex issue caused by many factors

deeply embedded in the way society functions. This approach, which fundamentally informs the entire report, is illustrated in figure 1.3.

**Figure 1.3: Theory of Change Approach to Building Resilience**



Source: Authors’ own illustration.

Figure 1.3 indicates three categories of causality:

**Immediate causes** are the proximate or nearest causes of lack of resilience. They have the closest causal relationship to the problem and are the most direct explanation for why it exists.

**Underlying causes** relate to choices made by society that explain the immediate causes.

**Root causes** are pervasive and long-standing development constraints, often structural in nature, related to history and deeply embedded social and political systems, cultural factors, geography, climate and demography. They are transmitted through attitudes, behaviours and actions at different levels, both tangibly in policy and legislation and in the way public and private institutions work, and intangibly through, for example, discrimination and exclusion.

## 1.3 Structure of the Report

This report is presented in six parts and each part ends with conclusions and recommendations.

Part One sets the stage and includes two chapters. The first chapter, the **Introduction**, sets the tone of the report and defines the concepts and principles of its theme. The second chapter discusses the historical context.

Part Two covers the **Status of Human Development** and has one chapter. This focuses on composite indices, including the Human Development Index; Inequality-adjusted Human Development Index; Gender Inequality Index; Gender Development Index; Income Poverty and Multi-Dimensional Poverty Index.

Part Three covers the **Drivers of Progress in Human Development**. Five chapters present the key drivers of human development, namely macroeconomic vulnerability; health, sanitation and water; education and the youth; food security and nutrition; and gender inequality.

Part Four, **Looking Forward**, presents the overall conclusions and recommendations.

## 2. HISTORICAL CONTEXT

### **‘I pray never to see again what I saw in my beloved Sierra Leone.’**

Extract from the poem ‘I saw’ submitted by Mohamed Sekoya to the National Vision for Sierra Leone, a Truth and Reconciliation Commission project.

### 2.1 Introduction

This chapter has two aims. The first is to set the historical context of the report. The second is to identify the key elements that inform subsequent chapters and future resilience building efforts.

### 2.2 Four Episodes of Sierra Leone’s Development

Sierra Leone’s recent history can be categorized into four episodes, namely: (i) Pre-civil war (1961-1990) (ii) Civil war (1991-2001) (iii) Immediate post-war recovery (2002-2013) and (iv) EVD and commodity crises and the new direction (2014-present).

#### 2.2.1 Pre-civil war (1961-1990)

This period covers the following administrations: (i) Sir Milton Margai (1961-1964) (ii) Sir Albert Margai (1964-1967) (iii) Three military coups (1967-1968) (iv) Siaka Stevens administration (1968-1985) and (v) Momoh government and Revolutionary United Front (RUF) rebellion (1985-1991).

Independence of Sierra Leone in 1961 was achieved with promises and hopes for rapid development of the country based on abundant natural resources, high quality university institutions (epitomized by Fourah Bay College), and the basic foundations for prudent economic management put in place by the colonial government.<sup>2</sup> The country however needed to address many of the challenges that African countries faced at independence. They included poverty, illiteracy, healthcare, an undiversified economy, and lack of infrastructure, national identity and educated citizens to run the affairs of government. Some steps were made to develop the country and build national resilience. First, progress was made towards structural transformation through construction of a petroleum oil refinery, the government-owned Cape Sierra Hotel (which was destroyed in the civil war) and a cement factory. Second, efforts were made to improve communications and reduce the disparities between the provinces and Freetown through the construction of roads and hospitals.

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<sup>2</sup> Although the colonial government was mainly concerned with extraction of resources, some of the systems put in place to support the process laid the foundation for prudent economic management, including systems for a national statistical system, tax collection and a civil service.

However, governance issues, including endemic greed, corruption and nepotism meant the country slowly drifted away from a sound social contract between citizens and the state. This reduced most people to poverty and deprived the nation of its dignity (GoSL, 2003a). Critical issues highlighted by the Truth and Reconciliation Commission (TRC) relevant to resilience building include:

- Lack of government accountability and rule of law, including independence of the judiciary and Parliament, and the holding of free and fair elections;
- Lack of public oversight, including civil society and independent media;
- Lack of separation of powers between the executive, judiciary and legislature;
- Abuse of legitimate state authority by security forces deployed against the population and political opponents in the name of national security;
- Suppression of freedom of political expression and dissent;
- Amendments to the Constitution without wide and thorough consultations;
- Exclusion of the provinces by the centralization of political and economic power in the capital;
- Exclusion of society at large, especially the youth and women, from participation in decision-making, leading to a sense of hopelessness among the youth;
- No culture of human rights.

Due to mounting domestic and international pressures for reforms, the Constitution was amended in 1991, re-establishing a multi-party system, guaranteeing fundamental human rights and rule of law, and strengthening democratic structures. However, these moves came too late to stop civil war.

## **2.2.2 Civil war (1991-2001)**

This period covers: (i) The National Provincial Ruling Council (NPRC) junta (1992-1996) (ii) Return to civilian rule and first Kabbah presidency (1996-1997) (iii) The Armed Forces Revolutionary Council (AFRC) junta (1997-1998) and (iv) Return of President Kabbah and the end of civil war (1998-2001).

The civil war resulted in such profound social and economic consequences that rebuilding the country presented a huge challenge requiring a carefully considered and integrated strategy backed by the full commitment of government and its development partners (GoSL, 2002). Apart from the loss of up to 70,000 lives (Pham, 2007) the war affected every aspect of the socio-economic fabric of the country and reversed efforts to build resilience. Private and state properties destroyed included schools and

hospitals and other public-sector institutions. More than two million Sierra Leoneans were displaced from their homes, especially in rural areas, and forced to live in refugee camps. Thousands of professionals also fled the country, draining the skilled human resource base with long-lasting impact on productivity (Tavakoli, 2012; World Bank, 2009; UNDP, 2007a; Pham, 2007). Agriculture, which had always been the mainstay of the economy, was disrupted, and the mining sector ceased to contribute to national revenue, with illicit diamond mining fuelling the war (Fanthorpe and Gabelle, 2013; World Bank, 2005).

With displaced people in camps dependent on aid, a dependency culture developed, especially among the youth, which persists today. This is addressed in the education and youth empowerment chapter of this report. Similarly, the double-shift system introduced in schools as a short-term post-war measure to address low literacy levels, has become a permanent feature. The war civil war did not only exacerbate an already fragile nation, but also exposed what was ailing Sierra Leone.

### **2.2.3 Immediate post-war recovery (2002-2013)**

This period covers: (i) The Kabbah presidency (2002-2007) and (ii) Part of the Koroma presidency (2008-2013). During this period the UN played a critical role in recovery efforts, initially as United Nations Mission to Sierra Leone (UNAMSIL) and later as United Nations Integrated Peacebuilding Office in Sierra Leone (UNIPSIL), which left in March 2014.

The National Recovery Strategy (NRS) (GoSL, 2002) and the Interim Poverty Reduction Strategy Paper (IPRSP) (GoSL, 2001) were developed to guide and inform the immediate post-war programmes and activities of government while a broad-based consultative process led to the development of Vision 2025 in 2003 as a long-term development plan, designed to provide and anchor subsequent short and medium-term plans (GoSL, 2003b).

Based on the short-term development plans (the NRS and IPRSP), the initial 12 to 24 months following the war focused primarily on: restoring security, peace, stability and state authority (at the heart of which was the disarmament and re-integration of some 46,000 ex-combatants); promoting reconciliation and human rights; rebuilding communities; providing the population, especially vulnerable groups, with basic social services; and relaunching the economy.

The first poverty reduction strategy paper (PRSP I) covered the period 2005-2007 and prioritized food security and job creation through 'high and sustained broad-based economic growth', provision

of essential social services and infrastructure, and improved governance (GoSL, 2005). PRSP II or Agenda for Change covered the period 2008-2012 and focused on four priorities, namely energy/electricity, agriculture, transport infrastructure, and social services, mainly health and education (GoSL, 2007a).

Both PRSPs were developed through broad-based consultations and participation, involving Sierra Leoneans from all walks of life. Both were designed to build on the initial gains of post-war reconstruction, peace, security and stability; and both called for pursuing their stated priorities through, first and foremost, macro-economic transformation, but also through decentralization, poverty reduction and economic recovery. PRSP I and PRSP II both emphasized the need for economic growth to translate into better poverty reduction and human development outcomes for the population.

The global community launched the Millennium Development Goals (MDGs) in 2000, just as Sierra Leone was emerging from war, and the Government saw the need to align national development strategies (PRSP I and II) with the MDGs.

From 2002 to 2013 evidence suggests that Sierra Leone performed relatively well in terms of decentralization and macroeconomic transformation, and GDP growth increased significantly (figure 2.1). By the end of 2013, Sierra Leone's economy, buoyed by resumption of iron ore mining, was often described as one of the fastest growing in the world. However, serious challenges remained. Economic progress did not improve the quality of life of the population and Sierra Leone has continued to perform poorly based on the UN Human Development core indicators (see chapter 3).

Human development, as measured by UNDP's Human Development Index increased from 0.306 in 2001 to 0.413 in 2013 but remained well below the regional average. Crucially, Sierra Leone fell short in its efforts to reduce the prevailing abject poverty and income inequality (which had been worsened by the war) and to address problems of basic social services (education, health and sanitation, and transportation), widespread unemployment (especially among the youth), gender inequity, low private sector development, rapid population growth and urbanization, agriculture and poor food security, and environmental degradation (UNDP, 2007b). These factors, together with the Government's continued dependence on donor support for revenues, undermined Sierra Leone's ability to build resilience.

## 2.2.4 Post-ebola and commodity crises (2014-present)

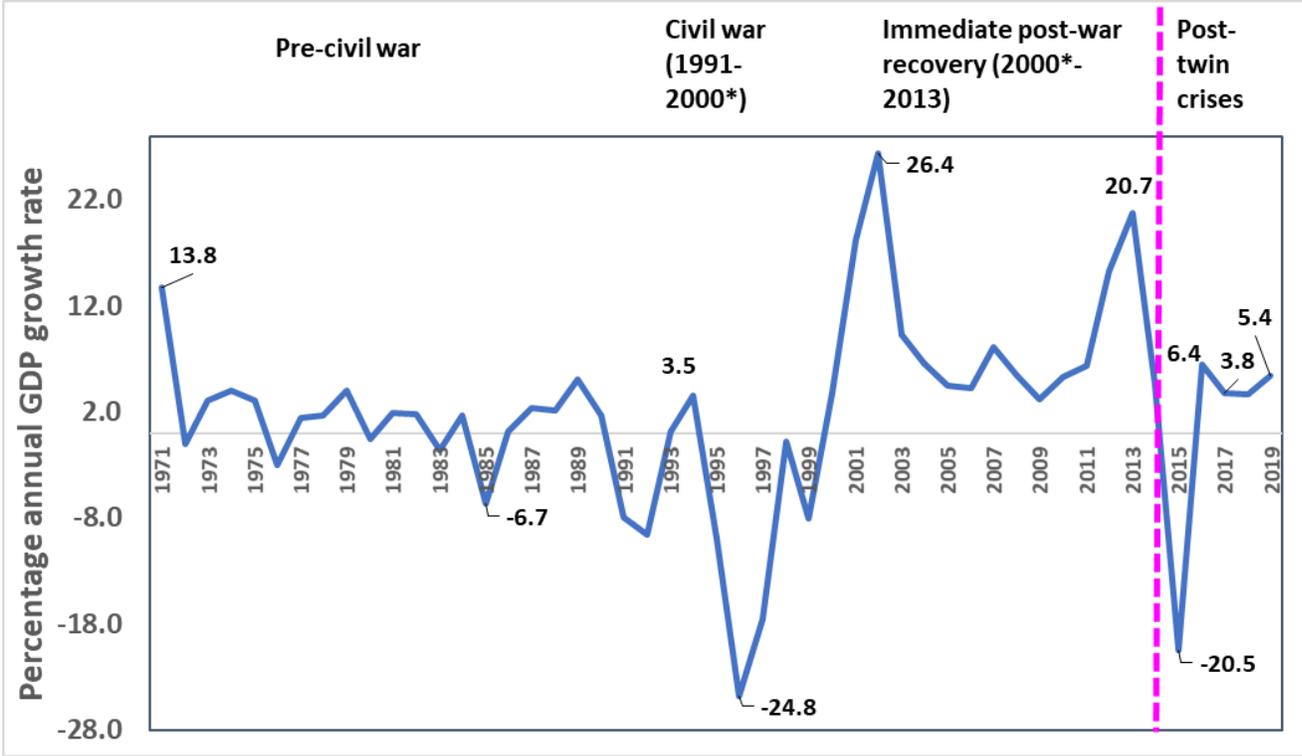
This period covers president Koroma's second term and part of president Maada Bio's first term. In this period the EVD epidemic and coincidental collapse of commodity prices in 2014-2015 tested the extent to which Sierra Leone had built resilience to exogenous forces. It also coincided with the end of the MDGs in 2015, the commencement of the SDGs (2016-2030), and implementation of the first 10 years of the Africa Agenda 2063 (2014-2023) (African Union, 2015).

In May 2014, with implementation of the first annual plan for Agenda for Prosperity/PRSP III (2013-2018) underway, and the country apparently on a positive development trajectory, an outbreak of EVD quickly developed into an epidemic. Before it was contained in late 2015, the epidemic infected more than 8,000 people and killed more than 3,000 (GoSL, 2015a). Apart from its devastating health consequences, the epidemic seriously debilitated Sierra Leone socially and economically. Coincidentally, a crash in international iron ore prices led to suspension of operations by the two main mining companies, African Minerals and London Mining, which exacerbated the macroeconomic situation (Davis, 2015). The EVD epidemic rudely exposed the fragility of Sierra Leone's healthcare infrastructure and dealt a serious blow to an already weak system. Equally, the commodity crisis exposed the lack of macroeconomic resilience due to an undiversified economic structure.

Subsequently, the Government developed the National Ebola Recovery Strategy (NERS) and Presidential Recovery Priorities (PRPs) as a transition measure to restore the provision of social services (GoSL, 2015b). The NERS covered seven priority sectors: health, social protection, education, private sector development (including agriculture), water, energy, and governance. When it ended in June 2017 the country returned to Agenda for Prosperity.

In August 2017, the country's limited ability to monitor, manage and respond to natural disasters was demonstrated when a catastrophic mudslide occurred on Sugar Loaf mountain in Freetown, killing over 1,000 people.

**Figure 2.1: GDP Growth in Recent History**



Note: Although the civil war officially ended in 2002, effectively it ended in 2000. This accounts for the economic recovery in 2000-2002.

Source: Authors’ own conceptualisation. Source: GDP data from IMF.

### 2.3 Contribution of National Human Development Reports

In addition to the global Human Development Reports, Sierra Leone’s National Human Development Reports (NHDR) have contributed to the country’s development and recovery. The First NHDR in 1996, with the theme ‘From Civil Conflict to Human Security’, was prepared at the time when the country was going through political turmoil and was central in highlighting the need to ensure human security in the country. The second NHDR in 1998, with the theme ‘Poverty Eradication and Sustainable Human Development’, was produced after President Kabbah’s return from exile. It highlighted the need for the country to end the war and focus on eradicating poverty and ensuring sustainable human development.

The third NHDR was produced in 2007 with the theme ‘Empowering Local Government for Sustainable Human Development and Poverty Eradication: District Focus Approach to Development’ (UNDP, 2007b). This report offered policy options for the implementation of

decentralization. Several studies, including the TRC report, identified over-concentration of political, administrative and economic power in the capital Freetown as a root cause of rural poverty and the civil war. An additional reason given to support decentralization was to reform/replace the archaic and conflicted system of governance in the provinces, inherited from colonial 'indirect rule'.

Although there has been a delay in finalizing this report, the fourth NHDR, its gestation has helped shape the new national development plan which focuses on education for development. This report's theme 'Building Resilience for Sustainable Development' is also relatively central in the new national development plan. Additionally, national and district Multi-Dimensional Poverty Indices computed for this report are incorporated in the new national development plan.

## **2.4 Conclusions**

- The period before the civil war was characterized by lack of government accountability and rule of law, economic mismanagement, high levels of poverty, and a large gap between the rich political elite and the poor population.
- The civil war was not only a consequence of failures in poverty reduction and governance, but it also exposed these failures globally.
- Rebuilding efforts from 2002 started from a very low base owing to pre-war issues and the devastation of the civil war.
- EVD and commodity crises in 2014-2015 and the mudslide disaster in 2017 reveal that much remains to be done to reduce vulnerabilities by building resilience, irrespective of any success of post-war recovery efforts.
- Accepting learning from the past, Sierra Leone needs to build and rebuild better.

## **PART II: STATUS OF HUMAN DEVELOPMENT**

### **3. COMPOSITE INDICES**

#### **3.1 Introduction**

Human development is all about people. It is a process of expanding freedoms, enlarging their choices, enhancing their capabilities and improving their opportunities. This is a multi-dimensional process and covers many aspects such as human rights, voice and autonomy. Human development builds resilience, which in turn reduces vulnerability. Although it is not easy to develop a measure that takes into consideration all dimensions of human development, this chapter explores current attempts in Sierra Leone to measure human development using composite indices.

The objective of this chapter is to present the status of human development at national and (where possible) at sub-national levels using various composite indices. These indices, which are a key component for monitoring sustainable development, also show the status of national and regional resilience in different sectors.

#### **3.2 Human Development in Sierra Leone**

Progress in human development has traditionally been measured by various composite indices, namely the Human Development Index (HDI), Inequality Adjusted Human Development Index (IHDI), Gender Inequality Index (GII), Gender Development Index (GDI), and Multi-Dimensional Poverty Index (MPI) (UNDP, 2018a). These complement income-based measures of welfare such as income and poverty. Other human development indices inform other chapters. These include the Human Capital Development Index (HCI) published by the World Bank, and the Global Peace Index (GPI) published by the Institute for Economics and Peace.

##### **3.2.1 Human Development Index (HDI)**

UNDP's HDI integrates three basic dimensions of human development: long and healthy life (health), access to knowledge (education), and a decent standard of living (income). Health is proxied by life expectancy at birth reflecting the ability to lead a long and healthy life. Access to knowledge is measured with two indicators: mean years of education among the adult population aged 25 years and older; and expected years of schooling for children of school-entry age, which is the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life. The standard of living is

measured by Gross National Income (GNI) per capita expressed in constant 2011 international dollars converted using purchasing power parity (PPP) conversion rates (UNDP, 2018b).

Sierra Leone’s HDI for 2017 was 0.419 which puts the country in the low human development category and positions it at 184 out of 189 countries globally. This is close to the ranking in 2016 (UNDP, 2018b). It is less than the Sub-Saharan Africa average of 0.537, or for low HDI countries of 0.504. Between 2012 and 2017 Sierra Leone’s HDI increased from 0.407 in 2012 to 0.419 in 2017 (a marginal increase of 2.9 percent) and the ranking declined from 183 in 2012 to 184 in 2017 (table 3.1). The main driver of the decline is in the income dimension (proxied by GNI per capita), which declined from US\$1,516 in 1990 to US\$1,240 in 2017, although some progress was seen in health and education. Between 2010 and 2017 life expectancy at birth increased from 48.2 years to 52.2 years and mean years of schooling increased from 3.1 years to 3.5 years. Similarly, expected years of schooling increased from 8.9 years in 2010 to 9.8 years in 2017. More details are presented in table A1 in the annex.

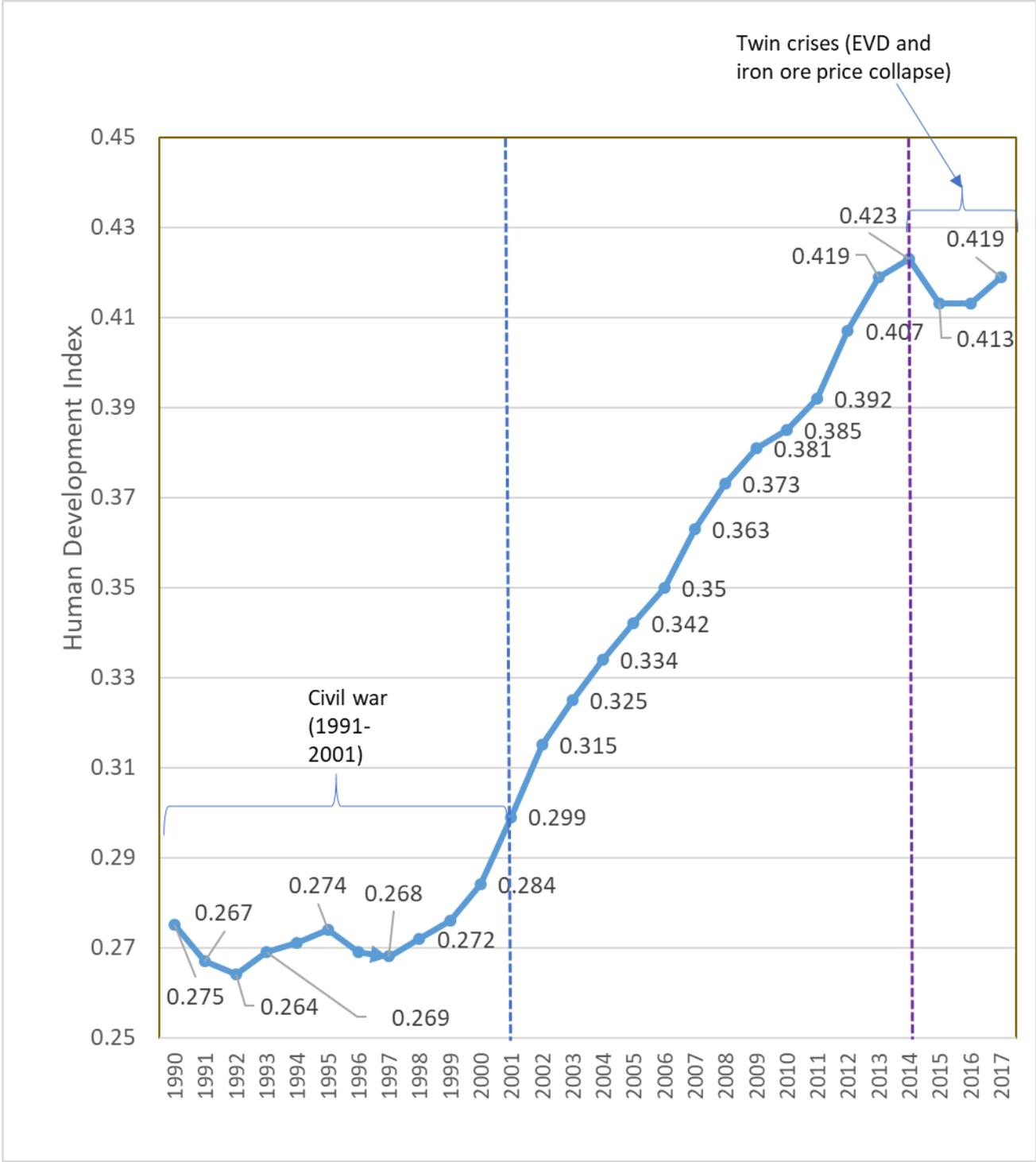
**Table 3.1: Sierra Leone’s HDI for Selected Years**

Period	HDI Dimensions				Overall HDI	HDI Ranking
	Life expectancy at birth	Mean years of schooling	Expected years of schooling	GNI per capita (2011 PPP \$)		
1990	37.3	1.6	4.9	1,516	0.275	138/142
2000	38.7	2.3	7.0	707	0.284	170/172
2010	48.2	3.1	8.9	1,214	0.385	184/188
2015	51.4	3.4	9.1	1,297	0.413	183/188
2016	51.8	3.4	9.3	1,216	0.413	184/188
2017	52.2	3.5	9.5	1,240	0.419	184/189

Source: UNDP 2018 Statistical Update on Human Development Indices and Indicators

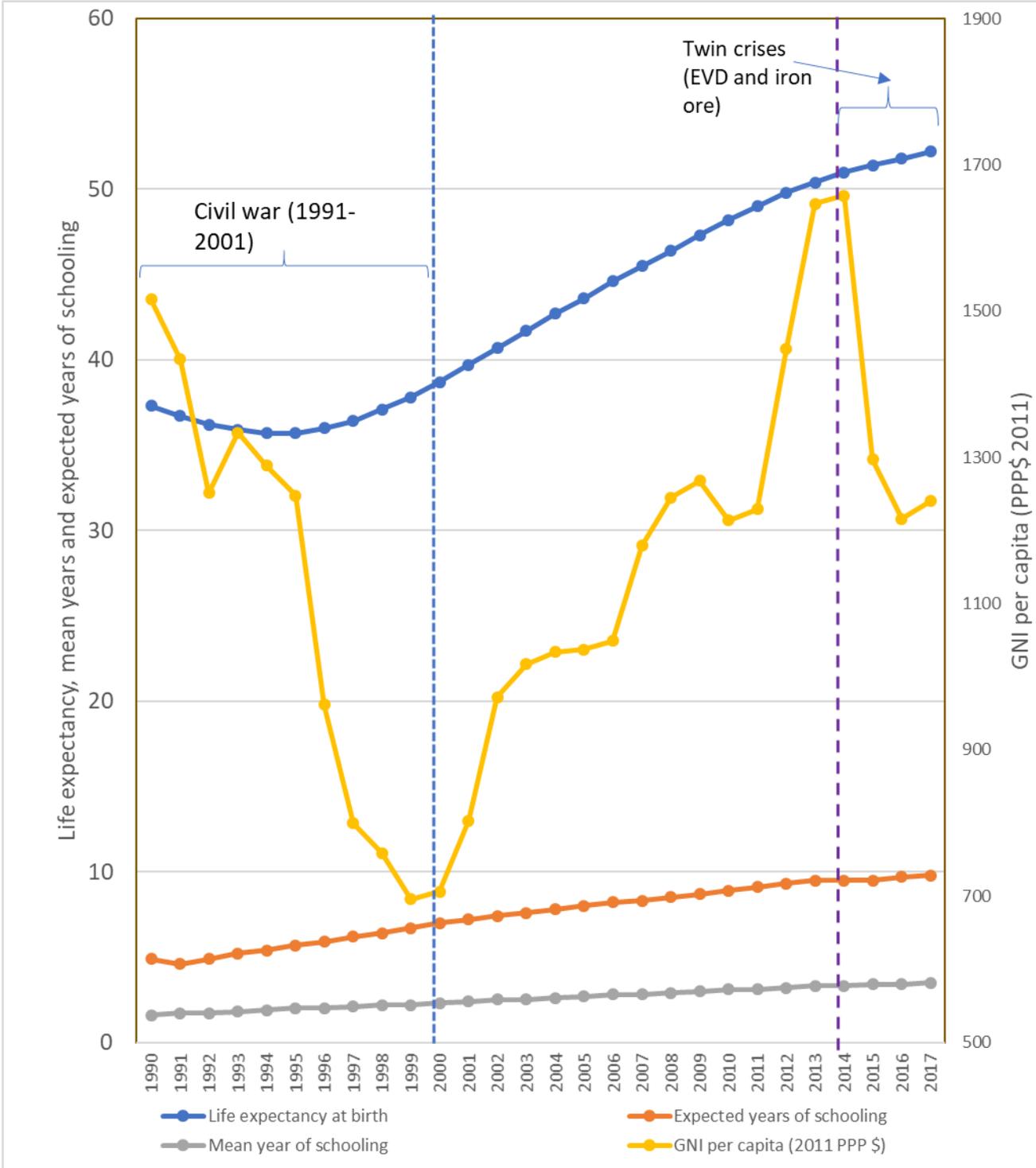
Figure 3.1 shows that the civil war during the period 1991-2001 and the twin crises (EVD and collapse of iron ore prices in 2014-2015) impacted negatively on HDI. Figure 3.2 shows how the various HDI components were affected. Specifically, the main component affected was GNI per capita.

**Figure 3.1: Impact of Shocks on Sierra Leone's HDI**



Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

**Figure 3.2: Shocks and Trends in Components of HDI**



Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

Table 3.2 and figure 3.3 compare the trend of Sierra Leone’s HDI with five selected countries and Sub-Saharan Africa. Sierra Leone’s HDI was generally below Sub-Saharan Africa countries average

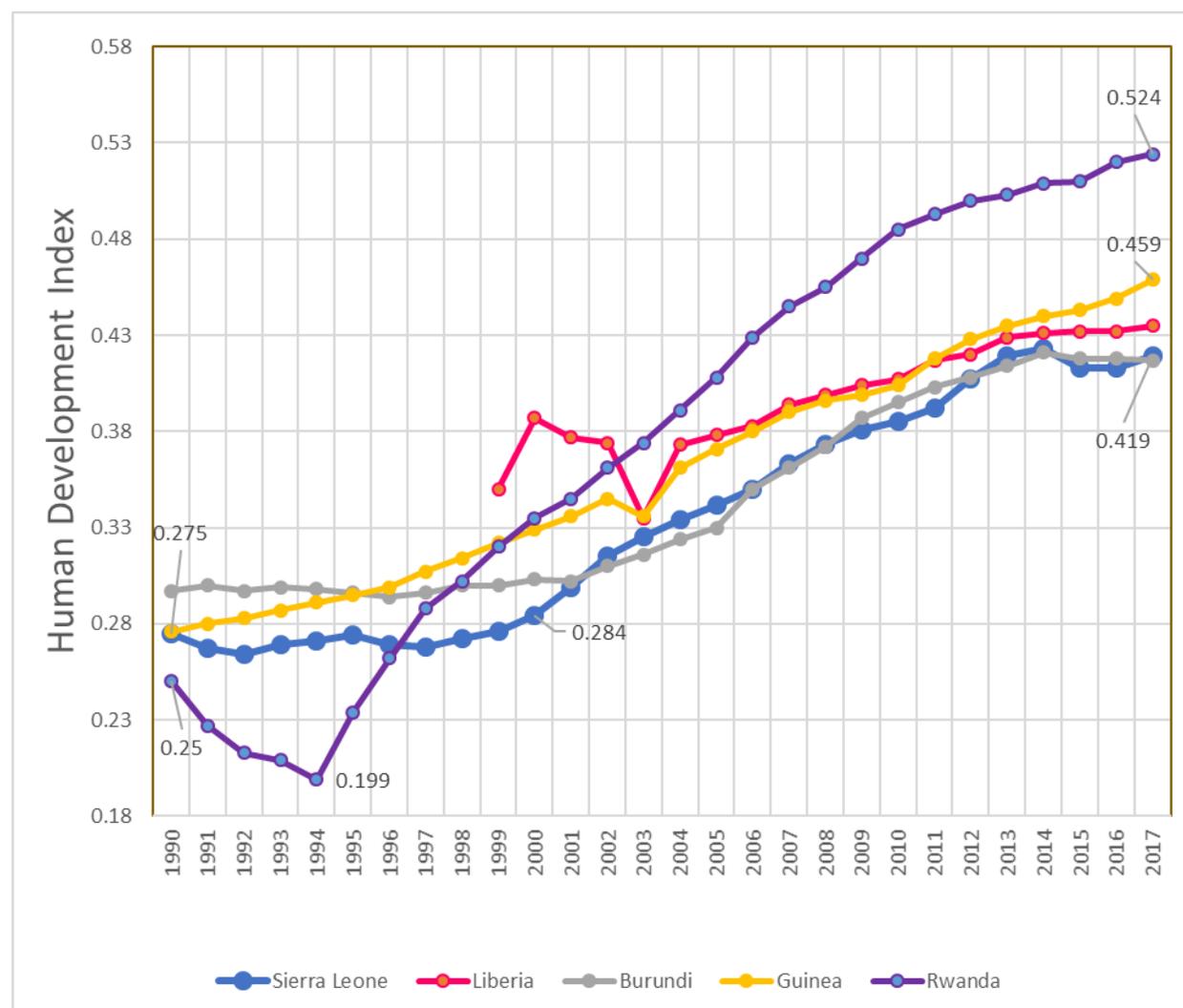
for 1990-2017. Sierra Leone's HDI is also lower than peer countries such as Burundi and Guinea. For comparison, Rwanda, which faced a political shock in 1994, has made significant progress compared with Sierra Leone. More details are presented in table A2 in the annex.

**Table 3.2: Trend in HDI in Selected Countries**

	Sierra Leone	Liberia	Burundi	Guinea	Rwanda	Sub-Saharan Africa
1990	0.275		0.297	0.276	0.250	0.398
1995	0.274		0.296	0.295	0.234	
2000	0.284	0.387	0.303	0.329	0.335	0.421
2005	0.342	0.378	0.330	0.371	0.408	
2010	0.385	0.407	0.395	0.404	0.485	0.498
2015	0.413	0.432	0.418	0.443	0.510	0.531
2016	0.413	0.432	0.418	0.449	0.520	0.534
2017	0.419	0.435	0.417	0.459	0.524	0.537

Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

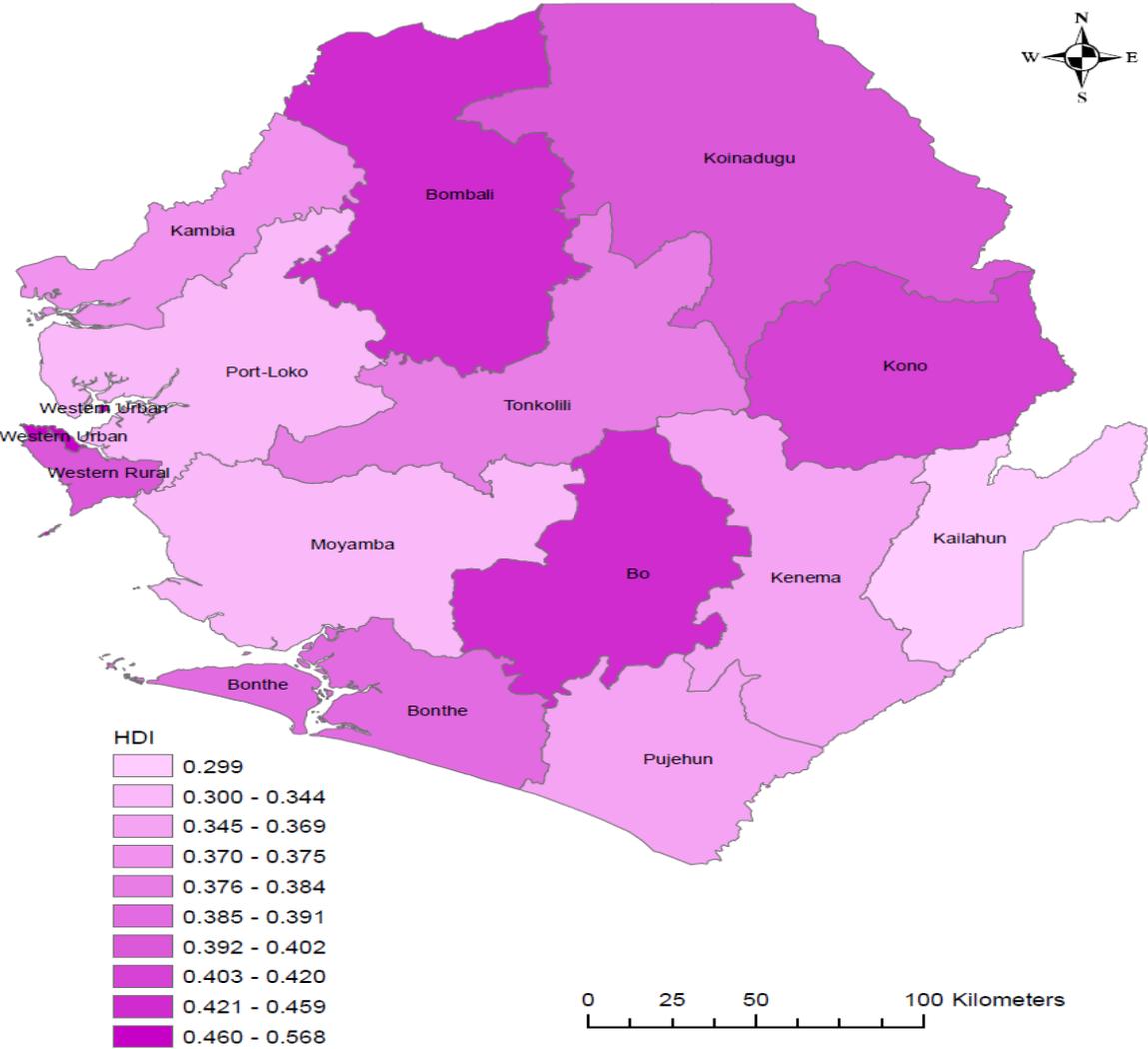
**Figure 3.3: Comparison of HDI in Selected Countries**



Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

The preceding analyses focuses on international level HDI. However, for national level HDI several adaptations are required to take into consideration the difficulty of obtaining sub-national level data (which are presented in table A3 of the annex and map 3.1). The results show that country’s HDI is lowest in the Kailahun district and highest in Western Area Urban. Similarly, the Eastern region has the lowest HDI while the Western Area has the highest.

**Map 3.1: HDI by District**



Source: UNDP Strategic Advisory Unit-using shapefile data from Stats SL.

### 3.2.2 Inequality-Adjusted Human Development Index (IHDI)

The IHDI takes into account inequality in all three dimensions of the HDI by discounting each dimension’s average value according to its level of inequality. A key measure used is ‘loss’ in human

development due to inequality, which is computed as the difference in HDI and IHDI (UNDP, 2018a). Therefore, as inequality increases the loss in human development also increases.

Sierra Leone’s HDI for 2017 is 0.419 but when the value is discounted for inequality, the HDI falls by 36.5 percent to 0.266 (table 3.3). This means that there was 36.5 percent loss in human development due to inequality in the distribution of the HDI dimensions. This is an improvement compared to 2013 when the inequality-induced loss in human development was 44.3 percent. The inequality-induced loss in human development for Sierra Leone is worse than most of its peers, the average for Sub-Saharan Africa, and low HDI countries.

**Table 3.3: Trend in HDI Discounted for Inequality in Selected Countries**

Country	Measure	2010	2011	2012	2013	2014	2015	2016	2017
Sierra Leone	HDI	0.385	0.392	0.407	0.419	0.423	0.413	0.413	0.419
	IAHDI	0.234	0.229	0.237	0.233	0.247	0.257	0.263	0.266
	% Loss	<b>39.3</b>	<b>41.7</b>	<b>41.7</b>	<b>44.3</b>	<b>41.6</b>	<b>37.8</b>	<b>36.5</b>	<b>36.5</b>
Liberia	HDI	0.407	0.417	0.42	0.429	0.431	0.432	0.432	0.435
	IAHDI	0.255	0.27	0.272	0.284	0.281	0.287	0.295	0.298
	% Loss	<b>37.3</b>	<b>35.3</b>	<b>35.2</b>	<b>33.8</b>	<b>34.8</b>	<b>33.6</b>	<b>31.7</b>	<b>31.5</b>
Burundi	HDI	0.395	0.403	0.408	0.414	0.421	0.418	0.418	0.417
	IAHDI	0.249			0.274	0.283	0.286	0.29	0.278
	% Loss	<b>37</b>			<b>33.8</b>	<b>32.8</b>	<b>31.6</b>	<b>30.6</b>	<b>33.3</b>
Guinea	HDI	0.404	0.418	0.428	0.435	0.44	0.443	0.449	0.459
	IAHDI	0.249	0.255	0.262	0.27	0.28	0.289	0.299	0.306
	% Loss	<b>38.4</b>	<b>39</b>	<b>38.8</b>	<b>37.9</b>	<b>36.4</b>	<b>34.8</b>	<b>33.4</b>	<b>33.3</b>
Rwanda	HDI	0.485	0.493	0.5	0.503	0.509	0.51	0.52	0.524
	IAHDI	0.305	0.317	0.331	0.336	0.348	0.348	0.364	0.367
	% Loss	<b>37.1</b>	<b>35.7</b>	<b>33.8</b>	<b>33.2</b>	<b>31.6</b>	<b>31.8</b>	<b>30</b>	<b>30</b>

Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

### 3.2.3 Gender-Related Human Development Indices

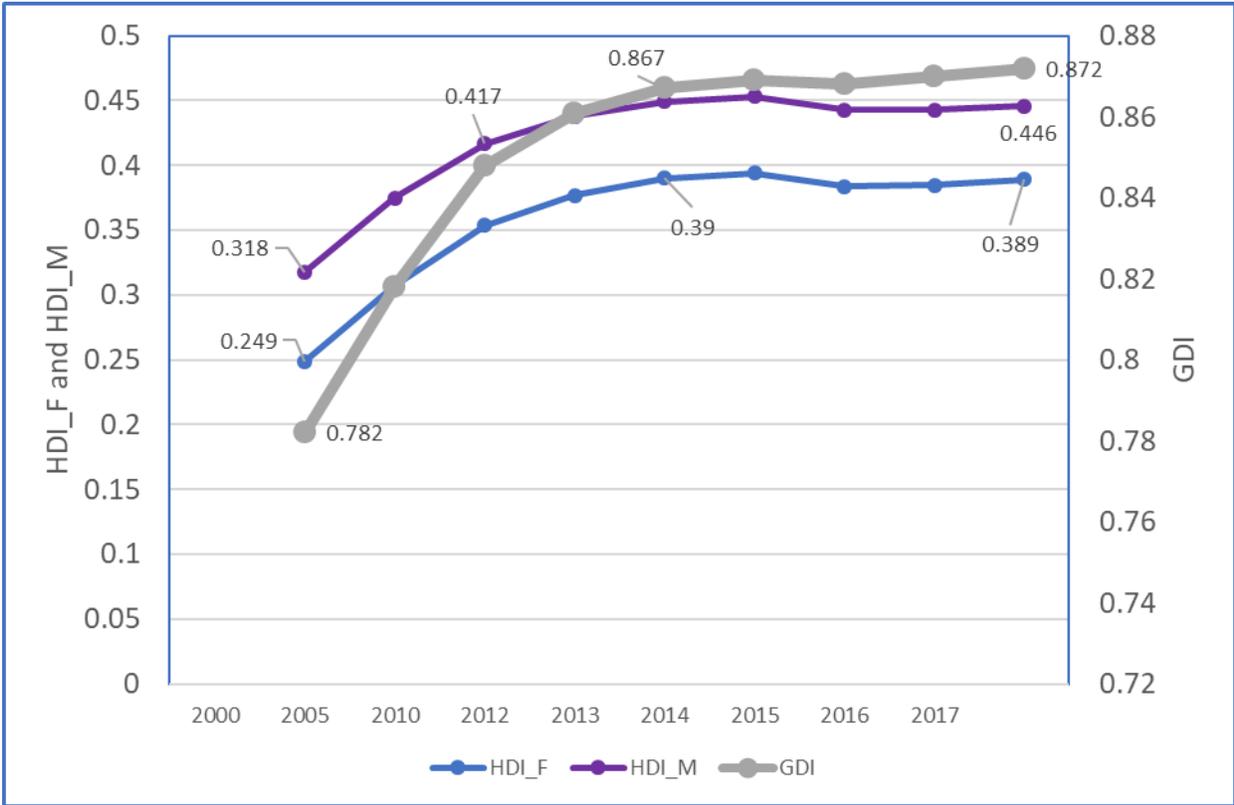
Development without full participation of women and girls can only be partial. Gender inequality remains a significant barrier to resilience building and sustainable development in Sierra Leone. Gender inequality limits the ability of women and girls to fully participate in and benefit from development. Gender-related human development indices are presented below.

#### Gender Development Index (GDI)

GDI is based on gender-disaggregated HDI and defined as the ratio of the female to male HDI. It reflects gender inequalities in achievements in the same three dimensions of HDI. The closer the value is to 1, the smaller the inequality gap between females and males.

As shown in table 3.4, in 2017 the HDI value was 0.389 for females and 0.446 for males, resulting in a GDI value of 0.872. This means that in Sierra Leone women enjoy 87.2 percent of what their male counterparts enjoy in health, education and standard of living. Figure 3.4 shows a significant improvement in the period before 2014, but that the progress has slowed since then, at least partly due to the impact of the twin shocks.

**Figure 3.4: Trend in Sierra Leone’s GDI 2005-2017**



Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

Table 3.4 shows that Sierra Leone’s GDI has improved more than some other countries (such as Central African Republic, Chad, Guinea, Liberia, Mali, Timor-Leste and Togo) but less well than countries such as Burundi and Rwanda. More detail on GDI by country is presented in table A4 in the annex.

**Table 3.4: Trend in GDI in Selected Countries**

Country	1995	2000	2005	2010	2012	2013	2014	2015	2016	2017
Chad			0.723	0.755	0.767	0.768	0.769	0.789	0.788	0.775
Central African Republic	0.728	0.731	0.739	0.751	0.765	0.756	0.762	0.77	0.778	0.78
Guinea		0.728	0.774	0.803	0.795	0.799	0.805	0.806	0.808	0.81
Mali	0.697	0.736	0.751	0.798	0.776	0.781	0.789	0.805	0.818	0.811
Togo	0.745	0.781	0.795	0.784	0.786	0.788	0.797	0.821	0.822	0.822
Liberia	0.599	0.759	0.768	0.853	0.866	0.873	0.834	0.835	0.835	0.846
Timor-Leste			0.82	0.883	0.877	0.848	0.848	0.857	0.858	0.855
Sierra Leone		0.782	0.818	0.848	0.861	0.867	0.869	0.868	0.87	0.872
Rwanda	0.838	0.883	0.922	0.953	0.936	0.939	0.942	0.942	0.94	0.941
Burundi	0.832	0.836	0.849	0.907	0.986	0.989	0.993	0.999	1	1.002

Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

### Gender Inequality Index (GII)

GII reflects gender-based inequalities in reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent birth rates. Empowerment is measured by the share of parliamentary seats held by women, and attainment in secondary education and higher education by gender. Economic activity is measured by the labour market participation rate for women and men.

GII indicates the loss in human development due to inequality between male and female achievements in the three GII dimensions. The higher the value, the higher the loss due to gender inequality. It is designed to reveal the extent to which national achievements in these aspects of human development are eroded by gender inequality and to provide empirical foundations for policy analysis and advocacy efforts.

In 2017 Sierra Leone had a GII value of 0.645, ranking it 150 out of 160 countries. It declined (improved) from 0.696 in 1995 during the war to 0.645 in 2017. The key drivers of the high GII are a high maternal mortality ratio of 1,360 women deaths from pregnancy and childbirth complications for every 100,00 live births, compared with 549 average deaths for Sub-Saharan Africa, and a high adolescent birth rate of 112.8 births per 1,000 women aged 15-19 years compared with 101.3 for Sub-Saharan Africa. The high GII and low ranking is also a function of the low percentage of

parliamentary seats held by women (12.4 percent) compared with Sub-Saharan Africa (23.5 percent), and the low percentage of women with at least some secondary education (19.2 percent) compared with male counterparts (32.3 percent).

Improvements were recorded in maternal mortality, adolescent birth rates, labour force participation rates and proportion of population with at least some secondary school education. The situation regarding the number of parliamentary seats held by females deteriorated (table 3.5).

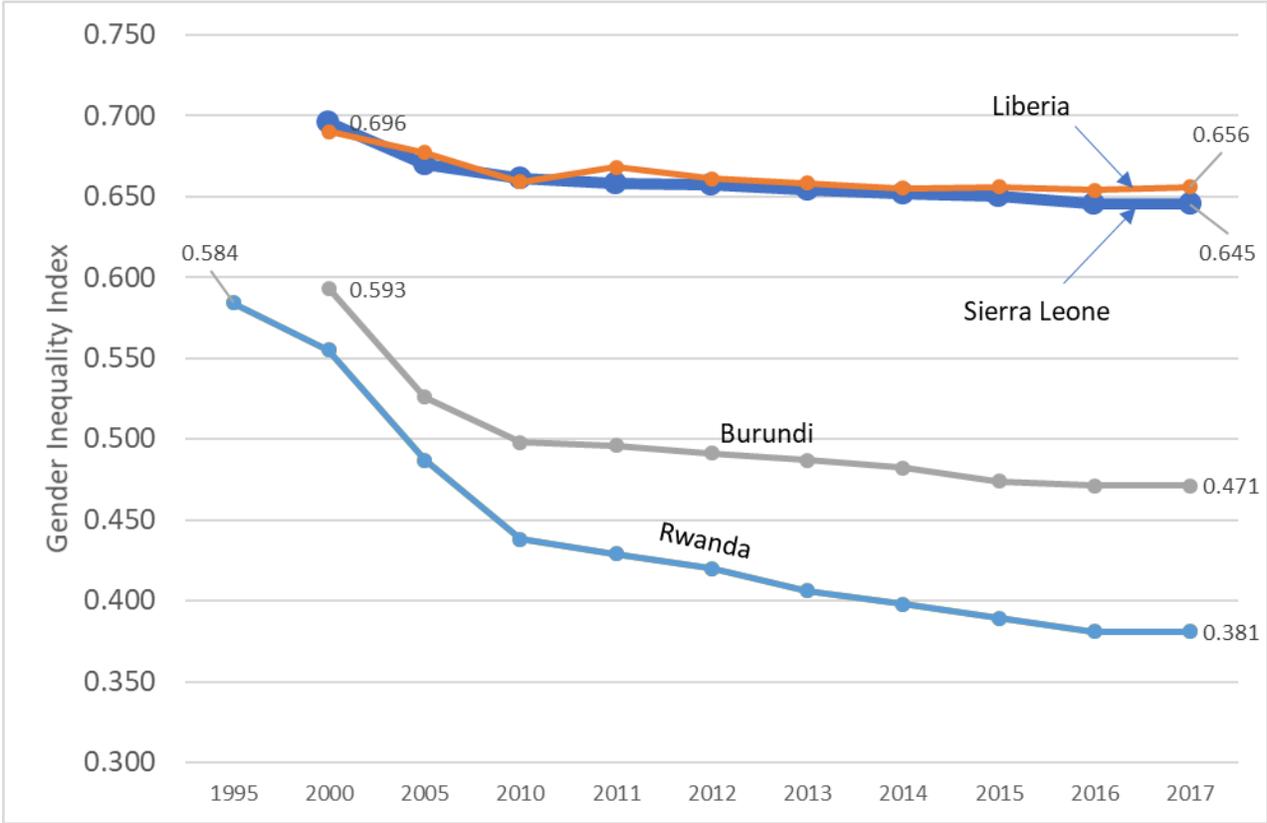
**Table 3.5: Sierra Leone GDI by Component Elements**

Year	Maternal mortality	Adolescent birth rate	Female seats in Parliament	Population with at least some secondary education (% ages 25 and older)		Labour force participation rate, (% ages 15 and older)		GII
	Deaths per 100,000 live births	Births per 1,000 women aged 15-19 years	% share of seats in parliament held by women	Male	Female	Male	Female	
1995	2,900	177.8		15.2	5.2	65.6	63.7	
2000	2,650	166.1	8.8	16.9	6.3	64.9	63.7	0.696
2005	1,990	157.4	14.5	18.4	7.3	65.7	64.4	0.670
2010	1,630	136.3	13.2	21.7	9.9	61.9	60.5	0.661
2011	1,580	133.0	12.9	23.7	11.7	61.1	59.7	0.658
2012	1,510	129.7	12.4	25.7	13.4	60.3	58.9	0.657
2013	1,460	126.4	12.4	27.7	15.1	59.5	58.1	0.654
2014	1,410	123.0	12.1	29.7	16.8	58.7	57.3	0.652
2015	1,360	119.7	12.4	29.7	16.8	59.2	57.2	0.650
2016		112.8	12.4	31.7	18.5	58.8	57.3	0.645
2017		112.8	12.4	32.3	19.2	58.7	57.1	0.645

Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

Figure 3.5 and table 3.4 show that although gender inequality has been on a declining trend, it is worse than some peer countries including Burundi and Rwanda. More details are presented in tables A5 and A20 in the annex.

**Figure 3.5: Trend in Sierra Leone’s GII and Selected Countries 1995-2017**



Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

### 3.2.4 Poverty and Deprivation Indices

Two poverty and deprivation-related human development indices are presented below.

#### Income/Monetary Poverty

The Income/Monetary Poverty Index measures the percentage of individuals who live in households where the standard of living is below a certain threshold (national or international poverty lines). Sierra Leone’s poverty reduction discourse and interventions have continued to focus on income poverty.

The 2011 Sierra Leone Integrated Household Survey (SLIHS) estimated that 52.9 percent of the population lived below the national poverty line compared to 66.4 percent in 2003. However, preliminary estimates based on SLHIS 2018 (January-June data only) show that the incidence of poverty in Sierra Leone had increased to 57 percent with 10.8 percent of the population living in extreme poverty (table 3.6 and A15 in the annex).

Poverty is highest in rural areas, and lowest in Freetown. Looking at absolute poverty by region, the North is the poorest, followed closely by the South, then the East, and Western Area has by far the lowest poverty rate. However, when we look at extreme poverty, we find that the East is the poorest region.

**Table 3.6: Income Poverty (Preliminary 2018 SLHIS Data)**

Geographic location	Absolute poverty			Extreme Poverty		
	Incidence	Gap	Severity	Incidence	Gap	Severity
Sierra Leone	57.0	31.2	12.9	10.8	19.0	5.6
Freetown	18.5	22.5	8.2	1.7	24.9	9.3
Other urban	41.2	25.8	9.1	4.1	14.5	3.6
Rural	72.4	32.7	13.9	15.3	19.2	5.7
East	60.9	35.3	16.2	18.1	21.4	6.7
North	67.3	31.8	13.2	12.1	18.5	5.4
South	66.8	28.0	10.2	8.4	13.9	3.3
West	18.0	22.5	8.2	1.7	24.9	9.3

Source: Preliminary Poverty Profile (Calculations based on SLHIS 2018: January-June only) Stats SL

Table 3.7 presents income poverty by various socio-economic characteristics, including demographic characteristics, gender, educational achievements and main occupation of household head, economic diversification, ownership of assets, health, and access to utilities. Income poverty rates are significantly higher for larger households: a household with eight or more members is almost four times as likely to be poor as one with three or fewer members. These larger households represent only about a quarter of the households in Sierra Leone, but they contain over 42 percent of the population. Contrary to findings in other countries, female-headed households are somewhat less likely to be poor than male-headed households.

Looking at the age of the household head, the older the head, the more likely the household is to be poor, although the very youngest heads have households slightly poorer than their slightly older peers. There is a negative relationship between poverty and levels of education attainment. Specifically, households whose head finished secondary school are about half as likely to be poor as those whose heads completed primary/started secondary only.

By occupation, the poorest households are those whose head is engaged in agriculture, forestry and fishing. The second most common occupation is wholesale and retail trading, and these households are significantly less poor than those in agriculture (42 percent compared to 72 percent), but they still have a higher poverty rate than most other occupational groups. Looking at poverty by

household economic diversification (coping strategy), it is evident that households which engage in small business activities in addition to farming are only slightly less poor than those who rely on farming alone. It is also the case that those who rely solely on small business activities do almost as well as households where at least one member is in wage employment.

**Table 3.7: Income Poverty by Selected Household Characteristics**

<b>Socio-economic characteristic</b>	<b>Poverty Incidence</b>	<b>Extreme Poverty Incidence</b>	<b>% of Population</b>
<b><i>Household size</i></b>			
1 to 3	18.0	0.9	7.2
4 or 5	38.1	3.9	21.8
6 or 7	59.3	9.0	28.3
8 or more	71.7	17.1	42.7
<b><i>Sex of household head</i></b>			
male	57.6	11.6	77.9
female	55.0	7.9	22.1
<b><i>Age of household head</i></b>			
18 to 25	47.5	8.0	3.8
26 to 35	46.2	6.7	18.3
36 to 45	58.5	10.3	27.7
46 to 55	58.9	10.0	23.0
56 to 65	62.1	14.7	13.3
65 and over	62.9	15.4	14.0
<b><i>Education of household head</i></b>			
None	68.0	13.9	59.2
Primary incomplete	58.1	13.1	8.3
Primary complete	55.8	6.2	3.7
Secondary incomplete	40.1	5.9	16.4
Secondary complete	21.2	0.0	2.1
Post-secondary technical / vocational	34.3	2.6	8.0
University	5.6	0.0	2.4
<b><i>Occupation of household head</i></b>			
Agriculture, forestry and fishing	72.3	16.4	58.0
Mining and quarrying	65.9	12.9	4.0
Manufacturing	40.0	3.3	4.0
Construction	37.2	2.5	4.5
Wholesale and retail trade	41.7	3.8	15.0
Transportation and storage	25.5	4.9	3.8
Education	39.0	1.2	3.3
Other	22.7	0.0	7.4
<b><i>Economic Diversification</i></b>			

Primary production (farming, fishing, forestry) only	74.1	18.6	37.1
Primary production and non-farm business only	71.1	12.1	20.7
Non-farm business only	39.3	4.2	18.7
Wage employment (at least one household member)	35.3	3.6	23.5

Source: Preliminary Poverty Profile (Calculations based on SLHIS 2018: January-June only) Stats SL

## Multidimensional Poverty

The Multidimensional Poverty Index (MPI) builds on recent advances in theory and data to offer a valuable complement to income-based measures of poverty. The MPI identifies multiple overlapping deprivations suffered by households in three dimensions: education, health, and living standards. The latest national MPI for Sierra Leone, computed with support from the Oxford Poverty and Human Development Initiative (OPHI) and based on the 2017 Multi-Indicator Cluster Survey (MICS), uses five dimensions and 14 indicators, namely education (years of schooling and school attendance), health (nutrition, child mortality and vaccination), housing (housing materials, asset ownership and overcrowding), living standards (water, sanitation and bank accounts) and energy (cooking fuel, electricity and internet).

MPI estimates based on the 2017 MICS indicate that 68.4 percent of the population were multidimensionally poor with an intensity of 57.9 percent, implying that each poor person is, on average, deprived in almost 60 percent of the dimensions included in the MPI (table 3.8 and A14 in the annex). The results show that the rural poverty headcount ratio is more than double that for urban areas: 86.3 percent and 37.6 percent, respectively.

The broad pattern suggests that the South and North regions have the highest levels of MPI, incidence and intensity of poverty, while the Western region experiences the lowest levels of multidimensional poverty. The analysis indicates that Pujehun is the poorest district in Sierra Leone, with a poverty incidence of 87.2 percent, and the second poorest district is Koinadugu with 86.5 percent of its population living in multidimensional poverty. In turn, Western Urban has the lowest levels of poverty, with 28.5 percent of its population living in poverty. The three districts with the highest intensity of multidimensional poverty are Pujehum, Bonthe and Tonkoilili.

The MPI shows that many Sierra Leoneans are deprived beyond income. These include health, nutrition, education and skills, inadequate livelihoods, and poor household conditions. All indicate high levels of vulnerability.

Table 3.8 presents the results of incidence and intensity by age groups. The analysis shows that children younger than 18 years have the highest levels of multidimensional poverty (69.6 percent) compared with any other age group. The group with the lowest levels of poverty are working age individuals (18 to 40 years old).

**Table 3.8: Incidence and Intensity of MPI by Age Groups 2017**

<b>Age Group</b>	<b>Population Share (%)</b>	<b>Incidence (%)</b>	<b>Intensity (%)</b>
Younger than 18	48.4	69.6	58.7
18-40 years	31.8	56.6	57.0
40+	19.8	66.0	56.9
National	100.0	64.8	57.9

Source: Multidimensional Poverty Index Report for Sierra Leone (<http://www.moped.gov.sl/reports/>)

### **3.2.5 Seeing the bigger picture from the Human Development Indices**

Table 3.9 shows that low human development is caused by several key drivers. Consequently, to improve resilience by improving human development, Sierra Leone should address these key drivers, which are explored further in subsequent chapters of this report.

**Table 3.9: Drivers of Low Human Development**

Manifestations and drivers (Outcomes)	Human Development Composite Indices				
	HDI	Income poverty	MPI	GII	GPI
Health	√	√	√	√	
Water and Sanitation			√		
Education	√	√	√	√	
Household Income/labour force participation	√	√	√	√	
Food/nutrition		√	√		
Transport		√			
Housing		√	√		
Energy/electricity		√	√		
Communication/internet		√	√		
Financial services		√	√		
Other services		√			
Asset ownership			√		
Representation in Parliament				√	
Safety and security					√
Militarization					√
Ongoing conflict					√

Source: Authors' own conceptualisation. The ticks indicate that the index addresses that manifestation/driver of vulnerability.

### 3.2.6 Conclusions

- The assessment of key composite indices shows that despite significant post-war efforts in improving human development, Sierra Leone lags Sub-Saharan Africa and other countries in the low human development category. This indicates the limited resilience of individuals and households to cope with shocks.
- Shocks have had a negative impact on human development. This is particularly clear with the civil war (1991-2001) and the coincidental EVD and iron ore crises (2014-2015).
- Contrary to the SDGs principle of LNOB, there are significant disparities in the various human development indices in terms of geographic location, gender, age, economic characteristics, etc. These disparities reflect underlying socio-economic dynamics, including rural-urban migration. For instance, rural MPI headcount ratio is more than double that for urban areas: 86.3 percent and 37.6 percent, respectively.

- Although a strong economy in the post-war period translated into a reduction in incidence, income poverty remains stubbornly high and increases households' vulnerability to shocks.
- There is a negative relationship between poverty and levels of education attainment. In particular, households whose head finished secondary school are about half as likely to be poor as those whose heads completed primary/started secondary only.
- Data quality is a major challenge in computing various composite indices of human development due to the cost of conducting frequent surveys.

## **PART III: DRIVERS OF PROGRESS**

This third part of the report explores the key drivers of progress in human development and resilience. They include: macroeconomic vulnerability; health, water and sanitation; education and the youth; food security and nutrition; and gender inequality.

### **4. MACROECONOMIC VULNERABILITY AND ECONOMIC TRANSFORMATION**

#### **4.1 Introduction**

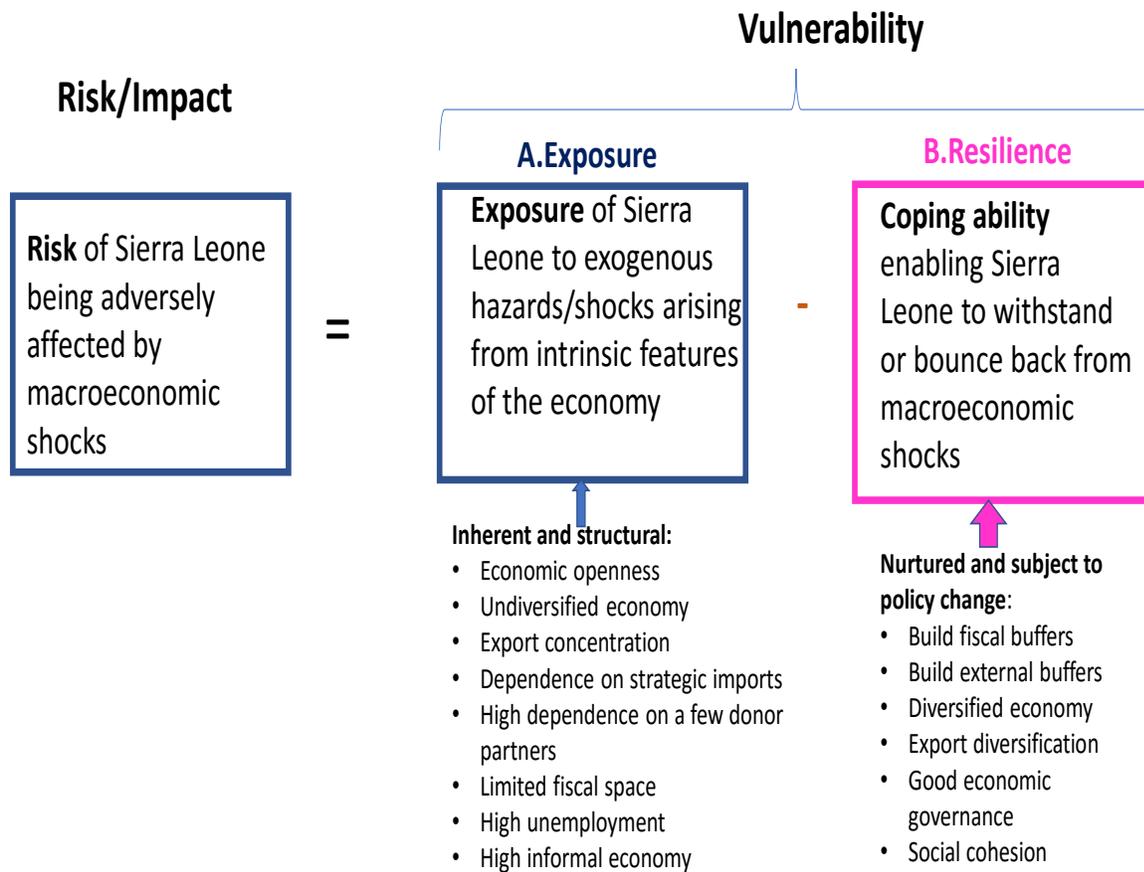
This chapter has three objectives. First, it presents the macroeconomic situation from a vulnerability and resilience perspective. Second, it highlights how macroeconomic vulnerability affects the progress in human development and resilience-building in other sectors. Third, it presents policy recommendations to address the identified challenges.

#### **4.2 Macroeconomic Vulnerability and Sustainable Human Development**

##### **4.2.1 Definition and theoretical underpinnings**

A vulnerable macroeconomy exhibits certain unfavourable characteristics that make it difficult to maintain sustainable human development. These include volatility in economic growth (Arizala et al, 2017), high and volatile inflation rates, unstable exchange rates, and debt distress. Figure 4.1 shows two aspects of macroeconomic vulnerability. The first is associated with vulnerability: the inherent exposure of Sierra Leone to adverse shocks (A in figure 4.1), and the second is associated with resilience: conditions developed to absorb, cope with or bounce back from adverse shocks (B in figure 4.1). The risk of being adversely affected by shocks is therefore the combination of the two elements. The negative sign in front of the resilience element indicates that the risk is reduced as resilience increases. These concepts are explored further in this chapter.

#### **Figure 4.1: Macroeconomic Vulnerability and Resilience**

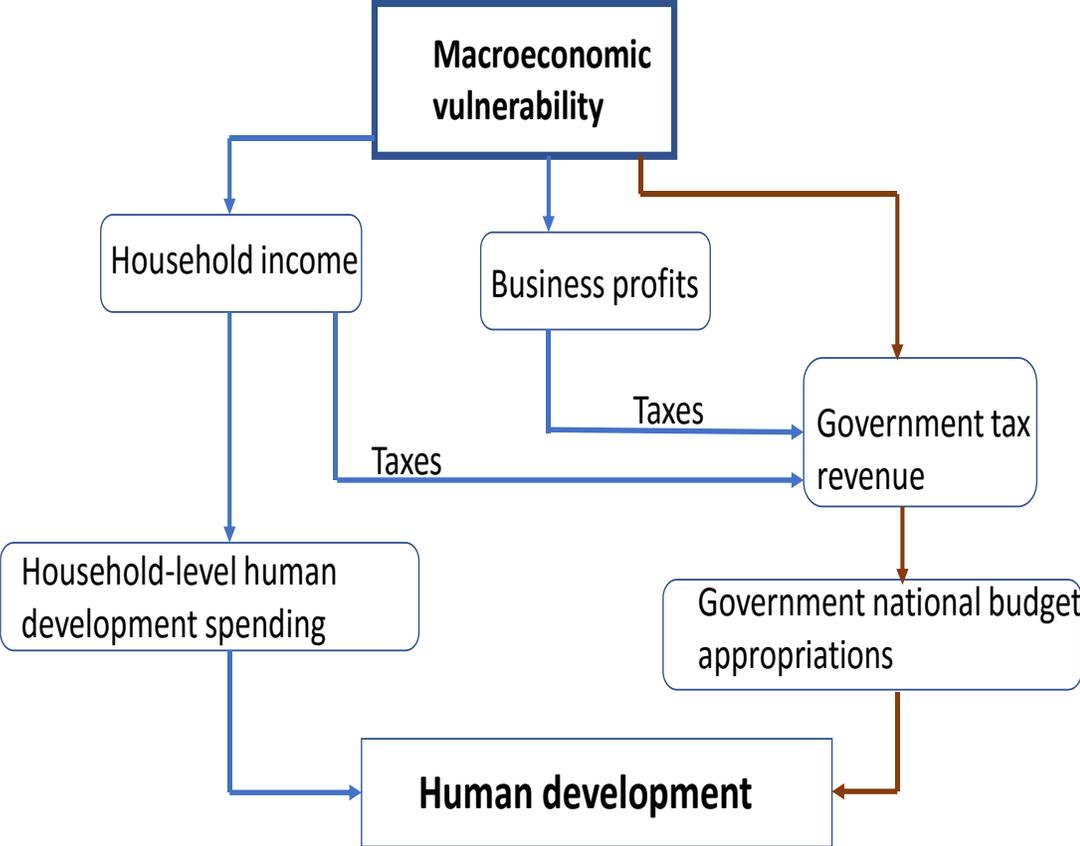


Source: Adapted from Briguglio et al (2009)

#### 4.2.2 Link between macroeconomic vulnerability and sustainable human development

Macroeconomic vulnerability and progress in human development are related because the macroeconomy is the source of national revenue, businesses profits and livelihoods. Figure 4.2 presents the theoretical links adapted from Sami (2014).

**Figure 4.2: Macroeconomic Vulnerability and Human Development**



Source: Adapted from Sami (2014)

As figure 4.2 shows, macroeconomic vulnerability affects human development in two ways. The first relates to household income. Macroeconomic shocks affect household net income as people lose jobs and livelihoods. This in turn affects household-level expenditure on human development activities such as education, health, and water and sanitation. The second relates to government revenue and expenditure. Households and businesses pay taxes to government, which are appropriated through the national budget process to expenditure priorities, including human development. Thus, the government decides how much total expenditure flows to human development and how it is allocated. Government expenditure policy preferences therefore determine human development outcomes. In Sierra Leone this was evident following the twin shocks of EVD and the collapse of commodity prices in 2014-2015.

**Table 4.1: Selected Macroeconomic Indicators 2011-2020**

Indicator	Pre-twin crises			Twin crises			Post twin crises			
	2011	2012	2013	2014	2015	2016	2017	Estimate projected		
								2018	2019	2020
<b>Real Sector:</b>										
Real GDP growth	6.3	15.2	20.7	4.6	-20.5	6.4	3.8	3.7	5.4	5.4
Excluding Iron Ore	5.8	5.3	5.4	0.8	3.2	4.6	3.6	5.7	5.1	4.9
GDP at market prices, incl. iron ore (Le. Bn)	12,797	16,460	21,154	22,690	21,582	24,296	27,611	31,722	37,180	44,221
GDP at market prices, incl. iron ore (US\$ mn)	2,925	3,529	4,187	4,533	4,245	3,678	3,741	4,047	4,394	4,749
Inflation (End of period) %	16.9	12.0	8.5	9.8	8.4	17.4	16.1	15.8	13.2	10.8
Inflation (Annual average) %	18.5	13.8	9.8	8.3	9.0	11.5	18.2	15.6	14.6	11.7
<b>External Sector:</b>										
Exports of goods (% growth)	6.2	171.4	47.4	-15.4	-55.4	15.3	-4.9	3.2	37.6	8.8
Imports of goods (% growth)	85.2	20.2	-19.9	4.7	-18.1	-28.9	23.6	8.6	5.7	5.3
Current account balance incl. grants (% of GDP)	-45.0	-34.3	-20.8	-20.1	-15.6	-3.5	-10.9	-1.4	-12.6	-11.1
Overall balance of payments (% of GDP)			2.1	1.7	-4.3	-5.1	-0.2	-1.0	-0.4	1.6
Gross international reserves (months of import cover)	1.8	2.2	2.0	3.6	3.7	4.3	3.5	3.3	3.1	3.5
Nominal exchange rate Le/US\$ (end of period)	4,377.7	4,334.1	4,356.4	4,953.3	5,639.1	7,195.4	7,537.0	8,211.0	8,600.0	9,000.0
<b>Monetary Sector:</b>										
Broad money growth (%)	20.0	23.1	21.2	16.6	4.9	17.9	7.0	16.7	19.8	15.1
Reserve/base money growth	13.0	18.5	17.7	30.2	8.3	23.9	9.0	2.9	25.1	15.1
Credit to the private sector growth	21.8	-6.9	11.9	5.4	9.1	16.7	-1.5	19.0	15.4	17.4
Savings rate (%)	6.4	6.4	5.8	4.0	2.7	2.5	2.4	2.4	2.4	2.4
Lending rate (%)	21.0	21.0	20.6	19.4	18.7	18.0	17.9	17.9	17.9	17.9
Central Bank Policy Rate (%)	N/A	20.0	10.0	10.0	9.5	11.0	14.5	16.5	16.5	16.5
<b>Fiscal Sector:</b>	<b>% of non-iron ore GDP unless otherwise defined</b>									
Revenue	11.5	12.2	12.6	10.8	10.8	15.2	14.7	16.9	16.8	16.9
Grants	5.6	4.1	3.0	4.7	5.4	3.0	2.5	3.1	2.3	1.8
Total expenditure and net lending	21.6	21.9	17.5	19.5	20.8	23.2	23.4	23.6	21.1	22.0
Overall budget balance (inclusive of grants)	-4.5	-5.6	-1.9	-4.0	-4.6	8.0	-6.2	-6.8	-2.0	-5.1
External public debt	29.3	25.7	21.6	24.9	33.4	41.1	38.3	42.9	46.6	46.9
Domestic debt	10.3	9.6	8.8	10.0	12.7	13.2	13.0	14.5		
Total public debt	39.6	35.3	30.4	35.0	46.1	54.4	51.3	57.4		
91-day Treasury bill rate (%)	24.4	22.4	8.0	2.4	2.4	6.3	10.0	8.0	8.0	8.0

Source: IMF reports

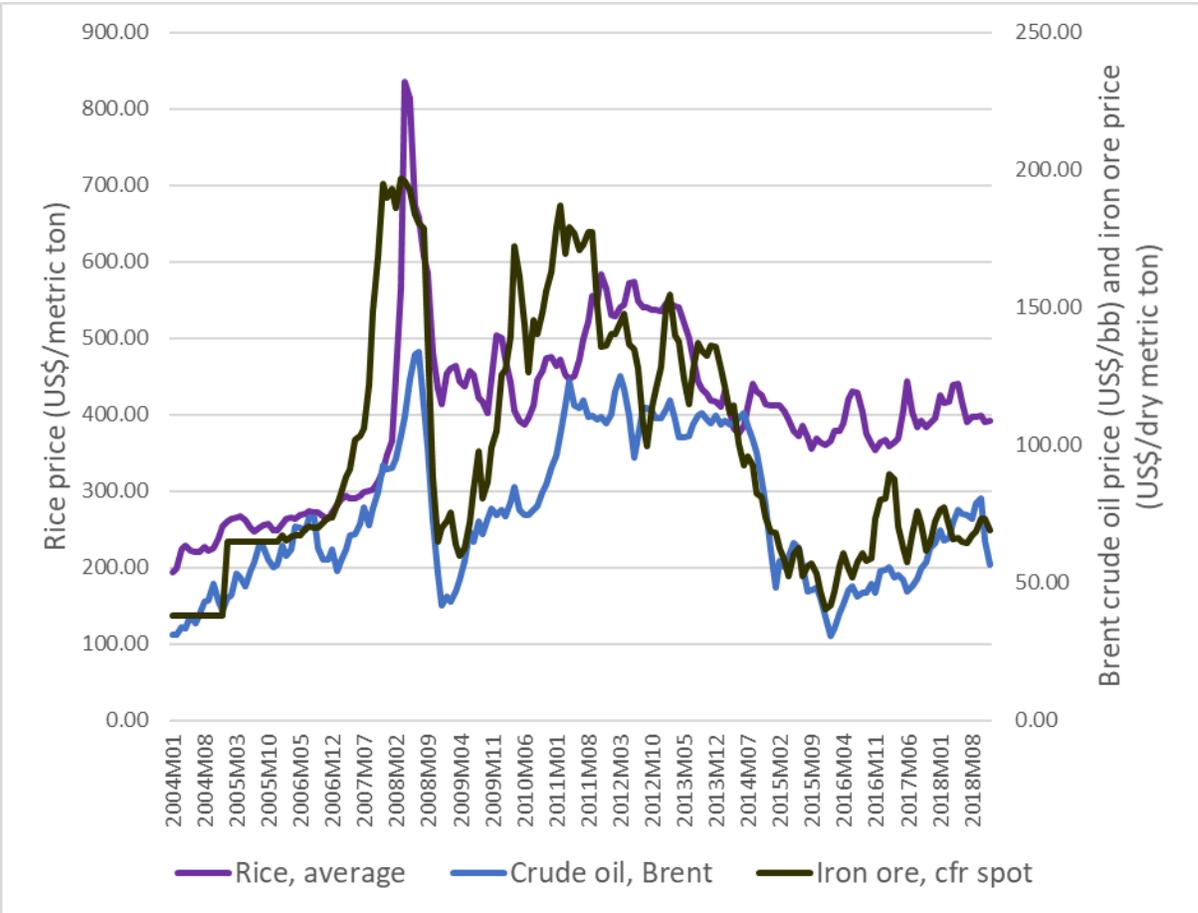
# 4.3 Macroeconomic Performance and Structure - A Vulnerability Lens

## 4.3.1 Sierra Leone’s macroeconomic hazards

### Fluctuation in international prices of key exports and import products

Sierra Leone depends on a limited range of export products (mainly iron ore) and key strategic import products (such as crude oil and rice). However, international prices of these exports are notoriously volatile in the short to medium-term, sometimes varying by as much as 50 percent in a single year (figure 4.3). These unstable commodity prices create macroeconomic instabilities and complicate macroeconomic management. Erratic price movements generate volatility movements in export revenue, cause instability in foreign exchange reserves, and are strongly associated with growth volatility.

**Figure 4.3: International Prices of Rice, Iron Ore and Crude Oil 2004-2018**



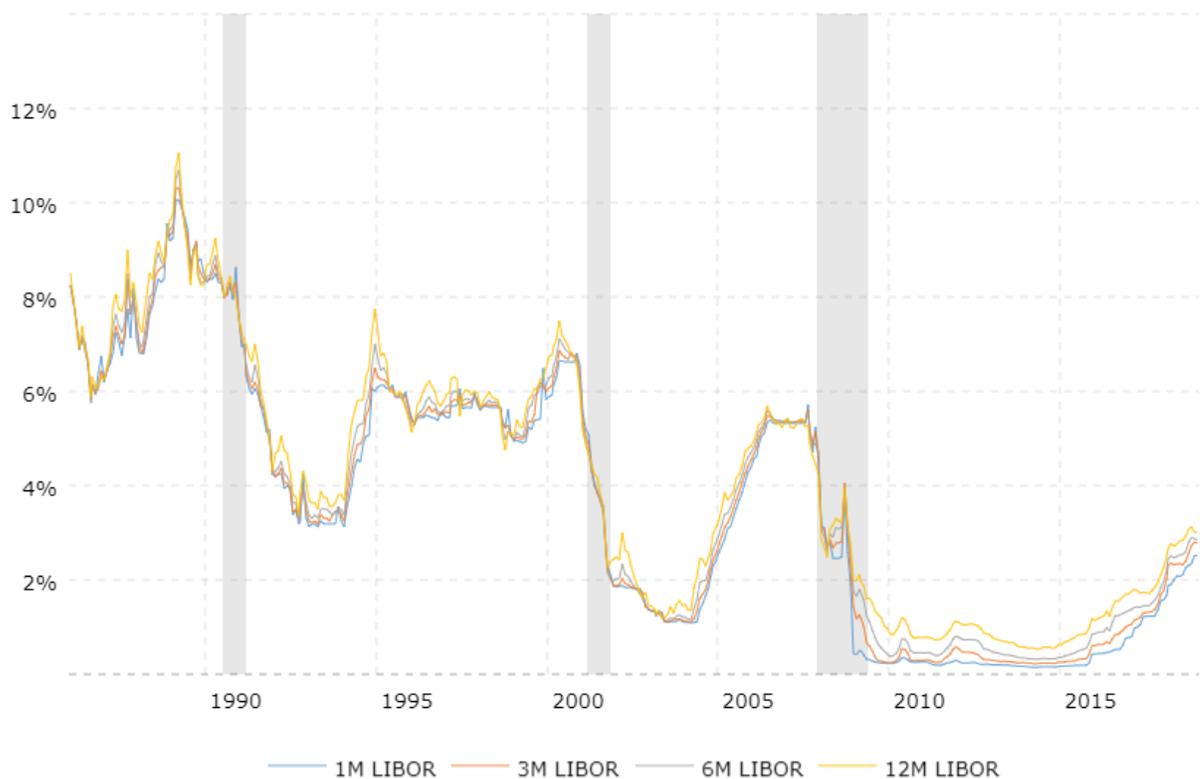
Source: World Bank Commodity Data

This was evident in 2014-2015 following the collapse of the international iron ore prices from \$136.32/dry metric ton unit (dmu) in December 2013 to \$40.5/dmu in December 2015. Consequently, the country's two main mining companies closed operations, and remain unoperational at the beginning of 2019. The commodity price shock, coupled with EVD, was unexpected: at the time, the economy was regarded as the fastest growing in the world. Real GDP growth dropped from 20.7 percent in 2013 to 4.6 percent in 2014 and further to negative 20.5 percent in 2015. Exports correspondingly dropped by 15.4 percent in 2014 and further by 55.4 percent in 2015, while demand for imported goods increased modestly by 4.7 percent in 2014 before declining by 18.1 percent (table 4.1). However, note that the negative effects of the shocks were offset by a decline in global crude oil prices which reduced domestic prices.

### **Fluctuations of international interest rates**

Although Sierra Leone's external debt remains sustainable with moderate risk of debt distress, a significant increase in non-concessional borrowing in the face of fluctuations in international interest rates increases the likelihood of a debt overhang. As figure 4.4 shows, fluctuating interest rates, coupled with volatility in sovereign credit risk, increases the likelihood of debt distress.

### **Figure 4.4: Libor Interest Rate 1986-2018**



Source: <https://www.macrotrends.net/1433/historical-libor-rates-chart>

## Health hazards, natural disasters and climate change

Sierra Leone faces the risks of health hazards, climate change and natural disasters (e.g. annual flooding and the 2017 mudslide disaster). Located by the Atlantic Ocean, the country's vulnerability is acute due to rising sea levels resulting from global warming, changing weather patterns, and increased frequency and intensity of natural disasters resulting from climate instability. This aspect of national vulnerability is analysed in chapter 10.

## Conflict, civil unrest and terrorism

Throughout Sierra Leone's history, conflict has seemed close and has often boiled over especially during electoral periods. International terrorism in West Africa is also a risk. The 2012 and 2016 fragility assessments (GoSL, 2012; GoSL, 2016a) show that despite progress in key peacebuilding goals, several root causes of the civil war are still present, with potential to affect macroeconomic stability. The same sentiment is echoed by M'cleod and Ganson (2018). These risks are analysed further in chapter 9 of this report.

## Geopolitical and economic developments in partner states

Developments in Sierra Leone's key trade and development partners have the potential to cause macroeconomic shocks. These include Brexit and the US-China trade war.

### **4.3.2 What makes the economy vulnerable?**

#### **Undiversified economy and inappropriate structural economic transformation**

The economy is dominated by a few sectors implying that there is low diversification of risk. Table 4.2 shows that much of the GDP comes from agriculture, forestry and fishing, followed by services. The final row in the table shows a Herfindal Index (HI) computed from the sectoral contributions of the three broad sectors of agriculture, industry and services. A HI of 100 shows equal distribution of risks while a HI of above 2,500 indicates very unequal distribution, and hence macroeconomic vulnerability. With a HI above 2,500, Sierra Leone's economy is highly concentrated in implying low diversification of macroeconomic risk.

**Table 4.2: Percentage Contribution to Nominal GDP by Sectors 2001-2017**

Sector/sub-sector	2001	2008	2011	2012	2013	2014	2015	2016	2017
<b>1. Agriculture, Forestry and Fishing</b>	45.44	53.35	52.14	47.01	40.72	39.25	40.64	49.95	50.29
1.1 Crops	28.99	36.74	36.63	33.17	28.89	27.83	28.98	35.81	36.33
1.11 Rice	11.15	14.99	15.29	13.92	12.37	11.90	12.62	15.98	16.70
1.2 Livestock	1.89	2.26	2.19	1.98	1.71	1.65	1.68	2.05	2.04
1.3 Forestry	8.85	6.18	5.85	5.25	4.49	4.34	4.43	5.35	5.34
1.4 Fishery	5.70	8.17	7.48	6.61	5.62	5.43	5.55	6.74	6.58
<b>2. Industry</b>	8.50	8.33	8.48	16.75	27.40	29.75	6.75	10.16	9.27
2.1 Mining and Quarrying	2.90	3.50	3.52	12.12	23.50	26.26	3.14	5.67	4.72
2.11 Diamond	2.45	2.30	1.96	2.25	2.29	2.24	1.99	2.55	1.22
2.12 Iron ore			0.18	8.70	20.13	22.95	0.02	1.68	1.88
2.13 Other minerals (rutile, bauxite, Gold)	0.00	0.65	0.75	0.54	0.50	0.54	0.63	0.81	0.98
2.14 Quarrying	0.45	0.55	0.64	0.63	0.58	0.53	0.51	0.62	0.64
2.2 Manufacturing and Handicrafts	3.10	2.36	2.39	2.16	1.83	1.63	1.63	2.02	2.04
2.3 Electricity and Water Supply	1.04	0.69	0.58	0.53	0.36	0.36	0.38	0.47	0.48
2.31 Electricity	0.75	0.57	0.48	0.44	0.28	0.28	0.30	0.37	0.38
2.32 Water	0.29	0.12	0.10	0.09	0.08	0.08	0.09	0.10	0.10
2.4 Construction	1.46	1.79	1.99	1.94	1.71	1.51	1.58	2.00	2.03
<b>3. Services</b>	41.85	34.56	35.67	32.86	28.89	28.13	29.16	36.21	36.74
3.1 Trade and Tourism	8.26	8.08	8.79	8.05	7.29	6.65	6.60	8.18	8.27
3.1.1 Wholesale & Retail	7.59	7.68	8.37	7.66	6.95	6.38	6.34	7.86	7.95
3.1.2 Hotels & Restaurants	0.67	0.40	0.42	0.40	0.35	0.27	0.26	0.31	0.31
3.2 Transport, Storage & Communications	5.14	7.61	7.84	7.21	6.26	5.82	5.92	7.36	7.47
3.21 Transport	3.32	4.32	4.43	4.11	3.56	3.13	3.05	3.77	3.78
3.22 Communication	1.82	3.30	3.41	3.09	2.69	2.69	2.87	3.59	3.68
3.3 Finance, Insurance & Real Estate	6.66	4.46	4.36	3.94	3.37	3.27	3.39	4.16	4.19
3.31 Banking	2.11	1.41	1.46	1.33	1.13	1.10	1.15	1.42	1.46
3.32 Insurance	0.50	0.62	0.64	0.60	0.53	0.49	0.50	0.62	0.62
3.33 Real Estate	3.51	2.22	2.07	1.84	1.56	1.53	1.59	1.95	1.94
3.34 Other Financial Institutions	0.55	0.20	0.19	0.17	0.15	0.14	0.15	0.18	0.17
3.4 Administration of Public Services	3.68	3.17	4.06	4.08	3.61	4.02	4.47	5.60	5.78
3.5 Other Services	5.87	3.72	3.47	3.08	2.71	2.70	2.82	3.47	3.51
3.6 Education	4.73	3.36	3.06	2.77	2.46	2.43	2.51	3.14	3.20
3.7 Health	4.46	2.85	2.75	2.49	2.12	2.16	2.31	2.88	2.91
3.8 NPISH	3.04	1.30	1.34	1.23	1.07	1.09	1.14	1.41	1.41
<b>4. FISIM</b>	0.81	1.27	1.32	1.21	1.02	1.01	1.03	1.26	1.23
<b>5. Total Value added at Basic Prices (1+2+3+4)</b>	94.97	94.97	94.98	95.41	95.98	96.12	75.51	95.06	95.07
6 Taxes less Subsidies on Products	5.03	5.03	5.02	4.59	4.02	3.88	4.00	4.94	4.93
<b>7. Gross Domestic Product at Market Prices (5+6)</b>	<b>100.00</b>								
<b>Herfindahl Index</b>	<b>3,914</b>	<b>4,137</b>	<b>4,090</b>	<b>3,593</b>	<b>3,260</b>	<b>3,233</b>	<b>2,564</b>	<b>3,935</b>	<b>3,990</b>

Source: Data from Statistics Sierra Leone. Note: Herfindal Index computed by authors.

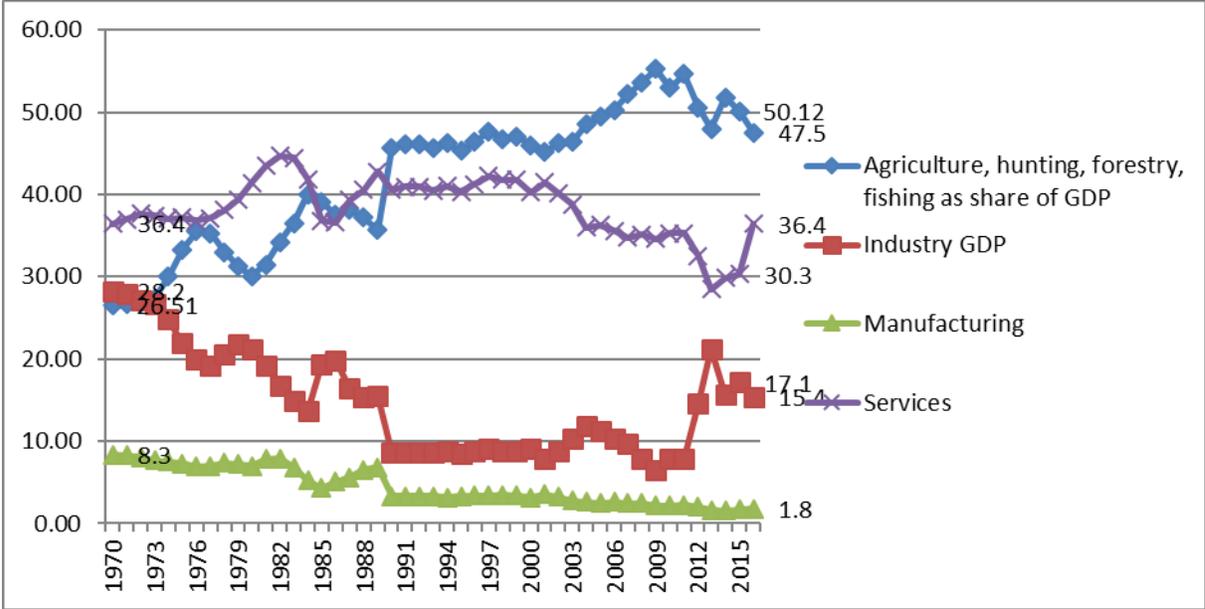
This effect was evident in the twin crises of EVD and the commodity price collapse and is linked with export commodity concentration.

## Structural economic transformation

Structural transformation can be defined as the reallocation of economic activity away from the least productive sectors of the economy to more productive ones (AfDB et al, 2013; AfDB et al, 2016). It is a fundamental driver of economic development. Structural transformation is critical as it can speed up the acquisition and use of new kinds of capabilities to provide livelihood options, organizational forms and institutional arrangements, which together can confer greater resilience to shocks. Conversely, the same forces can generate new hazards, vulnerabilities and risks which may combine to overwhelm traditional resilience mechanisms and blunt the capacity to withstand and recover from shocks, potentially driving households and communities into poverty. Therefore, to enhance resilience, the economy needs to diversify production systems and income sources, as well as promote improved education, increased borrowing and savings, greater remittances from urban areas, enhanced management of natural resources, and more effective public institutions.

Figure 4.5 shows the trend in share of services, industry and agricultural sectors in GDP for 1970-2016. It indicates that agriculture, hunting, forestry and fishing (which are low productivity sectors) were the backbone of the economy. This sector's share of GDP increased from a low of 26.5 percent in 1970 to a high of 55.5 percent in 2009 but declined to 47.5 percent in 2016. Conversely, the industrial sector's contribution declined continuously from 28.2 percent in 1970 to a low of 7.9 percent in 2011 before increasing to 21.2 percent in 2013. This was largely a result of an increase in mining and quarrying activities from 5.3 percent in 2007 to 20.0 percent in 2013. The resumption of iron ore mining explains the very high GDP growth in 2012 and 2013 (table 4.1).

**Figure 4.5: Structural Changes in the Economy of Sierra Leone 1970-2016**



Source: UNCTAD data set 2017.

Manufacturing in Sierra Leone has lagged other sectors. Its share of GDP declined from 8.3 percent in 1970 to 1.5 percent in 2014 and remained at about 2 percent of GDP in 2017. There are two explanations for this. First, the civil war not only destroyed infrastructure but also scared investors. Second, Dutch disease occasioned by the resumption of iron ore mining meant that manufacturing was neglected.<sup>3</sup>

The manufacturing sector offers greater opportunities for transformative change through its forward and backward linkages to the rest of the economy. Similarly, efficient services are critical to economic development as inputs into the production of other services and goods. For instance, a competitive financial sector is essential to mobilizing domestic savings and channelling them into productive activities. Moreover, retail and wholesale distribution services, if carried out in the formal economy, are a vital link between producers and consumers.

Over the past decades the service sector (ideally a high productivity sector) has also fluctuated rather than continuously increased. Its share of GDP declined from 36.4 percent in 1970 to a low of 28.5 percent in 2013 but increased to 36.4 percent in 2016. However, finance, insurance and real

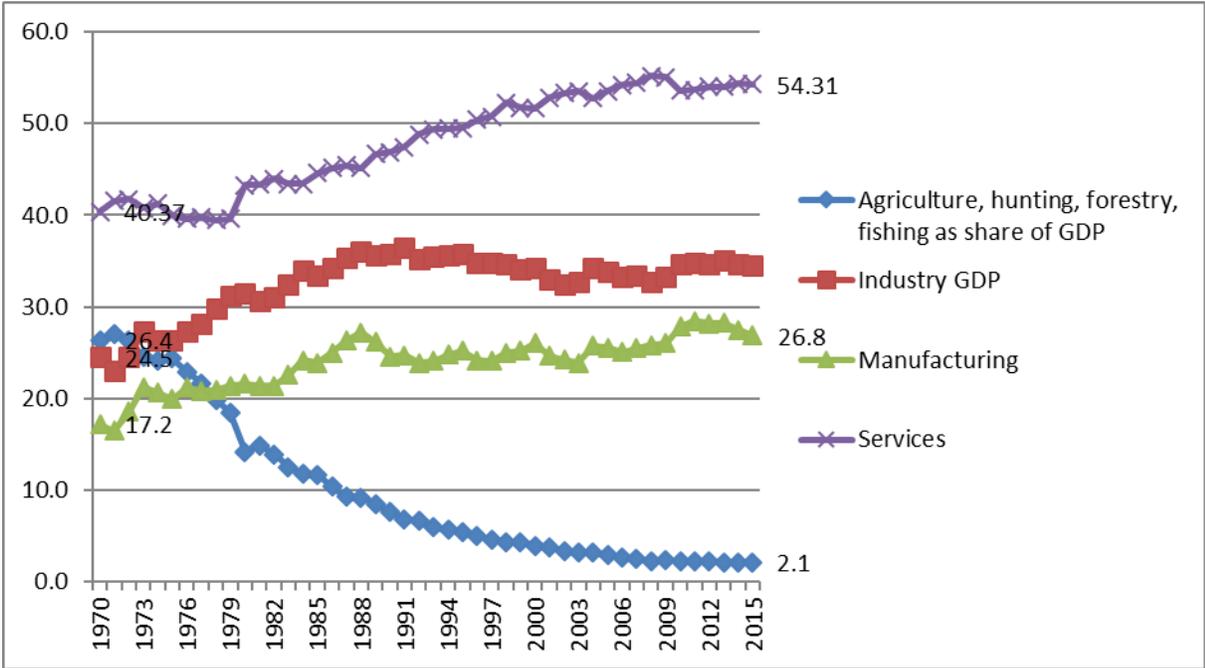
<sup>3</sup> Dutch disease relates to the effect whereby disproportionately increased economic development of one sector leads to a decline in others, at least partly as a result of currency exchange rate effects.

estate account for less than 5 percent of growth in the service sector which has remained dominated by low productivity services such as trade and transport services, often informal (e.g. motorbike riding and petty trading).

Doubtlessly, the weak link in Sierra Leone's structural transformation drive is the manufacturing sector. Without a transformative industrial sector, labour migrates directly from low productivity agricultural activities in rural areas to low productivity services such as informal jobs in urban areas (AfDB et al, 2016). The Government developed a national industrial policy in 2011 but little has been done since to support re-industrialisation. This has been subject to an array of constraints, including instability occasioned by political cycles, an unsuitable fiscal, legal and judicial environment, underutilization of installed capacities, low competitiveness of existing industrial capacities, inadequate infrastructure (e.g. water, electricity, roads), and difficulty in accessing credit.

An ideal trajectory to successful structural economic transformation is depicted in figure 4.6. The figure shows that since 1970 the Republic of Korea's economy moved away from low productivity agriculture (from 24.5 percent in 1970 to 2.1 percent in 2015) to high productivity industry. More importantly, the manufacturing sector increased from 17.2 percent in 1970 to 26.8 percent in 2015. When Sierra Leone's transformation (figure 4.5) is compared to this ideal transformation (figure 4.6), the country can be seen to be moving in the opposite direction.

**Figure 4.6: Percentage Contribution of Broad Sectors to GDP in Republic of Korea**



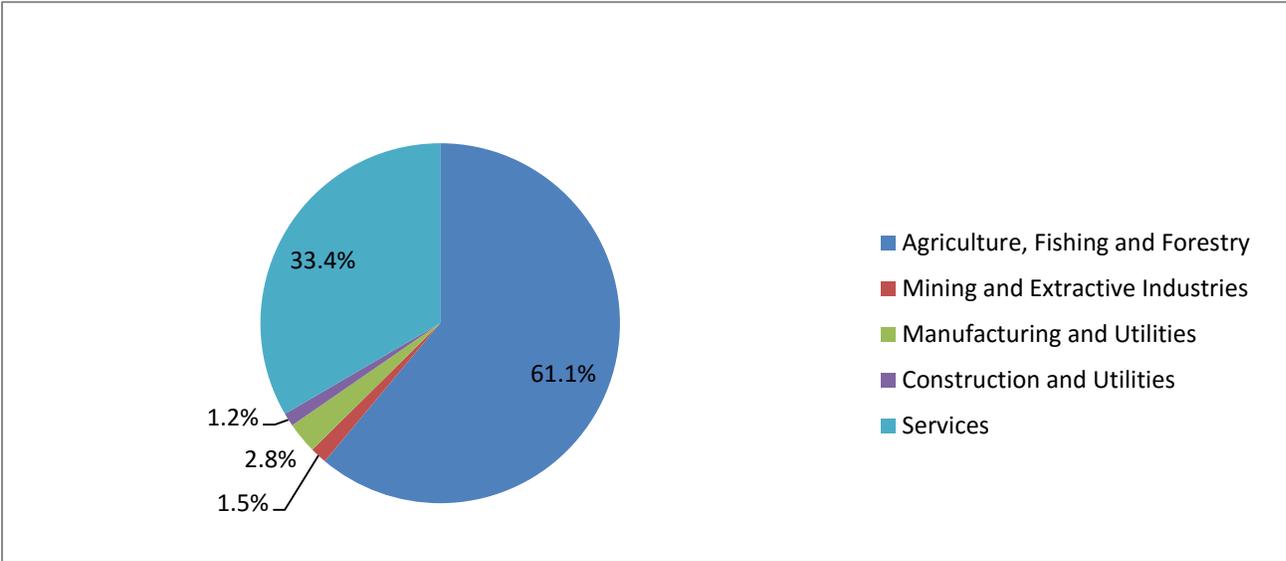
Source: UNCTAD data set, 2017

**Historical structural changes in employment in Sierra Leone**

According to Badiane (2012) successful economic transformation is typically associated with a migration of labour out of the rural agriculture sector into the urban industrial sector which leads to higher economy-wide productivity levels and progressively raising incomes in agriculture. However, in Sierra Leone the majority of the workforce is employed in poorly remunerated, low-productivity jobs in the agricultural sector. More than 61 percent of the workforce is engaged in agriculture, and the majority are self-employed (figures 4.7 and 4.8). Median monthly earnings in agriculture, fishing and forestry are just Le225,000 (\$56) (Stats SL, World Bank and ILO, 2015). A further third of the workforce is employed in non-agricultural self-employment, mostly in micro-enterprises engaged in petty trading with even lower productivity levels. The contribution to overall economic productivity is negligible. This root of the problem is as much to do with the lack of growth in agriculture as it is to do with inadequate labour absorption outside agriculture. The manufacturing sector has recorded declining growth, leaving the entire burden of absorbing the growing labour force to the informal services sector. This has expanded at an extremely rapid pace to a size that is currently not justified compared with other African economies (Badiane, 2012). Whilst earnings are generally higher in

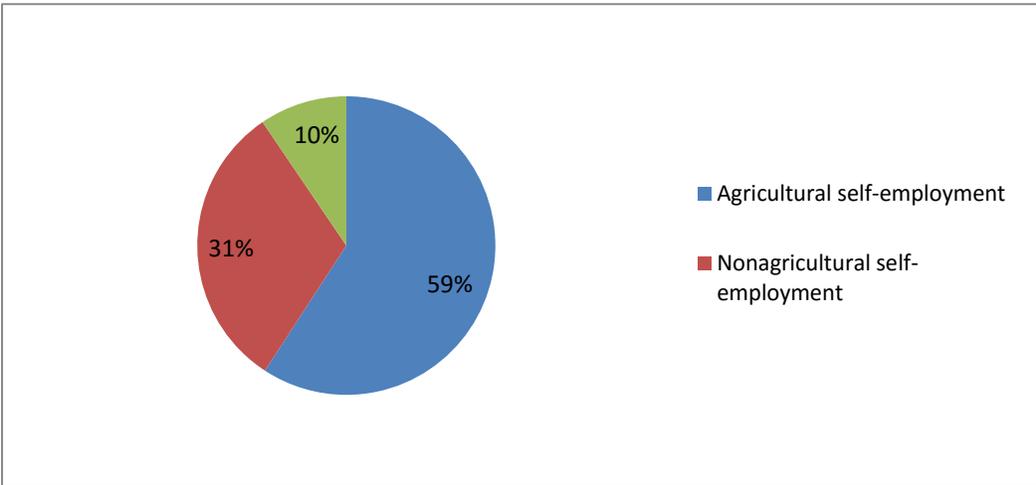
services than in agriculture, nearly one in five non-agricultural self-employed workers also engages in agricultural activities to supplement their earnings (Stats SL, World Bank and ILO, 2015). Underemployment is a major issue, and almost a third of workers would like to work more hours. Figure 6.2b shows that only a small percentage of the workforce (9.5 percent) is paid a wage. Most waged jobs are concentrated in urban areas, with 71 percent of these jobs located in Freetown.

**Figure 4.7: Sectoral Distribution of Labour Force in Sierra Leone**



Source: 2014 Sierra Leone Labour Force Survey

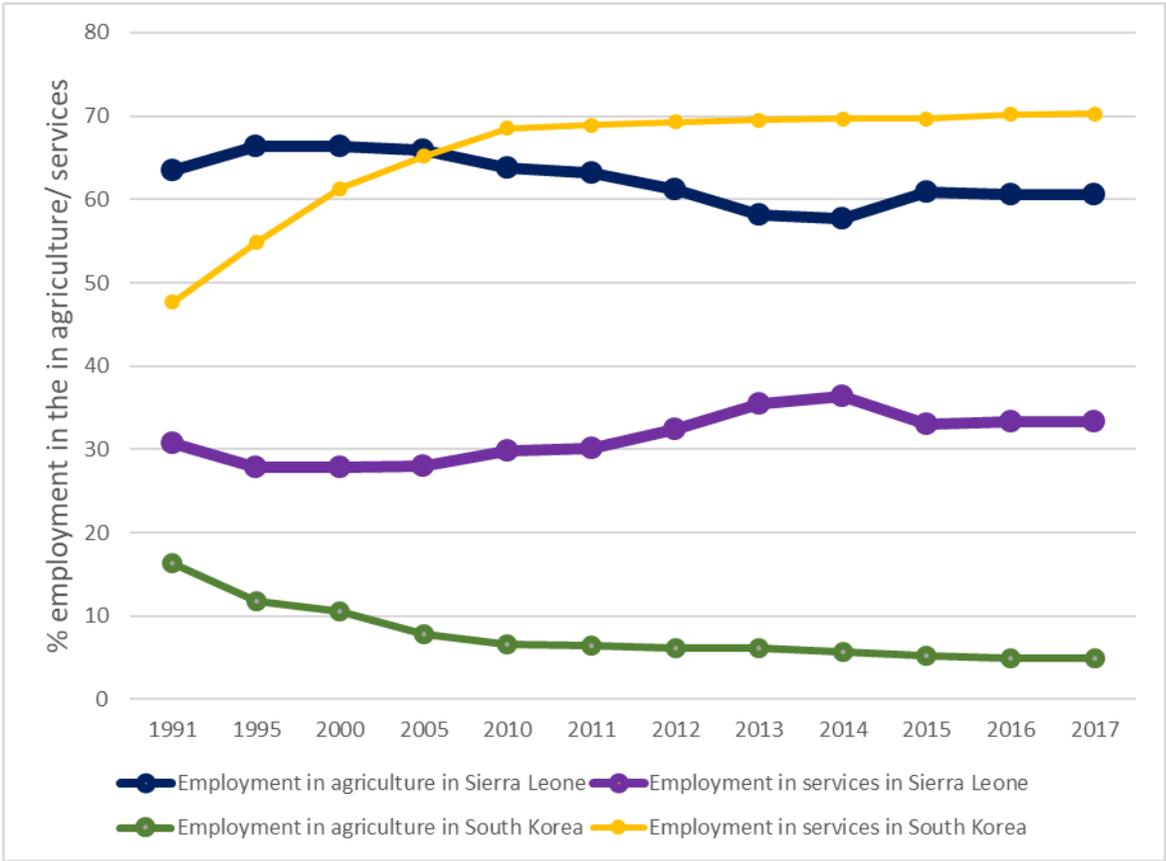
**Figure 4.8: Percentage of Labour in Self-Employment and Wage Employment in Sierra Leone**



Source: 2014 Sierra Leone Labour Force Survey

Figure 4.9 shows progress in Sierra Leone with labour moving out of the agricultural sector to services. However, compared with other countries such as the Republic of Korea, much remains to be done. Indeed, what Sierra Leone demonstrates is the opposite of the Republic of Korea. More people are employed in the agricultural sector than in services (tables A6 and A8 in the annex) and in industry (table A7 in the annex).

**Figure 4.9: Percentage of Labour in Agriculture and Services for Sierra Leone and Republic of Korea 1991-2017**



Source: World Bank (<https://data.worldbank.org/indicator/sl.agr.empl.zs>) and (<https://data.worldbank.org/indicator/sl.srv.empl.zs>)

## Low levels of productivity and sectoral linkages

Productivity is measured in this report in terms of monthly GDP per capita income in local currency.<sup>4</sup> This might be a crude measure of productivity but with the paucity of data in Sierra Leone this indicator is most appropriate to give an indication of the income level of the country. As shown in figure 4.9, the average income increased by 400 percent in nominal terms from 1990 to 2010, and at a decreasing rate of 161 percent from 2010 to 2016. Between 2010 and 2016, average monthly income in the country further increased at a decreasing rate of 130 percent. However, in real terms the monthly per capita income declined from \$59.3 in 1990 to \$36.8 in 2010. There was however an increase in per capita income to \$66.9 in 2013 owing to the iron ore boom, but this growth was reversed to \$48.1 in 2016 (figure 4.10). It is important to note that at Le336,583 in 2016, the average monthly income is below the minimum wage of Le500,000 stipulated by the Government. The main challenge for the country, now, is to ensure that the wage bill, both for the private and public sector, matches the level of productivity of the economy. Given that wages are sticky downwards, a more practicable measure to reverse this trend is to increase income generating activities in the formal sector through increased industrialization, including manufacturing.

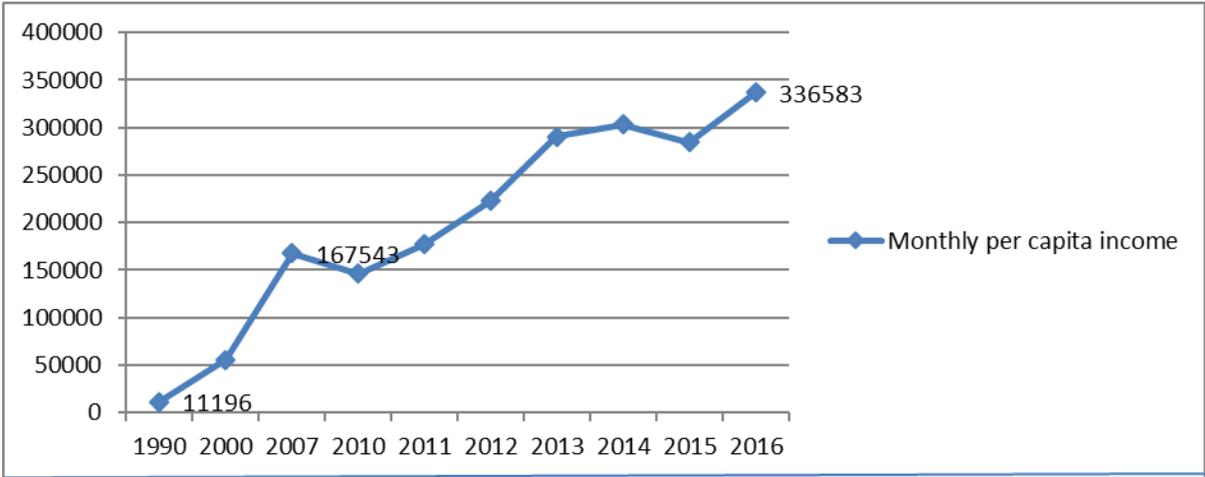
As stated earlier, the manufacturing sector offers greater opportunities for transformative change through its forward and backward linkages to the rest of the economy. The structural shift experienced from 2007 to 2013 when mining and quarry increased from 5.3 percent to 20.0 percent of GDP cannot guarantee successful structural economic transformation. The mining sector is highly capital and skill intensive and with limited forward and backward linkages with the rest of the economy it cannot be a source of sustainable job creation for a fragile economy like Sierra Leone, which is characterized by weak human capital. Furthermore, this sector only accounts for 3 percent of the formal labour force.<sup>5</sup>

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<sup>4</sup> This is measured by multiplying GDP per capita in US dollars by the exchange rate, and then dividing by 12 months. Data on GDP per capita in dollars and the exchange rate (SLL to \$) are collected from the respective IMF country reports for Sierra Leone.

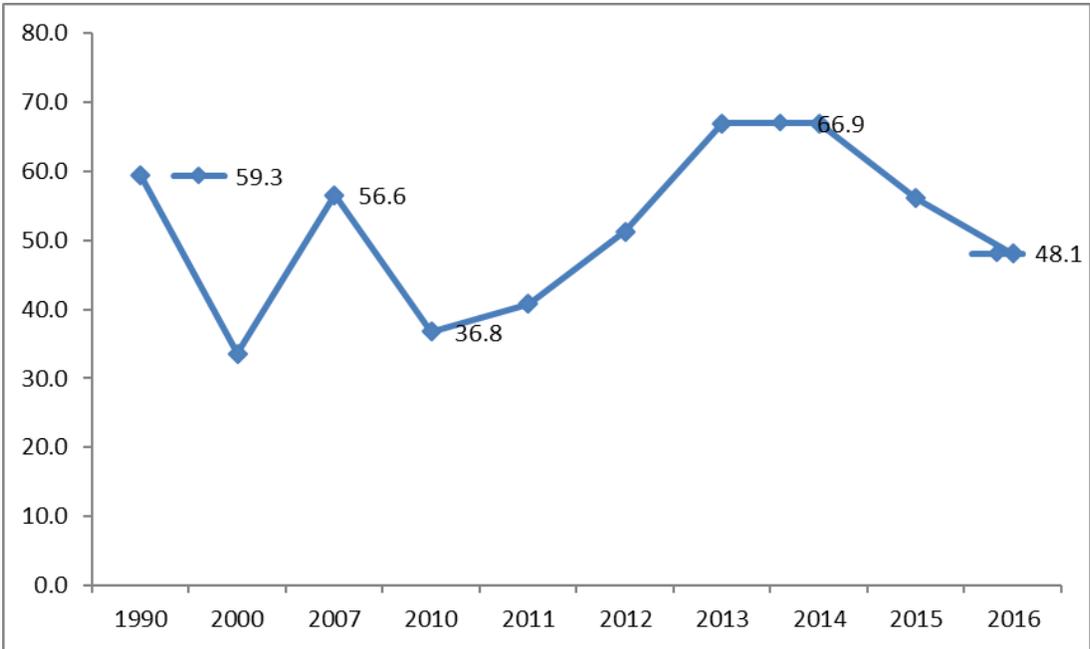
<sup>5</sup> The diamond and emerging gold industries are exceptions in that, in addition to industrial production, they include artisanal surface mining. This allows for wider participation, but it also raises governance issues, especially regarding revenue generation. Sierra Leone also has industrial-scale diamond production at the Koidu Kimberlite mine and Tonguma Kimberlite project in the Eastern part of the country.

**Figure 4.10: Monthly Per Capita Income 1990-2016 (Leones)**



Source: Authors’ computation from per capita GDP data from the World Bank

**Figure 4.11: Real Monthly Per Capita Income 1990-2016 (\$)**



Source: Authors’ computation from per capita GDP data from the World Bank

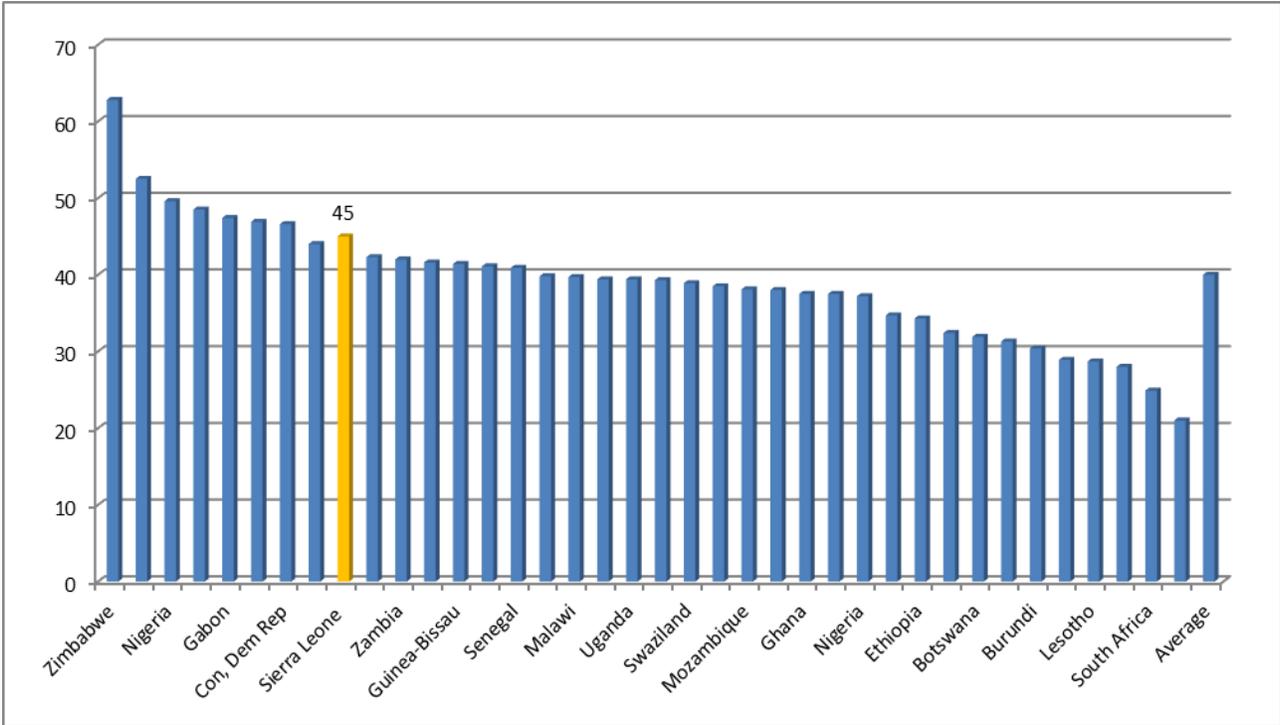
**High proportion of informal economy**

The informal economy cuts across rural and urban areas and includes petty trading, motorcycle riding and artisan activities. Estimating the size of the informal sector is challenging given its nature.<sup>6</sup> However, Elgin and Oztunali (2012) estimated that the informal sector, of which SMEs represent the largest part, accounts for about 40 percent of total employment in Africa and that this proportion

<sup>6</sup> Informal sector activities occur due to the small scale and temporary nature of the business, labour restrictions, and because of illegal activities such as tax evasion. Small enterprises are often the major players in the informal sector.

varies across the continent with the smallest informal sector reported in Mauritius and South Africa (figure 4.11). The informal economy in Sierra Leone has been estimated at about 45 percent of GDP, which is above the unweighted average for the continent. Further estimates (AfDB et al, 2016) indicate that the informal sector accounted for approximately 60 percent of the economy in 2016. This suggests that its contribution to the economy is significant, persistent and rising. Activities in the informal sector are less productive than in the formal sector. Operations tend to be sub-scale and sub-invested in as they lack access to finance and avoid the scope of regulators. In addition, informal sector workers do not benefit from social protection, training and other human resource capacity building activities. At the level of macroeconomic management, the government is losing substantial potential tax revenue. Anecdotal evidence suggests that Sierra Leone’s low tax revenue share of GDP is partly due to the large informal sector. To enhance the productivity of this sector, which absorbs most urban migrants, targeted and improved vocational training and education is required, along with targeted micro and small enterprise development initiatives, and improved access to credit.

**Figure 4.12: Informal Sector as percent of GDP in Sub-Saharan Africa Countries**



Source: Elgin and Oztunali, 2012 The bar shaded yellow represents Sierra Leone

## High degree of economic openness

Sierra Leone is a small open economy. Its high degree of openness is proxied by total exports and imports as a proportion of GDP, which is high compared to its peers in Sub-Saharan Africa, ECOWAS, and even the Mano River Union (table 4.3). This makes it susceptible to shocks from international markets, especially those that affect its merchandise trade such as commodity prices, and geopolitical developments affecting its key trading and development partners.

**Table 4.3: Percentage of Total Trade to GDP**

Economy	2005	2008	2010	2012	2013	2014	2015	2016	2017
Nigeria	49.7	45.5	41.6	38.9	34.2	29.8	25.1	21.1	27.0
Burundi	37.5	46.4	38.8	49.3	46.3	41.8	36.0	32.2	-
Uganda	34.3	45.5	48.9	51.9	47.9	45.5	47.7	41.7	41.4
Angola	106.7	121.3	103.7	91.9	87.0	78.5	62.3	53.4	50.6
Sierra Leone	43.3	36.9	60.2	98.1	81.8	87.2	70.8	60.8	-
Côte d'Ivoire	92.9	87.0	93.2	91.3	78.9	71.7	69.7	61.5	-
Zimbabwe	76.0	93.3	98.7	89.3	82.8	77.2	70.6	63.1	-
Zambia	64.7	61.3	66.8	77.0	80.0	77.9	79.7	72.4	70.7
Korea, Republic of	72.2	104.0	96.9	112.0	104.7	96.7	84.9	78.6	81.3
Liberia	213.4	262.1	149.5	-	-	181.0	113.6	79.9	-
Guinea	48.1	46.7	48.6	68.4	58.1	57.5	51.8	87.5	-
Botswana	87.7	102.1	94.4	120.9	122.0	114.4	107.3	98.4	74.8
<b>Groupings:</b>									
Developing economies	73.2	74.9	65.8	68.3	66.5	64.8	59.3	56.5	57.9
Developing economies: Africa	62.7	71.0	62.1	61.9	60.2	57.0	51.0	49.1	52.2
Developing economies: Western Africa	53.2	50.9	48.1	48.2	43.4	39.3	36.3	34.8	40.5
LDCs: Africa	60.2	70.8	65.5	66.8	65.9	61.8	53.4	48.2	46.7
Low-income developing economies	56.3	63.1	63.3	66.9	66.5	65.5	59.4	56.4	56.4
Sub-Saharan Africa	58.2	65.9	59.1	60.4	57.9	54.6	49.5	46.5	47.5
ECOWAS	52.7	50.4	47.6	47.5	42.8	38.8	35.9	34.4	40.1
MRU (Mano River Union)	85.3	80.9	84.3	90.6	78.6	75.2	69.0	66.9	65.2

Source: Data from UNCAT, 2019 (<https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx>)

## Export and import concentration

Sierra Leone has relatively high export concentration (table 4.2), which makes it more likely to be vulnerable to international price shocks. A concentration index closer to 1 indicates a country's exports or imports are highly concentrated on a few products. On the contrary, values closer to 0 reflect exports or imports more homogeneously distributed among a series of products. As is evident from the first part of table 4.4 Sierra Leone's export concentration indices are much higher

than for developed economies and Sub-Saharan Africa. This is one reason why the commodity price shock in 2014-2015 had such a significant effect on the economy.

**Table 4.4: Export and Import Concentration for Sierra Leone and Selected Regions**

Economy	1995	2000	2005	2010	2013	2014	2015	2016	2017
	<b>Exports</b>								
<b>Sierra Leone</b>	<b>0.278</b>	<b>0.465</b>	<b>0.453</b>	<b>0.244</b>	<b>0.439</b>	<b>0.699</b>	<b>0.354</b>	<b>0.259</b>	<b>0.327</b>
Developed Economies	0.055	0.072	0.068	0.065	0.066	0.065	0.067	0.068	0.066
Developing Economies - Africa	0.250	0.349	0.432	0.414	0.407	0.360	0.258	0.223	0.244
Developing Economies - Western Africa	0.455	0.636	0.640	0.591	0.585	0.562	0.447	0.398	0.422
	<b>Imports</b>								
<b>Sierra Leone</b>	<b>0.113</b>	<b>0.281</b>	<b>0.352</b>	<b>0.363</b>	<b>0.369</b>	<b>0.220</b>	<b>0.152</b>	<b>0.090</b>	<b>0.129</b>
Developed Economies	0.058	0.077	0.080	0.081	0.085	0.079	0.065	0.065	0.066
Developing Economies - Africa	0.054	0.061	0.067	0.070	0.086	0.078	0.066	0.060	0.067
Developing Economies - Western Africa	0.068	0.081	0.077	0.094	0.128	0.112	0.090	0.113	0.117

Source: Data from UNCTAD, 2018, <http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx>

Similarly, Sierra Leone has high import concentration indices relative to developed countries and Sub-Saharan Africa. The imports are mainly crude oil and rice, which again makes the country vulnerable to external shocks as high international prices for food and petroleum products pass through the economy to affects domestic retail prices.

### Limited fiscal space

Fiscal space is the budgetary room that allows government to provide resources for public purposes without undermining fiscal sustainability. The twin crises significantly reduced the fiscal space due mainly to reduced revenues to fund government programmes and projects. Although domestic revenue has since been increasing, it has been insufficient to fund the execution of government programmes.

**Low domestic revenue mobilization** Sierra Leone has one of the lowest revenue-to-GDP ratios in Sub-Saharan Africa: 12.1 percent in 2017 compared with 17 percent in Sub-Saharan Africa. Furthermore, donor budget support has been declining, forcing the Government to fund much of its expenditure through borrowing. To address this situation, the Government with support from the International Monetary Fund has developed a comprehensive revenue mobilization strategy. It is imperative that the measures outlined in this strategy are implemented to reduce dependency on donor budget support and domestic borrowing. The latter has an adverse effect on the Government's fiscal position and the availability of loans to the private sector. Furthermore, lower

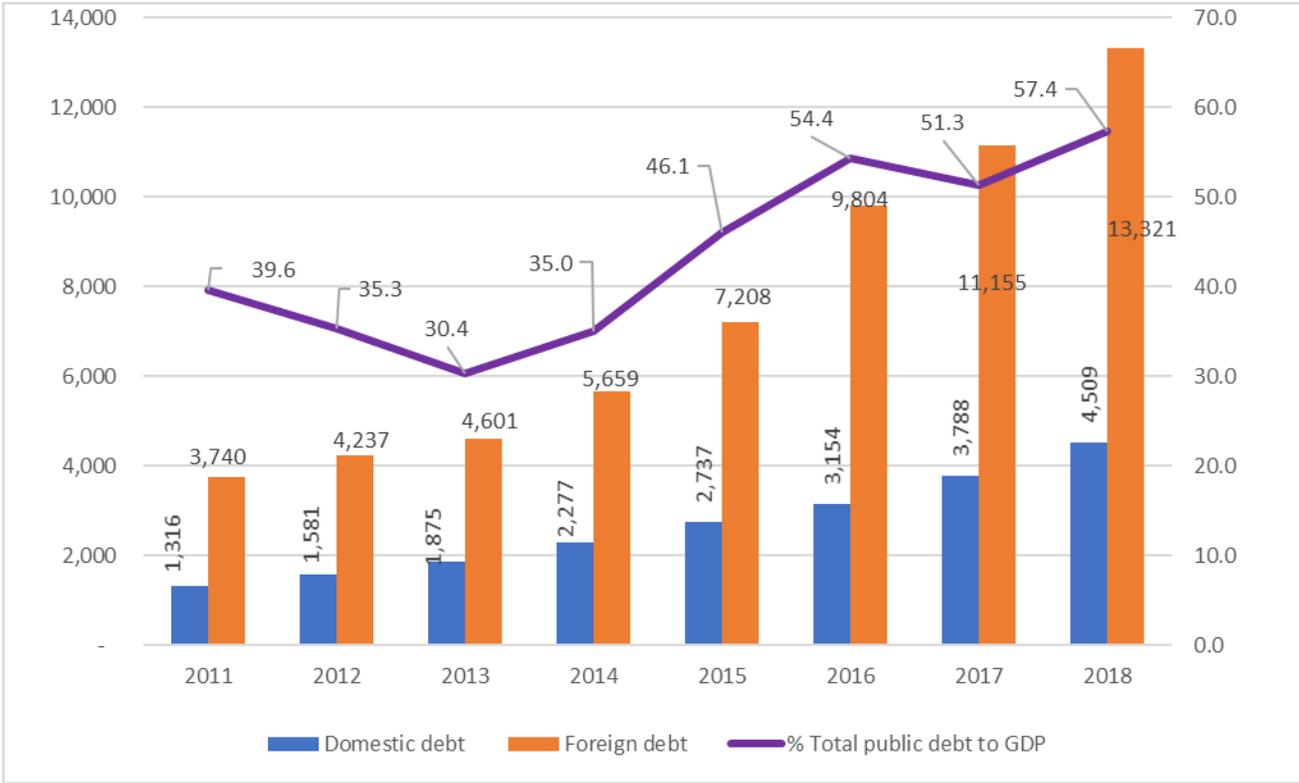
revenues result in expenditure cuts and the accumulation of arrears. With arrears, private sector confidence in the government could deteriorate, leading to the disruption of ongoing projects with negative consequences for growth and economic stability.

**Expenditure pressures** Rising expenditure pressures have been caused by salary increases, elections, and the expansion of government associated with setting up or transferring new government entities and functions from donors to the state. This is complicated by the materialization of contingent liabilities from State Owned Enterprises guaranteed by the Government, which is unable to meet their financial obligations. As table 7.1 shows, the total expenditure and net lending as a proportion of GDP far outweighs the revenue and grants as a proportion of GDP, which is reflected in a high budget deficit. Expenditure and net lending rose from 17.5 percent in 2013 to 23.6 percent in 2018.

### **High debt burden and dependence on a few donor partners**

The high debt burden exposes Sierra Leone to international interest rate shocks. Public debt as a proportion of GDP increased from 30.4 percent in 2013 to 57.4 percent in 2018, and much of the increase is in external debt which exposes the country to external shocks (figure 4.12 and table 4.1). Similarly, high dependence on a few donors not only limits the country's policy space but also risks substantial donor funds being withheld in the event of just one diplomatic misunderstanding.

**Figure 4.13: Domestic and Foreign Debt in Sub-Saharan Africa Countries**



Source: Ministry of Finance, Sierra Leone

**Low levels of monetization and financial inclusion**

Close to 90 percent of Sierra Leone’s population is unbanked and has no access to affordable financial products and services to meet their needs, including transactions, payments, savings, credit, insurance, and capital markets. Financial access facilitates day-to-day living, and helps families and businesses plan for everything from long-term goals to unexpected emergencies.

**Weak private sector**

The private sector in Sierra Leone is weak and the business operating environment is very challenging. According to the 2019 World Bank ‘Doing Business’ report Sierra Leone is ranked 163 out of 190 countries. Challenges for the business operating environment include reliability of electricity supply, business registration procedures, financial access, lack of skilled labour, and corruption (WTO, 2017).

## **4.4 Conclusion and Recommendations**

Macroeconomic vulnerability affects society, human development and sustainable development negatively. This was made plain during the EVD epidemic and the collapse of commodity prices in 2014-2015. Building macroeconomic resilience requires addressing short-term macroeconomic policy issues such as building fiscal and external buffers. Other medium to long-term structural issues such as diversification are also relevant. The Government has made deliberate efforts to transform the economy and thereby reduce its vulnerability to external shocks and increase its resilience, but the weak link in Sierra Leone's structural transformation remains the manufacturing sector. The effect of the current structure of the economy is that labour migrates from low productivity agricultural activities in rural areas directly to low productivity services (informal jobs in urban areas) without any transformative effect on the industrial sector. The following policy options are recommended to build macroeconomic resilience.

### **Monitoring and anticipating macroeconomic risks, SDGs and Africa Agenda 2063**

Monitoring macroeconomic risks requires comprehensive data. Government and other stakeholders should therefore invest in a robust framework for collecting economic statistics including producing national quarterly GDP and regional GDPs, as well as supply and use tables.

### **Develop a suite of models for policy simulation and forecasting**

Macroeconomic models are required to supplement the Sierra Leone Integrated Macro Model (SLIMM), the Computable General Equilibrium (CGE) Model, and other tools used by the Macro Working Group in scenario planning.

### **Rebasing GDP**

GDP, which is currently based on 2006 and is already more than 10 years old, needs to be rebased. With a rising population, the continuous decline in real GDP per capita is misleading.

### **Economic diversification and increase of productivity**

Sierra Leone needs to diversify its economy and improve productivity in some key sectors, including agriculture, manufacturing and tourism. Sierra Leone's participation in the global agricultural and minerals value chain is largely limited to the provision of raw materials. Its extractive industries mainly export crudes, ores, concentrates and metals, without significant value addition or the creation of many decent, well-paid and sustainable jobs. A similar picture holds true in the agricultural sector. Agro and resource-based industrialization offers a clear route to create

sustainable and decent jobs.<sup>7</sup> Making it easier and more attractive for foreign firms to invest in manufacturing and high value-added services should be a priority for the Government. Given agriculture's substantial contribution to the economy, increases in agricultural productivity offer the most direct method of transforming livelihoods. Both farmers and entrepreneurs will benefit from greater commercialization of agriculture and the development of higher value-added agricultural products. Diversification will reduce the problems of export concentration, import dependence and rural-urban migration.

### **Encourage industrial development**

Industrial development needs to be encouraged, especially in sectors that have high forward and backward linkages such as agri-processing. One starting point would be to update the national industrial policy and address constraints affecting the sector.

### **Build fiscal buffers**

Fiscal space needs to be created by saving budgetary resources and reducing public debt in good times. Key recommendations include:

- Improve tax policies and the National Revenue Authority's (NRA) ability to collect revenue. The enactment of the Extractive Industries Revenue Act (2018) is a step in the right direction;
- Equip NRA staff with the knowledge and tools to raise revenues in hard-to-tax sectors and take steps towards reducing the shadow economy;
- Expand the tax net to include the digital economy;
- Fight tax evasion through early detection, smarter auditing, and effective investigation and prosecution. Holding the richest taxpayers accountable would create public confidence in the tax system;
- Increase taxpayers' voluntary compliance with tax laws through outreach and education to increase collection and address informality;
- Reduce unwarranted tax incentives for investors;
- Rationalize and justify national expenditures.

### **Build external buffers**

Prudent levels of foreign exchange reserves are required, which in conjunction with sound policies and fundamentals, can reduce the likelihood of balance of payment crises, preserve economic and financial stability, and create space for policy autonomy in the event of a shock. The Economic

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<sup>7</sup> Agro-industrialization is defined as the subset of the manufacturing sector that processes raw materials and intermediate products derived from agriculture, fisheries and forestry.

Community of West Africa (ECOWAS) convergence criteria require member states to hold at least three months of import cover. As shown in table 4.1, other than the period 2011-2013, Sierra Leone has met this condition.

### **Export diversification**

Export products need to be diversified as well as export markets.

### **Import substitution and diversification of import sources**

The country should strive to produce locally some import products (such as rice). Similarly, the country should diversify the sources of import products to spread the risks of disruption in the event of a shock.

### **Promotion of entrepreneurship and the private sector**

The local and international private sector needs to be promoted. Issues to be addressed include regulation, availability of credit, availability of energy, and corruption. To address the credit constraint to the private sector, in 2016 the Government developed the National Strategy for Financial Inclusion (2017-2020), which aimed to ensure that financial services are available, accessible and affordable to all Sierra Leoneans, especially those involved in Micro, Small and Medium Enterprises.

### **Investment in critical infrastructure and institutions that support the economy**

Although Sierra Leone's infrastructure is improving, it is starting from a low base. The lack of basic infrastructure such as electricity, transportation, internet access, and water is a major cause of low levels of competitiveness and productivity. Electricity supply remains Sierra Leone's greatest infrastructure constraint, characterized by low access, poor reliability and high cost.<sup>8</sup> The African Infrastructure Country Diagnostic report shows that access to power in Sierra Leone is very low, standing at around 1 percent to 5 percent in urban areas, and is non-existent in the countryside (World Bank, 2011). Transport infrastructure is another challenge critical to economic transformation, especially as it relates to the manufacturing sector. Poor transport infrastructure raises the cost of inputs to manufacturing and other activities.

One main pre-requisite for stimulating investment in productive activities is a reasonably robust investment climate, including sustainable peace and security, and good governance, particularly relating to institutional stability, macroeconomic stability and reduced corruption. These 'knockout

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<sup>8</sup> Sierra Leone has significantly expanded its generating capacity. In late 2009, when the 50-megawatt Bumbuna hydropower plant became operational, it almost doubled Sierra Leone's existing installed capacity and changed the power generation mix. Prior to Bumbuna, Sierra Leone had only 27 megawatts of conventional thermal generation which meant costs were high.

factors' are so critical to a firm's operations that their nonfulfillment can undermine domestic and foreign investment, especially in manufacturing.

### **Improve economic governance**

This is explored in chapter 9 of this report.

### **Balanced regional development and decentralization**

Balanced regional development requires equal opportunities for all people to participate in, contribute to, and benefit from national development. Raising living standards in rural areas requires increasing productivity in the agricultural sector by supporting farm consolidation and improving rural infrastructure, particularly roads that connect villages to market towns, crop storage facilities, and access to sustainable irrigation.

## 5. HEALTH, WATER AND SANITATION



Inside a hospital ward in Sierra Leone. Photo: UNDP Sierra Leone

### 5.1 Introduction

This chapter analyses the critical links between health, water and sanitation, and resilience.

### 5.2 Health and Resilience

The preamble to the World Health Organization (WHO) Constitution defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1948). WHO further defines health systems as comprising all the resources, organizations and institutions that are devoted to producing interdependent actions aimed principally at improving, maintaining or restoring health. Health is not only the basis of national resilience but also a human rights issue. Health outcomes are also key inputs in the computation of several human development indicators, including the HDI, IDI, MPI, GII and income poverty.

The section focuses on the ability of the health system in Sierra Leone to anticipate, absorb, accommodate, or recover from the effects of shocks in a timely manner.

#### 5.2.1 Structure of Sierra Leone's health system

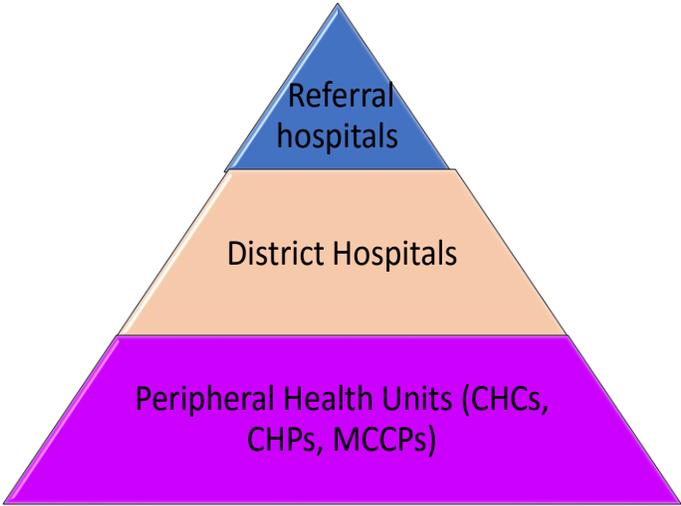
Sierra Leone's health service delivery system is pluralistic and is supervised by the Ministry of Health and Sanitation (MoHS). Health services are provided by government, religious missions, local and international NGOs, private sector organizations (profit and non-profit) and traditional healers. In

total, the national healthcare network consists of over 1,000 facilities, with more than 40 being hospitals and 23 of these hospitals owned by government. The public health delivery system has three levels: (1) peripheral health units (PHU) comprising community health centres, community health posts, and maternal and child health posts found mainly at district level and below, which provide the first line of primary healthcare; (2) district hospitals which provide secondary care; and (3) regional/national referral hospitals which provide specialized tertiary care (figure 5.1).

The private sector provides mainly curative care for inpatients and outpatients on a fee-for-service basis. Private health facilities operate under the authority of individual owners and/or boards of directors, mainly in urban areas. Traditional healers and Traditional Birth Attendants play a significant role attending to almost 90 percent of deliveries at the community level.

The Government launched the National Health Sector Strategic Plan (2010-2015) (GoSL, 2009) to provide a framework to guide efforts of the MoHS and its partners in attaining the health related MDGs. The implementation of this plan was cut short by the EVD outbreak in 2014. However, a Health Sector Recovery Plan (2015-2020) (GoSL, 2015a) of which the President's Recovery Priorities was a key component, served to focus attention and investments on the most pressing issues facing the sector. This was succeeded by the National Health Sector Strategic Plan (2017-2021) (GoSL, 2017a) which aims to address and resolve significant health systems issues and improve coordination of plans, activities and resources among the Government and its partners.

**Figure 5.1: Three-Tier Public Health System in Sierra Leone**



Source: Authors' illustration

Health systems issues include:

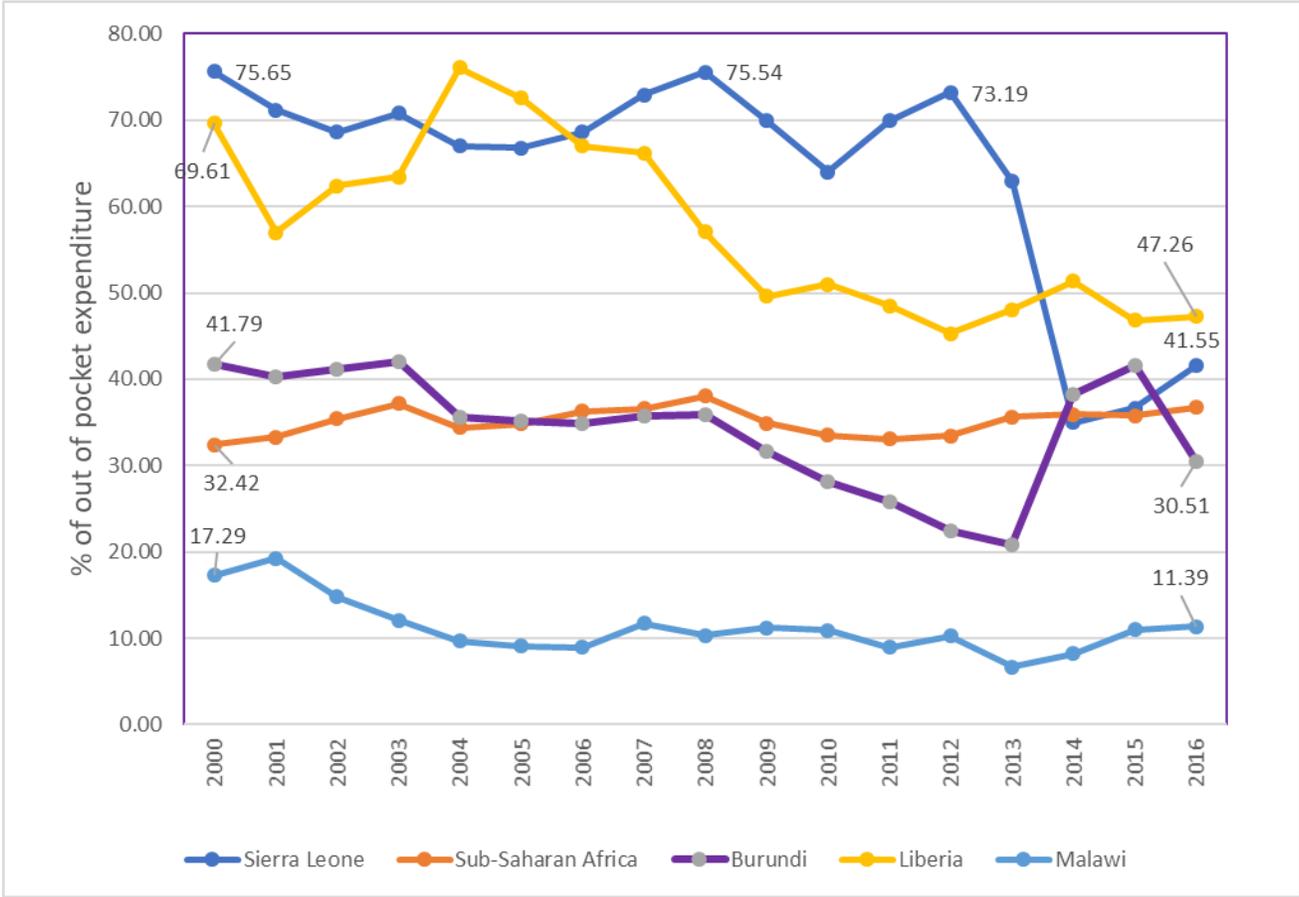
**Despite efforts to scale-up training of health personnel following the EVD epidemic, challenges remain due to capacity constraints.** Training of medical personnel is provided by, among other institutions, the College of Medicine & Applied Sciences at the University of Sierra Leone, Njala University, the National School of Nursing in Freetown, and the Paramedical school in Bo. However, many challenges remain, including limited capacity.

The availability, accessibility, affordability and acceptability of healthcare in Sierra Leone are problematic. Many people suffer and die from conditions for which effective interventions exist. This is a result of poverty, high out-of-pocket payments, distance from public health facilities, foregone earnings, limited knowledge and education, and perceptions of poor quality services, especially at PHUs.

**Financing of healthcare is provided through a mix of sources including out-of-pocket payments, taxation and donor funds.** As is the case in other countries, healthcare financing is provided through taxation, social health insurance, private health insurance, out-of-pocket payments and donations from charities and partners. In Sierra Leone free healthcare is provided only for the most vulnerable groups: pregnant women, lactating mothers and children under five. This is mainly

funded through taxation and donor funding with private health insurance still nascent. Only 2.4 percent of Sierra Leoneans have any form of health insurance, with the figure higher in urban areas (4 percent) compared to rural areas (0.8 percent) (table A12 in the annex). For the rest of the population, government support is limited and Sierra Leoneans have to make high out-of-pocket payments for healthcare compared with peer countries (figure 5.2). In February 2018, the Government launched a social health insurance initiative, the Sierra Leone Social Insurance Scheme. However, with high levels of poverty, pooling funds will be a challenge. Donors and national and international NGOs contribute significantly, especially at the PHU level.

**Figure 5.2: Percentage of Out-of-Pocket Expenditure on Health**



Source: Data from the World Bank (<https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS>)

**5.2.2 Analysis of the structure of Sierra Leone’s health system**

This section examines the health system in terms of its ability to prepare for and recover from shocks. The analysis is grounded in a WHO framework that describes health systems in terms of six core components, or building blocks (WHO, 2007). It draws on many studies but focuses on one carried out during and after the EVD epidemic which examines areas identified as critical in a resilient health sector (World Bank, 2018).

The EVD epidemic provided, at a very high human, economic and social cost, a display of the low level of resilience of the health system in Sierra Leone and neighbouring countries. The weaknesses revealed presented an opportunity for both government and donors to take action. The first weakness was seen in the collapse of routine health services. The system failed to deliver effective, safe and quality personal and non-personal health interventions to those who needed them, when

and where needed, with a minimum waste of resources. Basic health services for maternal and child health and communicable disease control at all levels were not available. This was exacerbated by the lack of an effective referral system and challenges in ensuring patient and healthcare worker safety, including infection prevention in healthcare units.

A second issue related to a shortage of healthcare workers – many of whom subsequently died – unevenly distributed across the country, who were not competent in disease surveillance and response. Third, the health information system was shown to be weak. Data generated through existing routine monitoring and evaluation systems were not timely and were not used in decision-making. Furthermore, private sector institutions were invariably excluded from data collection, creating substantial information gaps.

The fourth weakness related to the availability of medical products, vaccines and health technologies. Well-functioning health systems ensure equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, and ensure their scientifically sound and cost-effective use. The epidemic exposed the limited ability of pharmaceutical procurement and logistics systems to manage the supply of essential medicines and supplies across the various levels of the health system. Access to pharmaceutical products also became an issue because of the limited ability of the public system to negotiate prices in the private sector. In addition, the capacity of public health laboratories, including blood banks, was revealed to be extremely limited and often starved of technical, human and financial resources. Furthermore, the quality of pharmaceutical products circulating in local markets was often perceived to be suspect, with reports of a proliferation of counterfeit products, and drug use is often irrational and inefficient.

Overall, the health financing system is weak and unable to provide the required services at all income levels, but particularly for the poor. The Government's financial contributions to the health sector, although significant in terms of percentage of GDP relative to peer countries (table 5.1), is limited given the needs of the population and the fact that donor support has substituted rather than supplemented government financing. Individual out-of-pocket expenditures are therefore high, leaving the population vulnerable due to impoverishing healthcare costs. The limited fiscal space, coupled with inadequate institutional capacities, governance issues and weak incentive systems, are major impediments to sustainability (World Bank, 2018).

**Table 5.1: Current Health Expenditure as percent of GDP**

<b>Country</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Burundi	6.8	9.4	11.3	10.4	8.6	8.2	6.8	8.2	6.19
Guinea	5	4.5	4.4	5.1	4.6	4.7	4.3	4.5	5.48
Liberia	3.8	8.5	10	10.5	9.3	9.2	14.1	15.2	9.62
Rwanda	4.6	7.5	9.3	8.9	8.5	7.9	8.2	7.9	6.76
Sierra Leone	9.9	9.8	9.2	10.6	8.9	11.6	19.7	18.3	16.53

Source: UNDP HDRO and World Bank

In terms leadership and governance, since 2010 the Government has developed national health strategic plans and other policy frameworks for the sector. However, implementation has been faced with administrative challenges.

The EVD crisis tested the resilience of the health systems in Sierra Leone severely. It proved that much remained to be done to improve the health system and reduce vulnerabilities by building resilience and better prepare the country to address future health threats.

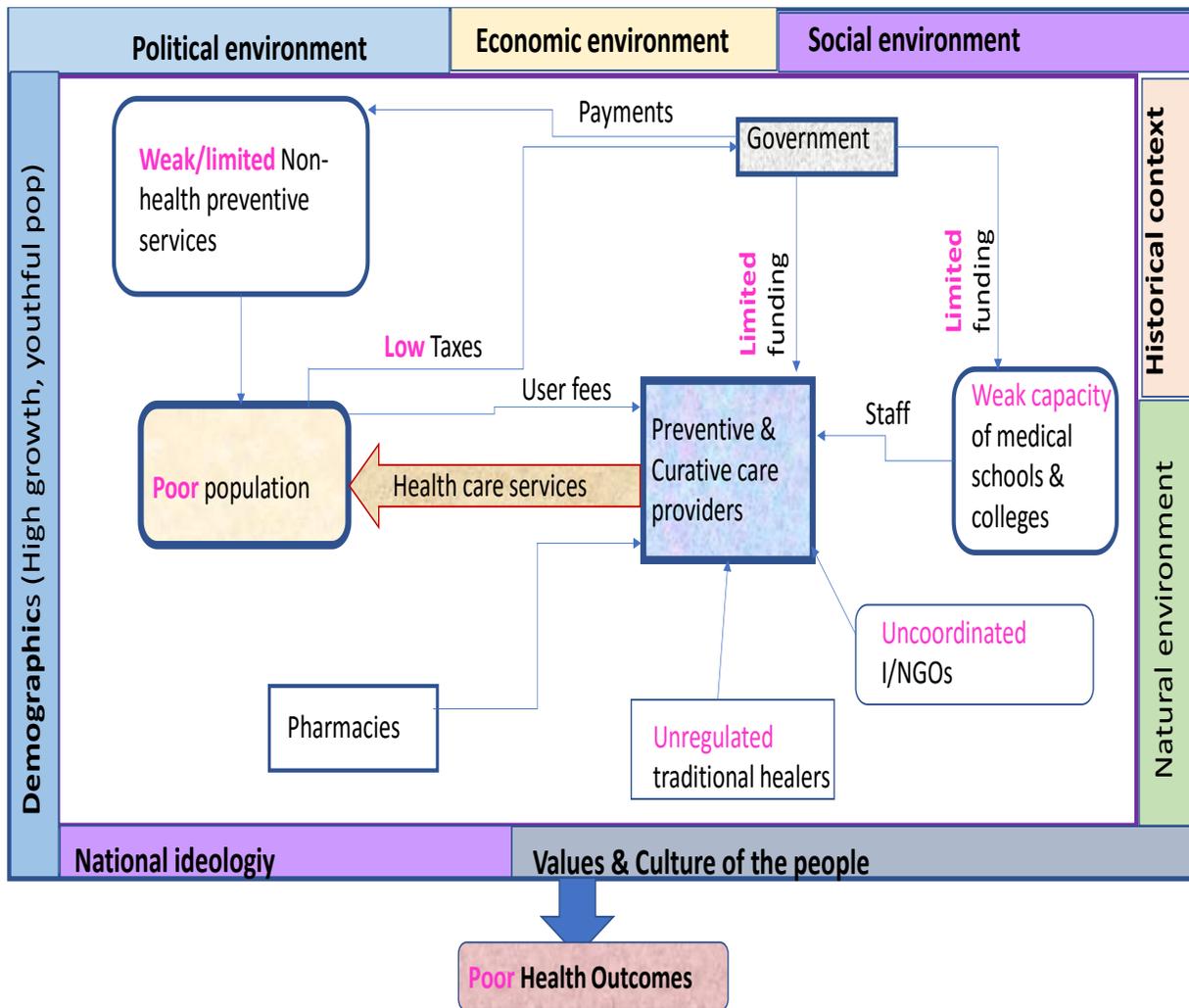
A systems approach provides a richer picture of the health sector. This approach acknowledges that health systems are complex and multidimensional and that any analysis needs to make explicit recognition of the wider socio-economic and other determinants of 'health' beyond delivering healthcare to the population. Critical areas to examine include why and how does the health system function in terms of processes and people, and why does the system produce particular health outcomes.

Figure 5.3 presents an analysis of the challenges facing the health system in Sierra Leone. The centre of the figure shows the preventive and curative health service providers (public and private), that provide services to the population. It also shows payment of taxes by the population to the government, which has a responsibility to build, equip and staff medical facilities. In Sierra Leone, with income poverty at 57 percent, much of the population is poor meaning that tax revenue is low, and government therefore has limited fiscal space to finance public health facilities and medical training and provide other non-health services such as water and sanitation. Additionally, many individuals have limited funds to pay for private treatment or medical insurance.

An effective healthcare system requires medical schools and colleges to train medical personnel. However, Sierra Leone's training institutions have limited capacity and can only provide low quality training. In addition, the capacity of non-medical facilities that play a critical role in preventive health is also limited. Issues such as food and nutrition, water and sanitation, waste management, public hygiene, peace and security, safe transport systems, healthy recreation and exercise, and a smoke-free environment are very largely neglected. Figure 5.4 illustrates how these issues affect health outcomes. Cuba serves as a powerful example of how health service provision can be transformed by consideration of such issues.

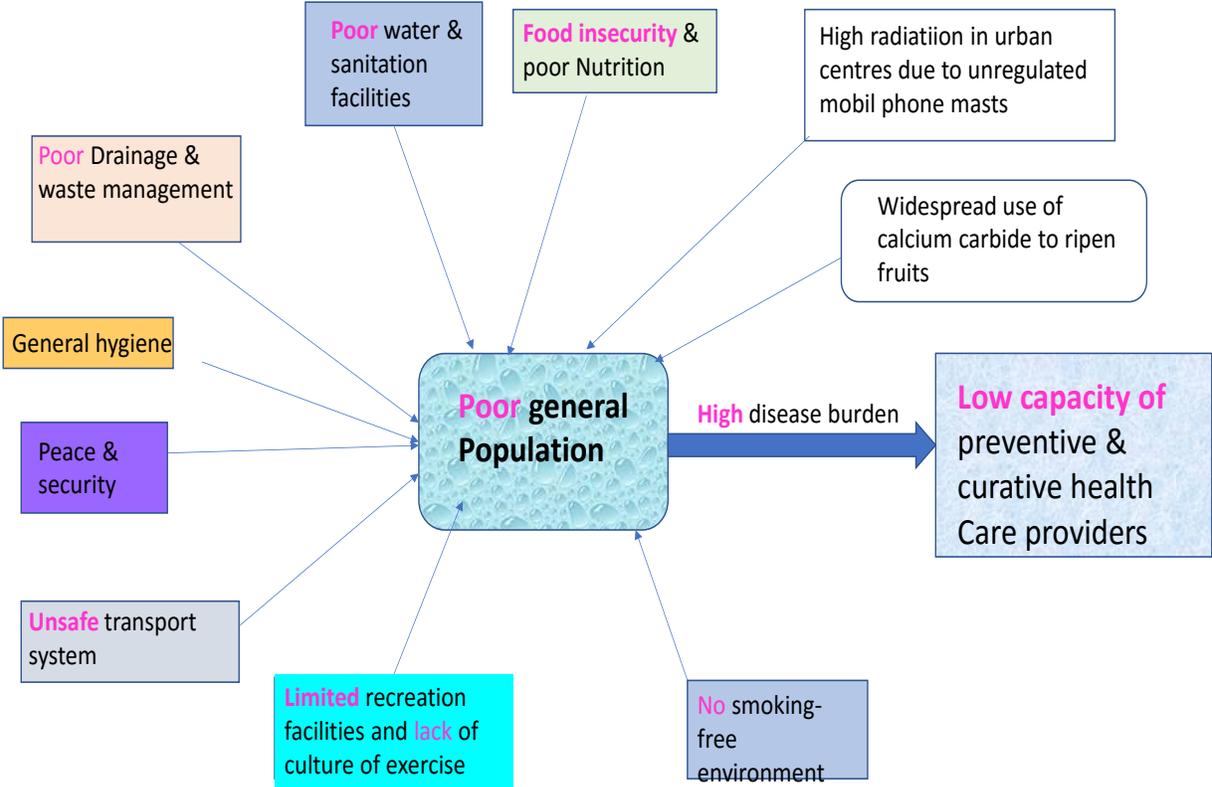
As in all countries, the health system in Sierra Leone operates in a context (i.e. the structures, institutions, processes and actors) which extends beyond the health system, but elements of which interact with the health system and its components. These contextual factors are presented on the outer part of figure 5.3. They include the political environment (power and influence), the economic environment, the social environment, the natural environment, demographics, the historical context, ideological issues, and values and culture.

### **Figure 5.3: Fragile Health System in Sierra Leone**



Source: Authors's own illustration

**Figure 5.4: Health Support Platforms that Determine the Extent of Disease Burden**



Source: Authors’ own illustration

Figure 5.5 presents key drivers of health system vulnerability and resilience. Sierra Leone’s health sector is exposed to a number of ways, including the following:

- Disease epidemics such as cholera in 2012 and EVD in 2014-2015;
- Geological shocks such as the mudslide that took place in August 2017;
- Climate shocks such as severe rains, lightning and flash flooding.

It is important to note that most of the shocks that Sierra Leone’s health sector face are anthropogenic i.e. they are related to human interaction with the environment. This makes the problems easier to address as they gave a significant policy component.

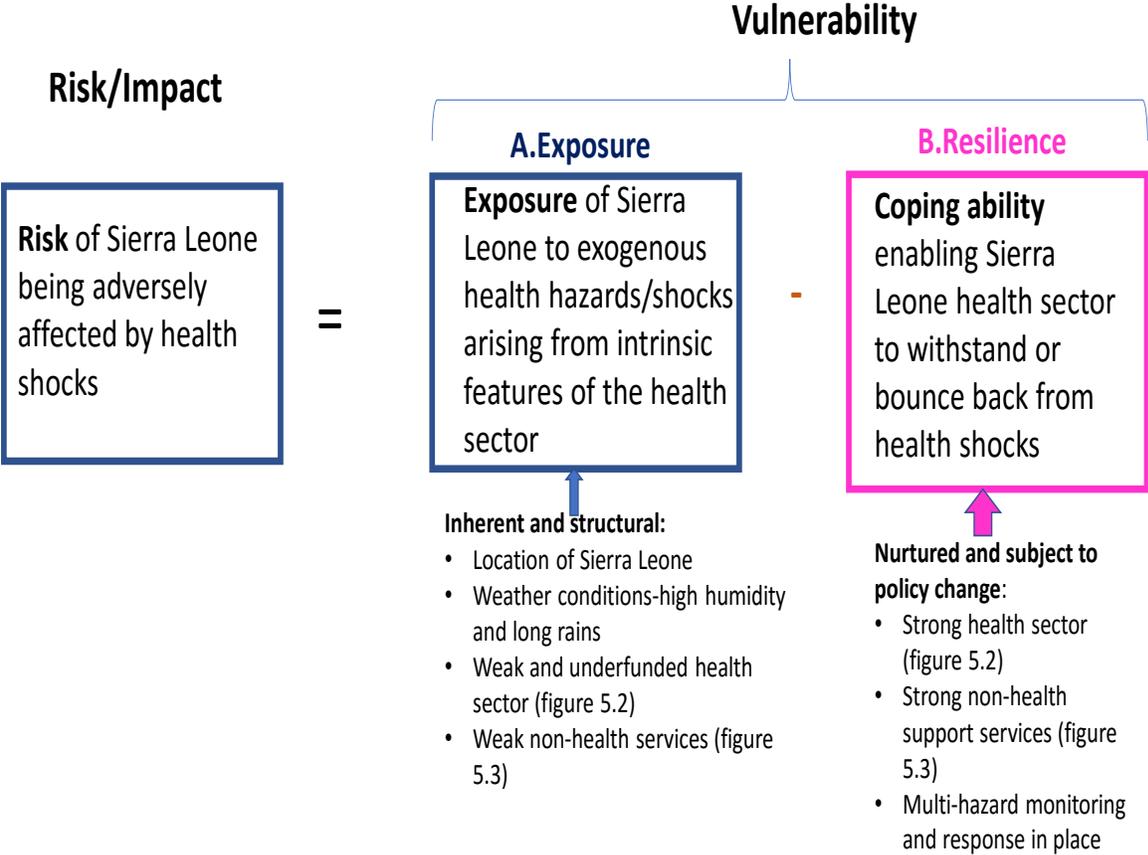
In the case of the EVD epidemic in 2014-2015, the key hazard is the Ebola virus found in bats in the bush. Without any interaction between the bats and the population, the Ebola virus does not materialise into a shock.

The extent to which the hazard affects the population is dependent on the following factors:

- Proximity;
- Population density;
- Scientific understanding;
- Public education and awareness;
- Existence of early-warning systems and lines of communication;
- Availability and readiness of emergency infrastructure;
- Cultural factors that influence public response to warnings.

All these factors played a significant role during the EVD epidemic. Initially individuals were exposed to the Ebola virus through the practice of eating of bush meat (including bats) for protein and to control pests that eat crops (Part A of figure 5.5.) Other people were then infected through direct contact with blood or other bodily fluids (urine, saliva, sweat, faeces, vomit, breast milk, and semen) from a symptomatic person sick with EVD, or the corpse of someone who had died from EVD. Factors affecting the impact of the virus included lack of scientific and medical understanding of a relatively novel zoonotic disease; lack of public education and awareness; lack of surveillance and early warning systems, and flawed communications (e.g. community health workers had no trust on the head office system in Freetown); lack of readiness of emergency infrastructure (including ambulances); generally weak and already overstretched health systems (e.g. limited health personnel, lack of equipment); and lack of international collaboration for surveillance and response within the Mano river countries (Sierra Leone, Liberia and Guinea). Many of these factors also affected the country's resilience and its ability to recover (Part B of figure 5.5).

**Figure 5.5: Health System Vulnerability and Resilience**

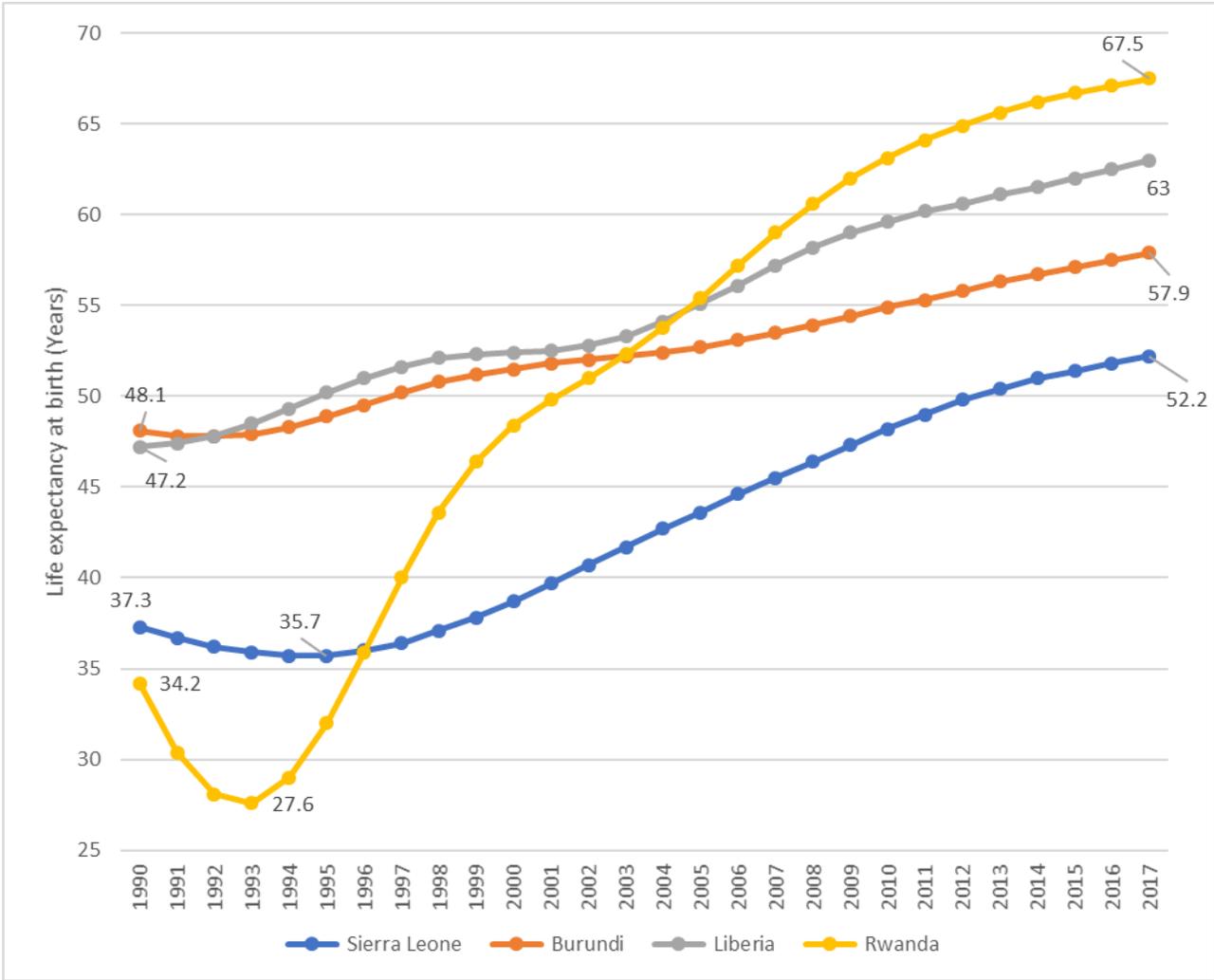


Source: Adapted to health from Briguglio et al (2009)

**5.2.3 Health outcomes in Sierra Leone**

The factors highlighted in figures 5.3 and 5.4 and frequent shocks such as cholera and EVD combine to limit progress towards positive health outcomes. One of the most important proxies for health status is life expectancy at birth. In Sierra Leone, this increased from 35.7 years in 1995 to 52.2 years in 2017. However, progress is much slower than in peer countries, notably Rwanda, which is also a country with a history of savage civil strife (figure 5.6 and table A9 in the annex).

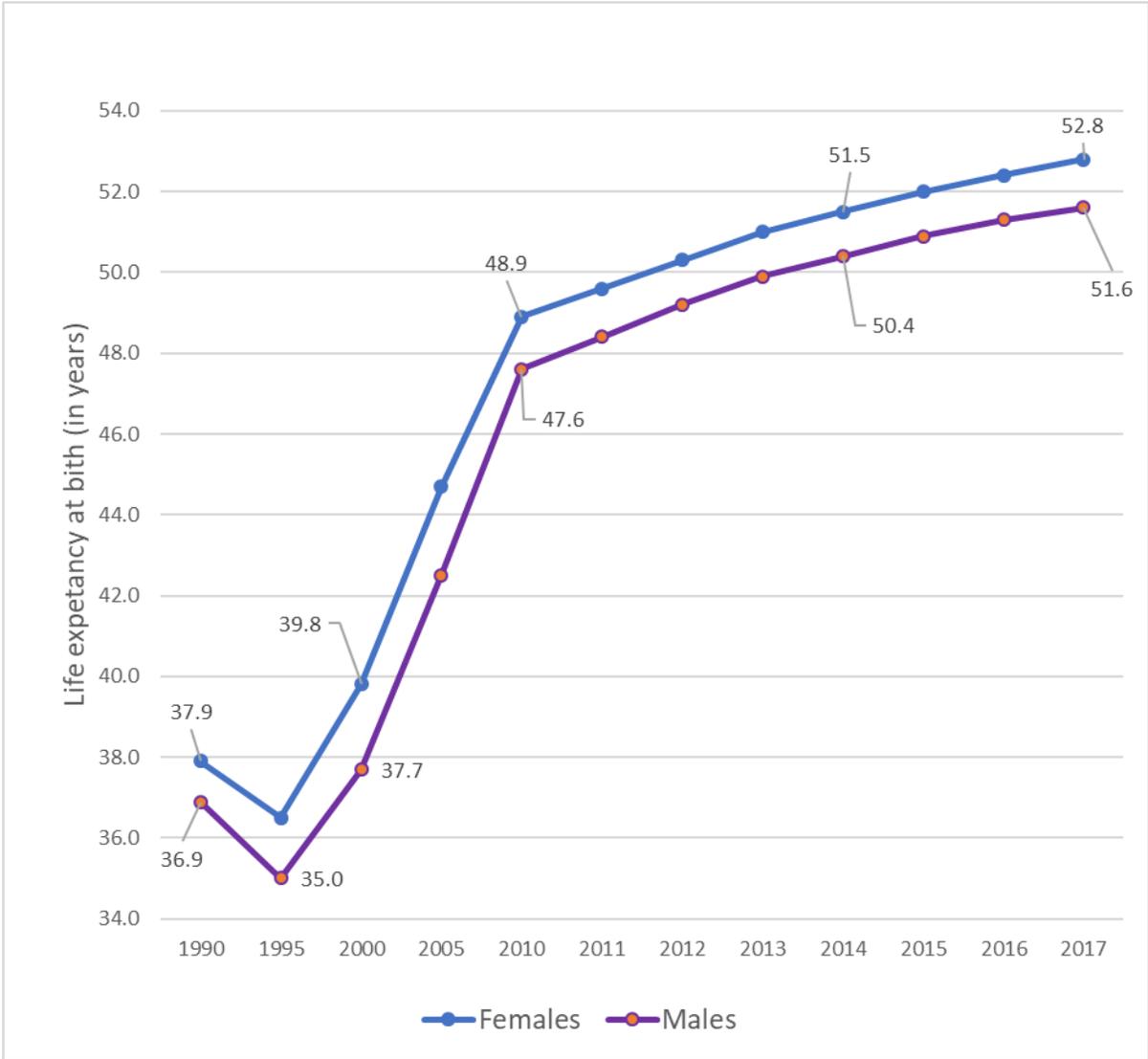
**Figure 5.6: Life Expectancy at Birth for Sierra Leone and Selected Countries 1990-2017**



Source: World Bank (<https://data.worldbank.org/indicator/sp.dyn.le00.in>)

In Sierra Leone, both male and female life expectancy has been on the rise since 1995, but males continue to have slightly lower life expectancies than females (figure 5.7 and tables A10 and A11 in the annex).

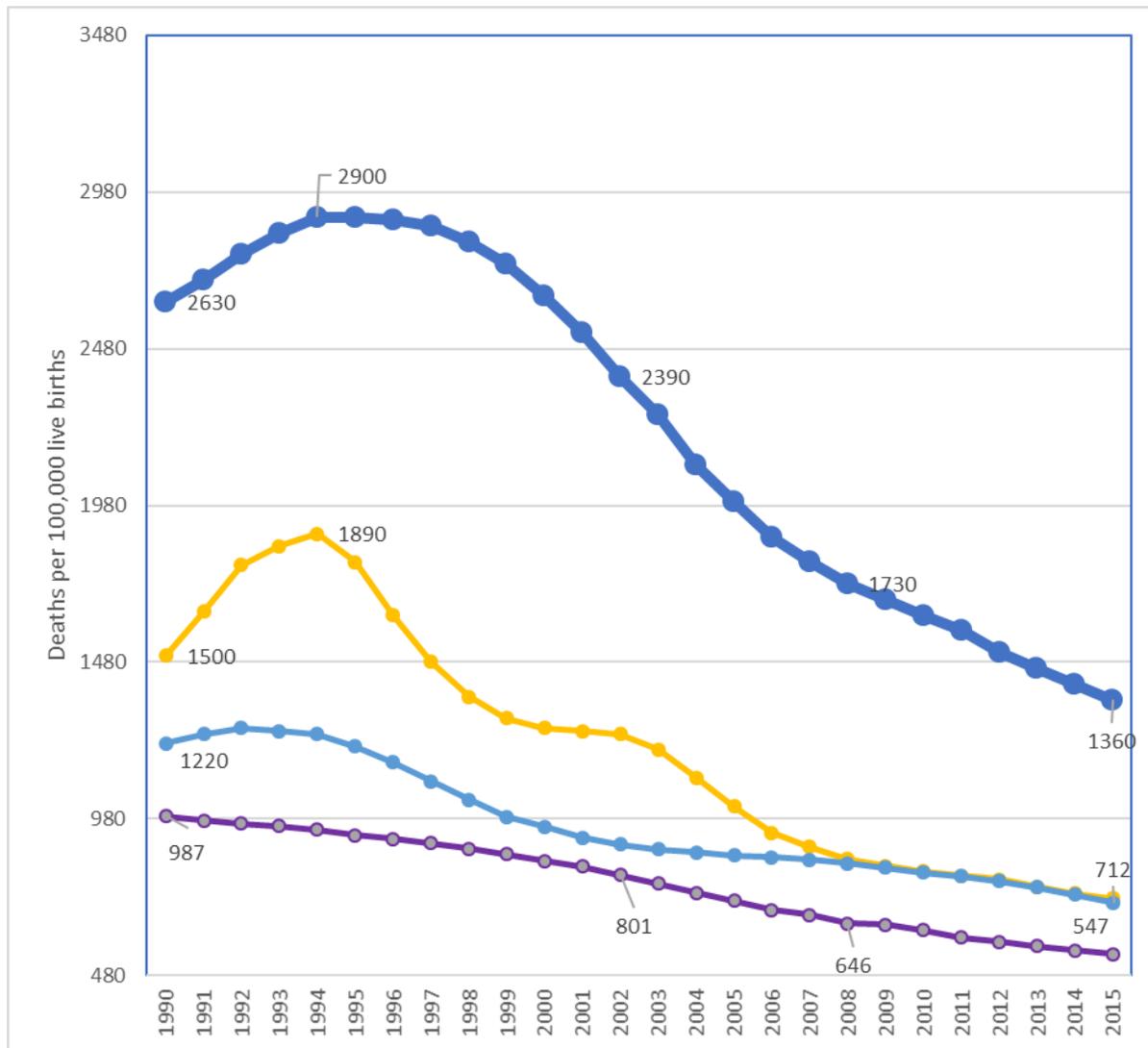
**Figure 5.7: Life Expectancy at Birth for Females and Males 1990-2017**



Source: Data from UNDP HDRO (<http://hdr.undp.org/en/data>)

Sierra Leone’s maternal mortality remains the worst globally and more needs to be done to accelerate improvement (figure 5.8). The high maternal mortality is attributable to deaths that are largely preventable with the main causes being postpartum haemorrhage, which accounts for 33 percent of all deaths, and unsafe abortion among adolescents. Almost half of maternal deaths occur among teenagers. This not unexpected given a high adolescent birth rate of 101 per 1,000 live births in 2017 (table A12).

**Figure 5.8: Maternal Mortality 1990-2015**



Source: Data from World Bank (<https://data.worldbank.org/indicator/SH.STA.MMRT?locations=SL>)

**Table 5.1: Selected Health Indicators**

<b>IMPACT INDICATOR</b>	<b>DHS 2008</b>	<b>DHS 2013</b>	<b>Latest</b>
Infant mortality rate (per 1,000 live births)	92	89	56 (MICS, 2017)
Under-five mortality rate (per 1,000 live births)	156	140	94 (MICS, 2017)
Prevalence of HIV in population aged 15-49 years (%)	1.5	1.5	1.4 (UNAIDS, 2017)
Total fertility rate in population aged 15-49 years (%)	5.1	4.9	4.1 (MICS, 2017)
Prevalence of Underweight (Wt/Age) among children 6-59 months (2SD)	21	16	11.7 (MICS, 2017)
Prevalence of Stunting (Ht/Age) among children aged 6-59 months (2SD)	36	38	26.4 (MICS, 2017)
Prevalence of Wasting (Ht/Wt) among children aged 6-59 months (2SD)	10	9	6.2 (MICS, 2017)
<b>OUTCOME / OUTPUT INDICATORS: RMNCAH</b>			
Births attended by skilled staff (Public and Private) (%)	42	54	76.7 (MICS, 2017)
Pregnant Women making 4 antenatal visits (%)	> 50	76	77.5 (MICS, 2017)
Contraceptive prevalence rate among women aged 15-49 years (%)	14	16	22.5 (MICS, 2017)
Unmet needs for family planning among married women (%)	28	25	26.3 (MICS, 2017)
Children aged < 1 yr fully vaccinated (%)	40	58	68.7 (MICS, 2017)
Children sleeping under LLITN during night before (%)	26	49	70.6 (MICS, 2017)

Sources: MICS, 2017 and UNAIDS, 2017

### 5.2.4 Conclusion and recommendations

As Sierra Leone rebuilds after the EVD epidemic, three main issues emerge. First, most of the health hazards that Sierra Leone is exposed to are amenable to policy. For instance, the cholera epidemic in 2012 and the EVD crisis in 2014-2015 are a function of the poor state of the economy (i.e. the state has a low capacity to deliver sanitary infrastructure) and human interaction with the environment. Second, any health system is intimately related to other vital systems such as water and sanitation, nutrition, transport and security, as well as the economy. Therefore, to build a

resilient health system and achieve SDG 3 and meet Africa Agenda 2063 targets, all actors in these sectors must collaborate. Finally, while Sierra Leone is grappling with known health hazards, other emerging threats include the health effects of climate change (e.g. the spread of drug-resistant malaria), increased numbers of road traffic injuries, poor regulation of telecommunications radiation, food additives and processing chemicals, and increasing middle and high-income lifestyle diseases.

The country needs to build a resilient health system in which health actors have the capacity to prepare for and effectively respond to crises, maintain core functions when a crisis hits, and – informed by lessons learnt during past crises – reorganize, restructure and prioritize. Any health system should be capable of protecting human life and producing good health outcomes during a crisis and in its aftermath.

Key policy recommendations include:

### **Strengthen the existing system for continuous assessment of hazards and risks**

Authoritative assessments are required that allow decision makers in MoHS and other stakeholders to compare and evaluate potential hazards, set priorities for appropriate mitigation strategies, and identify priorities on where to focus resources and further study.

### **Strengthen surveillance and early warning systems**

A credible early warning system is required that can deliver timely alerts, along with effective communications to inform the population quickly about imminent health dangers and coping strategies. Warnings must be responsible and based on robust data and analysis. If not, they may be ignored and the credibility of future warnings reduced.

### **Update health emergency preparedness policy and plans**

Critical components include developing, validating and testing emergency preparedness policies and plans, training, and ensuring robust command and coordination functions. Regular reviews are required to consider changes in conditions.

### **Strengthen the health system**

Critical components include:

- Increasing the number and capacity of healthcare facilities;
- Training, testing and retaining healthcare personnel;
- Regulation and system coordination;
- Effective private sector utilization. A well-regulated private sector can provide high quality care, although at higher costs than state services;

- Modern diagnostics and therapeutics technology may offer a cost-effective substitute for scarce human resources;
- Health Management Information Systems and other routine information systems need to be strengthened by applying data management standards. Transparency should also be increased;
- A focus on preventive healthcare will reduce disease burden.

## 5.3 Water and Sanitation



Children fetch water from a UNDP-supported facility. Photo: UNDP Sierra Leone

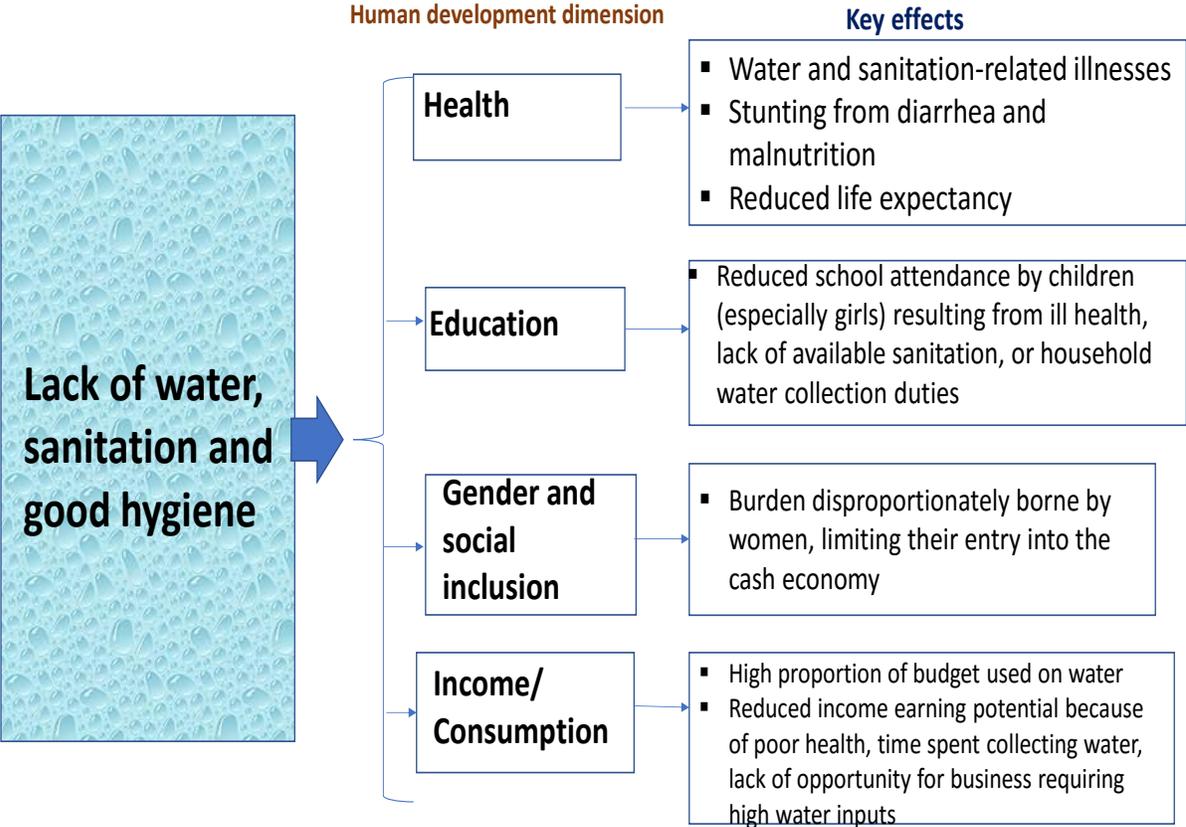
This section first outlines current trends in water and sanitation in Sierra Leone and discusses how human development and vulnerability are affected. Second, it explores adaptation and mitigation measures that have potential to build resilience to achieve the SDGs and Agenda 2063.

### 5.3.1 Water and sanitation and resilience

Access to water refers to a population having reasonable access to an adequate supply of safe water in their dwelling or within a reasonable distance of it. Water may be piped, or supplied from a public tap, bore hole or pump, a protected well or protected spring, or a rain-water reservoir. Access to sanitation refers to a population being able to dispose of excreta through sewers, septic tanks, pour flush systems, latrines and simple pits, or ventilated improved latrines.

Improvements in water and sanitation, especially in association with behaviour change, can have significant effects on population health. Access to water affects health primarily by reducing the transmission of disease agents, and safe disposal of faeces reduces the pathogen load in the environment. Raising the quality of drinking water allows for better hygiene, and with less disease children can improve nutritional status and school attendance. Improved water delivery services allow home care givers (who are mostly women) to prepare better food and even provide a source of income generating activities such as food production. Figure 5.9 presents the linkages between water and sanitation and the key dimensions of human development. Specifically, lack of clean water and sanitation negatively affects health, education, gender equality and economic empowerment through various channels. All these increase household vulnerability to shocks.

**Figure 5.9: Links Between Water and Sanitation and Human Development**



Source: Adapted from Bosch et al (2000).

### 5.3.2 Structure of the water system and water security

Sierra Leone has abundant water resources, with close to six months of rainfall yearly. However, access to improved drinking water remains a challenge. Piped water is rationed throughout the country all year, and in February, March, April and May it is particularly difficult to maintain a sustainable supply. Prior to the destruction of the civil war, Sierra Leone had extensive hydrometeorological monitoring networks and published annual water resource yearbooks. Although Sierra Leone receives high annual rainfall, most river flows discharge into the Atlantic Ocean unused. This is because the country has limited surface water storage (such as dams and reservoirs), no major groundwater aquifers, and relatively small abstractions.

Recent reforms have advanced steadily and created an improved water supply. Access to improved water supply increased from 57 percent in 2010 to 68 percent in 2015 (Stats SL, 2016). Table 5.3 presents sources of drinking water. Three main sources of drinking water exist for households in Sierra Leone: public tap (28.9 percent), protected ordinary well (21.2 percent) and bush/riverbed/stream (19.2 percent). The proportion of households with access to safe water (piped indoor, protected ordinary well, and public tap) in urban areas far outweighs those in rural areas. The main source of water in the rural areas is bush/riverbed/stream (91.5 percent) while in urban areas the main water sources are protected ordinary well (70.8 percent) and public tap (52.6 percent).

**Table 5.2: Sources of Water 2015**

<b>Principal Source of Drinking Water</b>	<b>percent</b>
<b>Improved drinking water source*:</b>	<b>68.0</b>
Public tap	28.9
Protected ordinary well	21.2
Mechanical well	7.8
Piped in compound	4.3
Protected spring	3.6
Neighbours tap	2.1
Piped indoors	0.9
<b>Unimproved water sources*:</b>	<b>31.2</b>
Bush/River-bed/stream	19.2
Unprotected ordinary well	5.1
Unprotected spring	3.5
Sachets/bottled water	2.8
Water vendor/bowser	0.4
Other	0.2
<b>Total</b>	<b>100</b>

Source: Stats SL (2016).

\*WHO definition

A number of factors affect water vulnerability. The first is the high rate of population growth. In 2015 Sierra Leone's population was about 7 million with an annual growth rate of 2.33 percent, which implies that the population will double in 42 years. The rise in population leads to increased demand for water, urbanization and encroachment on water catchment areas. The second major development is climate change and related rainfall variability. According to USAID (2016), climate change will affect water resources in several ways. First, temperatures are projected to increase by 1.0-2.5°C by 2060, with more rapid warming inland. Second, rainfall is likely to increase, particularly in July to December. Similarly, the intensity of single rainfall events will continue to increase. Finally, the level of the Atlantic Ocean will rise 0.1-0.56 metre by 2100, relative to 1980-1999 levels, and from June to September the risk of storm surges will increase. Consequences on water resources include the following. First, water quality will be reduced and increased soluble toxic compounds will be released from mining operations. Second, increased temperatures are likely to promote algal growth and provide breeding grounds for waterborne disease vectors. Third, flooding, leading to increased sedimentation and runoff, will negatively affect water quality. Fourth, water availability

during critical dry periods will be reduced and existing drainage networks in urban centres will be overwhelmed by flash floods.

A number of projects in rural and urban areas are rehabilitating and building new water systems. The Guma Valley Water Company (GVWC) is mainly focused on providing water for Freetown, while the Sierra Leone Water Company (SALWACO) deals with the provinces. The Local Government Act of 2004 devolved water supply functions to local councils in line with the decentralization policy. However, the capacity to manage water facilities remains low at district and local levels. The National Water and Sanitation Policy was launched in 2011 and some initiatives have been implemented. In 2012 a national water point mapping exercise was conducted which estimated that over 28,000 water points exist in the country. In 2017 a national water-point/hydrology study was completed, which provides a picture of all water points and facilities (GoSL, 2017b). Several projects have been implemented in key towns of Bo, Kenema and Makeni, and boreholes have been constructed with solar powered pumps and hand pumps in Bonthe, Kono, Kambia, Koinadugu and Pujehun districts.

Reforms to strengthen the capacity of public water utilities (principally GVWC and SALWACO) to achieve SDG 6 continue with the support of local councils, the private sector, NGOs and communities.

Despite progress, the sector still faces the following challenges:

- Limited access to clean safe drinking water in both urban and rural areas;
- Old and dilapidated distribution system;
- Small capacity of dams and reservoirs, which cannot be closed for maintenance;
- Low institutional capacity at national and local levels;
- Weak monitoring and reporting systems;
- Weak institutional and regulatory frameworks.

Studies show that between 62 percent and 82 percent of the PHUs in 12 rural districts of Sierra Leone have water supply within their compounds. Most are hand dug wells that do not function throughout the year. This is very serious considering the importance of water supply in preventing water-borne diseases and clinical infections. Most clinics in Western Area use hand dug wells and others piped water. Healthcare facilities in Freetown are supposed to be connected to the Guma

Valley water network but almost a quarter are not, and along with many hospitals, must use boreholes.

### **5.3.3 Structure of sanitation**

Access to improved sanitation facilities remains a challenge in Sierra Leone. For instance, in 2015 only 31.5 percent of the population had access to improved toilet facilities (table 5.4). Three main types of toilet facilities exist: communal pit, private pit and communal bush/riverbed. Communal pit is most common (53.4 percent) which, when combined with private pit (20.4 percent), accounts for nearly three-quarters of all household toilet facilities in the country. The country's refuse disposal facilities are also largely inadequate. The main refuse disposal method is the depositing of refuse in a bin (55 percent), followed by dumping and burning which account for equal amounts (14.7 percent). Dumping and depositing refuse are most common in rural areas, while urban households are more likely to burn refuse (68.7 percent) (Stats SL, 2016). Other details on water and sanitation are presented in table A17 in the annex. Another common issue is the dumping of plastics in water drainage channels, which become blocked. While the situation has improved following the introduction of compulsory monthly national cleaning in 2018, more needs to be done.

**Table 5.3: Improved Sanitation by Type 2015**

Type of Toilet	percent
<b>Improved Sanitation</b>	<b>31.5</b>
Private pit	20.4
Private flushed inside	2.9
Communal flushed inside	2.7
Communal flushed outside	2.2
Communal VIP	1.5
Private VIP	1.1
Private flushed outside	0.7
<b>Unimproved Sanitation*:</b>	<b>68.5</b>
Communal pit	53.5
Communal bush/river bed	12.9
Private other	1.0
Communal other	0.7
Communal bucket	0.3
Private bucket	0.1
<b>Total</b>	<b>100</b>

Source: Stats SL (2016).

\*WHO definition

Inadequate and unmanaged refuse disposal presents major challenges to human health and the environment. According to the 2015 Population and Housing Census (PHC), 70 percent of households either deposit or dump refuse inappropriately. Poor sanitation and hygiene coupled with unsafe water sources contribute to many preventable diseases, including diarrhoea, cholera, typhoid, and malaria.

Despite efforts to improve sanitation, the sector still faces the following challenges:

- Much of the population living in rural areas and in urban slums are unaware of the benefits of good sanitation;
- Lack of technical knowledge and inadequate and inappropriate technological solutions;
- The National Water and Sanitation Policy (2010) (GoSL, 2010), the Environmental Health and Sanitation Policy (2000) and the Public Health Ordinance (1960) and its 2004 amendment are outdated. A revised Public Health Bill (2016) is yet to be passed;
- Low levels of improved sanitation coverage especially in rural areas;
- Low levels of sanitation coverage in schools and public institutions;

- Lack of effective waste water and sewage treatment and disposal systems;
- Lack of effective solid waste management in urban and rural areas;
- Weak monitoring and supervisory services;
- Limited private sector participation in sanitation services.

Whilst the urban Western Area has a greater prevalence of flush and pour flush toilet facilities, open pit latrines are most prevalent in rural districts and have serious public health risks. Use of open pit latrines in PHUs should therefore be limited or eliminated. Pour flush and flush toilet facilities are least prevalent in rural PHUs, with some districts having none. Before the EVD epidemic, hand washing systems and facilities were almost non-existent in most healthcare facilities. The subsequent enhancement of infection prevention control has boosted the availability of hand washing facilities, which are now evident in most PHUs across the country.

#### **5.3.4 Conclusion and recommendations**

Safe drinking water and sanitation are the foundations of public health and human development. Their importance is recognised in Sierra Leone's new national development plan and SDG 6. However, Sierra Leone has significant water, sanitation and hygiene (WASH) infrastructure deficits, partly due to the civil war. Unless resilience is built, the existing challenges are likely to worsen due to climate change (leading to increased flooding and drought) and population growth.

Key policy recommendations include:

- Systematically incorporate climate change planning in water and sanitation planning and management;
- Enhance WASH data, including frequent water point mappings;
- Change attitudes and behaviour with regards to water and sanitation, including efficient water use and good hygiene practices;
- Expand and improve WASH infrastructure;
- Develop policy and legal frameworks to govern the WASH sector;
- Improve governance, including strengthening the capacity of the Directorate of the Environmental Health and Sanitation in the MoHS to ensure effective monitoring, supervision and evaluation of WASH interventions;

- Implement measures towards meeting SDG 6 targets and goal 1 priority 4 of the Africa Agenda 2063.

## 6. EDUCATION AND YOUTH EMPOWERMENT



A beneficiary of the Youth Empowerment and Employment programme. Photo: UNDP Sierra Leone

### 6.1 Introduction

This chapter examines education and youth empowerment. As most hazards in Sierra Leone are anthropogenic and related to human behaviour, education and the youth are critical to building national resilience in the future.

### 6.2 Education and Resilience

Education is not only a human rights issue, as Article 26 of the Universal Declaration of Human Rights (OHCHR, 1948) makes clear, but it is also central to driving social and economic development and reducing poverty. As economic growth and human development are connected, education improves incomes and living standards by providing access to knowledge and technology

and increasing productivity and wages by strengthening human capital in the form of skills, techniques and qualifications. An improved environment for education also supports higher rates of growth, as low-income people can seek better economic opportunities. Households where members have at least primary education have a higher probability of getting out of, and a lower probability of falling into, poverty. Girls' education prevents the intergenerational transmission of poverty by breaking the cycle of early marriage and childbearing and reducing health and other risks associated with these events (UNDP, 2014).

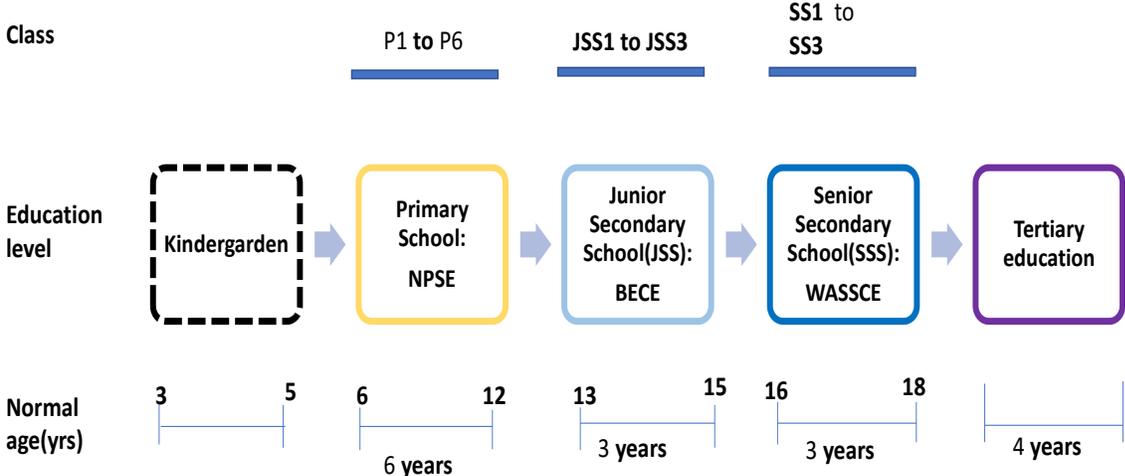
Poverty has many manifestations, and education plays a key role in reducing ill-health and fertility rates and increasing employment skills and income levels. Education can also play a significant role in promoting democratic political systems by enabling participation in decision-making.

### **6.2.1 Status of Education**

Since the end of Sierra Leone's civil war, the Government has undertaken a series of strategic interventions and reform programmes to rehabilitate the education sector, which was ravaged during the war. The first culminated in Parliament enacting the Education Act in 2004, which among other provisions, provided for the elimination of all forms of discriminations in education, and made basic education free, compulsory and a fundamental right of all citizens. Subsequently the Government developed an Education Sector Plan 2014-2018 (GoSL, 2015c) which aims to deliver a holistic improvement in the education sector, with emphasis on access, equity, completion, quality and relevance in the context of an overall system strengthening.

As figure 6.1 shows, Sierra Leone's formal education system is divided into four stages: primary education lasting six years and culminating in the National Primary School Examination (NPSE); junior secondary education lasting three years and leading to the Basic Education Certification Examination (BECE); three years of either senior secondary education (leading to the West Africa Senior School Certificate Examination), or technical vocational education; and four years of university or other tertiary education. Kindergarten education is available mainly in urban areas only.

**Figure 6.1: Structure of Education in Sierra Leone**



Source: Authors’ illustration

**6.2.2 Basic and Senior Secondary Education**

Basic and senior secondary education is the responsibility of the Ministry of Basic and Senior Secondary Education (MBSSE).

**6.2.3 Access, Equity and Completion**

Some progress has been made to ensure education for all Sierra Leoneans. The country has been consistent in ratifying international and regional treaties on the right to education, including the UN Convention on the Rights of the Child, the Dakar Declaration on Education for All, and the African Charter on Human and People’s Rights. The country has also developed national legislation and policies to ensure equal access to education by all, irrespective of socio-economic background. The Education Act (2004) and the Child Rights Act (2007) are prominent among these instruments.

Education programme initiatives have been implemented by the Government and its development partners. These include the SABABU education project, the Girls Education Challenge, the Girls Access to Education programme, and the World Bank funded Revitalizing Education Development programme. Over the years these programmes have led to a massive improvement in enrolment rate at every level of schooling (table 6.1).

**Table 6.1: School Enrolment at Different Levels for Selected Years**

<b>Pre-Primary</b>						
	<b>2003/04</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Male</b>	9,906	23,639	25,748	28,480	38,162	38,103
<b>Female</b>	9,162	25,367	28,292	31,585	42,761	42,016
<b>Both Sexes</b>	19,068	49,006	54,040	60,065	80,923	80,119
<b>Primary</b>						
<b>Male</b>	618,982	628,329	648,303	665,103	702,178	736,275
<b>Female</b>	515,833	624,025	650,605	673,107	710,346	750,664
<b>Both Sexes</b>	1,134,815	1,252,354	1,298,908	1,338,210	1,412,524	1,486,939
<b>Junior Secondary</b>						
<b>Male</b>	80,963	144,174	143,132	146,661	161,964	156,394
<b>Female</b>	52,438	131,741	133,461	139,796	154,438	156,525
<b>Both Sexes</b>	133,401	275,915	276,593	286,457	316,402	312,919
<b>Senior Secondary</b>						
<b>Male</b>	26,292	71,236	78,812	86,769	91,675	94,187
<b>Female</b>	12,032	53,649	60,835	69,751	79,749	85,034
<b>Both Sexes</b>	38,324	124,885	139,647	156,520	171,424	179,221
<b>All levels</b>						
<b>Male</b>	736,143	867,378	895,995	927,013	993,979	1,024,959
<b>Female</b>	589,465	834,782	873,193	914,239	987,294	1,034,239
<b>Both Sexes</b>	<b>1,325,608</b>	<b>1,702,160</b>	<b>1,769,188</b>	<b>1,841,252</b>	<b>1,981,273</b>	<b>2,059,198</b>
<b>Change for all levels (%)</b>						
<b>Male</b>		18	3	3	7	3
<b>Female</b>		42	5	5	8	5
<b>Both Sexes</b>		28	4	4	8	4

Source: National Development Plan 2019-2023

Table 6.1 shows a significant increase in pre-school enrolment, although the situation is not impressive in terms of gross enrolment rates. Gross enrolment rate was 6.1 percent in 2011 and increased to 12 percent in 2017 but is still significantly less than 32 percent average for Sub-Saharan Africa (table 6.2).

**Table 6.2: Pre-Primary Gross Enrolment**

Country	2000	2001	2011	2012	2013	2014	2015	2016	2017
Sierra Leone	3.9	3.9	6.1	7.8	8.4		9.0	12.1	12.0
Liberia	73.5					158.0	156.0	156.6	
Guinea			15.4						
Burundi	0.8	1.2	8.3	8.6	9.3	11.2	13.8	14.2	14.2
Sub-Saharan Africa	15.1	15.6	23.7	27.3	30.0	24.7	25.8	32.0	32.0
Sweden	73.7	73.6	94.9	94.8	95.0	95.6	93.9	94.1	

Source: World Bank (<https://data.worldbank.org/indicator/SE.PRE.ENRR?view=chart>)

Regarding primary education, Sierra Leone performs better than most countries in Sub-Saharan Africa. As table 6.3 shows, the country leads in terms of net enrolment (which is a stricter measure of enrolment than gross enrolment).

**Table 6.3: Primary Net Enrolment**

Country	2012	2013	2014	2015	2016	2017
Sierra Leone	93.3	98.7		95.0	99.2	
Liberia			38.2	37.7	36.8	
Guinea	75.4	76.6	80.3		78.9	
Sub-Saharan Africa	77.5	78.1	78.5	78.5	78.8	78.8

Source: World Bank (<https://data.worldbank.org/indicator/se.prm.tenr>)

Sierra Leone's net enrolment drops significantly at the secondary school level, although it is still higher than average for Sub-Saharan Africa and low-income countries (table 6.4). Other detailed national level net enrolments are presented in table A13 in the annex.

**Table 6.4: Secondary Net Enrolment**

Country	2013	2014	2015	2016	2017	2018
Sierra Leone	33.1		31.8		37.5	
Liberia		16.7	15.5	10.4		
Burundi	21.8	26.4	29.4	32.8	28.9	
Ghana	53.2	52.7	56.2	56.2	56.2	59.0
Sub-Saharan Africa	33.2	33.8	34.6	34.5	34.4	
Low income	33.1	33.4	34.2	33.6	33.6	
Upper middle income	79.9	82.2	81.9	81.5	81.7	

Source: World Bank (<https://data.worldbank.org/indicator/se.prm.tenr>)

While early childhood development (ECD) remains under-developed, parental enthusiasm should give impetus to ongoing government efforts, supported by development partners, to include ECD in mainstream education policy and expand pre-primary education across the country.

Despite these encouraging figures, large gaps remain in access, inclusion and retention in schools. It is estimated that 85.2 percent (181,891) of children who have attained pre-school age (5 years) are not in school. Similarly, 37 percent (392,137) of children who have attained primary school age (6-11) are not in school (UNICEF and GoSL, 2016) and the situation for Junior Secondary School (JSS) and Senior Secondary School (SSS) is similar. An important aspect to note is that many children (estimated at 172,939) already enrolled are at risk of dropping out, and girls constitute the largest proportion of children who are out-of-school or at risk of dropping out (UNICEF and GoSL, 2016).

Although gender dynamics partly explain education exclusion, factors such as poverty (and the consequent inability of parents to afford the cost of education), geographical location, cultural barriers, lack of schools and teachers in some areas, unapproved schools, teenage pregnancy, early marriage, and lack of female teachers and adequate sanitary facilities, all contribute to the problem (WFP et al, 2015; UNICEF and GoSL, 2016).

On 20 August 2018 President Julius Maada Bio officially launched the Free Quality Education (FQE) programme for pre-primary, primary and secondary government and government-assisted schools, and implementation started in September that year. A plan was also developed to move from double-shift schooling (DSS) to one-shift schooling, but infrastructure and teacher-related challenges have made implementation difficult.

#### **6.2.4 Quality and Relevance**

Education can only contribute to building a resilient society if its standards, quality and outcomes address the social and economic needs of present and future generations. In Sierra Leone attention has focused on access to education and achieving gender equity, rather than improving quality of education.

Quality of education remains a concern across all school levels. For instance, many primary class 4 pupils cannot read a grade and age appropriate text fluently and with comprehension, while many pupils in primary class 2 and primary class 4 do not know the letter sounds. Similarly, the quality in JSS and SSS is also a concern. For example, the latest mathematics assessment revealed that only about 7 percent of JSS2 and 12 percent of SSS2 pupils typically demonstrate maths skills linked to

performance band 4, the highest. The vast majority of pupils in both grades fell within the lower performance bands 1 and 2, and about 37 percent of JSS2 and 25 percent of SSS2 pupils typically demonstrate skills linked to performance band 1, the lowest. Across both grades, boys perform significantly better than girls and the gap in performance appears to widen with the move from JSS2 to SSS2.

Ideally, all pupils completing primary school are expected to move on to JSS, but many cannot acquire the required aggregate pass score in the NPSE. Between 2016 and 2017, data from the Annual School Census reveal a reduction in the primary to JSS transition rate, from 88 percent in 2016 to 78 percent in 2017.

Education relevance requires a curriculum that is well matched to the developmental needs of learners and delivers appropriate skills and competencies to contribute to national development. It also involves the formulation and implementation of education programmes that satisfy learners and the expectations of the job market. The education service providers in Sierra Leone are working assiduously towards achieving these requirements for positive education outcomes through the development and implementation of the new Education Sector Plan (ESP) 2018-2020. However, as recognized in the previous ESP 2014-2018 (GoSL, 2015c), challenges to quality remain which require policy interventions and collaborative responses from all stakeholders. These challenges include: the lack of safe learning environments with adequate facilities and resources; the lack of adequate competent, trained and qualified teachers equipped to employ pedagogies that facilitate learning to ensure that no one is left behind; and curriculum content issues, especially the fact that curricula often do not give students the opportunity to acquire the skills needed to be productive and decent citizens, promote their personal development, or develop their communities and the nation.

Interventions such as the creation of the Teaching Service Commission for training and recruitment, the development of lesson plans, the review of the education curriculum, and the establishment of a Situation Room within the Ministry of Education Science and Technology (MEST) have the potential to enhance the relevance of basic education and improve education quality. However, lack of integrity among some actors continues to threaten the fidelity of the system. Examination malpractice, bribery, sex for grades and general corruption within the sector have undermined the quality, relevance and effectiveness of education in the country.

Double-shift school (DSS), was re-introduced in 2009 as a temporary measure to help relieve shortages of school buildings, learning materials and teachers. However, this became permanent and has exposed learners to significant disadvantages. First, the weather is not conducive to effective

learning in the afternoon. Second, pupils who attend school in the afternoon are tired by the time they start school given their involvement in domestic chores at home or in petty street trading. Third, DSS led to an explosion in school populations and an increasing incidence of indiscipline due to the lack of teachers, low teacher commitment and teacher burnout. Fourth, DSS has increased dropout rates and incidence of teenage pregnancies. Finally, inadequate time is available to cover the syllabus, leading to poor performance in national examinations.

Despite gains, serious challenges remain, including the problem of out-of-school children, exclusion of vulnerable children, gender inequity especially at SSS and tertiary levels, lack of trained and qualified teachers in some parts of the country, poor education outcomes, lack of integrity within the sector, and poor learning environments.

### **6.2.5 Tertiary and Higher Education**

Tertiary or higher education includes universities that produce graduates with Bachelor's, Master's and Doctoral degrees; teacher training institutions that produce graduates with Higher Teacher Certificates; and polytechnic institutions that produce graduates with Higher National Diplomas and other vocational qualifications. The rising trend of enrolment over the years (expected to be quadrupled with the introduction of the Free Quality Basic and Senior Education) will increase the need to provide support to technical and higher education. The Government's drive towards Higher Education is demonstrated by the establishment of a separate Ministry of Technical and Higher Education (MTHE). The Government is also in the process of strengthening university governance by introducing elements of autonomy and independence, including allowing institutions to select their own leadership (i.e. chancellors and vice-chancellors) as a way of reducing political interference. It is hoped that this will restore the international status and increase funding for research and networking opportunities. A Directorate for Science, Technology and Innovation has also been established in the Office of the President headed by a Chief Technology Officer to closely work with MTHE to help provide impetus and develop a framework for scientific research and the use of new data-driven approaches to solve development challenges.

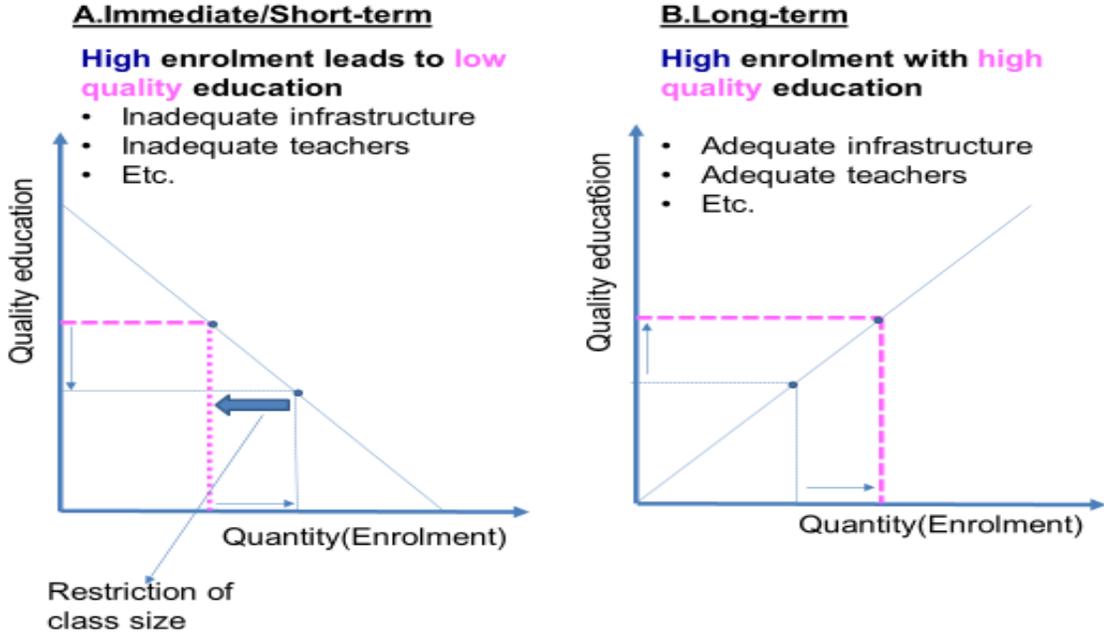
The tertiary education sector faces several challenges, including poor facilities and infrastructure, and low quality of teacher training and at Technical and Vocational Education Training (TVET) institutions. Other challenges include corruption, the low capacity of the MTHE and the Tertiary Education Commission to regulate and oversee institutions of higher learning, and the lack of basic modern facilities for scientific research, innovation and technological exploration. Overall, the quality of courses offered are not properly tailored to meet the needs of the growing demands of the

economy, and shortages of skills further compounds the problem of unemployment and underemployment.

### **6.2.6 Challenges to the FQE**

The 2018 Free Quality Education (FQE) programme is expected to lead to increased enrolment and improved education quality. However, experiences from other countries that have implemented similar policies (Malawi in 1994, Uganda in 1997, Tanzania in 2000 and Cameroon, Burundi, Ghana and Kenya in 2003) suggest that positive outcomes may be elusive. In all countries where Universal Primary Education was instituted with inadequate infrastructure and teachers, the elimination of the direct costs of schooling created a large and instantaneous increase in school enrolment due to a 'hidden/latent demand' for education. This is consistent with part A of figure 6.2 which indicates that the only viable short-term achievement is increased enrolment. Free quality education for all is not achievable in the short-term unless an extensive and well-coordinated plan is implemented that comprehensively meets infrastructure and teacher needs. In most countries, free quality education is only achieved over the long-term. Considering the 2018 FQE programme, the current state of education in Sierra Leone is shown in part A of figure 6.2. FQE is expected to lead to increased enrolment (and eventually increased mean years of schooling) if class sizes are not restricted. If the class sizes are restricted and children turned away, the latent demand for education will diminish and while the quality of education may appear to have increased, this will be at the expense of enrolment. The impact may only be detected years later when a national survey indicates that mean years of schooling has not changed significantly.

**Figure 6.2: Relationship Between Quantity and Quality for Free Education in the Short and Medium-Term**



Source: Authors' illustration

## 6.3 Youth Empowerment



Sierra Leonean Youth celebrating International Youth Day. Photo: UNDP Sierra Leone

This section extends the discussion on education to the related issue of youth empowerment.

### 6.3.1 Youth and Resilience

In Sierra Leone, the youth are those persons aged 15-35 years.<sup>9</sup> As presented in table A19 in the annex the youth population accounts for 39.4 percent of the national population. There are more female youths than male (52.9 percent female compared with 47.1 percent male) and the sex ratio of the youth population is 89.2, which implies that for every 100 female youths there are 89.2 male youths.

The youth are very much at the heart of Sierra Leone’s recent history, including during the civil war and the EVD epidemic. Unfortunately, children and the youth were both victims and key players in the acts of unprecedented violence which characterized the war. Arguably, children and the youth

<sup>9</sup> This differs with the UN definition of persons aged 15-24 years.

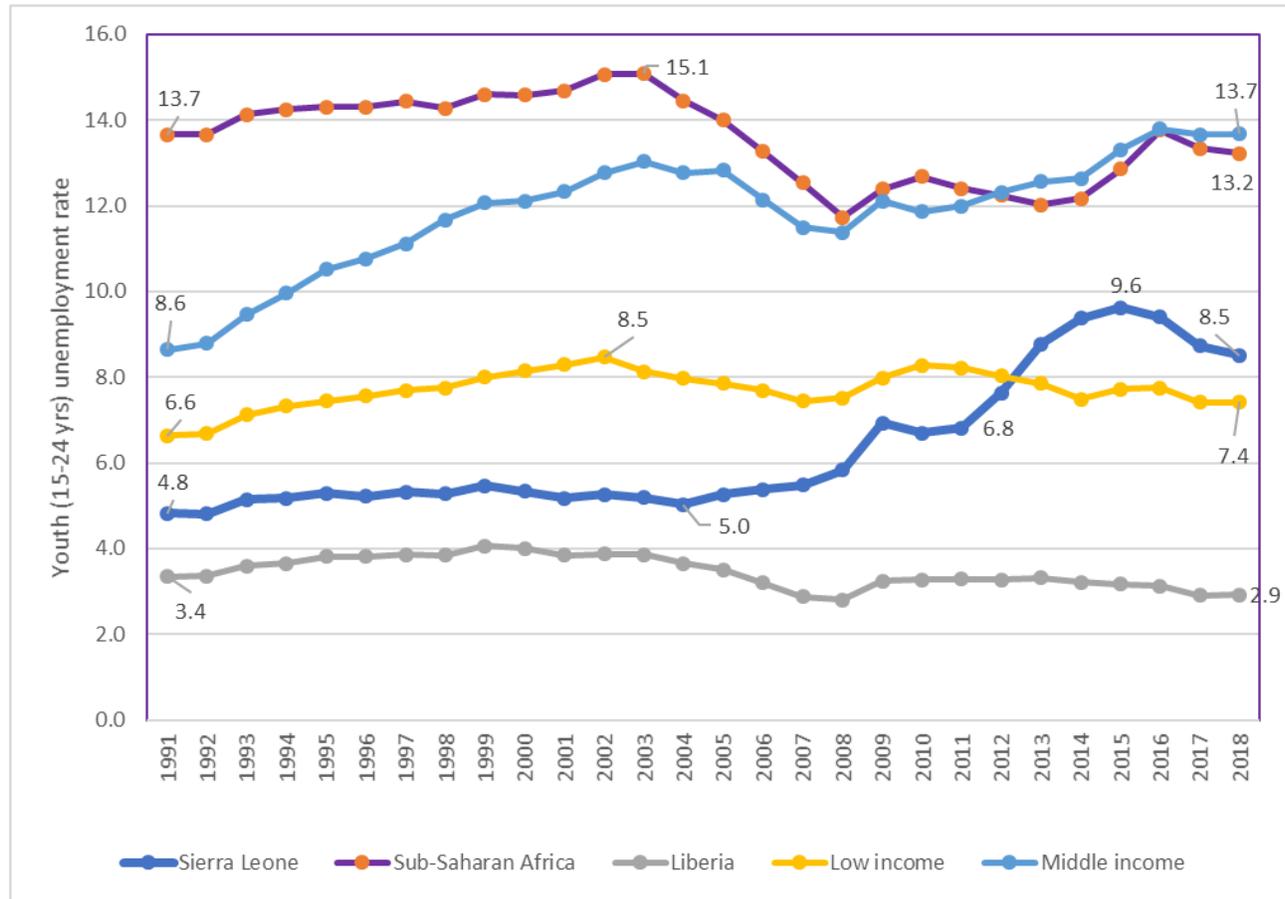
were also most affected by the EVD epidemic, with many becoming orphans or suffering continuing stigma. Others lost a year of education and/or productivity, and more girls became pregnant.

### **6.3.2 Employment, Skills and Opportunities**

Preliminary data from the 2015 Labour Force Survey (Stats SL, World Bank and ILO, 2015) reveal that among the working-age population of slightly more than 3 million, 65.4 percent are employed, and the rest (more than one-third) are not gainfully employed (based on the ILO definition). Out of those who are not employed, 26.8 percent are not available for work, 3.0 percent are looking for work and 4.8 percent are not looking for work. The labour force participation of the youth showed only a small increase from 55.7 percent in 2014 to 55.8 percent in 2016.

Youth empowerment issues in Sierra Leone are related to youth unemployment and under-employment, skills mismatch between the demand and supply side of the work force, access to quality education, ethics, drug and related substances, gender inequality and disparity, participation in decision-making processes, and female sexual and reproductive health challenges. Although youth unemployment has shown a decline from 2016, it has generally been on an upward trend (figure 6.3).

**Figure 6.3: Youth (15-24 years) Unemployment Rate**



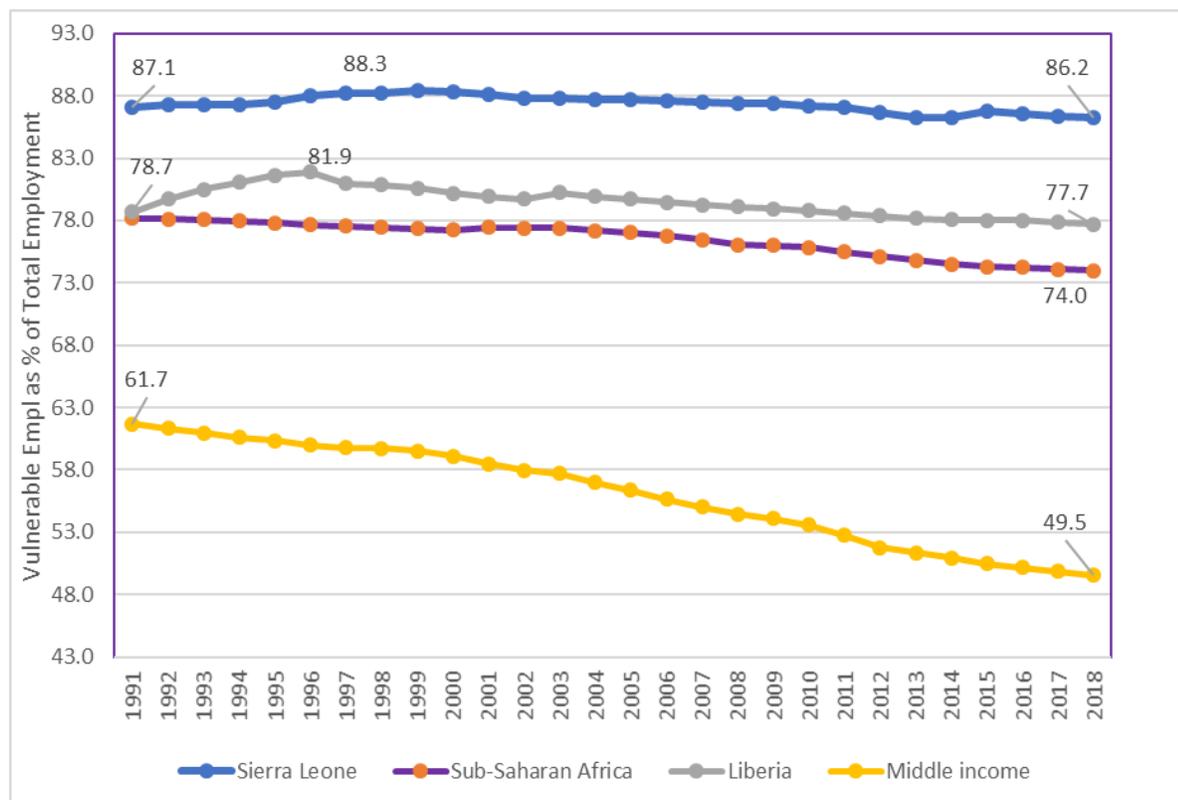
Source: Data from World Bank (<https://data.worldbank.org/indicator/sl.uem.1524.zs>)

Although youth unemployment in Sierra Leone is less than the average for Sub-Saharan Africa, the main problem is vulnerable employment.<sup>10</sup> Figure 6.4 shows that in 2018 86.2 percent of employment in Sierra Leone was vulnerable compared with 74 percent in Sub-Saharan Africa, and 49.5 percent in middle-income countries.

**Figure 6.4: Vulnerable Employment as percent of Total Employment 1990-2018**

<sup>10</sup> Vulnerable employment is defined as the sum of the employment status of groups of own account workers and contributing family workers. They are less likely to have formal work arrangements and are therefore more likely to lack decent working conditions, adequate social security and ‘voice’ through effective representation by trade unions and similar organizations. Vulnerable employment is often characterized by inadequate earnings, low productivity and difficult conditions of work that undermine fundamental rights.

Source: [https://esa.un.org/unmigration/documents/retreat/UN%20WOMEN\\_Indicator\\_vulnerable\\_employment.pdf](https://esa.un.org/unmigration/documents/retreat/UN%20WOMEN_Indicator_vulnerable_employment.pdf)



Source: Data from World Bank (<https://data.worldbank.org/indicator/sl.emp.vuln.zs>)

In terms of basic education, literacy rates are higher among the youth (51.8 percent) than among older people aged 36-64 years (22 percent), with the working age population accounting for 51.8 percent of older people. Just under half of all the youth (44.7 percent) have never attended school, compared to 75.5 percent of older people, and 55.2 percent of the working-age population. Men are more likely than women to be literate, and this differential is also present among the youth. Young men are more than two times more likely than older men to be literate, while young women are three times more likely than older women to be literate. The precarious situation of a burgeoning youthful population, demanding inclusion and in need of jobs and livelihood opportunities, is one of the key drivers of fragility (Marc et al, 2015).

The country has however been making important progress toward improving the situation. In 2014, the Government with support from UNDP adopted a revised National Youth policy which outlines priority areas for intervention and key strategies for youth empowerment. To implement the priority areas of the policy, the Government again with support from UNDP, developed a Blue Print for Youth Development 2014-2018. Similarly, in 2015 the Government, with support from the German Corporation for International Cooperation (GIZ) and ILO, developed a National Employment Policy to provide productive and remunerative employment opportunities and improve

working conditions for all those available and willing to work, including vulnerable groups, within the framework of the national development process. The Government also enacted the Local Content Agency Act (2016) which advocates, among other things, for skills training and employment.

Furthermore, the Government has established a separate Ministry of Youth Affairs (MoYA) and a National Youth Commission (NAYCOM), which is the implementing agency operating under the supervision of the MoYA.

Increasingly government is realizing that youth engagement can generate new ideas, energy and enthusiasm, and serve as an important driver for sustainable development at all levels, from the community to the national. Following decentralization and devolution, youth structures in Sierra Leone have been decentralized down to chiefdom level, with the intention of enhancing capacities and enabling the youth to become more resilient and adaptive to emerging opportunities and capable of realizing their full productive potential. However, despite decentralization and efforts around developing strategies and establishing structures, institutions and agencies (notably NAYCOM and MoYA), empowering the youth and addressing their socio-economic needs remains a serious challenge. For youth related policies, strategies and institutions to be effective, they must be seen to not only empower the youth for the benefit of the youth, but also to maximize the contribution of the youth towards sustainable development and building a resilient nation. If not, many of the youth are likely to remain unengaged. In Sierra Leone, especially during the civil war, evidence abounds of the youth being susceptible to manipulation and antisocial behaviour – as both perpetrators and victims – including crime and violence. This is largely due to decades of marginalization and lack of youth empowerment.

### **6.3.3 Challenges to Youth Empowerment**

There are many critical challenges to empowering youth so that they become resilient to various shocks. These include:

#### **Labour Market Segmentation**

The labour market is segmented along dimensions such as primary and secondary sectors with limited movement between them due to entry requirements. The 2016 Labour Force Study indicates that agricultural self-employment accounted for 50.2 percent of jobs in 2016 while non-agricultural self-employment accounted for 35.6 percent of jobs in the same period.

## **Inadequate skills for the job market**

Most youths do not possess the necessary skills for the job market. The 6-3-3-4 system of education adopted in 1994 was mainly aimed at developing the human resources needed to meet the development challenges of the nation. It placed TVET at the centre of the education programme. However, the TVET system has largely been supply-oriented and has not responded quickly to the job market, tending to react rather than anticipate needs. It also places undue emphasis on theory and certification rather than on skills acquisition and proficiency testing. Specifically, more than 90 percent of the TVET institutions do not possess the minimum laboratory, workshop or library facilities needed for their programmes. Furthermore, very few teaching and administration staff have professional qualifications. Many do not possess the minimum requirement for entry into teacher training institutions and those who do often find more lucrative opportunities on completion of training. Most staff of teacher training institutions also lack necessary skills.

## **Failure to address gender issues**

In the case of young women, early child-bearing and teenage pregnancy are among the most pervasive problems affecting their health, socio-economic and political progress, and empowerment. A high level of transactional sex is also prevalent among girls, partly as a coping strategy against poverty, who are consequently vulnerable to sexually transmitted infections including HIV and AIDS.

## **Misuse of drugs and alcohol and antisocial behaviour**

The use of illegal drugs like cannabis sativa (*jamba*), adulterated mixes of cocaine or amphetamine (*brown-brown*), cocaine, and most recently opioid medications such as tramadol is increasing among the youth. The rise in drug trafficking and an increase in local drug production and consumption is becoming a major national issue. This challenge requires a coordinated and multi-pronged response.

## **Mindset, attitudes and orientation**

Youth attitudes, including a dependency mindset, result in the youth wanting to be paid even to learn. Political parties have often reinforced this dependency culture, promoting the common concept of '*Brayou bobordae oh*' (i.e. 'Boss, your boy is here and needs your help'). Clearly, the youth themselves must accept more self-determination, work harder, become more innovative and entrepreneurial, change their mindset, and become more productive and focused citizens.

### **6.3.4 Responsible Factors**

The main factors responsible for the problems affecting the youth in Sierra Leone include:

- Post war circumstances that have led to the breakdown of family support systems;
- Challenges to governance at both institutional and national levels;
- Inadequate policies and regulatory frameworks, including challenges associated with legislating for the National Youth Council and lack of government support to youth organizations;
- Limited private sector investment for job creation;
- Emotional and psychological issues;
- The youth not taking responsibility for themselves and others;
- Political sentiment and lack of trust between the youth and state actors.

## **6.4 Conclusions and recommendations**

### **Education, Youth Empowerment and Resilience**

Education is a key component of human development and is critical to socio-economic development and building long-term resilience. Therefore, while the policy and regulatory environment needs to focus on providing education for all and addressing infrastructure challenges, the risk of conflict and disasters damaging the education system must also be minimized. Key policy recommendations to build resilience in the education sector follow.

### **Mainstream resilience measures, including risk monitoring and preparedness**

The EVD epidemic that affected thousands of families, teachers and school-aged children across Sierra Leone demonstrated the importance of ensuring that the education sector is prepared to minimize the impact of future shocks. All educational institutions therefore require robust preparedness and response plans that are linked to the national multi-hazard planning framework. All key stakeholders should be sensitized, trained and tested on preparedness and response protocols.

### **Re-evaluate the Free Quality Education programme**

The FQE is a laudable initiative, but a re-evaluation is required to determine whether the key objective is enrolment or quality. In a country like Sierra Leone with limited infrastructure, the two are incompatible in the short-term. Other countries that have followed the same approach have first prioritized enrolment and then gradually increased quality. However, while the policy of restricting class size increases quality, it reduces enrolment if learners cannot be admitted.

### **Align national skills planning with long-term national planning**

Sierra Leone requires a skilled workforce and the education and training system should adequately prepare the youth to enter the labour market. Consequently, a national skills development policy is required that will provide a common vision of the system that Sierra Leone is aiming to build by 2035. This will need to provide planned and coordinated action across the entire education system, and regular skills surveys will be required.

### **Provide sustainable funding for higher education**

An increasing population combined with increasing primary and secondary education enrolment will result in an upsurge in the number of poor students qualifying for higher education. Alternative funding mechanisms will be required meet this demand. They include:

- Increasing sustainable public funding consistent with the country's fiscal space;
- Establishing a student loan scheme based on lessons from other African countries such as Ghana, Kenya, Namibia, Nigeria, Rwanda, South Africa, Tanzania and Uganda. Recovery of loans from graduates employed in private sector is critical;
- Creating a conducive environment for the private sector to invest in education. However, it is important that private investors build new institutions and not buy public ones.

### **Deploy digital technology**

New digital technologies will boost efforts to ensure education for all and address infrastructure challenges. They include:

- Working with the Directorate for Science, Technology and Innovation to develop approaches that complement traditional learning with digital solutions for learning and personal development;
- Providing opportunities for student interns to learn cutting edge technologies locally and internationally while getting on the job training from industry professionals;
- Automating the examination process to reduce fraud and free human resources;

- Creating space for Massive Open Online Courses.

### **Improve data for education**

An Education Management Information System would provide accurate data to facilitate preparedness and response planning, results-based planning, and programme monitoring and implementation. Education censuses should be conducted regularly and a database of the youth created. This would support delivery of quality education in a timely and cost-effective manner.

### **Promote safety, accessibility and self-determination**

Sexual violence and exploitation in schools should be curbed and girls must be protected from abuse. Those that break the rules must be punished. Furthermore, all educational establishments should have adequate WASH facilities to provide for girls and students with special needs, as well as accessibility ramps for the less able. Overall, the youth need to move away from a dependency culture. Work must be more available and the youth themselves need to work harder, become more innovative and entrepreneurial, change their mindset and unproductive culture, and become more focused citizens. Scaling up the National Youth Service programme in all districts would support this objective.

## 7. FOOD AND NUTRITION SECURITY



Traditional food stuff being sold in a local market in rural Sierra Leone. Photo: UNDP Sierra Leone

### 7.1 Introduction

This chapter presents and analyzes food and nutrition security from a vulnerability perspective and offers policy recommendations.

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (World Bank, 1986). This definition has four elements, namely: (1) enough food must be available to meet people's needs; (2) people must have access to food that is available under normal circumstances; (3) volatility in production or prices must not threaten the availability; and (4) the quality of food that people consume must be adequate for their needs. Food security is covered in SDG 2 and Aspiration I of the Africa Agenda 2063.

### 7.2 Food and Nutrition Security and Resilience

Food and nutrition security is a critical component of national resilience (Maroun and Donno, 2014). Protecting, restoring and improving livelihoods systems in the face of threats that affect agriculture,

nutrition, food security and food safety is therefore critical. The computation of income poverty profiles show that food and nutrition security plays a significant role in poverty.<sup>11</sup>

Since the end of the civil war, successive development plans have prioritized food production with the intention of making the country self-sufficient. Despite efforts to increase domestic food production, the bulk of rice, the country's staple food, continues to be imported. This makes the country susceptible to volatile international food prices and drains limited foreign exchange reserves (table 7.1). While many people would prefer locally produced rice (which is cheaper than imported rice during the harvest season and more expensive for the greater part of the year), the inability of local farmers to service the high demand means that the population is continually overdependent on imports.

**Table 7.1: Composition of Imports 2010-2018**

Import type	2010	2011	2012	2013	2014	2015	2016	2017	2018
Petroleum and other oil products	171.41	275.76	346.59	416.02	489.76	277.95	183.75	249.33	279.09
Food:	104.74	245.88	306.02	357.84	336.70	527.90	298.73	405.35	424.40
Rice	71.59	84.70	111.36	127.73	120.72	141.50	96.89	131.47	134.10
Other	33.15	161.18	194.66	230.11	215.98	386.40	201.84	273.88	290.30
Other imports	934.17	1,823.60	2,187.39	1,726.25	1,714.74	1,780.22	1,264.69	1,401.06	1,474.55
Total imports (c.i.f)	1,000.85	1,853.48	2,227.95	1,784.43	1,867.79	1,530.27	1,149.71	1,245.04	1,329.24
% of Food imports	10.46	13.27	13.74	20.05	18.03	34.50	25.98	32.56	31.93
% of Rice imports	7.15	4.57	5.00	7.16	6.46	9.25	8.43	10.56	10.09

Source: Balance of payment statistics, Bank of Sierra Leone

According to the 2015 Comprehensive Food Security and Vulnerability Analysis (CFSVA) – for which data were collected at the end of the EVD epidemic between September and October 2015 – 49.8 percent of the population is food insecure (WFP et al 2015).<sup>12</sup>

Food consumption scores (FCS) (table 7.2) reveal that nationally 19.9 percent of households are food poor, while 35.5 percent are borderline and 46.5 percent are on an acceptable FCS. The data show district-level disparities with Kambia District accounting for the highest proportion of food poor households (47.4 percent) followed by Port Loko (28.8 percent) and Bonthe (27 percent). Conversely, Western Area Urban accounts for the highest acceptable FCS (75.5 percent) followed by Urban Slums (65.7 percent) and Bo District (63.4 percent).

<sup>11</sup> The food poverty line is based on the minimum nutritional requirements per day for a reference person or household.

<sup>12</sup> Food insecurity means that 'their food consumption score is unacceptable' or that 'they consume limited or insufficient food to maintain a healthy or active life'.

**Table 7.2: Food Poverty by District:**

<b>District</b>	<b>'Food poor'</b>	<b>'Borderline'</b>	<b>'Acceptable'</b>
Kailahun	12.7	63.4	24.0
Kenema	25.4	34.4	40.1
Kono	25.4	35.1	39.5
Bombali	24.3	35.6	39.6
Kambia	47.4	20.4	32.1
Koinadugu	23.5	31.5	45.0
Port Loko	28.8	24.7	46.6
Tonkolili	24.2	41.8	34.0
Bo	12.4	24.3	63.4
Bonthe	27.0	22.8	50.2
Moyamba	11.3	46.3	42.4
Pujehun	21.3	44.4	34.3
Western Urban	2.7	21.8	75.5
Western Rural	24.4	36.8	38.8
Urban Slums	9.0	25.4	65.7
National	19.9	35.5	46.5

Source: Adapted from the 2015 Comprehensive Food Security Vulnerability Analysis Report

Among the 49.8 percent of households that are food insecure, 8.6 percent are severely food insecure and 41.2 percent are moderately food insecure. As table 7.3 shows, distinct district-level variations in household food insecurity exist, with food insecurity ranging from 70.6 percent of households in Kailahun District and 68.6 percent in Pujehun, to 41.6 percent in Western Rural, 37 percent in Bo and 12.2 percent in Western Urban.

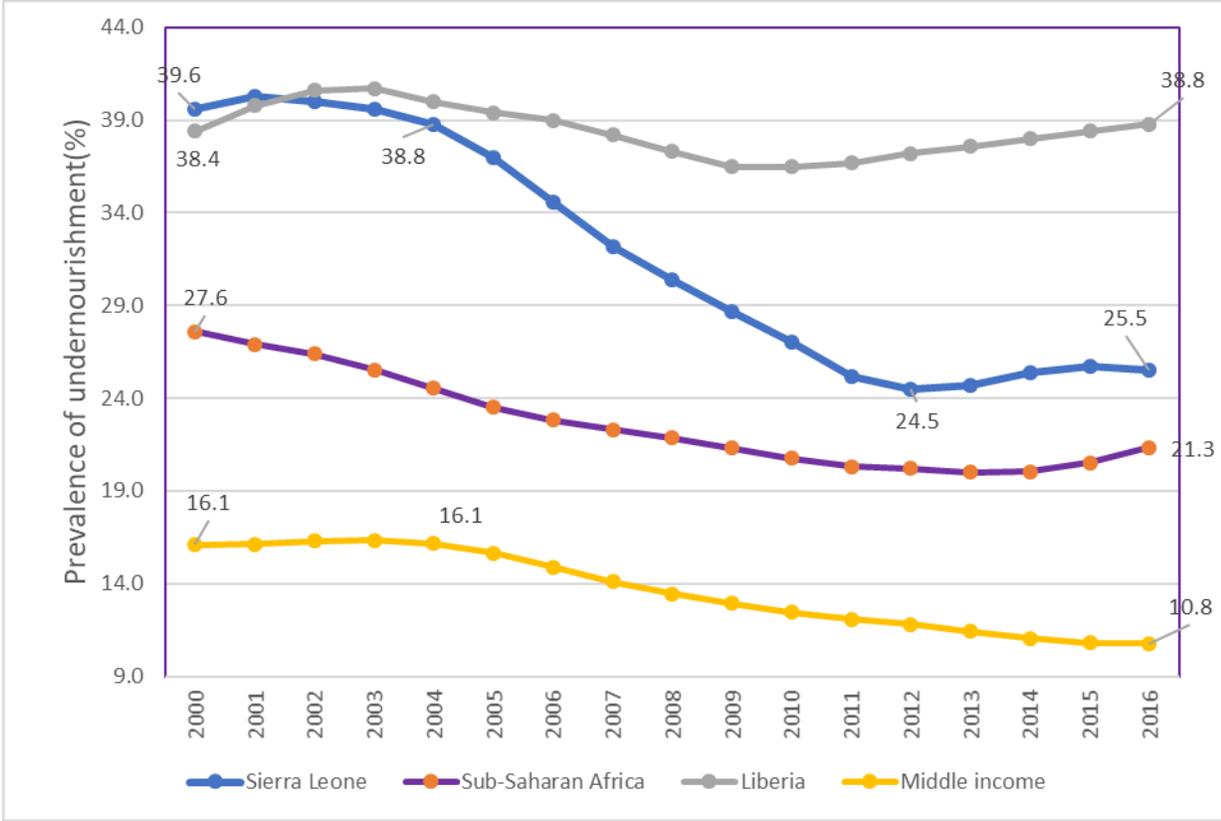
**Table 7.3: Food Security at Different Levels**

<b>District</b>	<b>Food Secure/Marginally food secure</b>	<b>Moderately to Severely food insecure</b>
Kailahun	29.4	70.6
Kenema	44.9	55.1
Kono	43.9	56.1
Bombali	43.5	56.5
Kambia	32.7	67.3
Koinadugu	48.1	51.9
Port Loko	38.6	61.4
Tonkolili	36.1	63.9
Bo	63.0	37.0
Bonthe	47.1	52.9
Moyamba	47.8	52.2
Pujehun	31.4	68.6
Western Urban	87.8	12.2
Western Rural	58.4	41.6
Urban Slums	42.7	57.3
National	50.2	49.8

Source: Adapted from the 2015 Comprehensive Food Security Vulnerability Analysis Report

Nationally, the proportion of household expenditure on food has declined by 4 percentage points from 63 percent in 2011 to 59 percent in 2015 (GoSL et al, 2011; GoSL et al, 2015). This means the amount of money households, on average, are left with to spend on other essential needs including health and education (which is usually small) has improved marginally. The country's inability to produce sufficient food for domestic consumption, despite documented increases in rice production over the years, has done little to reduce hunger among the population. Although food insecurity and poor nutrition affect the entire population, vulnerability levels, especially during crisis periods, vary considerably with poor households, especially children in poor households, most affected. As figure 7.1 shows, the percentage of people facing undernourishment is much higher than the average for Sub-Saharan Africa and middle-income countries.

**Figure 7.1: Prevalence of Undernourishment as percent of Total Population**

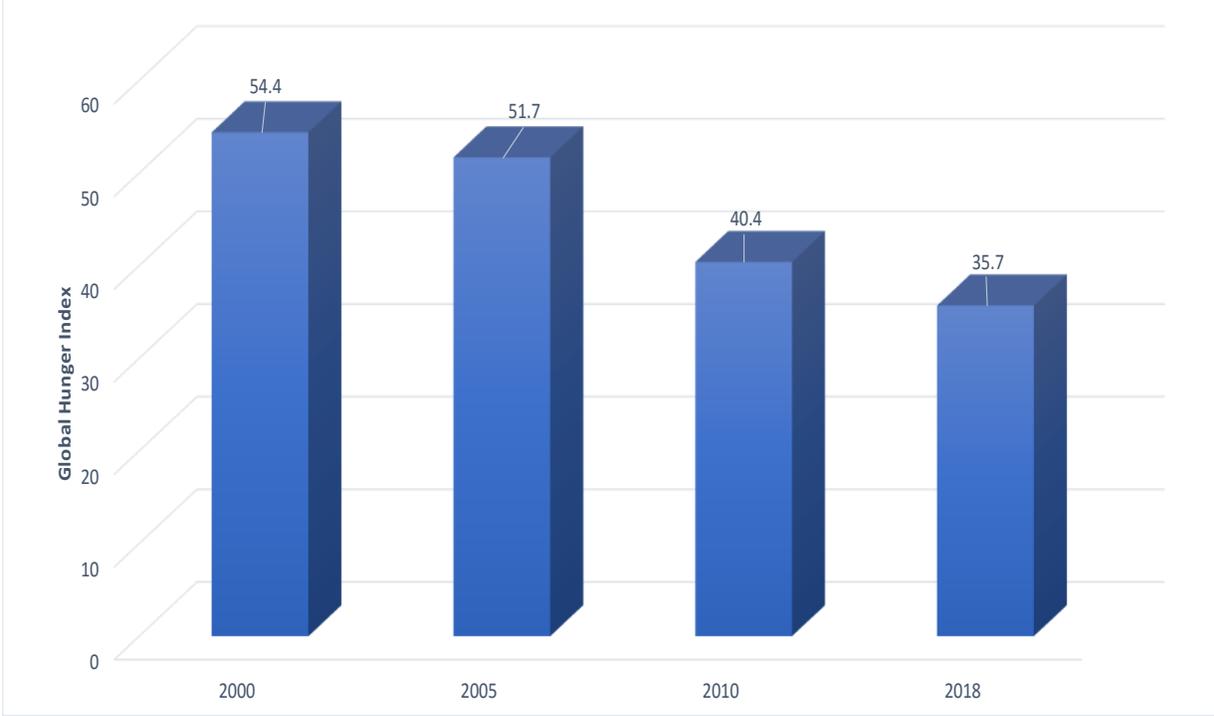


Source: Data from World Bank (<https://data.worldbank.org/indicator/sn.itk.defc.zs>)

Based on the latest (2018) Global Hunger Index (GHI) (produced by the International Food Policy Research Institute jointly with Concern Worldwide and Welthungerhilfe) among all countries in the world for which data are available, Sierra Leone is the fifth hungriest in the world. In capturing the multidimensional nature of hunger, the GHI computation draws on four component indicators, namely undernourishment, child wasting, child stunting, and child mortality. It is important to note that as is the case with HDI, the GHI are only comparable within each year’s report, and not between different years’ reports. The current and historical data on which the GHI scores are based are being revised and improved continually by the UN agencies that compile them, and each year’s GHI report reflects these changes. Comparing scores between reports may create the impression that hunger has changed positively or negatively in a specific country from year to year, whereas in some cases the change may be partly or fully a reflection of a data revision.

Although Sierra Leone’s hunger status globally is far from encouraging, the country has made remarkable progress. Trend analysis from GHI 2018 reveals a decrease in the proportion of the population that is classified as hungry from 54.4 percent in 2000 to 35.7 percent in 2018 (figure 7.2).

**Figure 7.2: Global Hunger Indices for Sierra Leone**



Source: GHI Data for 2018 (<https://www.globalhungerindex.org/pdf/en/2018.pdf>)

Food security is a complex, multifaceted issue influenced by culture, environment and geographic location. The Global Food Security Index (GFSI) computed by the Economist Intelligence Unit is a country-level food security measurement tool which addresses issues of affordability, availability, and quality and safety.

Table 7.4 shows that Sierra Leone’s food security is among the world’s worst. The low ranking in the GFSI is due to lack of food safety programmes, poor access to financing by farmers, low public expenditure on agricultural research and development, high food losses, and low protein quality.

**Table 7.4: Sierra Leone’s ranking in Global Food Security Index 2012-2018**

<b>Year</b>	<b>GFSI Score</b>	<b>Ranking</b>	<b>Countries</b>
2012	28.7	94	105
2013	29.0	98	107
2014	35.8	89	109
2015	29.0	106	109
2016	26.1	112	113
2017	28.7	109	113
2018	29.2	109	113

Source: <https://foodsecurityindex.eiu.com/>

Food security remains a critical challenge and often becomes acute in the rainy season when about 45 percent of the population does not have sufficient access to food. In a country that has traditionally depended on rice as its staple food, diets are mostly lacking in variety, and only a small proportion of the population try other forms of diets. Consumption of protein, especially meat and dairy products, is generally very low, as is consumption of fruits. However, most households in Sierra Leone, especially in the fishing communities, regularly consume fish as their main source of protein. The latest CFSVA survey reveals that most households (56.8 percent) consume four or less food groups on a weekly basis and 13.9 percent consume two or less food groups. Furthermore, more than one-third of households (36.9 percent) had not consumed any protein-rich food in the seven days prior to the survey, while the majority (67.7 percent) had not consumed food rich in iron (WFP et al, 2015)

### **7.3 Underlying Factors affecting Food and Nutrition Insecurity**

Food and nutrition security is a multidimensional issue affected by, among other factors, socio-economics, demographic changes, urbanization and agricultural productivity.

#### **7.3.1 Low agricultural productivity and limited opportunities**

Most of the rural population in Sierra Leone depend on agriculture and fishing for their food and livelihoods. However, the sector is characterized by a large proportion of smallholders practising mainly subsistence agriculture which is affected by seasonality.

Consequently, household food crop production is almost always inadequate to sustain households throughout the year, especially as most farming households must sell some of their harvest to pay for necessities such as school fees, healthcare and clothing as well as other routine needs such as

transport and mobile phone airtime. Subsistence farming, as relates to rice, is characterized by six to seven months of cultivation which culminates in one-off harvesting at the end of the rainy season. This means that farming households only have an ample supply during weeks of harvest and this is quickly depleted as they must sell harvested crop to address other household needs. According to the 2015 CFSVA, only 4.0 percent of farmers produce enough rice to meet the needs of their family for the whole year, meaning that nearly all farmers are producing below subsistence levels.<sup>13</sup> Consequently, there is over-reliance on imported rice which, with the price determined by foreign exchange rates despite government subsidy, becomes prohibitively expensive for low-income households. The worst hunger (or food insecurity) is experienced in July, August and September each year, which coincide with the peak of the rainy season (WFP et al, 2015), and for the urban poor, the main cause of food insecurity is lack of income to buy food.

### **7.3.2 Rising population**

The population is increasing at faster rate than that of food production.

### **7.3.3 Ageing farming population**

The age-selective nature of rural-urban migration sees younger people migrating to the urban Western Area and other cities, while older people stay behind. This is caused mainly by the youth's perception of subsistence farming as a low-income occupation.

## **7.4 Conclusion and Recommendations**

### **Increase the productivity of the agricultural sector**

Bottlenecks in areas such as finance, mechanization and infrastructure need to be addressed to increase production of staple crops such as rice.

### **Change the mindset and attitudes of the youth**

The youth should be encouraged to consider farming as a business that provides a higher income than informal work in urban centres.

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<sup>13</sup> This statistic must be treated with caution: the 2014-2015 agricultural season (to which 2015 CFSVA survey data applies) was exceptional, with rice production declining by 15.0 percent, probably largely as a result of the impact of the EVD epidemic. Thus, it is fair to assume that without this type of shock, the percentage of farmers producing sufficient rice to meet their own needs or produce a marketable surplus will be higher.

### **Put in place food crises preparedness and response plans**

The country needs to be able to anticipate, respond and recover from food crises. This requires taking action to create national rice reserves. The status of strategic food supplies also needs to be monitored to enhance planning for imports. Smart and forward-looking adaptation policies are required to address climate change, which will probably reduce crop yields.

### **Boost the capacity for surveillance for crop and livestock diseases**

The spread of transboundary plant pests and diseases, which cause losses to farmers and threaten food security, has increased dramatically in recent years, as has the incidence of animal diseases and zoonotic diseases such as brucellosis which affect animals and humans. To counter these threats, Sierra Leone needs an integrated system which monitors, collects and reports priority plant pests and diseases, animal diseases, and zoonoses. The numbers and capacity of Community Animal Health Workers in surveillance and reporting needs to be increased, and the use of epidemiological surveillance, laboratory and communication tools the Ministry of Agriculture and Food Security (MAFFS) should be enhanced. Additional capacity is also required to map diseases and risk factors and assess risk along value chains using Geographical Information System (GIS) tools.

### **Policies and regulatory framework**

Policies and regulations are required that address large scale land acquisition by multinational companies and ensure that small scale farmers, especially women and other vulnerable groups living in rural communities, gain access to and control land for food crop production.

## 8. GENDER EQUALITY AND WOMEN'S EMPOWERMENT



Girls learning welding skills as part of UNDP's Social Good Summit in Sierra Leone. Photo: UNDP Sierra Leone

### 8.1 Introduction

This chapter has two objectives. The first is to present the status of gender equality and women's empowerment from resilience perspective. The second is to provide recommendations on how to improve gender equality and women's empowerment. Gender equality refers to the existence of equal rights, responsibilities and opportunities for women, men, girls and boys. Equality between men and women is seen both as a human rights issue and as a precondition for, and an indicator of, sustainable development. Women's empowerment refers to the process that enhances women's ability to decide, act freely and take control over their resources.

### 8.2 Gender Equality and Women's Empowerment and Resilience

Empowering women in Sierra Leone will increase the opportunities for women and girls to build resilience and stimulate sustainable development. Gender-based inequalities and social exclusion are

key factors that undermine individual and community capacities to cope with and recover from shocks. Although the Government and its implementing partners have made some progress in reducing gender inequalities across economic, social and political spaces, gender inequality remains a hindrance to sustainable development in Sierra Leone.

The active roles played by women in political, physical and socio-economic spaces is indispensable. They cover all aspects of life ranging from childcare to farming but are rarely included in formal systems and are unacknowledged. Addressing gender and empowerment changes the stereotype of women as an oppressed homogenous group and gives equal consideration to the differences between men and women, and between similar genders, in terms of status, roles, problems and needs and according to social, cultural and geographical contexts.

If resilience is to be increased, the underlying conceptualization of power in Sierra Leone needs to be addressed. One key question is: To what extent does 'power to', 'power over', 'power within' and 'power with' women influence resilience? Doubtlessly, the non-participation of women in decision-making makes them more vulnerable, and this in turn affects communities and national development. As things stand in Sierra Leone, women's consciousness is so influenced by the power of established values and institutional practices that they are not even aware of opportunities to enhance their resilience.

Across the country, women and girls face the detrimental effects of first, cultural and social norms that define gender stereotypes (which include prohibitions on performing certain activities) and second, the breakdown of normal protection structures during crises (Actionaid, 2017). Furthermore, low or non-existent incomes mean women lack the collateral to borrow money to purchase land. Tables A5 and A20 in the annex present gender-related statistics for 2017.

Most girls in rural areas achieve only a primary school education and, in many cases, drop out of school as soon as they reach puberty, and/or get married. High illiteracy among women results, which in turn means they depend on their husbands or male family members. Lack of education and low professional skill levels also obstruct women's vocational choices, often limiting them to low pay and low status occupations in the informal or agricultural sectors. Although improvements in access to education and healthcare have been registered, disparities still exist between rural and urban women.

Natural and anthropogenic disasters, climate change effects, financial crises, food shortages and the energy situation have further compounded the problem of gender empowerment and made women and girls more vulnerable. The Ministry of Social Welfare, Gender and Children's Affairs (MSWGCA) in collaboration with Statistics Sierra Leone and with support from UN Women and Oxfam undertook a multisector gender assessment of the EVD epidemic in 2014. Using a gender lens to follow and analyse the chain of EVD transmission, the study established that women were more infected by EVD than men with a sex differential incidence of 56.7 percent for females and 43.3 percent for males (GoSL, 2015b). This finding suggests that women's unpaid care-giving role in the family and community made them more vulnerable to infection. Socially prescribed gender norms and behaviour that perpetuates gender inequality is therefore central, along with the gendered division of labour, and gender-related differences in access to and control over resources such as access to information on EVD prevention (GoSL, 2015b). The EVD epidemic made clear the unprecedented challenges of achieving the national goal of ensuring gender equality, women's empowerment and the protection of women and girls (AfDB et al, 2016).

### **8.3 Status of Gender Equality and Women's Empowerment**

According to the 2015 Sierra Leone Population and Housing Census, women account for 50.8 percent of the population. Accepting that gender equality and women's empowerment are critical for national development, the Government has developed various initiatives. These include the creation of the MSWGCA in 1998 after the RUF/AFRC military interregnum, a Parliamentary sub-committee on gender affairs, and the Family Support Unit (FSU) which was formed within the police department in 2001. The Government has also enacted legislation including the Domestic Violence Act 2007, the Devolution of Estates Act 2007, the Registration of Customary Marriage and Divorce Act 2009, the Child Rights Act 2007, and the Sexual Offences Act 2012. These Acts have been tailored to address issues of violence, discrimination and abuse against women and girls. The Agenda for Prosperity (2013-2018) and the current national development plan, Education for Development (2019-2023) each has a pillar/cluster focusing on gender equality and women's economic empowerment.

Sierra Leone is also a signatory to several international, regional and sub-regional frameworks aimed at achieving gender equality and women's empowerment. Examples include the Committee on the Elimination of Discrimination against Women, the Beijing Declaration and Platform for Action, the

African Union (AU) Protocol on Women, the AU Heads of State Solemn Declaration on Gender Equality, and Economic Community of West African States (ECOWAS) gender policies.

The Government successfully presented the 6th periodic country report on the Convention on the Elimination of All Forms of Discrimination Against Women in February 2014 in Geneva and the concluding comments were widely shared. In July 2015, Parliament ratified the AU Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (aka the Maputo Protocol on Women), and since 2013 8 March every year has been a public holiday celebrating International Women's Day.

However, despite significant efforts from government, donors and civil society, institutionalized gender inequalities remain deeply entrenched at all levels of society. This is attributable to discriminatory customs and religious laws which are mainly expressed in limited property rights and political engagement, early marriage, and a high incidence of sexual and gender-based offences.

Women and girls suffer high illiteracy levels and restricted options for employment, hindering them from enjoying full participation in the community as citizens with equal rights (GoSL, 2013). They have limited access to education, healthcare, and justice as well as political decision-making. For a long time, power, moral authority, social privileges and control over land and property have mainly been in the hands of men. Property and titles are inherited by male lineage and men dominate in political leadership (UN Women, 2017).

According to UNDP (2018a), Sierra Leone's Gender Inequality Index (GII) was 0.645, ranking it 150 out of 160 countries, which is worse than the Sub-Saharan Africa average of 0.569 and the low HDI countries average of 0.586. The key drivers of the high GII are a high maternal mortality ratio of 1,360 women deaths from pregnancy and childbirth complications for every 100,00 live births compared with 549 deaths for Sub-Saharan Africa on average; a high adolescent birth rate of 112.8 births per 1,000 women of ages 15-19 compared to 101.3 for Sub-Saharan Africa; a low percentage of parliamentary seats held by women (12.4 percent) compared with 23.5 percent for Sub-Saharan Africa; and 19.2 percent of women with at least some secondary education compared to 32.3 percent for the males.

In the education sector, women and girls continue to be disadvantaged. In the past, affirmative action has attempted to bridge the gender gap but while the admission rate for girls increased, the

retention rate remains a challenge, and this was compounded by the Government's decision to prohibit pregnant teenage girls from taking public examinations. This disadvantaged hundreds of girls who became pregnant during the one-year disruption of educational activities caused by the EVD epidemic. However, the FQE programme is likely to improve gender equality.

Regarding political engagement and empowerment, women in Sierra Leone continue to face challenges relating to active participation in decision-making at national and local levels. After a brief surge in 2002 when the use of a Proportional Representation (PR) system in the first post-war elections led to 19 women out of a total of 124 Members of Parliament (15 percent) being elected, in the 2007 election the number of women dropped to 17 (14 percent) and fell further to 16 (13.2 percent) in the 2012 election when a First Past the Post system was used. In the 2018 elections, 18 women (12.3 percent) were elected to a Parliament which had increased in size to 146 (table A18 in the annex). Doubtlessly, the move away from the PR system, used in 2002 to accommodate a large number of displaced persons, is one factor in the decline. Attempts to reform the political sphere to increase women's political participation have faced resistance despite advocacy for policies that require a 30 percent proportion of women in Parliament, to award 'safe seats' to women, and to ensure that women are adequately represented in political parties.

This situation is similar for women's representation and leadership in local councils. The 2004 local election results showed 58 (14 percent) women nationwide represented in local councils, which increased to 86 (17 percent) in 2008, 90 (19 percent) in 2012, and remained static at 90 (18.7 percent) in 2018. In both Parliament and the local councils, the increase has been marginal and slow. Out of 14 paramount chief members in Parliament, only two are women. Here, intra and inter-party political intimidation is responsible for women continuing to be denied political leadership. Regarding traditional leadership, women continue to face challenges in the North and some parts of the Eastern regions. This discrimination is rooted in Sierra Leone Local Government Act of 2004 despite a clause stating that where traditions and culture permit, a woman can become paramount chief.

For cabinet positions, there are currently five substantive female Ministers out of a cabinet of 29. This is an improvement considering that only two female cabinet Ministers were appointed in the last administration. In 2018, the first female Attorney General and Minister of Justice was appointed.

## 8.4 Challenges to Improving Gender Equality and Women's Empowerment

Although the Government is committed to gender equality and women's empowerment, and this is expressed in policy and legislation, progress has been limited and slow. The main causes include:

- Deep rooted patriarchy, cultural beliefs and practices continue to hinder the advancement of women and girls;
- Discrimination is entrenched in the 1991 Constitution, including in sections 27 (4) (d) and (e), and the Chieftaincy Act 2009;
- The impact of gender on development is poorly understood due to lack of a monitoring and evaluation framework, and gender disaggregated data;
- The institutional and technical capacity of MSWGCA is limited;
- Weak implementation and enforcement of laws, policies and plans due to limited financial resources. For instance, the formal justice institutions and family protection services, such as the FSU based in the Sierra Leone Police, and chieftom social workers, have low capacity to provide redress and are inaccessible to most women and girls. This results in impunity for many sexual and domestic violence offenders.

## 8.5 Conclusions and Recommendations

Women play a critical role in socio-economic development and resilience. However, their influence is currently limited as institutionalised gender inequalities have relegated them to a lower status, and they face high levels of poverty, limited access to healthcare and education, early and forced marriages, a high incidence of HIV and AIDS, harmful traditional practices and violence, and exclusion from decision-making and politics at multiple levels.

To build resilience and ensure effective gender equality and women's empowerment in Sierra Leone key recommendations include:

- Continuous sensitization and awareness campaigns at all levels are required to eradicate abuse and harmful practices based on traditional customs, laws and practices. Men and boys should be engaged as change agents. Local level mechanisms such as traditional leadership can be used to influence change. Programmes to train women in leadership, assertiveness,

public speaking networking and media engagement are also required to empower women's participation in public and political spheres.

- The Government and other development partners need to expand and increase the pace of initiatives targeting economic, social and political empowerment of women and girls. Efforts need to be directed towards building female human capital irrespective of education status taking into account differences in urban and rural communities.
- The Government should fast track the development of a comprehensive National Gender Policy and enact the Gender Equality Act to include a minimum 30 percent quota for women in national government. A commission should be established responsible for gender and women's empowerment to intensify and strengthen implementation, and the monitoring and coordination of programmes, projects and plans that advance gender equality. Existing laws on marriage must be reviewed and revised to address the issue of early marriage.
- The Government should increase support to existing initiatives aimed at reducing socio-economic barriers to female education and provide support for formal and non-formal education. Barriers preventing girls completing secondary school need to be removed, and access to higher education and lifelong learning improved.
- The Government should expand affirmative action initiatives to other aspects of women's empowerment such as access to healthcare and funding for business entities. The declaration of rape as a national disaster in February 2019 is a positive step.
- The Government should support the technical and institutional capacity of MSWGCA to intensify gender empowerment activities.
- The establishment of a Women's Enterprise Development Fund to give low interest loans to women should be considered. This however requires important supporting infrastructure, including a national identity card system and the formalization of legal structures for small business enterprises.
- Institutions available to protect women need to be strengthened, with more women recruited as staff, and training enhanced at the FSU.

# 9. PEACE, SECURITY, JUSTICE AND ACCOUNTABILITY



Officers of the Sierra Leone Correctional Service during Human Rights training. Photo: UNDP Sierra Leone

## 9.1 Introduction

This chapter presents the status of peace, security, justice and accountability from a resilience perspective. It also suggests policy recommendations to build resilience in the context of achieving SDG 16.

## 9.2 Linking Peace, Security, Justice and Stability with Governance and Resilience

Peace, justice, security and resilience are inextricably linked.<sup>14</sup> The phrase ‘There can be no peace without justice and no justice without peace’ is a truism and identifies the intimate, reciprocal relationships between peace and justice, peace and security, and justice and security. One consequence is that the judiciary system in any country needs to be independent, legitimate, honest

<sup>14</sup> Peace for the purpose of this report refers to both ‘positive peace’ and ‘negative peace’ as conceptualised by Galtung (1964) i.e. peace that is guaranteed by the state to ensure the safety and security of all its citizens and protection from violence and injustice, direct or indirect, at state, community and personal levels.

and open. Only this can guarantee the universal rule of law and allow citizens to enjoy sustainable peace. As Sierra Leone's brutal civil war came to an end, this principle emerged as fundamental to the establishment of the Truth and Reconciliation Commission (TRC) (GoSL, 2003a) and the Special Court, with the support of the international community. Peace and security go hand in hand, but security is generally considered a precursor of peace. In the later stages of the war, and in its aftermath, security was therefore a priority. Conflict and all forms of violence had to cease before peace could be realized. Stability (including political, governmental, economic and environmental stability) could then follow, along with a legitimate, honest and open justice system.

In any nation, the Government is both the architect and the prime beneficiary of peace, security and justice, but ultimately, and particularly from a human development perspective, the citizens are a more important beneficiary. Good governance drives peace, security and justice, and requires these conditions to survive and thrive.

In Sierra Leone, the Government and its development partners need to fully appreciate the nexus between peace, security and justice in order to build resilience and deliver sustainable development. The combination of peace, security and justice means that the state apparatus, in collaboration with other non-state agencies and actors, can provide the population with essential services and amenities, such as water and sanitation, education, healthcare and infrastructure. It also means that the rights of citizens are protected, and that everyone has the opportunity to realize their full potential and to make free choices within the law as to how they wish to live. The principles of social justice are key. According to the UN, these are essential for social development and to eliminate all barriers to people's desires and endeavours to live a dignified life.<sup>15</sup>

## **9.3 Status of Peace, Security, Justice, Accountability and Resilience**

### **9.3.1 Macro Picture from Broad Indices**

#### **Global Peace Index**

The Global Peace Index (GPI), produced by the Institute of Economics and Peace, ranks 163 independent states and territories according to their level of peacefulness in three domains. The first, Ongoing Conflict, investigates the extent to which countries are involved in internal and external conflicts, as well as their role and duration. The second, Safety and Security, evaluates the

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<sup>15</sup> See: <https://www.un.org/development/desa/dspd/international-days/world-day-of-social-justice/world-day-of-social-justice-2017.html>

level of harmony or discord within a nation using 10 indicators. The assertion is that low crime rates, minimal terrorist activity and violent demonstrations, harmonious relations with neighbouring countries, a stable political scene and a small proportion of the population being internally displaced or made refugees can be equated with peacefulness. The third, Militarization, uses seven further indicators to reflect the link between a country’s military build-up and access to weapons and its level of peacefulness, both domestically and internationally. Data on military expenditure as a percentage of GDP and the number of armed service officers per head are also incorporated, as are financial contributions to UN peacekeeping missions.

The GPI is a composite index of 23 weighted indicators and the closer it is to 1.00 the more peaceful a country is. It ranks 163 independent states and territories (99.7 percent of the world’s population). Sierra Leone’s GPI ranking has been improving since 2012 and the country was ranked 3rd in Africa in 2017 and 2018 reports (table 9.1).

**Table 9.1: Selected Global Peace Index Score 2012-2018**

Score/rank	2012	2014	2015	2016	2017	2018
GPI score	1.926	1.942	1.864	1.805	1.760	1.74
Overall rank	64	66	59	43	39	35
Rank in Africa	7	8	8	5	3	3

Source: <http://visionofhumanity.org>

Sierra Leone is signatory to the New Deal for International Engagement in Fragile States and is committed to promoting use of country systems and Mutual Accountability Frameworks in the implementation of the SDGs and the implementation of national plans. The New Deal focuses on interventions which reinforce country-owned and led priorities for peacebuilding and state building in ways that enable effective transition out of fragility and conflict.

### **Ibrahim Index of African Governance**

The Ibrahim Index of African Governance (IIAG), established in 2007, provides an annual assessment of the quality of governance in African countries. Governance is defined by the Mo Ibrahim Foundation as the provision of the political, social and economic public goods and services that a citizen has the right to expect from the state, and that a state has the responsibility to deliver to its citizens. The IIAG governance framework comprises four dimensions namely: Safety and Rule of

Law; Participation and Human Rights; Sustainable Economic Opportunity; and Human Development. These categories are made up of 14 sub-categories with over 100 indicators.

Tables 9.2 and 9.3 present the performance of Sierra Leone in the IAG. Sierra Leone's overall governance performance has continued to improve from a rank of 31 in 2012 to 26 in 2017. The areas where Sierra Leone has registered improvements, albeit from a low base, are in Safety and Rule of Law, Participation and Human Rights, and Human Development. However, a deterioration in Sustainable Economic Opportunity was registered.

**Table 9.2: Sierra Leone IAG Scores and Rank**

Overall/Dimension	2012		2016		2017	
	Score	Rank	Score	Rank	Score	Rank
Overall	48.0	31	51.7	26	50.9	26
Safety and Rule of law	55	23	60.6	20	59.9	20
1.Rule of Law	48.2	27	59.2	18	58.8	21
2.Transparency and Accountability	40.4	26	33.3	28	31.7	33
3.Personal Safety	45.2	24	62.3	6	63.1	8
4.National Security	86	20	87.6	20	85.8	20
Participation and Human Rights	53.4	22	63.4	14	62.2	15
1.Participation	57.7	19	65.9	14	66.4	16
2.Rights	57.3	14	56.3	14	54.1	15
3.Gender	45.2	36	58.1	13	66.3	12

Source: <http://mo.ibrahim.foundation/iag/downloads/>

**Table 9.3: Sierra Leone IIAG Scores and Rank (cont.)**

Overall/Dimension	2012		2016		2017	
	Score	Rank	Score	Rank	Score	Rank
Sustainable Economic Opportunity	41.8	35	38.5	38	38.0	39
1.Public Management	48.8	39	43.8	32	42.6	31
2.Business Environment	46	32	38.8	35	36.9	31
3.Infrastructure	17.8	42	22.4	47	24.2	50
4.Rural Sector	54.6	26	48.3	32	48.2	32
Human Development	42	48	44.5	49	43.6	44
1.Welfare	40.3	42	36.2	46	37.1	43
2.Education	37.4	45	40.3	39	42.1	30
3.Health	48.3	49	57	49	51.5	49

Source: <http://mo.ibrahim.foundation/iiag/downloads/>

### Fragility Assessments

Sierra Leone has conducted two fragility assessments, one in 2012 (GoSL, 2012) and one in 2016 (GoSL, 2016a). The fragility spectrum articulates five stages namely: (1) Crisis (2) Rebuild and Reform (3) Transition (4) Transformation and (5) Resilience. Table 9.4 shows that in 2012 and 2016 Sierra Leone had an overall ranking of 3 (i.e. Transition) in all the PSGs. The results also showed deterioration in security and justice between 2012 and 2016, which is a cause for concern.

**Table 9.4: Comparative Scores of the five PSGs in 2012 and 2016**

Overall/PSGs	2012	2016	2012-2016 Change	Comment
1.Legitimate Politics	2.9	3.4	0.5	Improved
2.Security	3.2	3.1	-0.1	Retrogressed
3.Justice	3	2.6	-0.4	Retrogressed
4.Economic Foundations	2.8	2.8	0	No change
5. Revenue and Services	2.7	2.9	0.2	Improved
<b>Overall Rating</b>	<b>2.9</b>	<b>2.9</b>	<b>0</b>	<b>No change</b>

Source: Fragility assessment reports for 2012 and 2016

Two critical issues can be determined from the fragility assessments relating to resilience. First, significant achievements have been made in relation to institutional reform and the existence of key structures (institutions, laws, policies and processes) but implementation has been challenged, particularly in justice and security sectors. Second, although progress has been made in developing the necessary foundations for resilience and lasting peace, the root causes of fragility are still present. These include:

- Perception among segments of the population that political appointments tend to be based on regional and ethnic considerations rather than on merit or competence;
- Existence of some outdated laws and a lack of consistency between different policies and laws;
- Persistent tensions between local councils and traditional authorities (particularly Paramount Chiefs) especially around the control of resources and revenue generation;
- Lack of clarity between the roles of different actors with respect to local governance roles and responsibilities (GoSL, 2012; GoSL 2016);
- Infrastructure deficits in roads, transportation, electricity;
- Institutional and human capacity issues in all sectors including healthcare and the judiciary, notably the lack of a sitting judge in most of the district headquarter towns (GoSL, 2012; GoSL, 2016).

### **9.3.2 Sectoral Perspectives**

As noted, Sierra Leone has remained relatively peaceful and stable since the end of the civil war in 2002. With support from development partners, the Government has been making significant efforts to drive governance reform in the areas of peace, security and justice. Nevertheless, based on empirical evidence, much remains to be accomplished.

#### **Political reforms**

For Sierra Leone to become more resilient, political institutions need to ensure accountability and provide opportunities for participation of all key groups in society, including the most vulnerable and marginalized. Institutions also need to be able to resolve and manage political conflict and deliver inclusive political settlements and committed and able leadership.

Sierra Leone follows a presidential multi-party system of government with separation of powers between the executive, judiciary and legislature. A key feature is that cabinet ministers are not members of Parliament as is usually the case in a parliamentary system. However, the practical separation of powers is problematic due to two reasons. First, partisan and ethno-regional membership and allegiance affects the independence of individuals in all three government functions. Second, lack of independence of the judiciary and legislature means that the executive, which has the 'power of the purse', sometimes has undue influence.

Following the Lome Peace Accord, several political reforms were implemented to ensure that the system provides a sound base for peace and stability. These have involved electoral reforms to ensure freeness, fairness and credibility of elections. Following the passing of the National Electoral Commission Act 2002, the Electoral Commission was renamed the National Electoral Commission (NEC) with the function to prepare for and conduct all public elections and referenda. The Political Parties Registration Commission (PPRC) was also set up in 2002 with the function to register and supervise the conduct of political parties. Civil society is respected as a key stakeholder for oversight throughout the country.

Three post-war elections have so far been conducted successfully. The first two in 2007 and 2012 had a UN Mission presence and the last one in 2018 did not. However, the 2018 election, which led to a rerun, was a major test of the electoral management system. It revealed that political issues are still present, and the country could slip back to civil conflict. These issues include:

- Political intolerance and polarisation along regional and ethnic lines;
- Existence of antiquated laws;
- Suspicions and tensions that affect relationships between local councils, communities and paramount chiefs;
- Political violence perpetrated by the youth;
- National cohesion and lack of patriotism;
- Civil servants removing public assets (including vehicles, generators, computers and data) following a change of administration. Cultural issues and simple theft are given as explanations. This not only costs the state money, but also means that records critical for continuity are lost. The National Asset and Government Property Commission (NAGPC) has been unable to address the problem due to gross underfunding and lack of coordination across government.

Parliament continues to discharge its legislative, oversight and representative roles. Parliament has key committees, including an SDGs committee. However, its legislative, oversight and representative roles have been affected by:

- Vested interests and sectarian politics which undermine the objectivity of members and thus affect their legislative, oversight and representative roles;
- Weak enforcement of parliamentary oversight as Parliament lacks power to compel the Executive to implement recommendations;
- Resource constraints, including inadequate technical and support staff, and inadequate infrastructure and technology;
- Lack of support from supporting institutions and fear of Parliament overstepping its mandate.



**A young first-time voter during the 2018 Presidential and Parliamentary elections. Photo: UNDP Sierra Leone**

## Security

Physical security of people and property is critical for national stability. The security sector includes the Office of National Security (ONS), Republic of Sierra Leone Armed Forces (RSLAF), and Sierra Leone Police (SLP), along with correctional, intelligence and immigration services.

With support from development partners, several security reforms have been implemented, including strengthening relations between the police, RSLAF and intelligence services. Improved coordination and intelligence sharing now occurs through ONS. Furthermore, the Independent Police Complaints Board (IPCB) was set up in 2015 as an independent civilian oversight mechanism with the mandate to receive, investigate and monitor complaints from the community about the conduct of the Sierra Leone Police and to hold the police accountable for any misconduct or violation of human rights. This has improved police-community relations. Family Support Units (FSU) under the police were created in 2001 to address what was seen as a 'plague' of sexual and gender-based violence (SGBV) against women, and cruelty to children.

However, challenges remain, including:

- Fears of the politicization of the police, and heavy-handed police responses;
- Very slow security response time;
- Security services have limited geographical cover and chiefdom police forces have poor training on human rights and international policing standards;
- High levels of perceived corruption;
- Ineffective security sector coordination and oversight;
- Prisons are overcrowded with limited female and juvenile detention facilities;
- Porous borders that enable transnational crime.

## Justice system

Justice is central to building a strong and stable nation. Formal justice systems should be accessible, affordable and perceived as fair by citizens. Where feasible, traditional non-state and informal means for dispute resolution and adjudication should complement the formal system while adhering to international human rights standards.

Sierra Leone has implemented reforms addressing access to justice and the robust application of the law. They include enactment of the Local Court Act (2011) and setting up local courts. The

establishment of the Legal Aid Board and other dispute resolution mechanisms complement the formal legal system and provide free legal and paralegal assistance for the poor. The capacity of the Judiciary has also been enhanced. Currently the country has 35 Judges, 47 State Councils, 30 Magistrates, 14 Legal Defence Councils and 40 paralegals nationwide. In addition, justice structures (i.e. police stations, local courts, magistrate courts and other supporting institutions such as the Local Police Partnership Board) have been enhanced.

However, the justice sector still faces the following challenges:

- The formal justice system is still inaccessible outside major urban centres;
- The formal justice system is expensive, poorly understood and slow;
- Prosecution capacity is low;
- Access to representation and support for vulnerable victims is limited;
- Perception of political interference is common;
- Prisons are overcrowded and juvenile remand homes are lacking;
- Citizens and adjudicators are often unaware of current updated laws.

## **Corruption and accountability**

Corruption is defined by the Anticorruption Commission (ACC) as the misuse of entrusted power (by heritage, education, marriage, election, appointment or any other reason) for private gain. It has a disproportionate impact on the poor and most vulnerable, increasing costs and reducing access to services, including healthcare, education and justice. Corruption erodes trust in government and undermines the social contract between the state and its citizens. It also impedes investment, with consequent effects on growth and jobs.

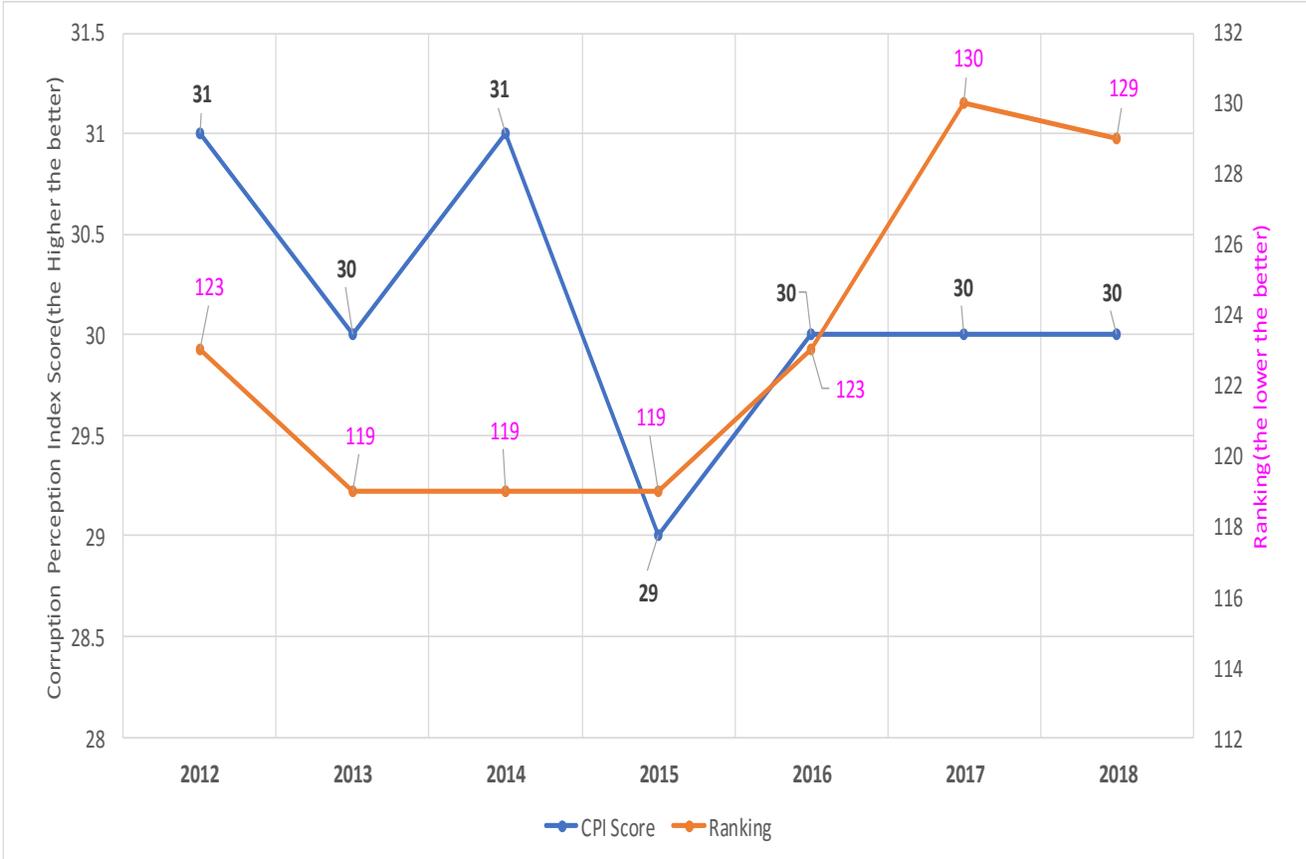
Corruption is a complex and multi-faceted phenomenon that takes various forms. A wide variety of political, institutional, administrative, social and economic factors, both domestic and international, enable and foment corruption. These include weak governance institutions, high levels of poverty, limited accountability in the presence of significant natural resources, and socio-cultural factors that make it difficult to distinguish between corrupt practices and other social behaviours.

The ACC, which was established by an Act of Parliament in 2000, takes the lead in the fight against corruption in Sierra Leone. The objective of the Commission is to take all steps necessary for the prevention, eradication and suppression of corruption and corrupt practices. The 2000 Anti-

corruption Act was amended in 2008 to expand the scope of corruption offences, providing protection for whistle blowers, and making it mandatory for all civil servants to declare their assets. Other institutions that support the ACC by strengthening transparency and accountability include the Audit Service Sierra Leone (ASSL), the National Public Procurement Authority (NPPA), the Public Accounts Committee of Parliament (PAC), the Office of the Ombudsman, and the Financial Intelligence Unit (FIU) which combats money laundering.

However, these anti-corruption efforts and commitments have not translated into real progress. Sierra Leone’s performance in the Corruption Perception Index (CPI) has generally worsened between 2012 and 2018 (figure 9.1). The index dropped from 31 out of 100 in 2012 to 29 out of 100 in 2018. Correspondingly, the country’s ranking has worsened.

**Figure 9.1: Sierra Leone Corruption Perception Indices 2012-2018**



Source: Transparency International, various years (<https://www.transparency.org/whatwedo/publication>).

The 2015 Auditor General's report highlighted that about \$14 million had been misappropriated or was unaccounted for in the year, which to some extent affected the response to the EVD epidemic and cost lives. Some noticeable improvement was however determined between 2017 and 2018, which is consistent with the Millennium Challenge Corporation (MCC) score which improved from 49 percent in 2017 to 70 percent in 2018. In April 2018 the new Government constituted a Transition Team to, among other things, conduct an immediate stocktaking of MDAs and submit a report to the President and Vice President. The report noted a high level of fiscal indiscipline and rampant corruption and recommended the establishment of a commission of enquiry, which commenced operations at the beginning of 2019 (GoSL, 2018). The opposition however claimed the process was a witch hunt and a vendetta. The work of the Commission was continuing at the time this report was finalized.

Key challenges that remain in the fight against corruption include:

- A backlog of anti-corruption cases before the courts;
- Unclear mandates for anti-corruption institutions. For instance, following publication of the Auditor General's Report on the misappropriation of EVD funds, a dispute arose between Parliament and the ACC over which body should act. After a long tussle, Parliament won;
- Perceived politicization of the fight against corruption.

## **Human Rights**

Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. They are key in building resilient and confident societies necessary for inclusive development and peace.

According to the 2017 Sierra Leone Human Rights report, the most significant human rights issues include: unlawful killings by police; abusive treatment by police; harsh and life-threatening prison conditions; official corruption; lack of accountability in cases involving SGBV against women and girls, including female genital mutilation, child labour and criminalization of same-sex sexual conduct, leading to the arrest of lesbian, gay, bisexual, transgender and intersex individuals.

Several reforms have addressed human rights in Sierra Leone. First, the Human Rights Commission (HRC) was established by an Act of Parliament in 2004 to protect and promote human rights. Sierra Leone has also signed all nine fundamental international human rights treaties and ratified seven. It

issued its second review in 2016 under the Universal Periodic Review to the Human Rights Council. The ICPB was also set up to, among other objectives, address human rights abuses by the police.

The office of the Ombudsman is operational in four regional towns and responsible for investigating complaints from members of the public who claim to have suffered injustice as a result of maladministration by MDAs, statutory corporations or institutions established with public funds.

However, some challenges remain, including;

- Although the human rights legal framework is in place, implementation is challenged;
- Limited financial resources to fund human rights activities;
- The difficulties of ensuring that the HRC is independent and able to hold the Executive to account while it is dependent on government for funding and accountability;

The Government's commitment to governance reform is reflected largely in public sector reform efforts and promotion of the decentralization process, particularly as it relates to local and district council governance. Some key milestones include:

- Enhanced capacity building support for the ACC, specifically its investigative and case management department;
- The setting up of FSUs under the police with responsibility to work with communities and address critical issues, especially those that relate to sexual and gender-based violence, and child protection.
- The creation of legal and paralegal services, notably the establishment of the Legal Aid Board, and dispute resolution mechanisms to complement the formal legal system and provide free legal assistance for the poor.

## **Civic oversight**

Civil society has become increasingly active in engaging with government around issues of social justice and social development, aiming to influence governance at national and district levels. According to a recent national public service survey, a coalition of more than 40 civil society organizations (CSOs) has emerged promoting democratic governance, human rights, public accountability and rule of law (The Economic Forum and Nimba Research and Consultancy, 2016). The report mentions the Network Movement for Justice and Development, and the Campaign for Good Governance as two outstanding CSOs promoting good governance, civic education, citizens'

empowerment and participation. A host of other organizations have also been playing important roles in diverse ways.

The increasing presence and prominence of civil society in Sierra Leone may suggest that the Government is amenable to participatory democracy and supports freedom of expression. This augurs well for national cohesion, resilience-building and the promotion of social justice and national development. The popularization and expansion of mobile phone telecommunications and internet coverage have spawned an upsurge in the influence of social media which also potentially offers benefits for national development in terms of the real-time dissemination of ideas and information. This was particularly helpful during the EVD epidemic. However, social media can also be a concern for governments faced with the prospect of regulating social media without violating citizens' rights to freedom of expression.

## **9.4 Conclusion and Recommendations**

Given the climate of stability and security which has prevailed in Sierra Leone since the end of the civil war, the prospects for the country to move beyond the transition stage in its fragility status appear positive. However, to consolidate peace and security and ensure that the country is less vulnerable to conflict, the following recommendations are proposed:

- The constitutional review process (GoSL, 2016b) needs to be finalized to ensure that its key reforms are implemented;
- The Government needs to build progress in governance and support and conclude the decentralization agenda fully;
- Focus is required on addressing inclusive governance, peace, security, revenue generation and justice issues as articulated in the fragility assessment reports;
- Although the UN political mission left Sierra Leone in 2014, the events leading up to, during and after the 2018 elections show that the country is still fragile. The UN Peacebuilding Commission needs to continue monitoring and supporting the country;
- New digital technologies should be used to address governance issues, including corruption, by ensuring transparency and accountability, and for intelligence gathering;
- Early warning systems and ONS responses need to be improved.

# **10. ENVIRONMENT, ENERGY AND DISASTER RISK MANAGEMENT**

## **10.1 Introduction**

This chapter discusses the most pressing environmental, climate change, energy and disaster management issues facing Sierra Leone. Recommendations address how government and citizens can build resilience in development programmes from local to national levels. Specifically, the chapter identifies ways in which Sierra Leone can fulfil its obligations addressing climate change, the biodiversity conventions, and disaster risk management (DRM). It also outlines a range of practices and measures aimed at increasing the resilience of agricultural production, and improving forest, water, coast and marine environment management, while reducing land degradation and vulnerability to natural hazards and risks to bio-energy.

## **10.2 Link with Vulnerability and Resilience**

Sierra Leone lies within the Upper Guinean Lowland Forest Ecosystem with an abundant richness in ecosystems (lowland rainforests, mountain forests, savannah woodlands, agricultural, freshwater and wetlands) and species biodiversity. It has a tropical humid climate with two distinct seasons: a May to October wet season and a November to April dry season.

The natural environment provides habitat for human settlement, a source of employment and livelihoods, fuel energy for households, and tax revenue for the state. A high dependence on agriculture and natural resources, coupled with high rates of poverty, unemployment and environmental degradation, makes all these benefits vulnerable to natural disasters and changes in environmental conditions.

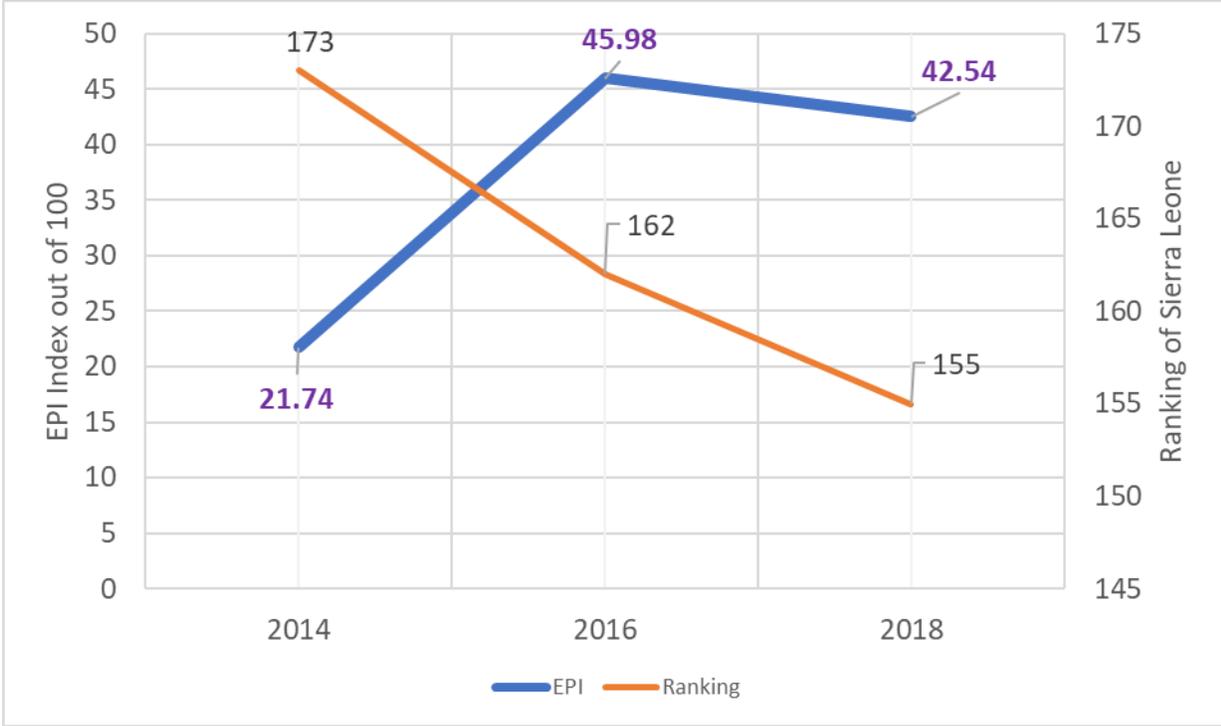
## **10.3 Status of Environment, Energy and Disaster Risk Management**

### **10.3.1 Environment**

Sierra Leone is divided into four main relief regions: coastline, interior lowland plains, interior plateau, and mountains. Each can be subdivided into many ecosystems with an abundant wealth of species biodiversity (Blinker, 2006).

Table 10.1 presents the Environmental Performance Index (EPI) for Sierra Leone for selected years. The EPI is a measure of performance on high priority environmental issues in two broad policy areas: protection of environmental ecosystems, and protection of human health from environmental harm.<sup>16</sup> Although Sierra Leone ranks low, there was some improvement between 2014 and 2018 as demonstrated by the EPI score increasing from 21.74 in 2014 to 42.54 in 2018. Correspondingly, the ranking has also increased from 173 out of 178 countries in 2014 to 155 out of 180 countries in 2018.

**Figure 10.1: Environmental Performance Indices 2014, 2016 and 2018**



Source: Data from <https://epi.envirocenter.yale.edu>

**Biodiversity**

Sierra Leone is comprised of diverse ecosystems including lowland rainforest, mountain forest, freshwater swamps, mangrove/coastal, and marine. As part of the Upper Guinea Rainforest, it is globally recognized as a biodiversity hotspot. Rich indigenous flora and fauna include important endemic species and internationally rare and threatened species. Biodiversity resources are a potentially important resource, but conservation skills are lacking.

<sup>16</sup> Global Metrics for the Environment. <http://archive.epi.yale.edu/>

## Land

Sierra Leone has fertile lands and varied a topography, as well as 500 km of coastline. Of the total land area, nearly two-thirds is estimated to be suitable for cultivation with the most fertile being in low-lying coastal plains, which include mangrove swamps and riverine grasslands, as well as in inland valley swamps and alluvial/flood plains in major river systems. However, much of the potentially arable land is not cultivated and faces demands from forestry, mining, water catchment and environmental management requirements, as well as demographic changes. The agricultural sector, which provides employment and export earnings, relies on land as a basic input for crop cultivation. This is affected by how well farmers maintain the soil, water and living resources, and the combined effects of poor farming practices such as shifting cultivation, recurrent bushfires, overgrazing and short fallow periods are recognized as contributing to land degradation.

Key challenges include:

- Erosion resulting from poor agricultural land management;
- Uncoordinated institutional arrangements for the implementation of land use policies and planning;
- Woodland degradation;
- Poorly controlled extraction of sand, gravel and other construction materials from beaches and riverbeds;
- An unregulated and fragmented land market resulting from weak and inconsistent legal frameworks;
- Lack of land adjudication processes in much of the country and differing land tenure regimes.

## Mineral resources

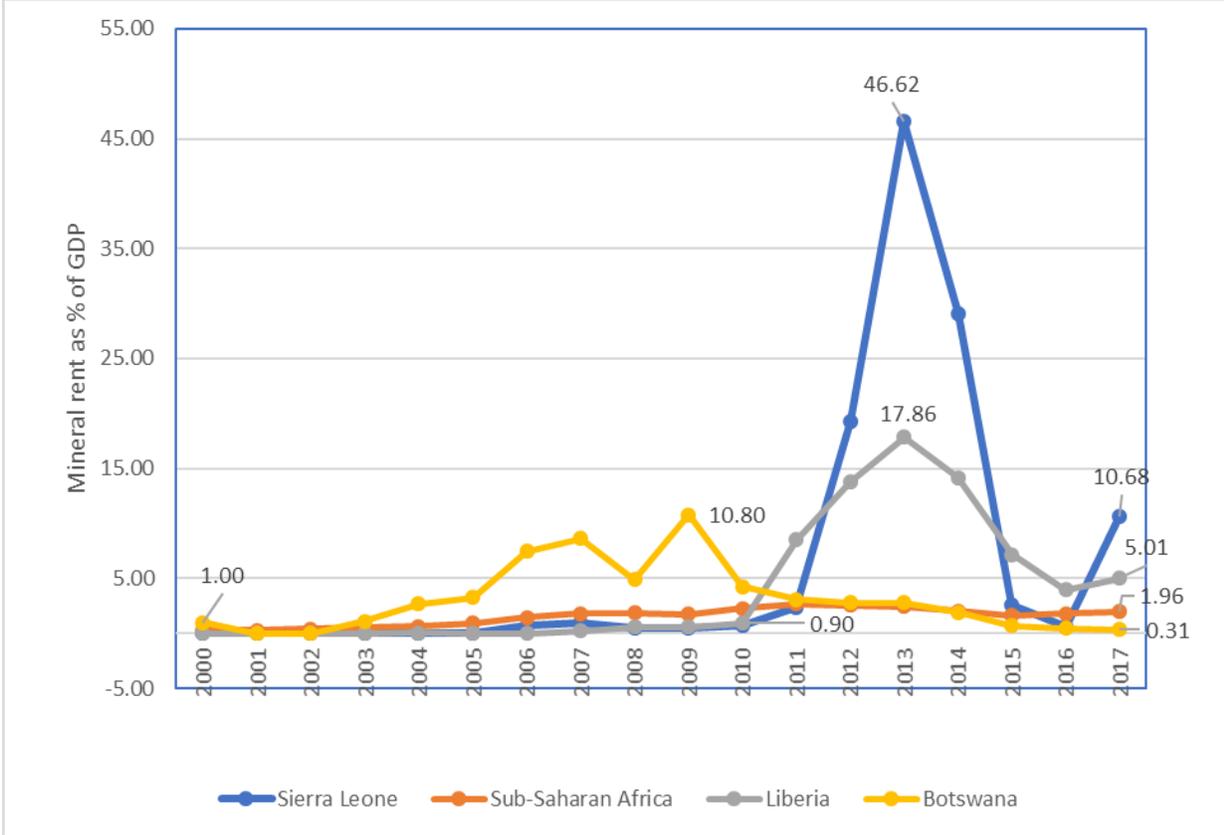
Sierra Leone is rich in natural resources and has had a vibrant mining sector since the 1920s. Resources include rutile, diamond, bauxite, gold, iron ore, platinum, tantalite, zircon, ilmenite, chromite and columbite. As shown in table 4.2 and figure 10.2 the mineral sector plays a significant role in the economy. It consists of three categories of mine operations: (1) large-scale; (2) mechanized small-scale, mostly for diamonds and gold; and (3) artisanal, with large numbers of individual miners. Large-scale mining operations in Sierra Leone are all foreign-owned.

The National Minerals Agency (2012) created the institutional framework to manage the mineral sector and in 2013 the Agency was launched to implement the Mines and Minerals Act (2009) and other related acts and regulations. Its responsibilities include mineral rights management, collecting

and disseminating geological information, and regulating trading of precious minerals. The Extractives Industries Revenues Act (2018) coordinates various taxes and charges on extractive industries and regulates the fiscal aspects of extractive industry agreements.

Despite the positive potential impact of mineral resources, environmental challenges result. The activities of large mining companies are a major cause of deforestation and land degradation, which lead to soil erosion, siltation and contamination of river systems and tidal creeks, as well as displacement of villages. Abandoned mined-out pits, which are a legacy of past unregulated mining, abound in the countryside. Heavy siltation of riverbeds and tidal creeks reduce coastal coral and the fish populations that feed and breed in them. Small scale or artisanal mining of diamonds and gold in the eastern and northern parts of the county is also a major cause of forest cover loss and land degradation.

**Figure 10.2: Mineral Rents as percent of GDP**



Source: Data from World Bank (<https://data.worldbank.org/indicator/NY.GDP.MINR.RT.ZS?page=4>)

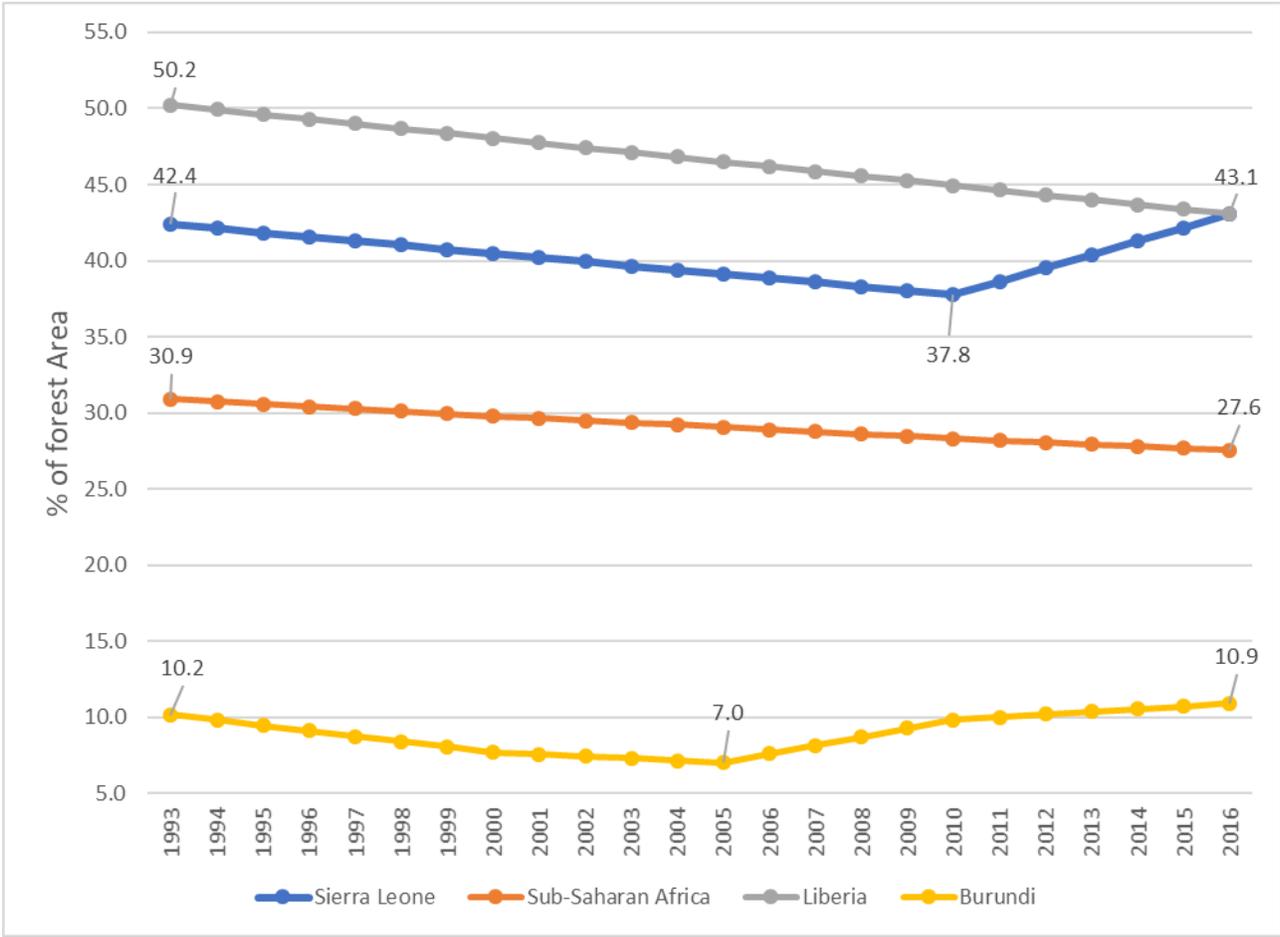
**Forestry resources**

Sierra Leone has significant forest resources compared to Sub-Saharan African countries (figure 10.3) and wood products from forest areas have traditionally served as an important source of

income. Fuel wood, charcoal production and trade, bush meat, medicinal plants and other non-timber products contribute significantly to the welfare of many people. Forests also provide important services such as serving as carbon sinks in climate mitigation, as a source of water, and for recreation and tourism. An intricate link therefore exists between conservation and development and for development to be sustainable, a balance is required between competing demands.

Currently, deforestation is increasing due to a rapidly growing population and related demands for land for agricultural and to mine for minerals, and for timber and firewood/charcoal for fuel in urban areas. Firewood is the main source of energy in most households and the growing demand for biomass energy from fuel wood is not sustainable. Recurrent bush fires are also a problem.

**Figure 10.3: Forest Cover as percent of Total Land Area**



Source: Data from World Bank

To address some of these challenges, a National Protected Areas Authority and Conservation Trust Fund Act was enacted in 2012 and an Agency launched in 2015 to exercise oversight authority over National Parks and Protected Areas.

## Surface and ground water resources

Water access and water contamination are serious issues affecting much of the population. This is particularly serious during the dry season and climate change is making the situation worse. The increase in temperature and decrease in the amount of rainfall will lead to persistent droughts.

Human habitat

According to the 2015 Population and Housing Census, 801,417 houses exist nationally with 1,265,468 households living in them. In urban areas alone, the housing stock deficit stands at over 500,000 units. The lack of housing combined with high urban population growth rates has created a market that is characterized by overcrowded sub-standard living conditions in sprawling informal settlements.

In rural areas, development of settlements in marginal areas by farming communities has led to high levels of deforestation and soil degradation. In urban areas, increasing rural-urban migration is exacerbating the problems of overcrowding, poor living conditions, inadequate water supply and sanitation. Common problems in urban areas include:

- Construction of makeshift shelters;
- Overcrowding which increases health risks;
- Inadequate water and sanitation and garbage collection facilities;
- High environment-related infant mortality rates;
- Air and noise pollution;
- Vulnerability to flooding and mudslides.

On 14 August 2017, a mudslide disaster occurred on Sugar Loaf Mountain in Freetown, which led to massive destruction to property and over 1,000 deaths. Post-disaster assessments revealed that the mudslide, which was triggered by heavy rainfall, was caused the construction of homes on a steep hillside which had suffered unrestricted deforestation (UNDP and EPA, 2017).



After the mudslide disaster at Sugar Loaf mountain in Freetown, August 2017. Photo: UNDP Sierra Leone

### 10.3.2 Climate Change

Climate change is increasingly a national concern for Sierra Leone (UNDP-SL, 2012). According to projections, compared with the period 1961-1990, the country is expected to experience a rise in both average temperatures (of about 1.8<sup>o</sup>-2.5<sup>o</sup>) and rainfall (by about 3-10 percent) by 2100 (GoSL, 2007b). The country is already experiencing serious climate influenced events that will become more frequent and decrease food security. These include flash floods, high temperatures, rising sea levels, and freshwater scarcity resulting from less rain, higher evapotranspiration in the dry season and frequent prolonged and widespread droughts (FAO, 2016). The 2019 Global Climate Risk Index ranks Sierra Leone as the 8th most vulnerable country to weather-related loss events in the world.<sup>17</sup> Using a different methodology, the Notre Dame Global Adaptation Initiative Index ranks Sierra Leone as the 24th most vulnerable and 46th least ready to adapt to climate change of the countries it covered for 2015.

Table 10.1 summarizes the environmental key impacts of climate change in different sectors in Sierra Leone.

<sup>17</sup> See: <https://reliefweb.int/report/world/global-climate-risk-index-2019>

**Table 10.1: Summary of Climate Stressors and Risks**

<b>Sector</b>	<b>Stressors</b>	<b>Risks</b>
<b>Agriculture</b>	Increased intensity of single rainfall events	Reduced productivity of fisheries due to lower water quality and increased temperatures.
		Soil erosion and loss of productive topsoil in steep mountain agricultural areas due to intense rains.
	Rising temperatures	Changes in the abundance, productivity, community composition, distribution and migration of aquatic species.
	Sea level rise	Increased disease incidence in staple crops such as rice, beans and cassava.
		Yield reductions and crop failure due to waterlogging and floods.
		Post-harvest losses due to infrastructure damage, landslides and road flooding.
<b>Water Resources</b>	Increased temperatures	Reduced water quality and increased soluble toxic compounds released from mining operations.
	Increased frequency of intense precipitation	Increased temperatures, promoting algal growth and offering breeding grounds for waterborne disease vectors.
		Flooding, leading to increased sedimentation and runoff and negatively affecting water quality.
		Reduced water availability during critical periods (dry season).
		Existing drainage networks in urban centres overwhelmed by flash floods.
<b>Human health</b>		Reduced quality and quantity of drinking water, leading to an increased risk of waterborne illnesses such as cholera and diarrheal disease.
		Expanded breeding sites for vector-borne diseases, such as malaria and dengue.
		Increased incidence of heat stress, leading to a rise in heat exposure-related illnesses.
		More toxic algae blooms, potentially causing food poisoning from consumption of contaminated fish.
<b>Disasters</b>	Increased intensity of rainfall	Damage to transport infrastructure as well as mining and productive operations.
	Rising sea levels	Damage to coastal infrastructure and production zones.
		Loss of life, crops and livestock.

Adapted from: USAID, Climate Change Risk in Sierra Leone: Country Fact Sheet (2016)

Sierra Leone has submitted a Nationally Appropriate Mitigation Action under the Copenhagen Accord and the Cancun Agreements to the UN Framework Convention on Climate Change. This includes 13 specific mitigation actions in diverse areas including: institutional strengthening and capacity building for environmental protection and management; sustainable management and protection of forest reserves and improved forest governance; developing and setting air, water and soil quality pollution standards; introduction of conservation agriculture and promoting the use of other sustainable agricultural practices (e.g. agro-forestry); expanding clean energy use including sustainable production of charcoal and reduced dependence on firewood; and waste management.

In 2015 Sierra Leone also submitted an Intended Nationally Determined Contribution which includes adaptation elements (EPA, 2015). Sierra Leone's resilience – or lack of it – is founded not just on its capacity to deal with acute shock, as in the EVD epidemic, but also on its ability to prevent and manage future risks in a changing world. By understanding how and why the system as a whole is changing, nations are better placed to build capacity to work with change. Resilience is a function of a nation's ability to survive ongoing calamities, seize existing market opportunities, and prepare against any future catastrophic events or periods of change. Resilient nations can rapidly adapt and respond to internal and external events and, crucially, continue operations when hit by disasters or calamities. In Sierra Leone this involves building human capacities, infrastructure development, and diversifying the economy.

Regarding the environment, and DRM, Sierra Leone's adaptation needs centre on six sectors: agriculture, forestry, fisheries, water resources (hydrology), meteorology, coastal zones and health. They are central for the following reasons:

- They play a crucial role in the socio-economic development of the country;
- They contribute to poverty reduction and enhance food security;
- A substantial proportion of the country's natural resources are controlled and managed by them;
- Environmental degradation is associated with activities in these sectors;
- They are vulnerable to climate change related impacts;
- They contribute most significantly to greenhouse gas emissions.

Moving forward, Sierra Leone's Intended Nationally Determined Contribution (INDC) strategies have been translated into plans to enable decisive and sustainable action to be taken to address the

adverse impacts of climate change on the national economy and to move the country towards a green and resilient economy. The Action Plan includes activities that will support the country's bid to transition to a low-carbon and climate-resilient economy by providing information on financing the INDC, mobilizing resources, and monitoring, reporting and verifying impacts.

### 10.3.3 Energy

As a crucial input to goods and services, energy is vital to almost every economy. Stable, reasonably priced energy supplies are central to maintaining and improving living standards. Without heat, light and power, no country can achieve its development objectives.

However significant deficits exist in Sierra Leone for this critical input. Bio-energy is the main source of fuel for 75-80 percent of the population (both rural and urban) and this has significant consequences for the environment. Petroleum, hydropower and coal are major sources of commercial energy. According to World Bank data, in 2016 only 20.3 percent (46.9 percent urban and 2.5 percent rural) of the population had access to electricity (table 10.2).

Sierra Leone's installed power generation capacity stands at around 90 megawatts (MW), far below an estimated national demand of 300-500 MW.<sup>18</sup> Bumbuna hydroelectric dam is the largest contributor to power generation and supplies 62 percent of overall national power capacity to Freetown. Before Bumbuna, Sierra Leone had only 27 MW of conventional thermal generation, which kept costs high. The advent of hydropower generation almost halved costs of production. Historically, the average cost of producing power in Sierra Leone is approximately \$0.27 per kilowatt-hour. Hydroelectric power is however seasonal and greatly reduces during the six-month dry season. This inconsistency causes severe power shortages, which result in disruptions to productivity and livelihoods. Coupled with distribution infrastructure that does not have the capacity to keep up with demand, most people turn to other forms of energy production, such as paraffin or biomass (Braima et al, 2015).

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<sup>18</sup> Resilience Policy Team/Irish Aid (2015) Sierra Leone Climate Action Report  
<https://www.irishaid.ie/media/irishaid/allwebsitemedia/20newsandpublications/publicationpdfsenglish/Country-Climate-Action-Reports-Sierra-Leone-FINAL.pdf>

**Table 10.2: Selected Energy Indicators 1995-2018**

Energy Indicator	Country/ Grouping	1995	2000	2005	2010	2014	2015	2016	2017	2018
Access to electricity (% of population)	Sierra Leone	9.2	11.1	11.3	11.5	16.0	16.5	20.3		
	Sub-Saharan Africa	20.7	25.6	29.1	32.6	37.8	38.5	42.8		
	Middle Income	74.3	78.7	82.4	86.4	89.1	90.9	90.9		
Access to electricity, urban (% of urban population)	Sierra Leone	20.5	26.1	35.9	34.3	42.2	43.4	46.9		
	Sub-Saharan Africa	57.5	60.2	65.4	67.7	72.1	73.5	75.7		
	Middle Income	93.9	95.2	95.8	96.7	97.5	97.7	98.2		
Access to electricity, rural (% of rural population)	Sierra Leone	3.3	2.8	1.5	0.9			2.5		
	Sub-Saharan Africa	10.6	11.1	13.9	17.4	17.2	20.2	24.9		
	Middle Income	62.1	67.6	71.5	76.5	80.8	84.0	83.6		
Time required to get electricity connection (days)	Sierra Leone				113	82	82	82	82	82
	Sub-Saharan Africa				140.6	131.5	117.3	115.8	114.0	112.0
	Middle Income				105.3	99.8	93.5	91.2	89.6	85.2
Pump price for gasoline (\$ per litre)	Sierra Leone				0.9	1.0		1.1		
	Sub-Saharan Africa	0.56	0.615		1.25	1.32		0.95		
	Middle Income		0.53		1.09	1.185		0.915		
Renewable energy consumption (% of total final energy consumption)	Sierra Leone	90.2	89.3	87.3	84.2	73.1	77.7			
	Sub-Saharan Africa	73.5	72.9	71.2	71.4	70.3	70.1			
	Middle Income	28.0	28.4	24.3	21.4	20.7	20.8			
Renewable electricity output (% of total electricity output)	Sierra Leone	0.0	16.6	22.5	87.4	65.4	61.0			
	Sub-Saharan Africa	18.7	20.6	21.3	23.8	26.6	26.6			
	Middle Income	26.4	24.2	22.7	22.5	23.5	23.9			

Source: Data from World Bank

Estimates suggest that over 33,000 diesel/petrol generators are being used across Sierra Leone as an alternative to unreliable national grid energy provision (WFP et al, 2015). This explains the decline in renewable energy consumption from 90.2 percent in 1995 to 77.7 percent in 2015 (table 10.2). However, running generators reduces air quality and increases production costs for small and medium sized enterprises, reducing price competitiveness of goods and services.

The electricity sub-sector is faced with persistent challenges. Efficiency and access are hampered by high technical losses and voltage quality is low because of overburdening of infrastructure by illicit users. Existing customers face frequent power outages especially during the dry season, and new supply connections can barely keep up with population growth.

In 2011 the Government established the Sierra Leone Electricity and Water Regulatory Commission (SLEWRC) to regulate for safe, secure, affordable and reliable supply of water and electricity. In 2015 it unbundled the power sector and created two new state utilities. The first, the Electricity Generation and Transmission Company (EGTC) together with Independent Power producers (IPPs), was restricted to electricity generation and transmission. The second, the Electricity Distribution and Supply Authority (EDSA) was charged with the responsibility for bulk power purchase from generators and sale to end users. However, with the current high price of electricity (\$0.1876 per KWh) and the underdevelopment of alternative and renewable sources of energy (such as solar, wind and geo-power), fuel wood and charcoal will continue to provide most of the country's energy needs for the foreseeable future.

Although the Government has a well-articulated plan and demonstrated political will, the sector is faced with challenges including:

- **Financing/Investment:** The implementation of the energy policy and strategic plan is hampered by lack of financial and personnel resources. The Ministry of Energy and Water Resources (MEWR) is understaffed and lacks qualified staff. There is urgent need for institutional capacity building in the Ministry;
- **Weak Institutions:** Energy statistics, audits and benchmarking are lacking as the national statistical office does not collect energy statistics. This task lies mainly with the MEWR, but resources and personnel for this purpose are not available. This makes strategic decisions on energy policy and/or the evaluation of programmes and policies difficult;

- **Building up Infrastructure:** The sector is challenged by transmission and distribution networks and equipment up to 50 years old, no grid access in many parts of the country, and distribution lines damaged in the civil war. Consequently, many companies rely on generators. Domestically, cooking stoves and kerosene lights are in short supply;
- **Poor Energy Efficiency:** Aging electricity generation and distribution networks and the use of biofuels/kerosene for cooking and lighting result in poor energy efficiency.

#### **10.3.4 Air Pollution**

Air pollution is a major problem in urban centres and during specific periods of the year. Primary sources of air pollution include vehicular exhaust emissions, sand and quarry industries, road and building industries, waste burning, and Harmattan winds (yearly events that blow dust, mostly quartz, clay, colloids and fine mica flakes from the Sahara).

Urban activities generate close to 80 percent of all carbon dioxide (CO<sub>2</sub>) as well as a significant volumes of other greenhouse gas emissions. Direct sources of emissions include energy generation, vehicles, industry, and fossil fuel and biomass burning in households. Emissions from vehicles and transport equipment do not only contribute to CO<sub>2</sub> emissions but also to local pollution problems through the emission of carbon monoxide, lead, sulphur oxides and nitrogen oxides. In addition, the reduction of vegetation cover in urban areas reduces ability to reabsorb CO<sub>2</sub>, and poor waste management releases chlorofluorocarbons and gases like methane. Currently there is no policy to regulate air pollution.



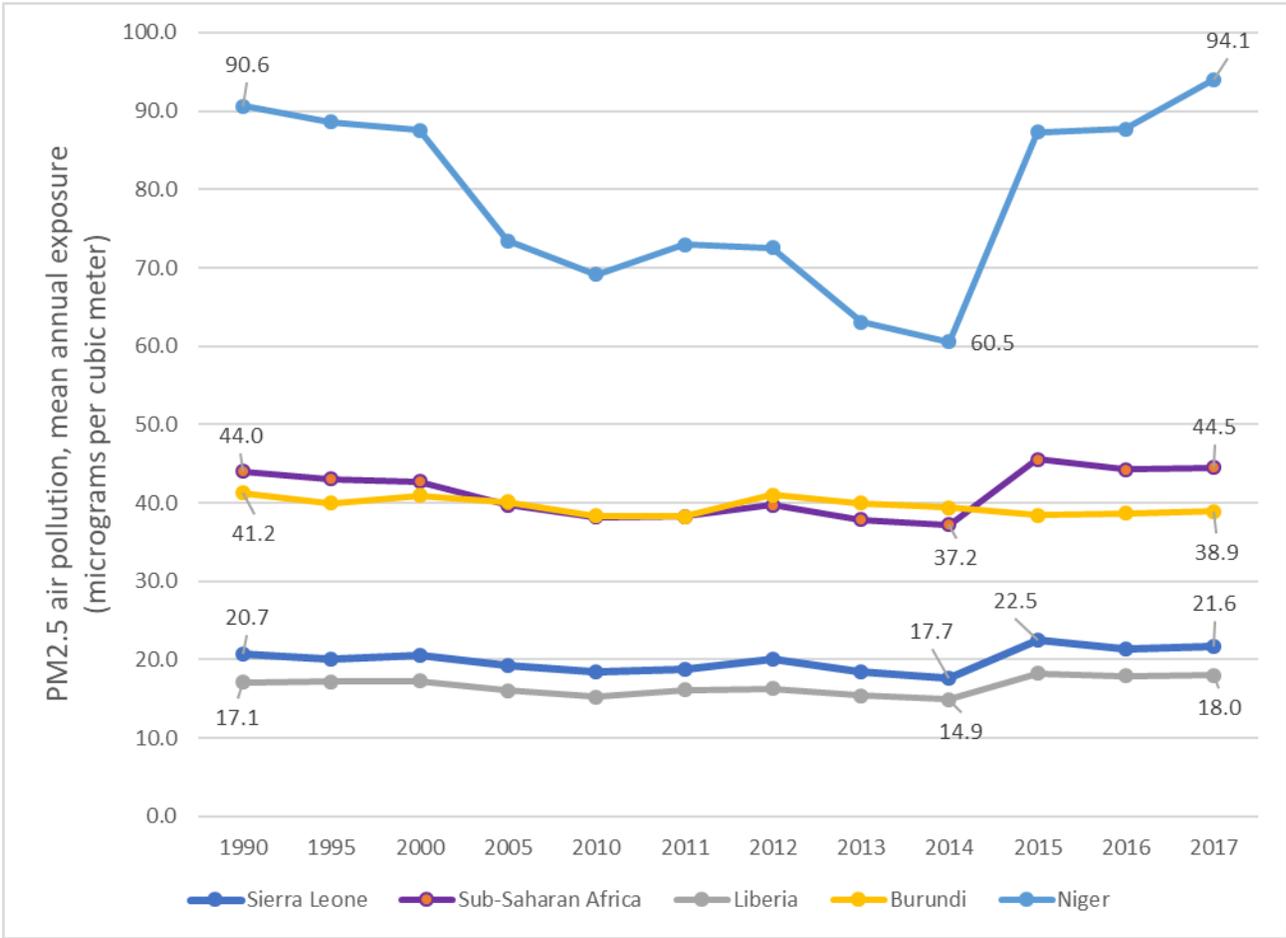
Dump site in Freetown. Photo: UNDP Sierra Leone

Data on atmospheric particulates that have a diameter of less than 2.5 micrometres ( $PM_{2.5}$ ) indicate that Sierra Leone's reading is below 35, which shows that the air quality is 'moderate' and unhealthy only for sensitive individuals regarding this pollutant.<sup>19</sup>

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<sup>19</sup> US Environmental Protection Agency (<https://www.epa.gov/>) uses the following categorization: (1) 0 to 12 is good air quality (2) 12.1 to 35.5 is moderate air quality and unusually sensitive individuals may experience respiratory symptoms (3) 35.5 to 55.4 is unhealthy for sensitive groups (4) 55.5 to 150.4 is unhealthy (5) 150.5 to 250.4 is very unhealthy (6) 250.5 to 500.4 is hazardous.

**Figure 10.4: Mean Annual Exposure to PM2.5 Air Pollution**



Source: World Bank (<https://data.worldbank.org/indicator/EN.ATM.PM25.MC.M3>)

**10.3.5 Noise Pollution**

An ambient environment devoid of noise is important for the well-being of the population. However, noise pollution is a challenge in Sierra Leone especially during December festivities. Major sources of noise pollution include traffic, construction, diesel generators and entertainment venues playing loud music. Currently there is no policy to regulate noise pollution.

**10.4 Disaster Risk Management**

According to UNISDR (2009), DRM is a ‘systematic process of using administrative decisions, organizational and operational capacities to implement policies, strategies and coping capacity of a society to prevent, mitigate against, prepare for, respond and recover from disaster impacts’. It involves all the activities carried out in pre-disaster, disaster and post-disaster phases aimed at

reducing losses and suffering. Alexander (2013) and Aldunce et al (2015) highlight the links between resilience and DRM. The negative impact of natural disasters on people include loss of life and livelihoods, injury, psychological trauma, migration, starvation, penury, suicide, disability and illness.<sup>20</sup> Disasters also cause widespread economic loss, erode social and financial capital, decrease agricultural productivity and damage physical infrastructure. Thus, DRM is a critical component of building national resilience to disasters (Maroun and Donno, 2014).

Sierra Leone has developed strategies to reduce the adverse impacts of disasters. These address institutional frameworks, awareness raising programmes and training, early warning mechanisms, strategic frameworks, the establishment of a directorate, related committees and a DRM emergency fund. These efforts respond to the call by the UN World Summit on Sustainable Development (WSSD) in Johannesburg in 2002.

## **10.4.1 Status of Disaster Risk Management**

### **DRM Institutional Structure**

As DRM is treated as a national security issue, the Office of National Security (ONS) is responsible for coordinating all national disaster activities. The national security structure has district and provincial representatives who make up Provincial Security Committees (PROSECs) and District Security Committees (DISECs). Disaster Management Committees serve as first respondents, and community-based volunteers also play a pivotal role at the local level.

However, as was evident during the EVD epidemic and the 2017 mudslide disaster, the institutional framework for DRM is still weak. Reasons for this include:

- The coordination mechanism among technical stakeholders does not work well. It lacks clarity, tools and organizational arrangements within individual institutions regarding focal points, authority, obligations, needs and mandates;
- As the Disaster Management Department (DMD) sits within the security focused ONS it is unprepared for non-security disasters. Additionally, as DMD is a directorate it cannot marshal other stakeholders effectively during a disaster;

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<sup>20</sup> UNISDR (2008) United Nations International Strategy for Disaster Reduction, Geneva.

- Insufficient resources to support national emergency and disaster responses limit efforts aimed at achieving effective and efficient responses to emergencies. The DMD is grossly understaffed and ill-equipped;
- DRM stakeholders are ignorant of the current DRM framework. The authority and responsibilities of different levels in the DRM administrative structures are poorly defined and badly understood, particularly by international organizations and non-security sector stakeholders.

## Risk assessment

Risk is a process of identifying existing hazards and vulnerabilities. Sierra Leone has made significant progress in identifying, profiling and mapping potential hazards. The national hazard profile addresses nine major natural hazards: landslide, flood, drought, epidemic, coastal erosion, sea level rise, storm surge, tropical storm, and lightning and thunder. Geographical coverage, frequency, duration, scale and historical data are included for each.

The national hazard profile has three categories of hazard. The first category consists of events that are imminent and require immediate response. The second consists of events that will occur if mitigation measures are not put in place quickly. The third consists of events that can be prevented by a longer-term preventive strategy. Hazards have been identified and grouped according to their typology. These include hydrological hazards like flooding; geological hazards such as erosion (coastal and upland), earth movements, landslides, rock fall and mud slips; climatic hazards involving drought, tropical storms, lightning and thunderstorms; ecological hazards such as deforestation, wild fires, waste, pollution and pests; and social hazards such as accidents, poverty and unemployment, civil strife, and population movement (including internally displaced persons and refugees).

Although progress has been made, Sierra Leone remains weak in risk assessment. Reasons include:

- Only a small part of a complete risk assessment exercise has been accomplished. Sectoral risk assessments (limited to a hazard, an activity or an area) have been completed, but probabilistic risk assessments have not;
- Results from vulnerability capacity assessment exercises are not structured and relevant as they have been undertaken as isolated exercises and are not incorporated in local planning processes;

- No scientific risk assessment covers all potential key hazards, and no governmental authority is conducting systematic risk assessment;
- Spatial GIS analysis for participatory, local and scientific assessments is not available.

### Early warning systems

The Government has developed an Early Warning System (EWS) that involves several ministries and departments. They include the National Security Council, which collects information related to the security of the country, and the Sierra Leone Red Cross Society (SLRCS), which has developed a hotline-based system that enables transmission of information from community level to central level (i.e. to DMD in ONS).

The Sierra Leone Meteorological Department (SLMET) is responsible for weather and climate monitoring and warning. Important efforts have been made to rehabilitate SLMET with assistance from UNDP. SLMET provides weather and climatologic services, including climatic data and daily forecast weather information, to different institutions including the Ministry of Agriculture and Food Security (MAFFS) in the Food Early Warning System Network (FEWSNET). In collaboration with DMD/ONS, it also issues weather warnings to the media.

The Ministry of Health and Sanitation (MoHS) is in charge of public health and sanitation and is responsible for epidemic risk monitoring and warning. The Health Information Management and Surveillance System within the MoHS is responsible for capturing data from health facilities. The Environment Protection Agency (EPA) is responsible for environmental monitoring and database management and the FEWSNET provides early warning and analysis on food insecurity. Where national hydrological monitoring and forecasting does not exist, at risk communities depend on local flood early warning systems where volunteers play a key role. Volunteers are also important in monitoring other hazards.

However, challenges remain for the EWS in Sierra Leone. They include:

- The disaster early warning and monitoring systems are still weak and fail to cover all the critical hazards. Risk monitoring is not comprehensive and is not institutionalized;
- Alert dissemination and communications need to be strengthened;
- The EWS has limited financial resources. For instance, SLMET still requires specialized equipment and logistical support to produce even routine forecasts.

## Disaster preparedness

A National Disaster Preparedness and Response Plan (NDPRP) is in place. Contingency plans for catastrophic events such as fires, civil unrest, health hazards and windstorms, as well as elections, have been prepared by DMD/ONS in collaboration with national stakeholders and international partners, particularly NGOs. Institutional capacity is tested using simulation exercises.

At the community level, preparedness is addressed mainly through education and sensitization. Many NGOs conduct interventions at grassroots level to prepare people to deal with hazards. For example, SLRCS carries out community training for cholera preparedness. However, despite willingness and effort, preparedness is still limited. Reasons include:

- Lack of financial resources for community sensitization;
- Preparedness plans are heavily security-based and do not cover all critical hazards;
- Some key stakeholders lack knowledge and ownership;
- Community-based local disaster preparedness mechanisms are weak.

## Disaster response

Response planning activities, which are the responsibility of key ministries and NGOs operating under the coordination of DMD, are inadequate. The NDPRP mandates that community leaders are active in coordinating community resources to address the full cycle of preventing, preparing for, responding to, and recovering from disasters. This includes communication with the community, helping local people businesses and organizations cope with the impact of disasters, and mobilizing community volunteers as first responders.

Post disaster needs are rarely met, despite ongoing efforts. Solidarity between community and family members remains the primary response mechanism as clearly defined response organizations often do not often exist at the community level and/or are overly reliant on volunteers.

## 10.5 Conclusions and Recommendations

Hazards such as droughts, floods, storms, wildfires and cyclones are increasing in number, frequency and severity in Africa. The impact of these hazards is compounded by climate change. Vulnerability in

Sierra Leone is exacerbated by poverty, low levels of socio-economic development, the geographical locations of settlements, and failure to adopt a culture of safety.

Global climate change is a reality for Sierra Leone. Changes in rainfall patterns, including droughts, are affecting agricultural activities, fish farming, food reserves, hydroelectric generation, and community life. Floods, mudslides and landslides resulting from violent rainfall patterns are negatively affecting humans and animals and causing infrastructural damage, environmental damage and outbreak of waterborne diseases such as cholera. High temperatures are also having a detrimental effect, including through increased disease outbreaks.

Land degradation is also increasing due to climate change, overexploitation and poor land management strategies. Poverty and lack of employment are forcing people to adopt negative coping mechanisms which lead to further environmental damage.

Energy is a serious challenge in Sierra Leone. Insufficient electricity supply and transmission infrastructure results in rural populations resorting to bio-energy such as wood and charcoal, and urban populations have to rely on expensive energy sources such as individual generators.

### **10.5.1 Environment and Climate Change**

- Enhance the capacity of EPA to enforce environmental laws, and introduce compulsory environment and social impact assessments for all major public and private sector projects;
- Improve the current level of public environmental and climate change awareness;
- Improve data for environmental management including by using new digital technologies;
- Develop an integrated management system for fresh-water bodies and promote rainwater harvesting;
- Strengthen the capacity for combating illegal, unregulated and unreported fishing in territorial waters, which have been a key cause of dwindling local fish catch.

### **10.5.2 Energy**

- Expand electricity generation and transmission capacity;
- Promote the use of renewable energy (e.g. solar) and improve energy efficiency and the conservation of energy resources;
- Reduce the price of cooking gas to encourage its use and thereby reduce dependency on bio-energy such as wood and charcoal;
- Reduce electricity loss through illegal connections.

### 10.5.3 Disaster Risk Management

- Address the limitations of DMD/ONS as the key institution coordinating DRM. Best practices the world over indicate that disaster management agencies work best under the Office of the President, or Vice President;
- Ensure adequate funding for DMD, the DRM coordinating institution, and related sectoral agencies. DMD, EPA, the Ministry of Lands and the Ministry of Agriculture need adequate funding for research, risk assessments, training, education, monitoring and evaluation, and awareness campaigns among other activities;
- Define and implement a clear and transparent mechanism for mobilizing the Disaster Preparedness and Emergency Fund;
- Mainstream disaster risk reduction activities and climate change adaptation strategies into development actions;
- Diversify livelihoods to reduce pressure on the already stressed natural resources that are vital to most of the population;
- Develop mechanisms such as carbon sinks to tackle global climate change. Public education and awareness raising programmes could discourage deforestation and encourage afforestation and reforestation actions;
- Promote an integrated, multi-hazard and inclusive approach to address vulnerability, risk assessment and disaster management, including prevention, mitigation, preparedness, response and recovery;
- Deploy modern technology for monitoring vulnerability and response efforts. Drones, for example, were used a survey tool following the August 2017 mudslide in Freetown.



A drone in use following the August 2017 mudslide disaster in Freetown. Photo: UNDP Sierra Leone

## **PART IV: LOOKING FORWARD**

Key recommendations to ensure that Sierra Leone builds resilience and reduces vulnerability to support sustainable development are presented below.

### **11. CONCLUSIONS AND RECOMMENDATIONS**

#### **11.1 Radical Change of Culture, Mindset and Attitudes**

Compelling evidence from both the literature (Lopez-Claros and Perotti, 2014) and individual experience suggests that cultural values, attitudes, habits and behaviours are key factors affecting sustainable development. This realization led the Government of Sierra Leone to establish the Attitudinal and Behavioural Change (ABC) Secretariat in 2008 within the Ministry of Information and Communication to champion the promotion of positive attitudinal and behavioural change and a culture of pride in the nation.

Since then, although some improvements have been detected in the culture and attitudes prevalent in Sierra Leone, challenges remain. These include the prevalence of criminality, corruption, cheating and fraud (often to meet immediate livelihood needs), and discrimination against, exclusion and/or the marginalization of ‘other’ ethnic communities and regions. The youth are particularly badly affected by low self-esteem and a dependency culture.

Time is required to change cultural values. Sierra Leone can potentially follow the path of other nations, such as Japan and Rwanda, which developed through cultural reform and disavowing values unhelpful to economic growth while building on and adapting positive values. But for this to happen and support enhanced national resilience and sustainable development, government and the management of the state must be founded on good and inclusive governance principles. Officials need to be appointed to positions of trust on merit; the rule of law must be indiscriminate and primary; and honest and committed leadership must inspire trust and confidence.

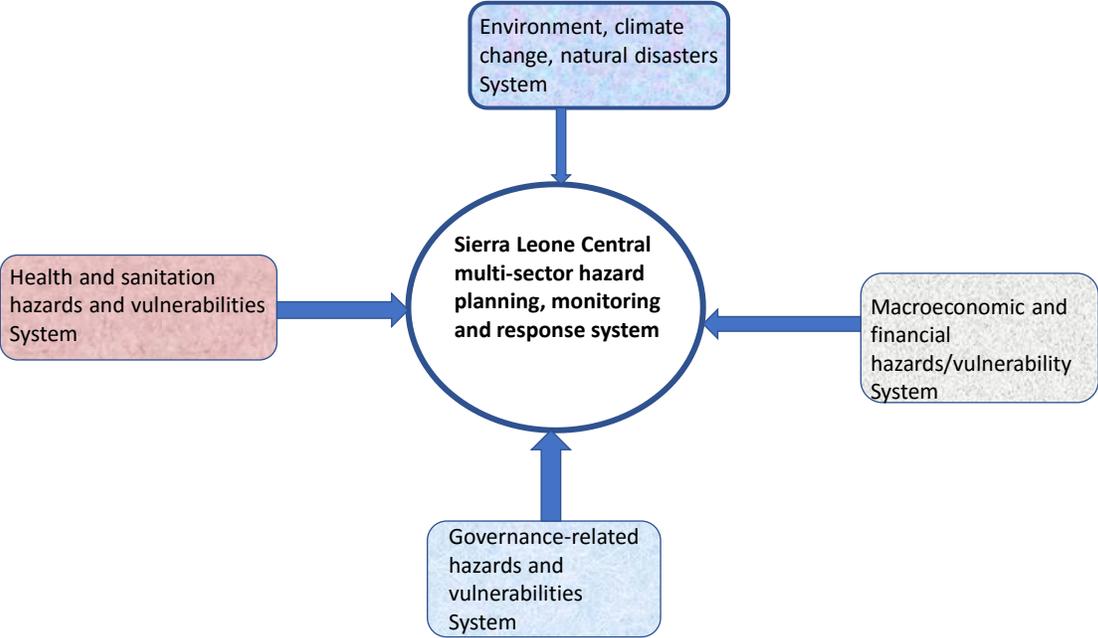
Culture change cannot be driven by a single institution. Even if the ABC Secretariat had the full support of the state, the necessary legal foundations, and was better funded, resourced and regarded, national attitudinal change must start with energetic and comprehensive efforts to enhance the legitimacy of the state. For this to happen, the state and its functionaries must fulfil their side of the social contract (in delivering services effectively and equitably) while demonstrating

positive values of integrity, trustworthiness, transparency, accountability, fairness and justice. Only when state institutions function effectively and equitably can the people be expected fulfil their side of the social contract.

## 11.2 Integrated Multi-Sector Hazard Planning, Monitoring and Response

As highlighted in this report, Sierra Leone is vulnerable to conflict and its aftermath, macroeconomic events and global climate change, as well as natural disasters and health challenges including epidemics. Many of these vulnerabilities are both driven by and affect socio-economics and politics. A pressing need therefore exists to establish a multi-sectoral multi-hazard system that goes beyond the current remit and activities of ONS. This system should have the appropriate institutional structure to monitor, prepare for and respond to all known hazards and shocks holistically. This stands in contrast to the current ONS system which is heavily security focused. Figure 11.1 presents the proposed system.

**Figure 11.1: Proposed Integrated Multi-Sector Hazard Planning, Monitoring and Response System**



Source: Authors’ own illustration

The system should be based at the Ministry of Planning and Economic Development (MoPED) and chaired at the Chief Minister/Vice Presidency level. Each of the component reporting elements need to have their own early warning structures with key indicators that are regularly monitored and

reported. For instance, regarding macroeconomic vulnerability, key indicators include strategic food reserves (especially rice) and stocks of petroleum products. Aggregated and scored, this can then be used to classify the national vulnerability status into three levels: (1) Stable - no risks (2) Alert - significant risks and (3) National disaster. The national multi-sector hazard planning Act could provide the necessary legal framework.

### **11.3 Social Protection to Build Resilience of Households**

Social protection comprises policies and programmes to help individuals improve resilience against impacts of loss and ensure equity through equal opportunities to services. Social protection sets a minimum standard of social and economic security that protects people against vulnerability and deprivation and assures access to decent livelihoods. The key vulnerabilities that necessitate social protection are poverty, malnutrition among children, old age, disability, and teenage pregnancy and early marriage.

Since 2002, National Commission for Social Action (NaCSA) has developed and delivered a host of social protection packages to vulnerable groups across the country. Intervention areas have included cash transfers, provision of temporary Labour Intensive Public Works (LIPW), construction of education and health facilities, rehabilitation of roads to connect farmers with markets, and facilitating access to finance by Small and Medium Enterprises (SMEs). In 2016, around 13,811 ultra-poor and vulnerable households were provided with quarterly cash transfers in Kono, Moyamba, Bombalii, and Western Rural Districts, for example. Furthermore, 7,360 youths gained temporary employment through the LIPW scheme.

Despite significant efforts, challenges remain in social protection. Social protection programmes are often fragmented, many vulnerable groups and regions are still not covered, beneficiaries are inaccurately targeted, and heavy dependence on external financing undermines sustainability.

New methods to expand social protection and ensure efficiency in current programmes need to be explored, including strengthening the capacity of NaCSA to coordinate all programmes. To reduce over-reliance on donor funding and ensure sustainability, the Government needs to factor a core social protection package into the national budget.

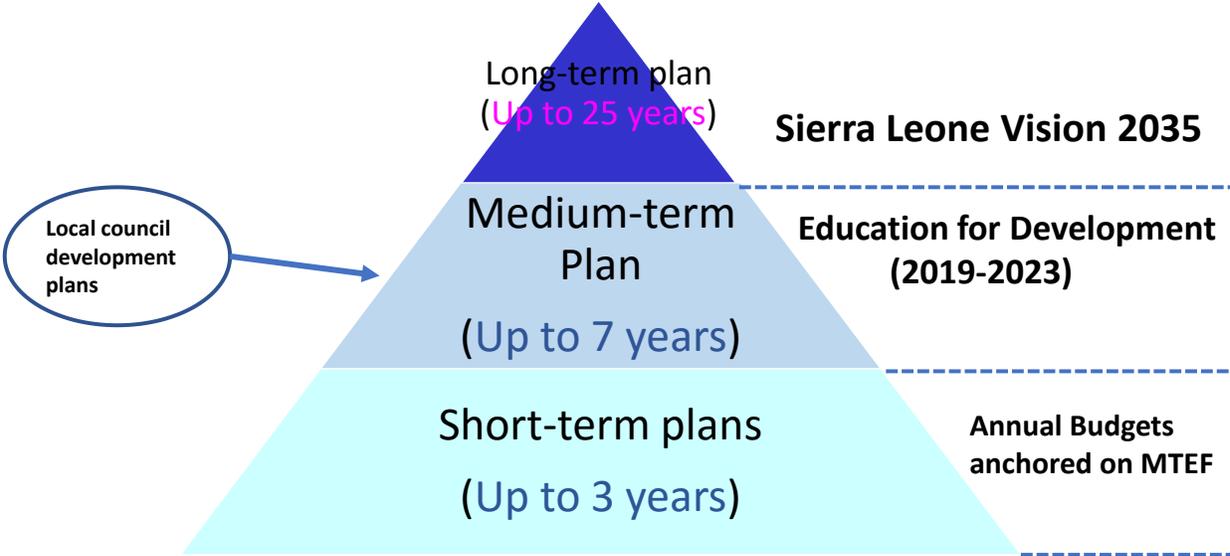


A group of persons living with disabilities during the 2018 elections. Photo: UNDP Sierra Leone

## 11.4 Resilience-Sensitive National Planning that Transcends Political Cycles

National development planning aims to promote sustainable and stable development and improve the quality of life. Common global practices usually see planning documents prepared for the long-term (up to 25 years), the medium-term (up to seven years) and the short-term (up to three years). As shown in figure 11.2, for Sierra Leone, the current long-term plan is articulated in the 2035 Vision, the medium-term development plan covers the period 2019 to 2023, and annual budgets are synchronized with the 3-year rolling Medium-Term Expenditure Framework (MTEF). MoPED is charged with responsibility, but there is no clear legal framework to guide national development planning.

**Figure 11.2: Levels of National Development Planning**



Source: Authors’ own illustration

Key areas to focus on include:

- Develop the legal framework to guide future national development planning i.e. An Act of Parliament on the National Development Planning System, covering long-term planning, medium-term planning and the short-term planning linked to the MTEF;
- Develop a resilience-sensitive long-term development plan that updates the current Vision 2035 and is consistent with the SDGs and Africa Agenda 2063. The development of the long-term plan should be informed by tools for integrated national planning to achieve the SDGs, Africa Agenda 2063 and New Deal. Tools include the UN Department of Economic and Social Affairs (UNDESA) sector-specific models for analyzing interlinkages of the economy, social factors and the environment, and the T21-iSDG models from the Millennium Institute.<sup>21</sup> These models should be used for long-range planning, including ‘stress testing/pessimistic’ scenarios;
- Address the continuing challenges regarding the institutional structure for national development planning. For national planning to be successful the challenges affecting the

<sup>21</sup> See <https://www.millennium-institute.org/isdg>.

ineffectiveness of MoDEP must be addressed. Four issues are critical. First, salaries and working conditions must be improved to attract and retain well-qualified staff. Second, the acute underfunding resulting from MoDEP having to compete for budgetary allocations must be reduced. Third, relationships between MoF and MoDEP need to be transparent and cordial. Finally, coordination, responsibilities and lines of communication with the relatively new government organizations established after the civil war must be enhanced. Many have overlapping, parallel functions.

## **11.5 Capacity for Resilience-Sensitive Professional Public Service**

The public sector is not only the means by which government develops policies and programmes to address the needs of a country, but it is also the means by which these policies are translated into tangible outputs that benefit the people.

Progress in public sector reforms has occurred since the end of the civil war. Through the Multi-Year Pay Reform Strategy, salaries for some public servants including health workers and teachers have been increased, performance management systems in the public sector have been extended to include permanent secretaries, professional heads and some senior directors in key MDAs, a merit-based recruitment system has been introduced, and a selection procedures manual has been developed for staffing key middle civil servant positions. In addition, staff records have been rationalized, the public-sector payroll cleaned up (although not in all MDAs); and improvement can be seen in the coordination of key structures. To ensure transparency and accountability in all civil service matters, the Civil Service Code was enacted, and Management Functional Reviews were finalized for all MDAs. To build capacity of the public sector, the Civil Service Training College has been re-opened. New and better coordinated framework reforms will help in reducing the fragility and vulnerability of the state.

To build resilience in local governance, the Government has invested in building the capacity of Local Councils by providing office buildings, basic logistics and extensive training. A stable, transparent inter-governmental fiscal transfer system has been developed and is being implemented. Central government fiscal disbursement to local government has quadrupled in the last five years.

All public sector oversight institutions cite the poor caliber of the workforce as a key constraint, as do SMEs requiring even relatively unskilled staff. The country still needs to fill the gap of the 'missing

middle'. Capacity gaps include limited basic skills such as financial literacy, hospitality and information technology, as well as in professional ethics and social ability to operate in a workplace. Inappropriate patronage networks and the prevalence of ethno-regional politics are also challenges.

Key areas to focus in include:

- Build the capacity of the civil service, including by providing continuous training;
- Ensure that the working environment for public servants is improved, including by supplying reliable utilities such as electricity, internet, and water and sanitation;
- Implement systems to discourage patronage networks and identity politics that are impediments to developing a professional and nonpartisan civil service;
- Develop clear business continuity and succession planning that transcends political cycles. This includes increasing the capacity of the NAGPC to stop government assets and key records from being removed when there is a change of government.

## **11.6 Robust National Data Ecosystem that Facilitates Resilience-Building**

Sierra Leone's national data ecosystem has experienced some positive changes in conceptual, legal/legislative, policy, technological, infrastructural and governance dimensions. Currently, the country's core statistical products are produced by Stats SL, although not at the required frequency. Much data is also produced by organizations such as MDAs, civil society, and the donor community that is not fully reconciled with the work of Stats SL. These data are critical for resilience building and monitoring the SDGs and Africa Agenda 2063.

The national data ecosystem system faces challenges in many areas. First, many important data are not available, are not produced regularly, and are not sufficiently disaggregated. Data from different sources are often inconsistent. This results from irregular data collection, lack of financial and human resources, politicization or lack of functional autonomy, and dominance of donor interests over national priorities (UNECA et al, 2016). Stats SL is grossly underfunded making difficult for it to achieve its mandate. Second, the national data ecosystem is biased towards the official national statistical system with limited focus on data produced by non-state actors other than the UN, World Bank, IMF and African Development Bank. Much project-based and advocacy-based data produced by local and international NGOs and universities is not acknowledged and is under-utilized. This includes data and analysis on food security, water and sanitation, governance, gender,

human rights and natural and humanitarian disasters. Some of these data produced outside the official statistics community can be as high-quality, relevant and timely as official statistics, and can fill key gaps in official statistics. However, the current legal, legislative and policy frameworks governing the production, dissemination and use of data does not allow or anticipate these possibilities. Third, there is a gap in understanding between the statisticians who produce data and those who need and use data: policy and decision makers, politicians, planners, analysts, academia and programme managers.

To fully harness data for building resilience, a holistic strategic approach is required where every component of the data ecosystem is steered towards the shared goal of establishing a conducive environment for leveraging data and partnerships for sustainable development priorities. In a new era, digital data collection and analysis technologies – including high-resolution satellite imagery, unmanned aerial vehicles, crowd-sourcing, biometric data, smart-phone and tablet-based data collection and data mining – are vital to reduce the cost of collecting data and to improve reliability.

Key areas to focus on include:

- Building a robust system for collecting economic statistics, including labour force, establishment surveys, trade statistics and monetary statistics. Of great importance is the production of regional GDPs and supply and use tables for the country;
- Providing regular population and housing censuses which acquire and record information from all the members of the population. The first post-war PHC was conducted in 2004 and the latest PHC (delayed by one year due to the EVD epidemic) was conducted in 2015. The resulting data should be made available to different users in line with the Open Data Initiative;
- Conducting regular integrated household surveys, which provide reliable data on demographic and socio-economic characteristics of the population. Sierra Leone's most recent Integrated Household Survey (SLHIS) was completed in 2011 and the latest is underway in mid-2019;
- Conducting regular agricultural surveys;
- Developing robust systems for collecting and collating administrative data from different MDAs;
- Capturing civil registration and other vital statistics;

- Providing geospatial data, including data in all the previous categories that include specific location information;
- Revising the current legal, legislative and policy frameworks governing the production, dissemination and use of data to include data from non-state actors;
- Establishing planning units in all MDAs staffed with statisticians/economists who collect data and are custodians of all strategic planning documents. These units will then work with Stats SL and MoPED and MoF.

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## STATISTICAL ANNEXES

**Table A1: Trends of HDI and components for Sierra Leone (1990 to 2017)**

Year	Life expectancy at birth	Expected years of schooling	Mean year of schooling	GNI per capita (2011 PPP \$)	HDI
	Years	Years	Years	(2011 PPP\$)	Value
1990	37.3	4.9	1.6	1516	0.275
1991	36.7	4.6	1.7	1434	0.267
1992	36.2	4.9	1.7	1251	0.264
1993	35.9	5.2	1.8	1334	0.269
1994	35.7	5.4	1.9	1289	0.271
1995	35.7	5.7	2	1248	0.274
1996	36	5.9	2	962	0.269
1997	36.4	6.2	2.1	800	0.268
1998	37.1	6.4	2.2	759	0.272
1999	37.8	6.7	2.2	696	0.276
2000	38.7	7	2.3	706	0.284
2001	39.7	7.2	2.4	803	0.299
2002	40.7	7.4	2.5	972	0.315
2003	41.7	7.6	2.5	1017	0.325
2004	42.7	7.8	2.6	1034	0.334
2005	43.6	8	2.7	1037	0.342
2006	44.6	8.2	2.8	1049	0.35
2007	45.5	8.3	2.8	1179	0.363
2008	46.4	8.5	2.9	1245	0.373
2009	47.3	8.7	3	1268	0.381
2010	48.2	8.9	3.1	1214	0.385
2011	49	9.1	3.1	1229	0.392
2012	49.8	9.3	3.2	1449	0.407
2013	50.4	9.5	3.3	1647	0.419
2014	51	9.5	3.3	1658	0.423
2015	51.4	9.5	3.4	1297	0.413
2016	51.8	9.7	3.4	1216	0.413
2017	52.2	9.8	3.5	1240	0.419

Source: UNDP HDRO (<http://hdr.undp.org/en/data>)

**Table A2: Comparison of trends of HDI with selected countries**

Year	Sierra Leone	Liberia	Burundi	Guinea	Rwanda
1990	0.275		0.297	0.276	0.25
1991	0.267		0.3	0.28	0.227
1992	0.264		0.297	0.283	0.213
1993	0.269		0.299	0.287	0.209
1994	0.271		0.298	0.291	0.199
1995	0.274		0.296	0.295	0.234
1996	0.269		0.294	0.299	0.262
1997	0.268		0.296	0.307	0.288
1998	0.272		0.3	0.314	0.302
1999	0.276	0.35	0.3	0.322	0.32
2000	0.284	0.387	0.303	0.329	0.335
2001	0.299	0.377	0.302	0.336	0.345
2002	0.315	0.374	0.31	0.345	0.361
2003	0.325	0.335	0.316	0.336	0.374
2004	0.334	0.373	0.324	0.361	0.391
2005	0.342	0.378	0.33	0.371	0.408
2006	0.35	0.383	0.35	0.38	0.429
2007	0.363	0.394	0.361	0.39	0.445
2008	0.373	0.399	0.372	0.396	0.455
2009	0.381	0.404	0.387	0.399	0.470
2010	0.385	0.407	0.395	0.404	0.485
2011	0.392	0.417	0.403	0.418	0.493
2012	0.407	0.42	0.408	0.428	0.500
2013	0.419	0.429	0.414	0.435	0.503
2014	0.423	0.431	0.421	0.44	0.509
2015	0.413	0.432	0.418	0.443	0.510
2016	0.413	0.432	0.418	0.449	0.520
2017	0.419	0.435	0.417	0.459	0.524

Source: UNDP HDRO (<http://hdr.undp.org/en/data>)

### Table A3: HDI by District (2017)

HDI Ranking	District	Life expectancy at birth	Mean years of schooling	Expected years of schooling	Gross national income (GNI) per capita	HDI
		Years	Years	Years	(2011 PPP\$)	Value
1	Western Area Urban	54.8	6.61	11.55	2,899	0.568
2	Bo	45.3	6.30	10.37	1,730	0.459
3	Bombali	52.5	5.90	10.01	963	0.446
4	Kono	46.9	5.02	9.73	800	0.420
5	Koinadugu	49.3	2.41	6.82	951	0.402
6	Western Area Rural	50.1	5.19	10.94	971	0.397
7	Bonthe	49.1	2.91	7.81	1,085	0.391
8	Tonkolili	47.9	3.00	9.16	925	0.384
9	Kambia	50.7	2.84	8.89	650	0.375
10	Kenema	45.0	2.81	9.98	1,105	0.369
11	Pujehun	46.0	3.25	9.55	682	0.366
12	Moyamba	44.5	2.96	9.43	735	0.344
13	Port-Loko	49.0	3.31	9.62	998	0.337
14	Kailahun	48.6	3.95	10.67	447	0.299
HDI Ranking	Region	Life expectancy at birth	Mean years of schooling	Expected years of schooling	Gross national income (GNI) per capita	HDI
1	Western Area	56.5	5.90	11.25	2328	0.483
2	Southern	48.8	3.86	9.29	1168	0.390
3	Northern	50.6	3.49	8.90	919	0.389
4	Eastern	44.3	3.92	10.12	800	0.362
<b>National</b>		<b>48.4</b>	<b>4.01</b>	<b>9.80</b>	<b>1,240</b>	<b>0.421</b>

#### Computation of District Human Development Indices

This is the first-time district HDIs have been computed in Sierra Leone. In performing the computation, two factors had to be taken into consideration. First, two new districts (Karene and Falaba) and one region (North Western) were created during the de-amalgamation of chiefdoms process in 2017, which took place after the finalization of the 2015 Population and Housing Census (PHC 2015). Consequently, it was decided to use the old districts in the computation of the district HDI. Second, as this was the first time district HDIs were computed in Sierra Leone, the team had to innovate to find proxies that mirror the global HDI.

**Health index:** The health index was not problematic as district life expectancy at birth data were available from the 2015 population and housing census.

**Education Index:** The mean years of schooling component was computed from the 2017 MICs data. Computing expected years of schooling (EYS) requires adding up specific rates of enrolment by age weighted by the respective amplitude of the age group, measured in year t. In view of the lack of data to compute the district EYS, the report uses district net enrolment rates to prorate the 2017 national EYS based on the data from UNESCO reported in the 2018 UNDP Statistical update of the HDI. District net enrolment rates are available from the PHC 2015. The computation is as follows:

$$\text{District EYS} = \frac{\text{District net enrolment}}{\text{National net enrolment}} \times \text{National EYS}$$

**GNI Index:** Ideally this index requires district GNI data, which are not currently computed by Statistics Sierra Leone. The first step was to find the closest proxy available at district level which was number of business establishments (table A6).

The computation is as follows:

$$\text{District GNI per capita} = \left( \frac{\text{District business establishments}}{\text{National total business establishments}} \times \text{total GNI} \right) / (\text{district pop})$$

where district pop is district population. The total GNI is for 2017 based on 2011 PPP from the World Bank.

## Table A4: Gender Development Index

Country	Indicator	1995	2000	2005	2010	2012	2013	2014	2015	2016	2017
Sierra Leone	HDI_F		0.249	0.307	0.354	0.377	0.39	0.394	0.384	0.385	0.389
	HDI_M		0.318	0.375	0.417	0.438	0.449	0.453	0.443	0.443	0.446
	GDI		<b>0.78</b> 2	<b>0.81</b> 8	<b>0.848</b>	<b>0.86</b> 1	<b>0.86</b> 7	<b>0.869</b>	<b>0.86</b> 8	<b>0.87</b> 8	<b>0.87</b> 2
Liberia	HDI_F	0.165	0.332	0.329	0.379	0.391	0.399	0.39	0.392	0.391	0.398
	HDI_M	0.275	0.437	0.428	0.444	0.452	0.457	0.468	0.469	0.469	0.47
	GDI	<b>0.59</b> 9	<b>0.75</b> 9	<b>0.76</b> 8	<b>0.853</b>	<b>0.86</b> 6	<b>0.87</b> 3	<b>0.834</b>	<b>0.83</b> 5	<b>0.83</b> 5	<b>0.84</b> 6
Guinea	HDI_F		0.275	0.323	0.36	0.378	0.384	0.393	0.396	0.402	0.411
	HDI_M		0.378	0.417	0.448	0.476	0.481	0.488	0.491	0.497	0.508
	GDI		<b>0.72</b> 8	<b>0.77</b> 4	<b>0.803</b>	<b>0.79</b> 5	<b>0.79</b> 9	<b>0.805</b>	<b>0.80</b> 6	<b>0.80</b> 8	<b>0.81</b>
Burundi	HDI_F	0.272	0.286	0.306	0.372	0.405	0.412	0.418	0.419	0.419	0.419
	HDI_M	0.327	0.342	0.361	0.41	0.411	0.417	0.421	0.419	0.419	0.418
	GDI	<b>0.83</b> 2	<b>0.83</b> 6	<b>0.84</b> 9	<b>0.907</b>	<b>0.98</b> 6	<b>0.98</b> 9	<b>0.993</b>	<b>0.99</b> 9	<b>1</b> 1	<b>1.00</b> 2
Rwanda	HDI_F	0.215	0.312	0.388	0.475	0.484	0.488	0.494	0.495	0.504	0.508
	HDI_M	0.257	0.354	0.42	0.498	0.517	0.519	0.525	0.526	0.536	0.54
	GDI	<b>0.83</b> 8	<b>0.88</b> 3	<b>0.92</b> 2	<b>0.953</b>	<b>0.93</b> 6	<b>0.93</b> 9	<b>0.942</b>	<b>0.94</b> 2	<b>0.94</b> 2	<b>0.94</b> 1
Timor-Leste	HDI_F										
	HDI_M			0.535	0.654	0.632	0.651	0.647	0.667	0.669	0.663
	GDI			<b>0.82</b>	<b>0.883</b>	<b>0.87</b> 7	<b>0.84</b> 8	<b>0.848</b>	<b>0.85</b> 7	<b>0.85</b> 8	<b>0.85</b> 5
Chad	HDI_F			0.439	0.577	0.554	0.552	0.549	0.571	0.574	0.567
	HDI_M			0.379	0.42	0.437	0.44	0.446	0.448	0.446	0.452
	GDI			<b>0.72</b> 3	<b>0.755</b>	<b>0.76</b> 7	<b>0.76</b> 8	<b>0.769</b>	<b>0.78</b> 9	<b>0.78</b> 8	<b>0.77</b> 5
Central African Republic	HDI_F			0.317	0.36	0.373	0.381	0.391	0.403	0.414	0.42
	HDI_M	0.349	0.356	0.366	0.403	0.415	0.392	0.396	0.401	0.405	0.409
	GDI	<b>0.72</b> 8	<b>0.73</b> 1	<b>0.73</b> 9	<b>0.75</b> 1	<b>0.76</b> 5	<b>0.75</b> 6	<b>0.76</b> 2	<b>0.77</b>	<b>0.77</b> 8	<b>0.78</b>
Mali	HDI_F	0.211	0.254	0.303	0.356	0.353	0.357	0.362	0.368	0.375	0.38
	HDI_M	0.304	0.346	0.403	0.446	0.455	0.457	0.459	0.457	0.458	0.469
	GDI	<b>0.69</b> 7	<b>0.73</b> 6	<b>0.75</b> 1	<b>0.79</b> 8	<b>0.77</b> 6	<b>0.78</b> 1	<b>0.78</b> 9	<b>0.80</b> 5	<b>0.81</b> 8	<b>0.81</b> 1
Togo	HDI_F	0.345	0.37	0.384	0.392	0.402	0.409	0.418	0.438	0.443	0.446
	HDI_M	0.463	0.474	0.483	0.501	0.512	0.518	0.525	0.534	0.539	0.542
	GDI	<b>0.74</b> 5	<b>0.78</b> 1	<b>0.79</b> 5	<b>0.78</b> 4	<b>0.78</b> 6	<b>0.78</b> 8	<b>0.79</b> 7	<b>0.82</b> 1	<b>0.82</b> 2	<b>0.82</b> 2

Source: UNDP HDRO (<http://hdr.undp.org/en/data>)

**Table A5: Gender Inequality Index for selected countries (1995 to 2017)**

Country	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
Switzerland	0.117	0.094	0.073	0.057	0.056	0.053	0.048	0.046	0.044	0.040	0.039
Denmark	0.102	0.076	0.064	0.050	0.047	0.045	0.042	0.042	0.042	0.040	0.040
Tunisia	0.530	0.428	0.338	0.320	0.311	0.307	0.308	0.297	0.298	0.300	0.298
Mauritius	0.479	0.452	0.369	0.375	0.363	0.364	0.359	0.353	0.376	0.374	0.373
Rwanda	0.584	0.555	0.487	0.438	0.429	0.420	0.406	0.398	0.389	0.381	0.381
South Africa	0.425	0.423	0.426	0.417	0.414	0.412	0.405	0.400	0.396	0.389	0.389
Botswana	0.567	0.532	0.532	0.496	0.488	0.481	0.469	0.452	0.445	0.435	0.434
Algeria	0.679	0.627	0.561	0.528	0.519	0.436	0.432	0.437	0.437	0.432	0.442
Burundi		0.593	0.526	0.498	0.496	0.491	0.487	0.482	0.474	0.471	0.471
Morocco	0.720	0.704	0.586	0.566	0.534	0.530	0.525	0.520	0.497	0.483	0.482
Senegal	0.644	0.640	0.628	0.570	0.563	0.535	0.529	0.523	0.520	0.515	0.515
Zambia	0.642	0.647	0.613	0.568	0.572	0.567	0.562	0.561	0.546	0.519	0.517
Uganda	0.659	0.650	0.598	0.564	0.552	0.546	0.539	0.533	0.528	0.525	0.523
Gabon	0.622	0.611	0.589	0.555	0.554	0.549	0.547	0.545	0.542	0.537	0.534
Zimbabwe	0.598	0.632	0.591	0.580	0.574	0.568	0.531	0.534	0.540	0.537	0.534
Lesotho	0.576	0.594	0.584	0.568	0.562	0.554	0.552	0.548	0.548	0.540	0.544
Kenya	0.706	0.695	0.654	0.611	0.607	0.604	0.566	0.562	0.558	0.556	0.549
Togo	0.736	0.663	0.633	0.606	0.605	0.602	0.582	0.572	0.572	0.569	0.567
Cameroon	0.699	0.691	0.659	0.621	0.617	0.613	0.579	0.576	0.573	0.568	0.569
Eswatini (Kingdom of)	0.642	0.656	0.616	0.570	0.566	0.561	0.580	0.576	0.573	0.570	0.569
Congo		0.620	0.624	0.615	0.610	0.608	0.605	0.593	0.591	0.587	0.578
Benin	0.68	0.678	0.656	0.620	0.628	0.623	0.618	0.614	0.619	0.614	0.611

	2										
Malawi	0.718	0.691	0.654	0.621	0.614	0.613	0.612	0.624	0.623	0.621	0.619
Gambia	0.757	0.748	0.658	0.663	0.659	0.655	0.651	0.637	0.634	0.628	0.623
<b>Sierra Leone</b>		<b>0.696</b>	<b>0.670</b>	<b>0.661</b>	<b>0.658</b>	<b>0.657</b>	<b>0.654</b>	<b>0.652</b>	<b>0.650</b>	<b>0.645</b>	<b>0.645</b>
Liberia		0.690	0.677	0.659	0.668	0.661	0.658	0.655	0.656	0.654	0.656

Source: UNDP HDRO (<http://hdr.undp.org/en/data>)

**Table A6: Employment in agricultural sector (1991 to 2018) %**

Country /Grouping	1991	1995	2000	2005	2010	2013	2014	2015	2016	2017	2018
South Africa	11.0	10.5	9.9	7.0	4.9	5.0	4.7	5.6	5.6	5.2	5.2
Mauritius	14.5	14.5	11.4	10.0	8.6	7.6	7.5	7.4	7.3	7.2	7.1
Libya	10.0	9.7	9.3	9.1	8.4	8.3	8.3	8.3	8.2	8.0	7.9
Algeria	23.6	22.8	22.0	18.7	11.8	9.7	9.1	8.7	8.3	9.4	9.3
Namibia	48.3	41.8	31.3	30.4	31.7	31.4	29.3	24.4	20.1	19.9	19.7
Botswana	16.6	15.8	20.0	22.8	24.9	24.0	23.9	23.6	23.4	23.2	23.0
Gambia, The	30.0	30.7	30.3	31.5	30.9	30.2	30.1	29.9	30.0	29.9	29.7
Senegal	49.2	49.9	48.8	44.7	39.9	36.2	34.8	33.3	33.0	32.5	32.0
Ghana	56.9	56.4	55.0	55.1	49.9	45.4	40.4	35.2	34.7	34.3	33.9
Togo	36.3	37.9	36.1	37.8	37.7	36.5	36.1	35.6	35.3	34.9	34.5
Congo, Rep.	39.3	40.2	41.3	40.0	39.0	37.9	37.3	36.1	35.9	36.0	35.8
Nigeria	49.9	49.7	48.4	44.9	40.8	38.3	37.7	37.1	36.9	36.8	36.6
Gabon	44.0	43.5	42.7	41.6	40.0	39.1	38.6	38.1	38.1	37.8	37.6
Morocco	47.2	46.6	45.1	45.5	40.4	39.1	38.8	38.7	38.5	38.3	38.1
Equatorial Guinea	53.3	52.0	49.0	46.1	43.6	42.7	42.4	41.8	41.5	41.5	41.4
Benin	47.6	45.7	44.7	44.5	43.7	42.6	42.2	42.2	42.1	41.8	41.4
Sudan	51.5	50.8	49.2	47.4	44.5	43.9	44.0	43.7	43.4	43.2	43.1
Cote d'Ivoire	49.5	48.5	47.8	47.0	46.1	45.2	47.3	48.5	48.9	48.4	48.0
Angola	39.8	40.2	38.7	38.4	48.7	50.3	49.8	49.4	49.4	49.3	49.1
South Sudan	45.1	45.9	45.0	44.0	41.9	47.5	47.3	46.0	48.1	48.9	49.6
Djibouti	56.6	56.3	56.3	55.1	53.3	52.3	52.0	51.4	50.9	50.4	49.9
Zambia	72.3	71.0	70.5	72.3	64.2	55.8	55.2	54.7	54.4	54.2	53.9
<b>Sierra Leone</b>	<b>64.2</b>	<b>65.7</b>	<b>71.5</b>	<b>68.1</b>	<b>64.3</b>	<b>59.1</b>	<b>57.6</b>	<b>59.7</b>	<b>59.5</b>	<b>59.2</b>	<b>58.8</b>
Eritrea	67.9	64.3	63.2	64.7	65.3	63.8	63.4	63.2	63.0	62.9	62.7
Mali	70.8	70.3	69.0	67.2	66.5	67.0	66.7	62.3	66.0	65.7	65.3
Guinea	70.6	71.3	70.7	69.1	69.2	68.2	68.0	67.7	68.0	67.0	66.5
Rwanda	88.5	89.3	88.3	79.6	77.3	73.0	68.5	67.6	67.5	67.1	66.6
Central African Republic	69.1	69.0	70.1	71.4	70.1	74.0	73.8	73.6	73.3	73.1	72.8
Niger	76.1	77.8	78.2	78.0	77.6	76.6	76.3	76.2	76.2	76.1	75.9
Chad	82.9	83.4	84.0	81.9	82.5	81.2	80.8	80.9	81.3	81.7	81.6
Burundi	91.3	92.0	92.1	92.1	91.7	91.6	91.4	91.6	91.8	91.9	92.0
Country Grouping:											
Fragile and conflict affected situations	60.8	61.2	59.6	57.6	54.9	53.6	53.5	53.0	53.3	53.2	53.1
Sub-Saharan Africa	62.5	62.7	61.9	61.3	58.5	56.6	55.9	55.3	55.3	55.1	54.8
Low income	70.7	71.4	70.5	69.0	66.0	64.2	63.7	63.2	63.2	62.9	62.6
Lower middle income	57.2	55.1	53.7	50.2	45.9	42.6	42.0	41.2	40.7	40.0	39.6
Middle income	52.0	48.2	46.5	42.4	37.1	33.5	32.4	31.7	31.2	30.6	30.3

Source: World Bank (<https://data.worldbank.org/indicator/sl.agr.empl.zs>)

**Table A7: Employment in industrial sector (1991 to 2018)**  
%

Country/Grouping	1991	1995	2000	2005	2010	2013	2014	2015	2016	2017	2018
Burundi	3.0	2.4	2.2	2.2	2.3	2.4	2.4	2.2	2.2	2.1	2.1
Chad	2.4	2.2	2.1	2.9	3.1	3.2	3.3	3.2	3.1	3.0	3.1
<b>Sierra Leone</b>	<b>7.7</b>	<b>7.1</b>	<b>5.2</b>	<b>6.1</b>	<b>5.2</b>	<b>5.9</b>	<b>6.1</b>	<b>5.4</b>	<b>5.5</b>	<b>5.6</b>	<b>5.7</b>
Cote d'Ivoire	11.9	11.7	11.9	11.7	11.6	11.8	9.1	7.5	6.3	6.3	6.2
Guinea	5.0	4.8	5.3	5.7	5.8	6.0	6.1	6.0	6.4	6.7	6.9
Tanzania	2.8	2.7	2.9	4.9	5.7	6.1	6.3	6.5	6.6	6.9	7.1
Kenya	13.3	13.2	11.6	6.7	7.0	7.2	7.3	7.4	7.5	7.5	7.6
Niger	7.6	6.7	6.7	7.0	7.3	7.9	8.0	7.9	8.0	8.0	8.1
Angola	9.0	9.2	9.2	8.9	8.1	8.2	8.2	8.2	8.2	8.2	8.3
Rwanda	2.7	2.2	2.5	3.8	5.8	7.3	7.9	8.3	8.3	8.6	8.8
Gabon	9.5	9.7	9.9	10.0	10.0	10.0	9.9	9.8	9.9	9.9	9.9
Lesotho	8.7	9.7	9.7	8.5	9.4	9.7	9.6	9.7	9.8	9.9	10.0
Congo, Dem. Rep.	10.6	8.9	7.6	8.2	8.9	9.6	9.9	10.2	10.3	10.4	10.5
Liberia	11.5	5.3	10.5	9.8	10.8	11.7	11.6	11.5	11.1	11.1	11.3
Nigeria	12.1	12.0	12.0	11.7	11.7	11.8	11.8	11.7	11.6	11.6	11.6
South Sudan	20.7	20.0	20.7	21.4	23.0	19.1	18.9	18.9	16.5	15.9	15.4
Peru	14.7	14.6	14.5	14.1	16.9	17.0	16.4	16.6	16.2	15.7	15.6
Gambia, The	15.7	15.5	16.3	16.0	16.1	15.9	15.7	16.0	15.7	15.8	15.9
Botswana	26.2	25.6	21.2	21.1	18.2	18.1	18.1	18.1	18.1	18.1	18.1
Ghana	13.8	14.0	14.0	14.2	13.8	14.1	16.2	18.7	18.6	18.6	18.6
Congo, Rep.	22.0	22.4	23.5	23.4	23.5	23.4	23.3	22.5	22.3	22.3	22.3
South Africa	28.7	28.1	27.3	28.5	24.4	23.5	23.4	23.8	23.3	23.3	23.2
Libya	26.6	26.6	26.9	27.6	27.9	26.6	26.6	26.6	26.6	26.7	26.6
Mauritius	40.4	39.8	39.2	32.4	28.7	27.9	27.6	27.5	27.3	27.2	27.1
Algeria	25.7	25.3	25.1	26.3	30.3	31.1	31.2	31.1	31.2	30.8	30.7
Tunisia	33.2	32.9	32.8	32.4	33.4	33.4	33.5	33.3	33.0	32.9	32.8
Burkina Faso	3.4	3.9	6.7	12.0	20.8	28.6	31.6	31.5	32.3	32.6	33.0
<b>Groupings:</b>											
Low income	8.9	8.7	8.9	9.3	10.2	10.5	10.7	10.9	11.0	11.1	11.3
Lower middle income	15.7	16.0	16.2	18.0	20.1	21.3	21.5	21.7	21.8	22.0	22.1
Middle income	20.3	21.0	20.7	21.9	23.4	24.4	24.7	24.7	24.6	24.6	24.5
Sub-Saharan Africa	10.1	9.9	9.9	9.9	10.2	10.6	10.8	11.0	11.0	11.1	11.2
Fragile and conflict affected situations	11.3	11.4	11.5	12.2	13.2	13.3	13.3	13.2	12.9	12.8	12.8

Source: World Bank (<https://data.worldbank.org/indicator/sl.ind.empl.zs>)

**Table A8: Employment in services sector (1991 to 2018) %**

Country/Grouping	1991	1995	2000	2005	2010	2014	2015	2016	2017	2018
Burundi	5.8	5.6	5.7	5.7	6.0	6.2	6.1	6.1	6.0	6.0
Chad	14.8	14.5	13.9	15.2	14.4	15.9	15.9	15.5	15.3	15.3
Niger	16.2	15.5	15.0	15.0	15.1	15.7	15.9	15.8	15.9	16.0
Nepal	14.9	14.3	14.2	14.8	15.6	16.3	16.5	16.6	16.8	16.9
Central African Republic	19.3	19.2	19.5	18.6	18.6	17.5	17.7	17.8	17.9	18.0
Malawi	14.6	16.6	16.2	17.0	18.6	19.4	19.5	19.6	19.7	19.8
Congo, Dem. Rep.	23.3	19.2	19.7	19.9	19.7	20.4	20.7	20.8	20.8	20.9
Uganda	20.0	21.2	22.6	21.7	21.7	21.3	21.5	21.5	21.6	21.9
Rwanda	8.9	8.5	9.2	16.6	17.0	23.6	24.1	24.2	24.4	24.6
Zimbabwe	26.9	27.8	28.1	24.1	24.2	25.4	25.6	25.6	25.7	25.6
Tanzania	14.6	14.0	14.6	20.4	23.8	25.7	25.8	25.8	26.2	26.6
Guinea	24.4	23.8	24.0	25.2	25.1	25.9	26.3	25.7	26.3	26.6
Kenya	39.8	40.4	39.5	32.2	33.3	34.4	34.3	34.4	34.6	35.0
South Sudan	34.2	34.0	34.3	34.6	35.1	33.7	35.1	35.4	35.2	35.0
Zambia	20.6	22.0	22.5	20.6	27.0	34.5	34.8	35.0	35.2	35.4
<b>Sierra Leone</b>	<b>28.1</b>	<b>27.1</b>	<b>23.3</b>	<b>25.7</b>	<b>30.5</b>	<b>36.3</b>	<b>34.8</b>	<b>34.9</b>	<b>35.1</b>	<b>35.4</b>
Uzbekistan	32.2	32.6	33.8	34.4	35.4	35.9	36.0	36.1	36.2	36.3
Burkina Faso	7.9	8.1	13.4	21.0	31.2	38.1	38.4	38.1	38.2	38.3
Benin	37.0	34.9	35.3	35.6	37.6	39.0	38.7	38.8	39.0	39.2
Cameroon	23.2	22.9	23.7	27.4	32.9	38.3	38.8	39.1	39.3	39.6
Liberia	44.1	34.0	44.5	41.5	41.9	42.7	42.6	42.4	42.4	42.6
Angola	51.2	50.6	52.1	52.6	43.1	42.0	42.4	42.3	42.5	42.7
Cote d'Ivoire	38.6	39.7	40.3	41.4	42.3	43.6	44.1	44.8	45.3	45.8
Ghana	29.4	29.6	31.0	30.7	36.3	43.4	46.1	46.7	47.1	47.5
South Africa	60.3	61.4	62.8	64.5	70.7	71.9	70.6	71.1	71.5	71.6
Luxembourg	69.6	70.9	76.8	81.0	85.6	87.6	86.4	86.9	87.8	88.1
<b>Groupings:</b>										
Low income	20.4	19.9	20.6	21.6	23.8	25.6	25.9	25.8	26.0	26.1
Middle income	27.8	30.7	32.7	35.7	39.5	42.9	43.7	44.2	44.8	45.2
Sub-Saharan Africa	27.4	27.4	28.2	28.8	31.3	33.3	33.7	33.7	33.8	34.0
Fragile and conflict affected situations	27.8	27.4	28.8	30.2	31.9	33.3	33.7	33.9	34.0	34.1

Source: World Bank (<https://data.worldbank.org/indicator/sl.srv.empl.zs>)

## Table A9: Life expectancy at birth (1990 to 2017)

Country	1990	1995	2000	2005	2010	2013	2014	2015	2016	2017
Sierra Leone	37.3	35.7	38.7	43.6	48.2	50.4	51.0	51.4	51.8	52.2
Central African Republic	48.8	46.3	43.9	44.5	47.6	49.8	50.6	51.4	52.2	52.9
Côte d'Ivoire	52.5	49.5	46.7	47.7	50.4	52.0	52.5	53.1	53.6	54.1
Lesotho	59.2	56.9	48.4	46.5	50.8	52.7	53.3	53.7	54.2	54.6
South Sudan	43.5	46.9	49.2	51.2	53.7	55.3	55.8	56.3	56.8	57.3
Guinea-Bissau	49.1	51.0	52.3	53.4	55.0	56.2	56.6	57.0	57.4	57.8
Burundi	48.1	48.9	51.5	52.7	54.9	56.3	56.7	57.1	57.5	57.9
Equatorial Guinea	48.2	50.6	52.8	54.3	55.9	56.9	57.2	57.4	57.7	57.9
Eswatini (Kingdom of)	60.4	56.5	48.5	46.2	51.6	55.3	56.3	57.1	57.8	58.3
Mali	45.7	46.6	48.1	52.1	55.2	56.6	57.0	57.5	58.0	58.5
Cameroon	52.2	50.0	50.0	52.9	55.4	56.7	57.1	57.6	58.1	58.6
Mozambique	42.9	45.5	48.3	51.4	54.7	56.5	57.1	57.7	58.3	58.9
Congo (Democratic Republic of the)	49.0	49.1	50.0	53.7	56.9	58.3	58.8	59.2	59.6	60.0
Guinea	49.9	51.7	51.2	53.2	56.8	58.3	58.8	59.4	60.0	60.6
Gambia	52.2	53.8	55.9	57.9	59.6	60.5	60.7	61.0	61.2	61.4
Zimbabwe	57.9	50.8	44.8	45.3	53.0	58.1	59.4	60.4	61.2	61.7
Ghana	56.8	57.5	57.0	58.7	60.9	61.9	62.2	62.4	62.7	63.0
Liberia	47.2	50.2	52.4	55.1	59.6	61.1	61.5	62.0	62.5	63.0
Mauritania	58.4	59.4	60.0	60.7	62.0	62.7	62.9	63.1	63.2	63.4
South Africa	62.1	61.2	56.3	52.6	55.9	59.8	61.0	62.0	62.8	63.4
Malawi	46.6	46.6	46.5	49.8	57.3	61.0	61.9	62.7	63.2	63.7
Comoros	56.7	58.7	59.5	60.1	61.9	62.9	63.2	63.5	63.7	63.9
Yemen	57.9	59.3	60.4	61.9	63.5	64.3	64.5	64.7	65.0	65.2
Eritrea	49.6	52.3	55.3	58.7	62.2	63.7	64.2	64.6	65.1	65.5
Ethiopia	47.1	49.3	51.9	56.2	61.6	64.0	64.5	65.0	65.5	65.9
Madagascar	51.0	54.6	58.5	61.2	63.4	64.7	65.1	65.5	65.9	66.3
Tanzania (United Republic of)	50.2	49.5	51.5	56.2	60.9	63.3	64.2	65.0	65.7	66.3
Gabon	61.2	60.6	59.3	59.9	62.9	64.7	65.2	65.7	66.1	66.5
Kenya	57.5	53.9	51.8	55.8	62.9	65.7	66.2	66.7	67.0	67.3
Rwanda	34.2	32.0	48.4	55.4	63.1	65.6	66.2	66.7	67.1	67.5
Senegal	57.2	57.4	57.8	60.5	64.2	65.9	66.4	66.8	67.1	67.5
Botswana	61.9	55.5	49.0	52.2	59.9	63.6	64.8	65.8	66.8	67.6
Mauritius	69.4	70.3	71.2	72.4	73.5	74.2	74.4	74.6	74.7	74.9
Tunisia	68.8	71.5	73.2	74.2	74.8	75.2	75.3	75.5	75.7	75.9
Korea (Republic of)	71.7	73.9	76.0	78.4	80.5	81.4	81.7	81.9	82.2	82.4
Switzerland	77.6	78.5	79.9	81.2	82.3	82.8	83.0	83.1	83.3	83.5
Japan	79.0	79.9	81.2	82.3	83.0	83.4	83.5	83.6	83.8	83.9

Source: World Bank (<https://data.worldbank.org/indicator/sp.dyn.le00.in>)

**Table A10: Life expectancy at birth for females (1990 to 2017)**

Country	1990	1995	2000	2005	2010	2013	2014	2015	2016	2017
<b>Sierra Leone</b>	<b>37.9</b>	<b>36.5</b>	<b>39.8</b>	<b>44.7</b>	<b>48.9</b>	<b>51.0</b>	<b>51.5</b>	<b>52.0</b>	<b>52.4</b>	<b>52.8</b>
Chad	48.1	48.7	48.6	48.8	51.2	52.9	53.4	53.8	54.1	54.5
Nigeria	47.2	47.0	47.2	49.0	51.6	52.9	53.3	53.8	54.2	54.7
Central African Republic	51.0	48.0	45.2	45.7	49.1	51.5	52.4	53.2	54.0	54.8
Cote d'Ivoire	54.8	50.8	47.3	48.5	51.6	53.4	54.0	54.6	55.1	55.7
Lesotho	61.0	58.6	49.5	47.4	52.6	54.9	55.5	56.0	56.4	56.7
South Sudan	45.0	48.2	50.5	52.3	54.6	56.3	56.8	57.3	57.8	58.3
Guinea-Bissau	51.3	53.0	53.3	54.3	56.6	57.9	58.3	58.7	59.1	59.5
Cameroon	53.7	51.1	50.9	53.8	56.6	57.9	58.3	58.8	59.2	59.7
Burundi	49.7	50.5	53.2	54.4	56.7	58.2	58.7	59.1	59.5	59.9
Mozambique	44.5	47.2	50.0	53.0	56.6	58.5	59.1	59.8	60.4	61.0
Guinea	50.9	52.2	51.2	53.6	57.5	58.8	59.3	59.9	60.5	61.2
Togo	57.1	55.5	54.3	55.3	58.1	59.9	60.4	60.7	61.0	61.3
Eswatini	62.5	58.8	50.5	47.7	54.1	58.4	59.5	60.3	60.9	61.3
Burkina Faso	50.5	50.7	51.7	54.0	57.6	59.5	60.0	60.5	61.0	61.4
Niger	44.2	47.3	50.5	53.8	57.7	59.7	60.2	60.7	61.1	61.5
Congo, Dem. Rep.	50.5	50.5	51.5	55.1	58.3	59.8	60.2	60.7	61.1	61.5
Uganda	48.5	47.2	49.5	54.4	58.9	60.9	61.4	61.8	62.1	62.4
Benin	55.8	56.8	57.0	58.8	60.7	61.5	61.8	62.1	62.4	62.7
Gambia, The	53.5	55.2	57.2	59.2	61.0	61.8	62.1	62.3	62.6	62.8
Zimbabwe	61.1	53.7	46.7	46.4	54.1	59.5	60.9	62.1	62.9	63.5
Liberia	49.4	51.5	53.1	55.9	60.5	62.0	62.5	63.0	63.5	64.0
Ghana	57.9	58.5	57.8	59.5	61.8	62.8	63.1	63.4	63.7	64.1
Djibouti	58.3	58.8	58.6	59.5	61.9	63.3	63.7	63.9	64.2	64.4
Angola	43.9	45.4	49.5	55.4	60.9	63.2	63.7	64.1	64.4	64.7
Malawi	48.5	48.8	48.2	51.4	59.3	63.4	64.4	65.2	65.8	66.2
Sudan	57.0	58.4	60.3	62.3	64.2	65.3	65.6	65.8	66.1	66.3
Congo, Rep.	57.5	54.5	52.4	55.8	61.9	64.5	65.1	65.7	66.3	66.7
South Africa	66.0	65.0	59.6	55.1	58.9	63.3	64.6	65.6	66.4	67.0
Madagascar	52.2	55.9	59.7	62.5	64.9	66.2	66.7	67.1	67.5	67.9
Tanzania	52.4	51.7	53.4	57.6	62.5	65.3	66.1	66.8	67.5	68.1
Gabon	62.7	62.0	60.2	60.4	63.8	66.1	66.7	67.3	67.8	68.2
Rwanda	36.0	33.3	49.2	56.6	64.9	67.6	68.2	68.8	69.2	69.6
Kenya	60.0	56.4	53.8	57.4	64.9	68.0	68.6	69.1	69.4	69.7
Botswana	64.3	58.2	51.2	53.9	62.5	66.6	67.7	68.7	69.5	70.2
Libya	70.4	71.6	72.3	73.7	74.5	74.6	74.6	74.8	74.9	75.1
Morocco	66.3	68.5	70.2	72.9	75.3	76.2	76.4	76.7	77.0	77.2
Algeria	68.3	69.7	71.7	74.1	75.9	76.6	76.9	77.1	77.3	77.6

Mauritius	73.4	74.3	75.3	75.9	76.7	77.5	77.6	77.8	77.8	77.9
Hong Kong SAR, China	80.3	81.5	83.9	84.6	86.0	86.7	86.9	87.3	87.3	87.6

Source: World Bank (<https://data.worldbank.org/indicator/sp.dyn.le00.fe.in>)

**Table A11: Life expectancy at birth for males (1990 to 2017)**

Country	1990	1995	2000	2005	2010	2012	2013	2014	2015	2016	2017
Central African Republic	46.6	44.5	42.7	43.2	46.1	47.5	48.2	48.9	49.6	50.3	51.0
Sierra Leone	36.9	35.0	37.7	42.5	47.6	49.2	49.9	50.4	50.9	51.3	51.6
Chad	45.8	46.2	46.6	47.2	49.3	50.2	50.6	51.0	51.4	51.7	52.0
Lesotho	57.3	55.0	47.2	45.4	48.9	49.8	50.3	50.8	51.3	51.7	52.2
Burundi	46.3	47.2	49.8	51.1	53.1	53.9	54.4	54.8	55.1	55.5	55.9
Guinea-Bissau	46.9	49.0	51.2	52.4	53.5	54.1	54.5	54.9	55.3	55.7	56.0
South Sudan	42.1	45.5	48.0	50.1	52.7	53.8	54.3	54.8	55.3	55.8	56.3
Equatorial Guinea	46.7	49.0	51.4	53.1	54.7	55.3	55.6	55.9	56.1	56.4	56.7
Mozambique	41.3	43.7	46.6	49.6	52.7	53.8	54.4	54.9	55.5	56.1	56.7
Zambia	42.7	41.2	43.0	48.0	54.6	56.8	57.7	58.4	58.9	59.3	59.6
Zimbabwe	55.0	48.1	43.0	44.1	51.7	55.0	56.5	57.7	58.6	59.3	59.8
South Africa	58.5	57.7	53.3	50.1	53.0	55.3	56.5	57.5	58.5	59.2	59.9
Burkina Faso	48.3	48.0	49.1	52.4	56.4	57.7	58.3	58.7	59.2	59.6	60.0
Mauritania	57.1	57.9	58.4	59.1	60.5	61.0	61.3	61.4	61.6	61.7	61.9
Ghana	55.7	56.5	56.2	57.9	60.0	60.6	60.9	61.2	61.4	61.7	62.0
Liberia	45.1	48.9	51.8	54.2	58.7	59.7	60.1	60.6	61.0	61.5	62.0
Comoros	55.1	57.2	57.9	58.5	60.3	61.0	61.3	61.6	61.8	62.0	62.2
Afghanistan	48.9	52.0	54.4	57.4	60.1	60.9	61.3	61.7	62.0	62.4	62.8
Sudan	54.0	55.1	56.6	58.6	61.0	61.8	62.2	62.5	62.7	62.9	63.1
Eritrea	48.0	50.6	53.4	56.7	60.2	61.2	61.7	62.1	62.5	63.0	63.4
Congo	54.4	52.0	50.4	53.6	59.1	60.7	61.4	62.0	62.5	63.0	63.5
Ethiopia	45.6	47.8	50.6	54.8	60.0	61.5	62.2	62.7	63.2	63.6	64.0
Tanzania (United Republic of)	48.0	47.3	49.6	54.8	59.2	60.7	61.5	62.3	63.1	63.9	64.6
Madagascar	49.8	53.4	57.3	59.9	61.9	62.8	63.2	63.6	64.0	64.4	64.7
Rwanda	32.5	30.7	47.6	54.2	61.3	62.9	63.6	64.1	64.6	65.0	65.3
Senegal	55.6	55.9	56.2	59.0	62.5	63.5	64.0	64.4	64.7	65.1	65.4
Timor-Leste	46.9	52.5	58.1	62.8	65.9	66.2	66.4	66.6	66.8	67.1	67.4
Libya	67.0	68.3	68.9	69.4	69.1	68.9	68.9	68.9	69.0	69.2	69.3
Egypt	62.2	64.4	66.2	67.1	68.2	68.6	68.8	69.0	69.1	69.3	69.5
Seychelles	66.5	66.2	67.4	68.0	68.3	68.6	68.8	68.9	69.1	69.3	69.5
Mauritius	65.7	66.7	67.8	69.2	70.0	70.5	70.7	70.9	71.1	71.3	71.4
Tunisia	66.8	69.2	70.8	71.9	72.7	73.0	73.1	73.3	73.5	73.7	73.9
Morocco	63.1	65.1	67.2	69.9	72.6	73.5	73.8	74.1	74.4	74.6	74.9
Algeria	65.2	66.6	68.9	71.5	73.5	74.0	74.2	74.5	74.7	74.9	75.1

Japan	75.9	76.6	77.7	78.7	79.6	79.9	80.1	80.2	80.4	80.5	80.7
Sweden	74.8	76.1	77.3	78.4	79.5	79.9	80.1	80.3	80.5	80.7	80.9
Switzerland	74.1	75.2	76.9	78.5	79.9	80.4	80.6	80.9	81.1	81.3	81.5

Source: World Bank (<https://data.worldbank.org/indicator/sp.dyn.le00.ma.in>)

## Table A12: Health indicators

Region/ District	Life expectancy at birth						Child mortality rate	Women who delivered in a health facility	Adolescent birth rate- SDG 3.7.2	Women with health insuranc e
	Total	Male	Female	Total	Male	Female				
	2004			2015			2017	2017	2017	2017
	Years						Deaths per 1000 live births	percent	Per 1000 women	percent
<b>National</b>	<b>48.4</b>	<b>47.5</b>	<b>49.4</b>	<b>51.5</b>	<b>48.3</b>	<b>50.8</b>	<b>40</b>	<b>76.7</b>	<b>101</b>	<b>2.4</b>
Urban							39	81.1	72	4.0
Rural							40	73.7	137	0.8
<b>Eastern Region:</b>	<b>46.6</b>	<b>45.1</b>	<b>47.6</b>	<b>44.3</b>	<b>43.6</b>	<b>45.0</b>	<b>42</b>	<b>87.7</b>	<b>102</b>	<b>1.0</b>
Kailahun	48.6	49.1	49.5	37.9	37.5	38.3	37	92.0	138	0.0
Kenema	45.0	43.9	46.2	44.2	43.4	44.9	38	93.7	82	0.4
Kono	46.9	45.7	48.2	55.0	53.4	56.8	54	75.2	102	2.2
<b>Northern Region:</b>	<b>49.8</b>	<b>48.9</b>	<b>50.7</b>	<b>50.6</b>	<b>48.9</b>	<b>52.3</b>	<b>44</b>	<b>65.1</b>	<b>117</b>	<b>2.2</b>
Bombali	52.5	51.6	53.5	55.6	53.2	58.1	54	76.4	126	1.8
Koinadugu	49.3	48.2	50.6	66.0	65.1	66.8	27	75.8	94	0.8
Tonkolili	47.9	47.3	48.6	51.0	50.0	52.1	28	61.8	133	0.8
Port Loko	49.0	48.1	50.0	39.0	37.6	40.5	65	56.0	116	2.5
Kambia	50.7	50.0	51.5	55.5	53.0	58.3	27	54.1	115	1.1
<b>Southern Region:</b>	<b>45.7</b>	<b>44.9</b>	<b>46.6</b>	<b>48.8</b>	<b>47.7</b>	<b>49.9</b>	<b>22</b>	<b>86.9</b>	<b>123</b>	<b>1.7</b>
Bo	45.3	44.6	46.1	49.4	48.1	50.9	8	95.5	113	0.9
Bonthe	49.1	48.6	49.6	54.4	53.1	55.8	28	91.6	74	3.3
Moyamba	44.5	43.1	46.0	44.3	42.9	45.7	25	64.1	128	2.2
Pujehun	46.0	45.4	46.7	49.4	49.3	49.4	39	90.9	179	0.2
<b>Western Area</b>	<b>53.5</b>	<b>52.5</b>	<b>54.5</b>	<b>56.5</b>	<b>54.7</b>	<b>58.2</b>	<b>46</b>	<b>75.1</b>	<b>71</b>	<b>4.3</b>
Urban	54.8	53.9	n/a	63.2	61.3	65.1	72	81.2	54	4.4
Rural	50.1	48.9	51.4	44.9	43.6	46.3	31	65.6	109	2.6

Poorest							40	71.1	143	0.6
Second							45	73.7	143	0.3
Middle							40	78.2	124	1.0
Fourth							45	78.0	97	2.3
Richest							27	84.6	44	6.4

Source: PHC, 2015 and MICS (2017)

### Table A13: Net enrolment at various levels

Region/District	Pre-School (3-5 years)	Primary (6-11 years)	JSS (12-14 years)	SSS (15-17 years)	Post-secondary(18-21 years)
	NER	NER	NER	NER	NER
	2015	2015	2015	2015	2015
	%	%	%	%	%
<b>National</b>	<b>20.8</b>	<b>65.4</b>	<b>21.0</b>	<b>10.9</b>	<b>1.5</b>
Urban	30.3	76.7	28.4	18.5	2.7
Rural	16.2	59.0	15.2	5.1	0.6
<b>Eastern Region:</b>	<b>22.9</b>	<b>67.7</b>	<b>22.0</b>	<b>9.1</b>	<b>1.1</b>
Kailahun	27.4	71.2	24.2	10.7	
Kenema	19.3	66.6	22.8	14.5	
Kono	22.4	64.9	18.8	11.4	
<b>Northern Region:</b>	<b>15.3</b>	<b>60.0</b>	<b>17.5</b>	<b>7.8</b>	<b>0.8</b>
Bombali	16.8	66.8	19.5	14.4	
Koinadugu	12.9	45.5	16.2	8.6	
Tonkolili	18.2	61.1	19.7	9.4	
Port Loko	14.0	64.2	16.4	10.4	
Kambia	13.1	59.3	14.0	8.4	
<b>Southern Region:</b>	<b>20.1</b>	<b>64.0</b>	<b>17.0</b>	<b>7.5</b>	<b>1.1</b>
Bo	20.1	69.2	18.5	13.8	
Bonthe	17.0	52.1	15.9	9.5	
Moyamba	16.8	62.9	12.4	6.7	
Pujehun	24.9	63.7	18.9	7.7	
<b>Western Area</b>	<b>32.6</b>	<b>75.9</b>	<b>29.3</b>	<b>21.8</b>	<b>3.5</b>
Urban	34.8	77.1	31.5	29.5	
Rural	28.3	73.0	24.3	21.4	
Gender Parity Index (GPI_e)	1.08	1.06	0.98	0.96	0.87

Source: PHC (2015)

**Table A14: Multidimensional poverty by regions and districts (2017)**

Geographic location	Multi-dimensional Poverty Index 2017		Intensity of multi-dimensional poverty 2017	Contribution %					
	Value	Headcount %		%	Education	Health	Housing	Living standards	Energy
					%	%	%	%	%
<b>National</b>	<b>0.375</b>	<b>64.8</b>	<b>57.9</b>	<b>16.9</b>	<b>10.8</b>	<b>17.4</b>	<b>29.5</b>	<b>25.4</b>	
Rural	0.520	86.3	60.3	18.3	9.8	19.1	27.9	24.9	
Urban	0.191	37.6	50.9	15.4	11.9	15.4	31.4	25.9	
<b>South:</b>	<b>0.456</b>	<b>76.0</b>	<b>60.0</b>	<b>17.9</b>	<b>9.2</b>	<b>18.5</b>	<b>27.8</b>	<b>26.6</b>	
Bo	0.367	64.9	56.6	17.6	9.8	19.0	27.9	25.7	
Bonthe	0.511	82.5	61.9	20.4	7.6	16.1	28.7	27.2	
Moyamba	0.517	83.7	61.8	17.9	7.9	18.4	29.0	26.8	
Pujehun	0.544	87.2	62.4	16.7	10.9	19.2	25.8	27.4	
<b>North:</b>	<b>0.452</b>	<b>75.8</b>	<b>59.6</b>	<b>18.0</b>	<b>9.8</b>	<b>18.4</b>	<b>28.8</b>	<b>25.1</b>	
Bombali	0.386	65.9	58.6	16.5	10.3	19.4	26.9	26.9	
Koinadugu	0.521	86.5	60.3	18.8	11.8	17.5	27.1	24.8	
Tonkolili	0.528	85.4	61.9	17.1	8.2	19.8	29.3	25.6	
Kambia <sup>1</sup>	0.447	77.3	57.9	20.0	8.9	16.6	31.6	22.9	
Port Loko <sup>1</sup>	0.419	70.9	59.1	18.3	9.8	18.0	29.5	24.3	
<b>East:</b>	<b>0.385</b>	<b>67.6</b>	<b>57.0</b>	<b>17.8</b>	<b>11.3</b>	<b>19.4</b>	<b>27.8</b>	<b>23.7</b>	
Kailahun	0.441	77.6	56.8	16.6	12.0	18.8	29.0	23.6	
Kenema	0.354	62.4	56.8	18.6	11.9	19.6	25.8	24.0	
Kono	0.378	65.9	57.4	18.2	9.5	19.8	29.0	23.4	
<b>Western:</b>	<b>0.182</b>	<b>36.2</b>	<b>50.2</b>	<b>15.5</b>	<b>12.5</b>	<b>15.0</b>	<b>31.9</b>	<b>25.1</b>	
Rural	0.275	53.0	51.8	15.6	12.6	14.6	32.5	24.7	
Urban	0.140	28.5	48.9	15.4	12.4	15.5	31.3	25.5	

**NOTES**

**DEFINITIONS**

**Multidimensional Poverty Index:** Percentage of the population that is multidimensionally poor. This is a Sierra Leone-specific MPI computed using the Alkire-Foster methodology and covers the

following dimensions and indicators: Education (Years of schooling and school attendance); Health (Nutrition, child mortality and vaccination); Housing (Housing materials, asset ownership and overcrowding); Living standards (Water, sanitation and bank account); and Energy (Cooking fuel, electricity and internet).<sup>22</sup>

**Multidimensional Poverty headcount:** Percentage of the population with a weighted deprivation score of at least 40 percent.

**Multidimensional Poverty headcount:** The average percentage of deprivation experienced by people in multidimensional poverty.

**Main data sources:** Multidimensional Poverty Index has been computed by OPHI in collaboration with Stats SL and UNDP, using the MICS data 2017.

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<sup>22</sup> See OPHI for more details (<https://ophi.org.uk/policy/alkire-foster-methodology/>).

## Table A15: Income poverty (2011 and 2018)

	Food Poverty (%)			Incidence of Absolute Poverty (%)			Incidence of Extreme Poverty (%)		
	2011	2018	Change	2011	2018	Change	2011	2018	Change
<b>National</b>	<b>47.7</b>			<b>52.9</b>	<b>57.0</b>	<b>4.1</b>	<b>13.9</b>	<b>10.8</b>	<b>-3.1</b>
Rural	51.8			66.1	72.4	6.3	19.3	15.3	-4.0
Urban	40.8			31.2	41.2	10.0	5.0	4.1	-0.9
<b>South:</b>	<b>49.1</b>			<b>55.4</b>	<b>66.8</b>	<b>11.4</b>	<b>16.0</b>	<b>8.4</b>	<b>-7.6</b>
Bo	52.4			50.7			16.3		
Bonthe	35.5			51.4			8.1		
Moyamba	51.8			70.8			19.7		
Pujehun	47.3			54.1			16.5		
<b>North:</b>	<b>50.8</b>			<b>61.0</b>	<b>67.3</b>	<b>6.3</b>	<b>15.7</b>	<b>12.1</b>	<b>-3.6</b>
Bombali	58.3			57.9			24.8		
Koinadugu	38.0			54.3			10.2		
Tonkolili	64.4			76.4			10.8		
Kambia	42.1			53.9			6.6		
Port Loko	46.4			59.9			20.3		
<b>East:</b>	<b>50.7</b>			<b>61.3</b>	<b>60.9</b>	<b>-0.4</b>	<b>16.3</b>	<b>18.1</b>	<b>1.8</b>
Kailahun	50.1			60.9			12.0		
Kenema	50.0			61.6			17.9		
Kono	52.9			61.3			19.7		
<b>Western:</b>	<b>37.7</b>			<b>28.0</b>	<b>18.0</b>	<b>-10.0</b>	<b>5.8</b>	<b>1.7</b>	<b>-4.1</b>
Rural	57.0			57.1			15.9		
Urban	32.9			20.7			3.3		

Income poverty is based on the preliminary half-year 2018 Sierra Leone Integrated Household Survey, which was available at national and regional levels. District income poverty data are not included. Final income poverty may differ slightly.

## Table A16: Economic characteristics

Region/District	Labour participation rate	Unemployment rate (ILO)	Business establishments
	2015	2014	2018
	%	%	%
<b>National</b>	<b>0.55</b>	<b>4.3</b>	<b>15,700</b>
Urban		11.1	5,465
Rural		3.0	770
<b>Eastern Region:</b>		<b>3.1</b>	<b>2,346</b>
Kailahun	0.65		420
Kenema	0.65		1,203
Kono	0.67		723
<b>Northern Region:</b>		<b>3.9</b>	<b>4,113</b>
Bombali	0.65		1,043
Koinadugu	0.74		695
Tonkolili	0.71		878
Port Loko	0.68		1,096
Kambia	0.71		401
<b>Southern Region:</b>		<b>3.2</b>	<b>3,006</b>
Bo	0.62		1,777
Bonthe	0.66		389
Moyamba	0.74		418
Pujehun	0.63		422
<b>Western Area</b>		<b>10.7</b>	<b>6,235</b>
Urban	0.73		
Rural	0.61		
<b>Age:</b>			
Youth		5.9	
Women		3.7	
Men		5.0	
Disabled		1.4	
Not disabled		4.4	
Never went to school		2.6	
Incomplete primary		6.4	
Completed primary		6.3	
Completed JSS		6.5	
Completed SSS		10.5	
Tech degrees and certificates		11.7	
Tertiary degree		9.8	

## Table A17: Energy, Environment, Water and Sanitation

Region/District	Households relying on clean fuel technologies for cooking	Households using improved source of water	Households using improved sanitation
	2017	2017	2017
	%	%	%
<b>National</b>	<b>0.6</b>	<b>67.8</b>	<b>48.2</b>
Urban	1.2	86.7	74.0
Rural	0.1	52.5	27.5
<b>Eastern Region:</b>	<b>0.1</b>	<b>75.7</b>	<b>46.8</b>
Kailahun	0.0	67.1	42.5
Kenema	0.2	87.9	57.1
Kono	0.1	42.2	35.9
<b>Northern Region:</b>	<b>0.4</b>	<b>52.8</b>	<b>34.3</b>
Bombali	0.5	66.1	44.8
Koinadugu	0.1	47.3	37.5
Tonkolili		36.7	22.2
Port Loko	0.6	54.5	37.9
Kambia	0.3	73.8	21.6
<b>Southern Region:</b>	<b>0.2</b>	<b>58.8</b>	<b>42.0</b>
Bo	0.1	73.0	49.7
Bonthe	0.6	45.2	32.5
Moyamba	0.1	29.6	42.7
Pujehun	0.0	71.0	30.6
<b>Western Area</b>	<b>1.7</b>	<b>89.0</b>	<b>74.8</b>
Urban	2.2	93.9	81.7
Rural	0.8	78.2	59.5
Poorest	0.0	34.2	13.9
Second	0.0	55.5	26.5
Middle	0.3	70.5	45.0
Fourth	0.2	83.4	66.5
Richest	2.4	83.8	86.8

## Table A18: Other socio-characteristics

Region/District	Population before de-amalgamation	Population after de-amalgamation	Children under 5 with certificate from civil authorities	Female members of parliament (incl. PCs)	Social transfers	Number of police stations
	2015	2015	2017	2018	2017	2017
	Number	Number	%	%	%	Number
<b>National:</b>	<b>7,092,113</b>	<b>7,092,113</b>	<b>33.9</b>	<b>12.3</b>	<b>25.5</b>	<b>85</b>
Urban			37.4		23.6	
Rural			31.8		26.5	
<b>Eastern Region:</b>	<b>1,642,370</b>	<b>1,642,370</b>	<b>28.7</b>	<b>12.1</b>	<b>28.0</b>	<b>15</b>
Kailahun	526,379	526,379	30.0	18.2	14.1	4
Kenema	609,891	609,891	22.1	8.3	33.7	3
Kono	506,100	506,100	36.7	10.0	32.8	8
<b>Northern Region old:</b>	<b>2,508,201</b>	<b>NA</b>	<b>34.2</b>		<b>28.4</b>	
Bombali	606,544	NA	45.7		34.2	
Koinadugu	409,372	NA	25.8		38.1	
Tonkolili	531,435	NA	26.6		12.4	
Port Loko	615,376	NA	42.3		33.0	
Kambia	345,474	NA	24.2		20.9	
<b>Northern Region new</b>	NA	<b>1,346,316</b>		<b>6.7</b>		<b>18</b>
Bombali new	606,544	422,960		11.1		6
Koinadugu new	409,372	204,019		0.0		3
Tonkolili new	531,435	513,984		9.1		7
Falaba (Created 2017)		205,353		0.0		2
<b>North Western Region (Created 2017)</b>	NA	<b>1,161,885</b>		<b>4.2</b>		<b>17</b>
Port Loko new	615,376	530,865		0.0		10
Kambia	345,474	345,474	24.2	0.0		5
Karene (Created 2017)		285,546		16.7		2
<b>Southern Region:</b>	<b>1,441,308</b>	<b>1,441,308</b>	<b>39.4</b>	<b>19.4</b>	<b>29.3</b>	<b>15</b>
Bo	575,478	575,478	36.6	16.7	25.1	4

Bonthe	200,781	200,781	42.2	20.0	24.7	2
Moyamba	318,588	318,588	24.7	28.6	27.1	6
Pujehun	346,461	346,461	58.8	14.3	44.2	3
<b>Western Area</b>	<b>1,500,234</b>	<b>1,500,234</b>	<b>33.5</b>	<b>17.9</b>	<b>14.6</b>	<b>20</b>
Urban	1,055,964	1,055,964	32.3	25.0	12.7	14
Rural	444,270	444,270	35.2	15.0	18.7	6
<b>Wealth index quintile</b>						
Poorest			29.8		20.0	
Second			31.6		28.1	
Middle			32.8		31.9	
Fourth			38.6		27.0	
Richest			39.4		19.7	
<b>Gender:</b>						
Female	3,601,135	3,601,135	33.7		24.5	
Male	3,490,978	3,490,978	37.4		27.0	

Sources: PHC, 2015 and MICS (2017)

**Table A19: Youth population by region, district and gender (2015)**

Region/ District	Total populati on	Total youth (15- 35)	Youth as % of total	Total male	Male as % of youth	Total female	Female as % of youth
<b>East:</b>	<b>2,248,914</b>	<b>873,271</b>	<b>38.8</b>	<b>409,196</b>	<b>46.9</b>	<b>464,075</b>	<b>53.1</b>
Kailahun	526,379	208,272	39.6	98,405	47.2	109,867	52.8
Kenema	609,891	243,039	39.8	112,614	46.3	130,425	53.7
Kono	506,100	194,899	38.5	91,166	46.8	103,733	53.2
Bombali	606,544	227,061	37.4	107,011	47.1	120,050	52.9
<b>North:</b>	<b>1,901,657</b>	<b>697,006</b>	<b>36.7</b>	<b>318,017</b>	<b>45.6</b>	<b>378,989</b>	<b>54.4</b>
Kambia	345,474	122,629	35.5	54,190	44.2	68,439	55.8
Koinadugu	409,372	154,393	37.7	73,453	47.6	80,940	52.4
Port Loko	615,376	222,375	36.1	98,165	44.1	124,210	55.9
Tonkolili	531,435	197,609	37.2	92,209	46.7	105,400	53.3
<b>South:</b>	<b>1,441,308</b>	<b>539,741</b>	<b>37.4</b>	<b>248,225</b>	<b>46.0</b>	<b>291,516</b>	<b>54.0</b>
Bo	575,478	221,927	38.6	103,491	46.6	118,436	53.4
Bonthe	200,781	74,933	37.3	34,765	46.4	40,168	53.6
Moyamba	318,588	108,109	33.9	48,184	44.6	59,925	55.4
Pujehun	346,461	134,772	38.9	61,785	45.8	72,987	54.2
<b>Western:</b>	<b>1,500,234</b>	<b>684,021</b>	<b>45.6</b>	<b>341,945</b>	<b>50.0</b>	<b>342,076</b>	<b>50.0</b>
Western Area rural	444,270	192,031	43.2	93,990	48.9	98,041	51.1
Western Area urban	1,055,964	491,990	46.6	247,955	50.4	244,035	49.6
<b>Total Sierra Leone</b>	<b>7,092,113</b>	<b>2,794,039</b>	<b>39.4</b>	<b>1,317,383</b>	<b>47.1</b>	<b>1,476,656</b>	<b>52.9</b>

Source: Stats SL (2016) PHC Thematic Report on Population

**Table A20: Gender roles in water collection and FGM (2017)**

Region/ district	Person collecting drinking water in household				Women who had any form of FGM (%)
	Female (15 years and older)	Male (15 years and older)	Female (Under 15 years)	Male (Under 15 years)	
<b>National</b>	<b>59.9</b>	<b>14.7</b>	<b>13.1</b>	<b>8.0</b>	<b>86.1</b>
Urban	55.1	19.7	12.5	6.9	80.2
Rural	63.1	11.4	13.4	8.7	92.0
<b>Region:</b>					
East	60.5	13.3	14.8	9.5	90.5
North	66.7	9.5	13.3	7.3	93.0
South	53.1	15.9	14.6	9.0	82.5
West	54.2	23.7	9.2	6.5	76.9
<b>District</b>					
Kailahun	66.9	8.5	13.0	9.7	92.7
Kenema	57	17.9	15.6	8.5	90.9
Kono	58.7	12.1	15.8	10.6	87.6
Bombali	68.1	10.8	15.1	6.0	90.3
Kambia	61.3	12.9	10.2	10.5	94.6
Koinadugu	75.7	5.3	12.6	4.7	98.5
Port Loko	60.4	10.2	14.9	9.3	89.7
Tonkolili	69.8	8.4	13.0	6.5	95.0
Bo	51.9	14.9	17.2	8.5	79.5
Bonthe	43.9	21.3	18.1	12.9	84.6
Moyamba	58	17.3	12.7	8.5	81.5
Pujehun	55.2	13.5	10.1	8.5	89.1
Western Area Rural	57.6	16.3	14.0	8.6	81.4
Western Area Urban	52.6	27	7.1	5.5	75.0

<b>Education of household head:</b>					
Pre-primary or none	61.4	11.8	14.0	8.9	96.3
Primary	61.1	13.7	12.7	9.6	83.2
JSS	60.1	17.7	11.6	6.2	78.3
SSS or Higher	54.1	23.2	11.0	5.0	73.1
<b>Wealth index quintile</b>					
Poorest	64.1	9.8	13.8	8.7	93.4
Second	63.1	11.4	13.1	8.9	93.3
Middle	62.3	11.9	13.8	8.8	89.5
Fourth	59	16.6	14.1	6.6	84.7
Richest	48.6	26.6	10.0	6.5	74.5

Source: MICS (2017)