





Republic of Liberia

Zero Hunger Strategic Review Report



May 2017





Contents

Cont	tents		i
List	of Ta	bles	iii
List	of Fig	gures	iii
Fore	wor		iv
Pref	ace		v
		edgement	
	•	S	
		e Summary	
-	oter :		
	1.	Background	
	2.	The Liberia Zero Hunger Strategic Review	
	3.	A Conceptual Framework of Food Security and Nutrition	
	oter 2	· · · · · · · · · · · · · · · · · · ·	
	1.	General Context	
2.		SDG 2.1: End hunger and ensure access to safe, nutritious and sufficient food all year round	
	3.	SDG 2.2: End all forms of malnutrition	
	4.	SDG 2.3: Double the agricultural productivity and the incomes of small-scale food producers	
2.		SDG 2.4: Ensure sustainable food systems and implement resilient agricultural practices	
2.		SDG 2.5: Maintain genetic diversity of seeds, plants and animals	
Cna ₁	oter 3	· · · · · · · · · · · · · · · · · · ·	
	1. 2.	Overarching Policy Frameworks Food Security and Nutrition Policies, Programs and Projects	
3.		Health and Water and Sanitation	
	3. 4.	Education	
3.		Social Protection	
3.	_	Environmental Protection, Climate Change Adaptation and Disaster Risk Management	
3.	_	Gender	
	,. oter 4		
4.		Main Outcomes of Consultations	
4.		Key Gaps in the National Response	
4.		Opportunities	
4.		Priority Actions	
		2.1: End hunger and ensure access to safe, nutritious and sufficient food all year round	
	SDG	2.2: End all forms of malnutrition	. 4/
	SDG	2.3: Double the agricultural productivity and the incomes of small-scale food producers	. 50
	SDG	2.4: Ensure sustainable food systems and implement resilient agricultural practices	. 52
	SDG	2.5: Maintain genetic diversity of seeds, plants and animals	. 55
4.		Cross-cutting measures: establishing the boundaries for Liberia's zero hunger ambition	
	oter!		
	1.	The Zero Hunger Roadmap and Coordination Mechanism	. bU
	2. 3	Contributors to the Development of the Liberia Zero Hunger Road Map The Liberia Zero Hunger Road Map	
٥.		get 1: End hunger and ensure access by all people to safe, nutritious and sufficien	
		d all year roundd ensure access by an people to sale, nutritious and sufficien	
		•	
	Tar	get 2: End all forms of malnutrition	. 63

Target 3: Double agricultural productivity and incomes of small-scale food pro	oducers 64
Target 4: Sustainable food systems and resilient agricultural practices	66
Target 5: Maintaining Genetic diversity of seeds, plants and animals	68
Chapter 6: Summary and Conclusion	71
6.1 Summary	71
6.2 Conclusion	72
References	73
Annex 1: Map of Liberia	76
Annex 2: Advisory Board Members	77
Annex 3: Research Team Members	78
Annex 4: Technical Secretariat Members	79
Annex 5: Terms of Reference and the Zero-Hunger Strategic Review	80
<u> </u>	

List of Tables

Table 1 List of Regions & Type of Stakeholders	7
Table 2: The Four Dimensions of Food Security & Nutrition Explained	8
Table 3: Number of persons aged 15 and over in informal employment, by sex and locality	
Table 4: Livestock and poultry population trends (1000 head) in Liberia, 1985-2010	22
Table 5: Donor funding for various project for the revitalization of Agriculture and Fishery secto	rs in
post conflict Liberia	28
Table 6: Donor Assisted Projects in Health, Water & Sanitation	31
Table 7: Education Level and Goals	32
Table 8: Input and outcomes for prevention and control of micronutrient malnutrition through	
community-based	49
List of Figures	
	_
Figure 1: The 17 Sustainable Development Goals (SDGs)	3
Figure 2: FAO/FIVIMS Conceptual Framework for Food Security & Nutrition	10
Figure 3: Interpretation of Conceptual Framework for Food Security & Nutrition	10

Foreword

Food is a basic human need, but approximately 84 percent of our people are food insecure. We produce only one-third of the rice we eat, our staple food; and nutrition remains a challenge. While chronic malnutrition and underweight among children under-five have shown improvements, they are still high by WHO standards. We must reverse these trends.

The achievement of zero hunger by 2030 aligns with the national vision of becoming a middleincome country by 2030. The government realizes that the zero hunger goal is highly interlinked with other national and sustainable development goals. For example, zero hunger cannot be attained until poverty is addressed; poverty cannot be addressed until unemployment is attended; and unemployment cannot be curtailed until education and training are advanced.

Ending hunger in Liberia will entail ensuring that our farmers grow more food and that households have sufficient incomes to buy food. It also means that our rural infrastructures must be improved and expanded to support food production, storage, processing and access to markets. Getting all of this done will require the right mix and integration of policies, strategies and programs across various sectors. This in turn will require political will and commitment as well as national efforts to change our perceptions and attitude about agriculture. We must begin to see agriculture in the context of business and commercialization as opposed to producing just enough food to feed individual households.

Achieving zero hunger warrants moving away from subsistence farming to mechanized farming, directing more resources to the food production sub-sector, and investing in the total food and nutrition value chains. We must empower smallholder farmers with the required knowledge, tools and inputs to adopt modern agricultural practices, including climate-smart farming; and facilitate their access to these new and improved technologies, services and inputs, and to markets that will enable them to increase production substantially. These opportunities will induce increased private sector investment in sgriculture, and in rural development.

Women play important roles in agriculture in Liberia. Accordingly, a gender-sensitive focus on our response to achieving zero hunger is essential. Also important will be ensuring that policies and strategies are fully implemented. A resounding voice coming out of the Liberia Zero Hunger Strategic Review's regional consultations was the need to accentuate and strengthen implementation of current policies and strategies. An appropriate response to this need is for us to develop and operationalize a robust monitoring and evaluation mechanism.

I call on all Liberians and friends of Liberia in the international community to assist us in making significant progress towards achieving zero hunger in Liberia by 2030.

Honograble Moses M. Zinnah

Minister of Agriculture

Preface

Liberia aspires to become a medium-income country by 2030. Cardinal elements of this vision are the maintenance of peace and security, eradication of poverty, and promotion of shared and sustainable economic growth and development.

The Government is committed to this long-term development ambition. Since 2005, Liberia has made gradual progress in post-conflict reconstruction, economic growth, and national renewal. Regrettably, the devastating impact of the Ebola Virus Disease of 2014 and the drop in the prices of rubber and iron ore, Liberia's main foreign exchange earners since 2016, have begun to compromise some of the progress the country has made, including in food security and improved nutrition.

This is why the Liberia Zero Hunger Strategic Review was aspirational, pragmatic and instructive. It provided an opportunity for the Government, people and partners to determine not only what the country needs to do to achieve Sustainable Development Goal 2 (zero hunger) by 2030, but also to begin putting into place measures that would sustain the progress Liberia has been in food security and nutrition. Based on extensive secondary research and consultations with professionals, practitioners, and ordinary Liberians from all across the country, the Strategic Review found that Liberians are still far from being food and nutrition secured. The Report identifies strategic, policy and programmatic gaps that have contributed to lingering hunger and the prevalence of malnutrition, and discusses significant opportunities that could determine Liberia's pathway to zero hunger by 2030.

The essential actions that comprise the pathway to zero hunger are in the Liberia Zero Hunger Road Map, which is an integral part of this Report. One of these is the establishment of a well-functioning interagency coordination mechanism that would bring together relevant government institutions and other stakeholders to monitor the implementation of the priority actions discussed in this Report. Thanks to the intervention of the President of Liberia, a Food Security and Nutrition Steering Committee has been established to perform this role; it will be housed in the Office of the President, and will focus on aligning and monitoring policies, strategies and programs of relevant ministries and agencies towards the shared vision of ending hunger by 2030. The Committee will also work toward ensuring that the findings of this Review feed into the next version of the Agenda for Transformation (AfT), Liberia's medium-term development and growth strategy.

I call on all food security and nutrition actors - the government, private sector, civil society organizations and development partners - to work in concert and collaboratively for the rapid implementation of the Liberia Zero Hunger Road Map.

Amos C. Sawyer

Former Interim President, Republic of Liberia & Lead Convener

Acknowledgement

Through a transparent, consultative and inclusive process, the Liberia Zero Hunger Strategic Review has confirmed Liberia's commitment to achieving the 2030 Agenda for Sustainable Development, and in particular, Sustainable Development Goal 2 on achieving zero hunger. Special thanks go to Her Excellency Ellen Johnson Sirleaf, President of Liberia, for approving the Strategic Review; providing overwhelming support for the implementation of the Review; and for championing the cause of zero hunger in Liberia.

Profound thanks go to Dr Amos Sawyer for agreeing to serve as Lead Convener and for his astute leadership of the multi-sectoral process that utilized inputs from a cross-section of Liberians who served on the Advisory Board, the Technical Secretariat, Research Team or participated in any of the five regional consultations and the national validation workshop.

Sincere appreciation and thanks also go to members of the Advisory Board for the guidance they provided during the Review; Dr. Moses M. Zinnah, former Minister of Agriculture, for his unwavering support of the Review; members of the Technical Secretariat for their sector-specific inputs, including the vetting of various aspects of the review; and Subah-Belleh Associates and the administrative support team in the Office of the Lead Convener for generating the evidence that informed the Review and managing the operational aspects of the Review, respectively.

Acknowledgement goes to all other stakeholders who provided valuable inputs during the review process as key informants or participants in the regional and national stakeholder workshops. These informants and/or participants include representatives of various government ministries and agencies, UN agencies, bilateral and multi-lateral donor agencies, state-owned enterprises, academia, civil society organizations, and the private sector.

Finally, appreciation and profound thanks go to the United Nations World Food Programme for providing technical and financial support without which this Review would not be undertaken.

Acronyms

ACDB Agriculture Cooperative Development Bank

AfDB African Development Bank AfT Agenda for Transformation

AIDP Agriculture Infrastructure Development Project

ANC Ante Natal care

ASRP Agricultural Sector Rehabilitation Project

AU African Union

BPHS Basic Package of Health Services

BS Buffer stock

BTI Bertelsmann Stiftung's Transformation Index

CAAS-LIB Comprehensive Agriculture Assessment Study-Liberia
CAADP Comprehensive Africa Agriculture Development Programme

CARI Central Agricultural Research Institute

CBO Community based organization

CCAAP Climate Change Adaptation Agricultural Project
CFSNS Comprehensive Food Security and Nutrition Survey

CGR Community grain reserve CSO Civil society organization

DAR Development Assistance Report of MFDP

DNI Direct Nutrition Intervention
DRM Domestic Resource Mobilization
ECD Early Childhood Development
EFR Emergency Food Reserve

EFSA Emergency Food Security Assessment

EIB European Investment Bank

EPHS Essential Package of Health Services EPSS Essential Package of Social Services

EU European Union
EVD Ebola Virus Disease

FAO Food and Agriculture Organization of the United Nations FAOSTAT Food and Agriculture Organization Statistics Division

FAPS Food and Agriculture Policy and Strategy

FBDG Food Board Directory Guidelines
FDI Foreign Direct Investment

FIVIMS Food Insecurity and Vulnerability Information and Mapping System

FS Food Security

FSNS Food Security and Nutrition Strategy

FSNSC Food Security and Nutrition Steering Committee
GAFSP Global Agriculture and Food Security Program

GAM Global Acute Malnutrition GC Governance Commission GDP Gross Domestic Product

GEF/AGG Global Environment Facility/Aggregate Bond Fund

GNI Gross National Income
GOL Government of Liberia
HDR Human Development Report
HLPE High-level Panel of Experts

ICT Information and Communication Technology
IDA International Development Assistance
IEC Information, Education and Communication

IFAD International Fund for Agricultural Development IFPRI International Food Policy Research Institute

ILO International Labour Organization

IITA International Institute for Tropical Agriculture

IYCF Infant and Young Child Feeding

JICA Japan International Cooperation Agency

KAP Knowledge, Attitude and Practice

LACRA Liberia Agricultural Commodities Regulatory Agency
LASIP Liberia Agricultural Sector Investment Program
LATA Liberia Agriculture Transformation Agenda
LDHS Liberia Demographic and Health Survey

LFS (Liberia) Labour Force Survey

LISGIS Liberia Institute of Statistics and Geo-Information Services

LNMS Liberia National Micronutrient Survey

LU Livestock Unit

LWSC Liberia Water and Sewer Corporation

M & E Monitoring and Evaluation
MDG Millennium Development Goal

MFDP Ministry of Finance and Development Planning

MOA Ministry of Agriculture

MoCI Ministry of Commerce and Industry MOPP Maryland Oil Palm Plantation

NAPA National Adaptation Program of Action

NASSCORP National Social Security and Welfare Corporation

NDMA National Disaster Management Agency
NFSNS National Food Security and Nutrition Strategy

NGO Non-governmental organization

NHSWPP National Health and Social Welfare Policy and Plan

NNP National Nutrition Policy

ODA Official Development Assistance
PERSIF Post Ebola Social Investment Fund

PRS Poverty Reduction Strategy

SAPEC Smallholder Agricultural Productivity Enrichment and Commercialization

SBA Subah-Belleh Associates
SDG Sustainable Development Goal

SIDA Swedish International Development Agency
SIDI Swiss International Development Institute

SSA Sub-Saharan Africa SSN Social Safety Net

STCRSP Smallholder Tree Crop Revitalization Project

SWAPHS Strengthening West African Public Health Systems

TWG Technical Working Group

UA Units of Accounts UN United Nations

UNDAF United Nations Development Assistance Framework

UNDP United Nations Development Program

UNICEF United Nations Children's Fund UPA Urban and Peri-urban Agriculture

USAID United States Agency for International Development

UWSSP Urban Water Supply and Sanitation Project
VSLA Village Savings and Loan Association
WAPP West African Productivity Project

WARFP West African Regional Fisheries Project WASH Water, Sanitation and Hygiene

WATSAN Water and Sanitation

WFP World Food Programme of the United Nations WHO World Health Organization of the United Nations

Executive Summary

percent of the country's 4.5 million population depend on agriculture and related activities for their livelihoods. The 2014 outbreaks of the Ebola Virus Disease and falling prices for natural rubber and iron ore halted Liberia's steady economic recovery and reversed its growth trajectory leading to fall in Gross Domestic Product (GDP) from 8.7 percent in 2013 to 0.7 percent in 2014 and 0 percent in 2015.

High poverty rates constrain access to food by most Liberians (World Bank 2011), and even though the prevalence of chronic malnutrition has decreased in the past decade, malnutrition rates are still high by World Health Organization (WHO) thresholds at 32 percent (LDHS 2013). One in five households is food insecure and micronutrient deficiencies remain a public health concern as approximately 59 percent of children aged 6 to 35 months, 33 percent of non-pregnant women, and 38 percent of pregnant women are iron-deficient.

The national response to food insecurity and malnutrition has not yielded the results needed to ensure that Liberia makes substantive progress towards achieving food and nutrition security. Nevertheless, several overarching policy documents have been developed to address relevant issues related to food security and nutrition.

Liberia Rising 2030 (Vision 2030) is Liberia's long-term development plan, and it seeks to make Liberia a middle-income country by the year 2030. The Agenda for Transformation (2012-2017) (AfT) is Liberia's current medium-term economic growth and development plan for achieving Vision 2030. In addition, five other five important agricultural policy documents have been prepared since 2006: The Statement of Policy Intent for the Agricultural Sector of 2006, the Food and Agriculture Policy and Strategy (FAPS) of 2009, Fisheries and Aquaculture Policy and Strategy of 2013, and the National Food Security and Nutrition Strategy of 2008, and also of 2015. These policies have supported agricultural development as well as broader food security and nutrition objectives over the past eleven years.

The two key agricultural development programs that are currently under implementation in the country are the *Liberia Agriculture Sector Investment Plan (LASIP)* of 2010 and the *Liberia Agriculture Transformation Agenda (LATA)* of 2015. The LASIP is a five-year agricultural sector investment plan developed to conform to the *Comprehensive Africa Agriculture Development Programme (CAADP)* Liberia adopted in 2003. The CAADP is an Africa-wide policy framework for agricultural transformation, wealth creation, food security, economic growth and prosperity.

At the global level, Liberia played a leading role – under the leadership of President Ellen Johnson Sirleaf - in the development of seminal global and continental frameworks that have given prominence to food and nutrition security. The immediate former President co-chaired the 27-member United Nations Secretary General's High-level Panel on the Post-2015 Agenda along with former Indonesian President Susilo Bambang Yudhoyono and former United Kingdom's Prime

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¹ WFP, 2016. "Liberia: What the World Food Programme is doing in Liberia". https://www.wfp.org/countries/liberia

² MOA, 2010. Global Agriculture and Food Security Program, Smallholder Agricultural Productivity Enhancement and Commercialization (SAPEC), Liberia Proposal under GAFSP.

³ (IMF Country Report No. 16/238. July 2016).

Minister David Cameron. On 25 September 2015, she joined 193 world leaders in adopting the 2030 Agenda for Sustainable Development with its 17 Sustainable Development Goals (SDGs).

ZERO HUNGER is Goal 2 of the 17 SDGs and seeks to "end hunger, achieve food security and improve nutrition, and promote sustainable agriculture" in Member States by the year 2030. The targets for this Goal require ensuring access to safe, nutritious and sufficient food; ending all forms of malnutrition; doubling the productivity and incomes of small-scale food producers; ensuring sustainable food production systems and implementing resilient agricultural practices; and maintaining genetic diversity of seeds, plants, and animals.

Accordingly, the Government of Liberia commissioned this Strategic Review to undertake a current situational analysis and determine what the country has to do to achieve zero hunger by 2030. The specific objectives of the Strategic Review were to: (i) establish a comprehensive analysis of the food security and nutrition situation in Liberia; (ii) determine the progress that national policies, strategies and programs have made in improving the food security and nutrition situation, and identify gaps and opportunities in the national response; and (iii) identify and articulate priority actions that are required to fill the response gaps, take advantage of opportunities that exist, and expedite progress towards achieving zero hunger.

Achieving zero hunger by 2030 requires integrated, multi-sectoral (agriculture, health, water and sanitation, education, social development, infrastructure) actions to address underlying causes that undermine and compromise food security and nutrition. Such actions include: prioritizing food security and nutrition in the national policy architecture; formalizing the multi-stakeholder coordination mechanism outlined in the 2015 National Food Security and Nutrition Strategy; and investing in a national home-grown school feeding program.

Other actions include: strengthening access to markets, with priority given to investment in rural infrastructures; expanding social protection programs; implementing proven Direct Nutrition Interventions (DNI); improving Infant and Young Child Feeding (IYCF); adopting multi-sectoral approaches to nutrition; moving from subsistence agriculture to mechanized, commercial agriculture; increasing funding to agriculture, including investments; increasing private investment in the value chains; strengthening partnerships; ensuring effective linkages between SDG 2 interventions; employing technology; developing government capacity for emergency preparedness; enhancing community grain reserves; establishing emergency food reserves and buffer stocks; promoting climate change adaptation; enforcing conservation laws and regulations; increasing research and extension services; and; strengthening seed and livestock breeds multiplication and distribution.

The Zero Hunger Strategic Review adopted a transparent, consultative and inclusive process. Former Interim President of Liberia, Dr Amos C. Sawyer, convened and chaired the multi-sectoral review, working with an advisory board, a technical secretariat, and a principal research team. The process comprised a comprehensive desk review of the country's food and nutrition security situation; assessment of various national policies, strategies and programs; interviews of key informants, including Liberia's donor partners; and five regional consultations. During these regional consultations, experiences were shared and recommendations for achieving household food security and improving nutritional outcomes were made by individuals and groups in local communities throughout the country.

The Strategic Review provides a ROAD MAP to achieving zero hunger in Liberia by 2030.

Chapter 1: Introduction

1.1. Background

n 25 September 2015, 193 world leaders, including the President of Liberia, adopted the 2030 Agenda for Sustainable Development and agreed to 17 Sustainable Development Goals (SDGs).

The SDGs replaced the eight Millennium Development Goals (MDGs) adopted at a similar summit in September 2000 to galvanize unprecedented efforts to meet the needs of the world's poorest, through the adoption of United Nations Millennium Declaration - a global partnership to reduce extreme poverty and setting out a series of time-bound targets - with a deadline of 2015.

As the MDGs era came to a conclusion with the end of the year, 2016 ushered in the official launch of the bold and transformative 2030 Agenda for Sustainable Development. The 2030 Agenda committed countries to **end poverty, protect the planet, and ensure prosperity for all** by 2030, with each goal containing specific targets to be achieved over the next 15 years.

Figure 1: The 17 Sustainable Development Goals (SDGs)



Goal 2 of the 2030 Agenda pledges to "end hunger, achieve food security and improved nutrition, and promote sustainable agriculture". The five principal and three supplemental targets of SDG 2 are as follows:

Target 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round.

Target 2.2: By 2030, end all forms of malnutrition, including achieving by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

Target 2.3: By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishermen, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.

Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality.

Target 2.5: By 2020, maintain the genetic diversity of seeds, cultivated plants, and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional, and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

The three supplemental SDG 2 targets are:

- a) Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.
- b) Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.
- c) Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

Liberia has played a significant role in shaping the global development agenda under the leadership of President Ellen Johnson Sirleaf. The President led the African Union (AU) in articulating and successfully promoting the Common African Position on the Post-2015

Development Agenda which contributed to the formulation of the 2030 Agenda; and she cochaired the United Nations Secretary General's 27-member High-level Panel on the Post-2015 Agenda along with former Indonesian President Susilo Bambang Yudhoyono and former United Kingdom Prime Minister David Cameron. Under her stewardship, Liberia also contributed to the AU's June 2014 Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods which pronounced Africa's resolve to end hunger by 2025, reduce stunting and underweight prevalence rates, sustain annual agricultural GDP growth of at least 6 percent, and reduce livelihoods vulnerabilities by ensuring household resilience to climate and weather-related risks.⁴

The President helped develop the AU's *Agenda 2063: The Africa We Want*, a strategic framework for the socio-economic transformation of the continent through 2063 that Member States of the UN have been called on to support in *Transforming Our World: The 2030 Agenda for Sustainable Development*. The Government and people of Liberia are now committed to achieving, measuring and monitoring progress towards the goals and targets of these seminal global and continental frameworks that have given prominence to food security and nutrition.

Since 2008, Liberia has been implementing policies and strategies for food security and nutrition that generally mirror the global community's goal of zero hunger. The 2008 National Food Security & Nutrition Strategy (NFSNS) sought to ensure that food is available and all Liberians are able to have reliable access to the food they need and are able to utilize it to live active and healthy lives, against the challenges of availability, access, utilization and improved nutritional status, vulnerability, and capacity. Under the theme, "From Subsistence to Sufficiency", the 2008 Food and Agricultural Policy and Strategy (FAPS) of the Government also envisioned a nation with food and nutritional adequacy and security that enables a nourished population, and, thus, contribute to optimal health, education and training, economic growth and development, and improved and sustained quality of life of the people. Ultimately, FAPS sought a revitalized and modernized agriculture sector that was contributing to shared, inclusive and sustainable economic growth and development of Liberia.

Further commitments to food security and nutrition were made through the Poverty Reduction Strategy (PRS), Vision 2030, and the Agenda for Transformation (AfT). The AfT, which is the current development plan of the Government of Liberia, addresses the food security situation within the context of economic growth.

However, these policies and strategies have had no significant impact on Liberia's continuing food insecurity and poor nutrition situation, including contributing to Millennium Development Goal 1 (Eradicating Extreme Poverty and Hunger) by 2015. This is why Liberia's commitment to the 2030 Agenda, and to SDG 2 in particular, is a new opportunity to lay a firm foundation for evidenced-based coherent interventions and appropriate investments that will help Liberia to achieve zero hunger by 2030 or earlier.

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⁴African Union Commission. Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods Doc. Assembly/Au/2(XXIII). June 2014.

1.2. The Liberia Zero Hunger Strategic Review

Overview

The Liberia Zero Hunger Strategic Review aimed to support the Government and its partners to articulate what is needed to achieve SDG 2 in Liberia by 2030. The Review sought to establish a baseline that fosters joint understanding of the challenges and gaps in the national response to food and nutrition security, leading to joint agreement and consensus on priority actions required to achieve zero hunger by 2030.

Thus, the Liberia Zero Hunger Strategic Review was designed to contribute to national development planning, the domestication and implementation of SDG 2, and to Liberia Vision 2030 by helping to shape the direction and focus of national priorities established by the Agenda for Transformation 2012 – 2017 and subsequent national medium-term economic growth and development strategies. Further, the Review was conducted to contribute to the plans and programs of individual development partners and United Nations agencies, and to help clarify the roles of the private sector, civil society, and others in supporting the country's progress in achieving zero hunger by 2030.

The specific objectives of the Review were to:

- 1. Provide a comprehensive understanding of the food security and nutrition context of Liberia, including strategic policies, programs, institutional capacities, and resource flow;
- 2. Identify Liberia's development and humanitarian challenges to achieving the zero hunger aspiration of the SDG 2;
- 3. Discuss the role of the private sector in achieving zero hunger, including food security and improved nutrition and related fields;
- 4. Explore how South-South and triangular cooperation could contribute to achieving zero hunger in Liberia, and also how Liberia can help other countries make progress toward zero hunger in line with the 2030 Agenda; and
- 5. Recommend milestones for a Liberia Zero Hunger Roadmap

Key Roles

Lead Convener: Dr Amos C. Sawyer, Chairman of the Governance Commission and Former Interim President of Liberia, led the Strategic Review exercise with support from an advisory board, a research team and a technical secretariat.

Advisory Board: The advisory board was a consultative committee composed of representatives from a cross-section of government ministries and agencies; key stakeholders from the private sector, civil society and the international community and subject matter experts. The board guided the review process and discussed and validated research findings and recommendations. A list of names and organizations represented on the board are presented in Annex 2.

Research Team: The research team, led by Subah-Belleh Associates (SBA), provided research services and was responsible for producing this Report. The team ensured a sound and credible foundation for the analysis that informed the Report and also managed the day-to-day aspects of

the process, including the development of a work plan. A list of members of the research team is provided in Annex 3.

Technical Secretariat: The research team was assisted by technical focal points from relevant government ministries and partners. These representatives contributed data and existing research and reviewed findings and recommendations. A list of technical secretariat members is provided in Annex 4.

Methodology

The strategic review was conducted using a mixed method, participatory approach that involved a cross-section of food security and nutrition stakeholders across the country. The process included a comprehensive review of food security/nutrition and related literature which was complemented by key informant discussions (KIDs) and national and regional stakeholder consultations.

The KID consultations were conducted with government officials, representatives of UN agencies and selected donor and development partners. Key informants, by virtue of their knowledge of, and role and experience in the food security and nutrition sector contributed information that helped the research team to assess and analyse the response to achieving food security and nutrition in Liberia, and to make recommendations for achieving the 2030 targets. The research team designed and used semi-structured questionnaires for the key informant consultations; these contained a generic question format that was modified, where necessary, to reflect the specific roles of each category of key informants.

The regional consultations brought together all key stakeholders, including grassroots farmers, workers operating within downstream agriculture value chains and other relevant sector workers and technicians, particularly from health, education and civil society. They were designed to solicit the inputs of individuals and groups at the local levels, including the grassroots, regarding their experiences, challenges, and recommendations for achieving individual and household food security at the local level. To ensure inclusiveness and diversity of views, the country was divided into five regions for the regional consultations as shown in Table 1. The consultations for Region 1 were held in Pleebo, Maryland County; for Region 2 in Greenville, Sinoe County; for Region 3 in Kakata, Margibi County; for Region 4 in Suakoko, Bong County; and for Region 5 in Tubmanburg, Bomi County.

Table 1 List of Regions & Type of Stakeholders

Regional Stakeholders			
Region	Stakeholders		
Region 1 Maryland, River Gee, Grand Kru	County Agriculture Officer, Gender Coordinators, County Health Team,		
Region 2 Sinoe, Grand Gedeh, Rivercess	grassroots representatives, lead farmers, farmer cooperatives, Liberia Marketing		
Region 3 Grand Bassa, Margibi, Montserrado	Association, cross-border traders, local fishing association, rural women processors		
Region 4 Lofa. Bong, Nimba	& preservers, rural women food producers, rural women marketers, youth		

Regional Stakeholders			
Region	Stakeholders		
Region 5 Bomi, Cape Mount, Gbarpolu	representatives, etc.		

The Strategic Review Report was finalized in two stages. First, the findings and recommendations were synthesized and then presented to key stakeholders at a national validation workshop in Monrovia during which feedback was obtained. Next, and following the validation workshop, the Advisory Board and the Technical Secretariat independently reviewed the findings and recommendations again, and they made appropriate comments which were taken on board by the research team after consensus had been reached.

1.3. A Conceptual Framework of Food Security and Nutrition

The Food and Agriculture Organization (FAO) defines food and nutrition security as existing "when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life" (FAO 2015).⁵

This definition associates food security and nutrition with four key dimensions—food availability, economic and physical access to food, food utilization, and stability over time—which must be fulfilled simultaneously (FAO 2015).⁶ These are elaborated in Table 2 below:

Table 2: The Four Dimensions of Food Security & Nutrition Explained⁷

Dimension	Description		
Physical AVAILABILITY of food	Food availability addresses the "supply side" of food security and is determined by the level of food production, stock levels and net trade.		
Economic and physical ACCESS to food	An adequate supply of food at the national or international level does not in itself guarantee household level food security. Concerns about insufficient food access have resulted in a greater policy focus on incomes, expenditure, markets and prices in achieving food security objectives.		
Food UTILIZATION	Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, diversity of the diet and intra-household distribution of food. Combined with good biological utilization of food consumed, this determines the <i>nutritional status</i> of individuals.		
STABILITY of the other three dimensions over time	Even if your food intake is adequate today, you are still considered to be food insecure if you have inadequate access to food on a periodic basis, risking a deterioration of your nutritional status. Adverse weather conditions, political instability, or economic factors (unemployment, rising food prices) may have an impact on your		

⁵ FAO, IFAD and WFP. 2015. The State of Food Insecurity in the World 2015. Meeting the 2015 international hunger targets: taking stock of uneven progress. Rome, FAO.

⁶ Ibid

⁷ FAO, 2008. EC-FAO Food Security Programme. An Introduction to the Basic Concepts of Food Security. <www.foodsec.org/docs/concepts_guide.pdf>

food security status.

The definition of food security and the four dimensions associated with it provided the guiding principles for the Strategic Review. Accordingly, the FAO/FIVIMS Food Security Framework (Figures 2 and 3) was adopted as the guiding framework for data collection and analysis. The framework shows the linkages between the various elements that determine and describe the food security and nutritional status of the population: the overall development (or vulnerability) context; the food economy; household level strategies, assets, and activities; and individual measures of nutritional well-being.

NATIONAL, SUBNATIONAL & COMMUNITY LEVEL HOUSEHOLDS INDIVIDUALS Institutional, Cultural and Natural Environment Food Economy Household Livelihood Strategies, Assets (vulnerability context) & Activities Population Food Availability Food Education domestic production Consumption Household Food import capacity Macro-economy Energy intake including foreign trade food stocks, food aid Nutrient intake Policies and laws Consumption Care Practices Status Natural resources end owment. Stability Child care Feeding practices Nutritional knowledge weather Basic services Nutritional variability Market conditions Food preparation price fluctuations Status Technology political factors Eating habits Intra-household food economic factors Climate distribution Civil strife Food Access to Food Household Itilisation poverty characteristics Health and Sanitation purchasing power, by the Livelihoods systems income, Health care practices Body transport and market Hygiene, Sanitation Social institutions Health infrastructure Water quality Cultural attitudes and status Food safety & quality gender

Figure 2: FAO/FIVIMS Conceptual Framework for Food Security & Nutrition

Source: FAO8

Figure 3: Interpretation of Conceptual Framework for Food Security & Nutrition

1. Socio-economic, political, institutional, cultural and natural environment

The framework highlights the need to consider underlying socio-economic, political, institutional, cultural and natural factors, as they impact on different dimensions of food security (food availability, food access, stability, food utilization), while also affecting care practices, in addition to conditions related to health and sanitation.

2. Food consumption

Food consumption is shown as being determined by the following:

- Food access at household level (as determined by relative poverty/incomes, purchasing power, income transfers, as well as the quality of transport and marker infrastructure).
- Care practices (including intra-household food allocation, cultural practices and knowledge related to food preparation).

3. Food utilization

Efficient and effective food utilization by the body is understood to be primarily dependent on a person's health status, which in turn is dependent on general health and sanitation conditions.

4. Nutritional status

This framework shows the relationships and interactions of the main issues that affect an individual's nutritional status.

⁸ FAO, 2008. Food Security Information for Action: Food Security Concepts and Frameworks, Lesson 3 - Food Security Analysis.

Chapter 2: Hunger Situation

2.1. General Context

iberia is a least-developed, low income, and food-deficit country. The country is situated on the west coast of Africa, bordered to the west by Sierra Leone, to the east by Côte d'Ivoire, to the north by Guinea and to the south by the Atlantic Ocean. Over half (51 percent) of the country's 4.5 million population, which is growing at an average annual rate of 2.6 percent, resides in rural areas, 42 percent is under the age of 15, and 70 percent depend on agriculture and related activities for their livelihoods. 9,10 Following the 1989 - 2003 conflict that devastated human, institutional and productive capacities and the 2006 inauguration of a democraticallyelected administration, Liberia began a decade-long period of recovery and stabilization that led to an average annual rate of gross domestic product (GDP) growth of 7.8 percent between 2006 and 2013.¹¹

Key drivers of this growth were institutional and policy reforms, enormous inflows of official development assistance (ODA) and significant foreign direct investment (FDI) which amounted to over US\$ 16 billion and was targeted to the palm oil, iron ore, rubber and timber industries (Paczynska 2016). 12 Aid flows rose to 39 percent of GDP and aid per capita grew to \$124.4 (BTI 2016). The twin shocks of the Ebola Virus Disease and falling prices for the key commodity exports of natural rubber and iron ore halted Liberia's steady economic recovery and reversed its growth trajectory beginning 2014.14 GDP growth fell from 8.7 percent in 2013 to 0.7 percent in 2014 and 0 percent in 2015, and is estimated to have rebounded by only 2.5 percent in 2016. 15

Liberia's pre-Ebola economic performance failed to markedly reduce its substantial infrastructure and human capital deficits and as a result, the country experienced some of the worst economic and social indicators in the world. Despite a nominal increase in recent years, Liberia's Human Development Index (HDI) value of 0.427, compared to a Sub-Saharan Africa (SSA) average of 0.523, ranks the country 177th out of 188 countries and places it into the low human development category (UNDP 2016).16 Unemployment is widespread at between 80 and 85 percent (WBER 2016), with the large numbers of unemployed youth continuing to be a matter of serious concern; the gross national income (GNI) per capita of US\$ 683 (2011 PPP \$) (UNDP 2016) is over four times lower than the SSA average of \$3,383 (2011 PPP \$); poverty is pervasive, with close to 84 percent of the population living on less than US\$ 1.25 a day; and with a Gini index of 36.5, substantial income inequality persists.¹⁷ Risk aversion among investors, capacity deficits and poor

⁹ WFP, 2016. "Liberia: What the World Food Programme is doing in Liberia". https://www.wfp.org/countries/liberia

¹⁰ MOA, 2010. Global Agriculture and Food Security Program, Smallholder Agricultural Productivity Enhancement and Commercialization (SAPEC), Liberia Proposal under GAFSP.

¹¹ USAID, 2016. Liberian Businesses: the Engines of Economic Recovery and Growth.

¹² Paczynska, Angela, 2016. "Liberia rising? Foreign direct investment, persistent inequalities and political tensions." *Peacebuilding*

¹³ According to the Ministry of Finance and Development, the projected volume of aid in 2013/2014 was over US\$ 785 million.

¹⁴ The 2014-15 outbreak of Ebola Virus Disease worsened Liberia's already fragile food security situation by adversely impacting general economic activity, agricultural production, access to food markets and food prices. 15 (IMF Country Report No. 16/238. July 2016).

¹⁶ The HDI comprises life expectancy, health, education, and standard of living indicators that are used to generate a composite score ranging from a low of zero to a high of 1.0.(UNDP's 2015 Human Development Report)

¹⁷ GDP per capita, based on purchasing power parity, increased from \$308.50 in 2004 to \$796.5 in 2012 to \$878 in 2013 (BTI, 2016).

management and governance are expected to continue as drawbacks to medium term growth which is necessary to reverse these low economic indicators.

Liberians also experience 'serious' severity of hunger with a Global Hunger Index (GHI) score of 30.7 (IFPRI 2016). Food insecurity affects 640,000 people or 16 percent of the population (WFP 2015); among these, 2 percent or 52,000 households are severely food insecure and 18 percent are forced to meet their basic food needs through emergency coping strategies such as begging (WFP 2015). Malnutrition remains a serious public health and socio-economic problem affecting mostly children and women (LIGIS 2013). The stunting prevalence is 32.1 percent and that of underweight in under-five year old children is 14.7 percent; these situations have been classified by the WHO as 'serious' and 'precarious', respectively.

Decimated during the civil war and with recovery hindered by the Ebola Virus Disease (EVD) epidemic, Liberia's healthcare system has been under stress. The inadequacy of healthcare in the country is not surprising, considering that prior to the Ebola crisis, there were only 50 doctors for a population of 4.3 million (BTI 2016). Life expectancy at birth is 61.2 years, the under-five mortality rate is 69.9 per 1000 live births, and the maternal mortality rate of 725 per 100,000 live births exceeds the SSA average of 551 (UNDP 2016). The burden of diseases remains very high; malaria, tuberculosis and HIV/AIDS were among the top five causes of death in 2012, together accounting for 19.6 percent and surpassed only by lower respiratory infections at 12.2 percent (WHO 2015).

The performance of Liberia's education sector continues to lag those of most other SSA and low-and middle-income countries due in part to the failure to sustain post-conflict recovery gains during the EVD outbreak which resulted in the closure of schools throughout the country. The literacy rate of 47.6 percent ranks Liberia 156th in the world, with women (65 percent) more likely to be illiterate than men (41 percent) and the youth literacy rate of 49 percent is much lower than the average in other low-income countries. Net primary and secondary enrolment rates 25.29 percent and 10.17 percent, respectively, but the primary school completion rate is only 65 percent and 58 percent of 15 - 24 year olds have not completed primary education.²² Liberia ranks at the 1st percentile in educational access and at the 7th percentile in learning in comparison to other low- and middle-income countries. Gender disparity remains an issue of concern as girls continue to encounter greater obstacles to enrolment and are at a greater risk of not completing basic education.²³

Despite their central roles in Liberian society, the unequal treatment of women and girls is not restricted to education. In agriculture, women comprise 80 percent of the labour force, and are responsible for 76 percent of cash crop production and 93 percent of food crop production, 85 percent of all marketing and trading but they own less land than men; they make up 54 percent of the labour force in formal and informal sectors yet are not equitably distributed across the productive sectors, nor are they equally remunerated; and there are imbalances in their representation in the public sector despite accounting for 50 percent of the Liberian population (LIGIS 2008). According to the 2015 Gender Equality Index 2015 of the African Development Bank

¹⁸ IFPRI, 2016 Global Hunger Index Report

¹⁹ 2015 Emergency Food Security Assessment - http://www.wfp.org/content/liberia-emergency-food-security-assessment-june-2015). The highest rates of food insecurity are found in Bomi (55 percent), Grand Kru (46 percent), and River Cess (45 percent) counties.

²⁰ Liberia Demography Health Survey, 2013

²¹ Liberia National Nutrition Mortality Survey, 2016

²² Education Policy and Data Center. Liberia National Education Profile 2014 Update

²³ In several counties there is significant discrepancy between the numbers of boys and girls who attend school - in more than 6 counties over 55% of students are male.

(AfDB), Liberia ranks 38th among 52 African countries with respect to economic opportunities, human development, laws and institutions for women empowerment.

2.2. SDG 2.1: End hunger and ensure access to safe, nutritious and sufficient food all year round

Coming in the aftermath of the 1989 - 2003 civil conflict and the 2008 global food price spike which necessitated significant humanitarian assistance, the 2014-15 outbreak of the Ebola Virus Disease (EVD) had an enormously damaging impact on agricultural production and the wider economy, worsening Liberia's already fragile food security situation. Economic activity was severely disrupted throughout the country. Border closures and movement restrictions - while necessary to contain the epidemic - severely affected domestic food production and food imports. As food market prices rose exponentially because of the scarcity and the inability to source and afford the food they needed, individuals and households responded by eating fewer and less nutritious meals. The EVD crisis continues to have a grave impact on vulnerable communities.

Even during normal times, access to food by the majority of Liberians is constrained by high poverty rates, an underperforming labour market, and poor road conditions particularly in rural areas (USAID).^{24,25} According to the 2015 Emergency Food Security Assessment (EFSA 2015), food expenditures accounted for over 65 percent of total spending by a quarter of households in the country; 41 percent of households did not have food or money to buy food the week before the assessment, and 18 percent of households were found to be using emergency coping strategies (mostly begging). Poor market conditions also limited access to food for households that had purchasing power.

Besides rice, Liberians typically eat pastes made from ground cassava, plantain or potatoes with vegetables. Along the coastal areas, fish and seafood are consumed while in the interior, Liberians eat goat or bush meat—but usually in small portions and not frequently enough. Milk, eggs and pulses are rarely consumed outside of Monrovia. According to the 2013 Comprehensive Food Security and Nutrition Survey (CFSNS 2013), 41 percent of rural households have low diet diversity, indicating that actions to improve access to food should focus on promoting the inclusion of vegetables, fruits, pulses and animal source foods in the diets of Liberians, mainly those in rural parts of the country.

The 2013 CFSNS also found food marketing to be a principal pillar of food security in Liberia. Almost three-quarters of rural households buy food and just one-fifth are able to rely on their own production, while 94 percent of urban households purchase their food at the market. Liberians

²⁴ The incidence of poverty was estimated to be 63.8 percent in 2007, with extreme poverty at 47.9 percent (World Bank, Social Protection Diagnostics 2011). Poverty is predominantly a rural phenomenon. The poorest households seem to be those where the head is self-employed in agriculture, as poverty tends to decrease as the level of education of the head of household increases. Poverty also is strongly linked to age, with young people being generally poorer than adults. (From the Social Protection Policy: Incidence of poverty estimated at 63.8% with extreme poverty at 47.9%; poverty a rural phenomenon (67.7%); strongly linked to age (63.3% of those between 0 and 9; 67.4% of those from 10 to 19; 66.3% of those over 60 years). High concentration of poverty in informal sector; 70% of the heads of agricultural households; poverty correlates with food insecurity; southeast and northwest counties experience high levels of poverty and food insecurity. Poverty affects access to services (health, education, WATSAN) particularly in rural areas.)

²⁵ Opportunities to engage productively in economic activities are limited. Vulnerable employment is estimated at 77.9 percent (LISGIS, 2010). There are households with able-bodied adults who cannot find any productive employment to generate a decent income. The formal sector employees number about 195,000 people, only about 5 percent of the population. Almost 70 percent of people active in the labour market are employed in the informal sector, while the latest data indicate that nearly a quarter of the population is underemployed.

produce only one-third of the rice they consume, and thus rely on markets for at least six months in a typical year. The second main staple, cassava, is widely cultivated and used as a food security crop. However, the market network is severely limited particularly in geographically-isolated rural areas. The 2007 Liberia market review noted that 81 percent of households have access to weekly markets and often have to walk for an average of 2.5 hours to reach them; only 29 percent of households reported having access to daily markets. Finding markets to purchase food or to sell surplus production is a challenge for more than half (54 percent) of Liberian households. Findings of the Joint Liberia Food Security Assessment of November 2014 showed that in communities without regular market days, such as in Sinoe, Grand Kru and Margibi counties, households find it difficult to access food supplies outside of their community. This situation, mainly due to poor feeder roads and lack of transportation, is more evident during the rainy season (EFSA 2015). The areas with the poorest road networks are the most food insecure and distance is negatively with adequate food consumption scores (CFSNS 2010).

Access to food is also a function of household income, which largely depends on employment and food prices. But employment in Liberia is low. The 2010 Labour Force Survey reports that 68 percent of employed Liberians work in the informal sector without regular wages or benefits. Agriculture employs 67 percent of the labour force, but the proportion of rural households with access to agricultural land is 73 percent (CFSNS 2013). Food crop production is the primary income source for slightly more than one-third of rural and less than 10 percent of urban households (CFSNS 2013) but this does not provide sufficient income for producer. Most rural small farmers therefore have diverse livelihoods that include cash crop production, salaried employment, palm oil processing, petty trade, casual labour, charcoal production, mining activities and rubber production. The more food secure livelihoods were salaried and skilled labour, trade and shop ownership which are commonly found in urban areas (CFSNS 2013).

Table 3: Number of persons aged 15 and over in informal employment, by sex and locality

	Informal employment	Total employment	Informal employment rate (%)
Liberia	742,000	1,091,000	68
Male	332,000	542,000	61
Female	410,000	549,000	74
Urban	287,000	484,000	59
Rural	455,000	607,000	75

Source: Liberia Labour Force Survey (2010)

Social protection programming is fragmented and uncoordinated, and consists of very small-scale interventions that have limited the impact of the interventions. With the scaling down of humanitarian assistance and increasingly limited fiscal space for social spending over the last few years, absolute and relative expenditures on social protection programs are expected to have started to decline at a time when the demand for such services is on the rise. Targeted food assistance programs, such as by World Food Programme (WFP) and the Ministry of Education's girls take-home rations in highly food insecure counties, and supplemental feeding for malnourished, pregnant and lactating women and infants and young children in food insecure counties are underfunded; and USAID's monetization of food aid to support operational activities in Lofa, Bong, Grand Gedeh and River Gee has come to end. The cessation of these programs has

made it difficult for individuals, households and communities to manage income risks and access food on a sustainable basis.²⁶

An analysis of social protection spending and coverage during the 2008 - 2010 period found that spending represented nearly 1.6 percent of GDP. However, when considering only social safety net programs, social protection spending amounted to only 1.5 percent of GDP. Of this amount, donors' contribution accounted for about 94 percent of all social safety net (SSN) expenditures and government spending accounting for only 6 percent.²⁷ SSN interventions were fairly distributed at the regional level, and they reached approximately 830,000 beneficiaries, almost all of them unemployed and/or food insecure, in 2010 (i.e. around 24 percent of the population in 2008) but the total average benefit amount covered between 7 percent and 20 percent of the poverty line.

Social assistance programs include: (i) cash transfers and near-cash transfers; (ii) public works in which the poor work in return for food or cash; (iii) in-kind food transfers such as school feeding and take-home rations, nutritional supplementary feedings, and food distribution during lean seasons; and (iv) general subsidies, often on food, energy, housing, or utilities, designed to benefit households. The study also found that social insurance programs (i.e. for job-related injuries, occupational illnesses, invalidity, and old age retirement) administered by the National Social Security and Welfare Corporation (NASSCORP) are expected to be only sustainable in the short term because of the growing number of beneficiaries and increasing costs which could cause the system to incur large deficits in the medium term.

Two other factors that have influenced access to food in Liberia in recent years are higher food prices and growing rural to urban migration. Liberia experienced higher food prices and volatility between 2007 and 2012 which undermined the nutritional status and food security of many household and contributed to impoverishment.²⁸ The higher prices had a substantial negative impact on livelihoods, decreased access to food, and led to a reduction in the diversity and quantity of diets, especially among the poor. They also adversely affected most Liberian farmers who are net food buyers because of obstacles that prevent them from producing more or getting more of their produce to market. Although food prices have been more stable in the last few years, it is projected that food commodity prices will be both higher and more volatile in the future.

Over the years, several factors including the prolonged civil war, better access to goods and services, and greater employment opportunities, have contributed to rural urban migration in Liberia, particularly from rural areas to Monrovia (FSNS 2015). Many of these migrants are young people with no employment skills. This trend in urban population growth and migration has placed upward pressures on the availability of essential commodities (i.e. rice) and basic services such as sanitation facilities and water in a country still recovering from a prolonged conflict and the recent

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²⁶ As defined by the World Bank, social protection interventions typically include: (a) social assistance programs, such as cash or inkind transfers to alleviate poverty, often termed social safety nets (SSNs); (b) social insurance programs, such as contributory programs, (in other words, pensions, unemployment benefits, and health insurance); and (c) labour regulations and active labour market programs, such as education and training, credit, and employment services.

²⁷ World Bank. Social Protection Diagnostics of Liberia. 2011. Key donors during the period were the World Food Programme (WFP), which was by far the largest with 60 percent of the funding, the U.S. Agency for International Development (USAID), the United Nations Children's Fund (UNICEF) with funding from the European Union and the Japanese International Cooperation Agency, and the World Bank.

²⁸ Liberia, as a food-deficit country, is particularly vulnerable to increasing global food prices. Most of its main staple food, rice, and other commonly consumed foods, are imported. During the food price spike of 2007, when the price of rice more than doubled, the World Bank estimated that a 20 percent increase in the price of rice caused a 4% increase in the population living in poverty (FSNS 2015).

devastating EVD epidemic, and challenged by poor infrastructure, inadequate health and education systems, and food insecurity.

2.3. SDG 2.2: End all forms of malnutrition

The rates of chronic and acute under-nutrition have decreased in Liberia since the end of the civil war. The 2013 Liberia Demographic Health Survey (LDHS) established that 31.6 percent of children aged 6 to 59 months in rural and semi-urban areas were stunted in their growth, while the figure for Monrovia was 27 percent. Stunting also increased with age, peaking at 42 percent in children 36–47 months in age, and affecting males (34 percent) more than females (29 percent). County-level stunting prevalence rates in 2013 ranged from a low of 27.1 percent in Montserrado to a high of 42.6 percent in River Gee, and ten counties showed rates of over 30 percent and one of these had a rate that was over 40 percent; both of these situations are classified as high prevalence according to WHO standards. Large differences in underweight rates also exist among the counties: 25 percent of children in River Gee are affected but only nine percent of those in Montserrado are affected.

The poor quality of the diets consumed, in terms of protein and micronutrient content, is a contributing factor to Liberia's high levels of chronic under-nutrition or stunting. Twenty-one percent of the households in Liberia do not have access to an adequate diet (EFSA 2015). Dietary diversity is particularly poor in rural Liberia where food consumed by the poorest comprises low-cost starches such as rice and cassava, with little contribution from animal-source foods, vegetables or fruit.²⁹ Whereas only 2.4 percent of Monrovians have a diet lacking in diverse food groups such as fruits, vegetables, dairy, pulses, meat or fish, 41 percent of the national population outside the capital was found to have poor dietary diversity (CFSNS 2013), with the poorest dietary diversity found in River Cess (60 percent of the diet made up mostly of starch), followed by Bomi, Bong, Grand Kru, River Gee and Maryland Counties (USAID). Poor dietary diversity tends to contribute to anemia among young children and women of child-bearing age.

Micronutrient deficiencies are also significant in the country. The 2011 Liberia National Micronutrient Survey (LNMS) found iron-deficiency anaemia in 59 percent of children aged 6 to 35 months, 33 percent in non-pregnant women, and 38 percent among pregnant women. Vitamin A deficiency among children under 5 declined to 13 percent due largely to improved coverage (from 43 to 60 percent) of vitamin A supplements between 2007 and 2013; and expanded efforts such as deworming and malaria prevention and treatment measures among children and pregnant women. But increasing obesity among women is now becoming a more significant problem than underweight. According to the 2013 LDHS, 26 percent of available data revealed that Liberian women are increasingly becoming overweight, with 9 percent classified as obese. Older women and those residing in more urban areas are more at risk; 30 percent of women in urban areas are overweight compared to 22 percent for rural women. Overweight and obese women are more at risk for poor pregnancy outcomes and the development of chronic diseases such as heart disease, diabetes and stroke in mid and later life. The problem of being overweight is generally caused by

The 2013 CFSNS found that twenty-seven percent of Liberians have low dietary diversity with a large differential between urban and rural areas: 2.4 percent in Monrovia and 41 percent in rural areas. In nine counties (Bomi, Bong, Grand Kru, Lofa, Maryland, Rivercess, Sinoe, River Gee and Gbarpolu), over 40 percent of households had low diet diversity.

poor diets and eating habits of Liberian as these relate to the type, quantity and timing of food consumed (LDHS 2013).

Through the introduction of the Basic Package of Health Services (BPHS), which was followed by the Essential Package of Health Services (EPHS), Liberia had begun to make significant progress toward improving several health indicators when the EVD epidemic struck in 2014 and 2015, reversing many of the country's gains. Today, diarrheal disease caused by improper hygiene and sanitation contribute to suboptimal nutritional outcomes; 45 percent of children test positive for malaria, which is a critical public health issue and accounts for a significant proportion of anaemia in children under five. Liberia's relatively low levels of breastfeeding and limited compliance with recommendations for feeding young children (6 to 23 months) solid and semi-solid foods are determinants of child undernourished. While the rate of exclusive breastfeeding has significantly improved over the years, only slightly more than half of infants are afforded this essential nutritional option.

Limited access to health services and improved source of drinking also contribute to stunting and other diseases. Seventy-three percent of Liberian households use an improved source of drinking but only 14 percent use improved toilet facilities that are not shared with others, and only 10 percent have access to electricity (LDHS 2013). With total expenditure on health per capita in 2014 at \$98 and health expenditure at 10 percent of GDP, Liberia's healthcare system is demonstrably inadequate to support and induce better nutritional outcomes among the population. The same is true for the educational sector, where the mean years of schooling for males is 5.8 and 2.6 for females, and 47 percent of females and 33 percent of males aged 6 and older have never attended school. The low educational attainment level of women is positively linked to child malnutrition in the country.

2.4. SDG 2.3: Double the agricultural productivity and the incomes of small-scale food producers

Fourteen years of civil war damaged the agriculture sector, which today accounts for the livelihood of nearly 67 percent of the population, particularly women and children (WFP 2013). The share of agriculture in the country's GDP has steadily fallen from as high as 58 to 39 percent between 2009 and 2013. In 2015, agriculture and fisheries contributed 24 percent to GDP, primarily from exports of rubber, palm oil, cocoa, sugar cane, and coffee. Although richly endowed with water and a climate favourable to agriculture, productivity is low due to poor human capital, infrastructure, policy implementation and instability (FAO 2014).³⁰ Yield of the staple crops of rice and cassava are low relative to their potential; average rice yields in Liberia were estimated at 1.4 ton/ha in 2001 (MOA 2007) and more recently at 1.5 ton/ha (CFSNS 2010).

Cassava is the second most important food crop with 2007 production estimated at 560,000 metric tonnes (mt) and an estimated 500,000 mt yearly between 2008 and 2012 (FAOSTAT). Cassava is not necessarily an adequate substitute for rice due to its low nutritional value and the preference of Liberians for the latter. The annual total staple food requirement, expressed in terms of rice, is about 490 thousand mt of milled rice, based on rice imports and production (MOCI 2013,

³⁰ FAO, 2014. Special Report: FAO/WFP Crop and Food Security Assessment – Liberia

FAOSTAT 2012). An estimated two-thirds of Liberia's rice requirement was met through imports in 2010. While 95 percent of the rice needs of urban households in Liberia are met through imported rice, significant quantities of imported rice are also consumed by rural Liberians. The high dependence on imports, even for fruits, vegetables, pulses (i.e. beans, peas), onions, tomatoes and even peppers means that changes in global prices have a significant impact on Liberians, which was demonstrated in 2008.

Although over 182,000 hectares of land suitable for pasture are available, the livestock sector is relatively untapped, accounting for only 14 percent of agricultural GDP (CFSNS 2010). Chicken remains the dominant livestock kept by households followed by goats. Similarly, Liberia's fishery sector is relatively underdeveloped. Liberia's coastline and extensive continental shelf hold considerable maritime fish resources, yet fishing is mainly a subsistence activity. Only about 3 percent of Liberia's GDP is generated from ocean fishing and inland and rural aquaculture (CFSNS 2010). Growth in the sector is hampered by the lack of fishing equipment, storage and preservation facilities and modern technologies (WFP 2013).

Small-scale farmers in Liberia, many of them women, are among the poorest and most vulnerable in the country. Families, using family labour and deriving a large share of their income from farm activities, practice smallholder agriculture. It includes crop raising, animal husbandry, forestry and fisheries. Family groups, a large proportion of which are headed by women who play important roles in production, processing and marketing activities, run the small farms. Off-farm activities also play an important role by providing smallholders with additional income and diversifying risk, thus improving their resilience to the shocks that impact agriculture. They are principally subsistence farmers with limited harvest to sustain themselves and outlets to market surplus production or to participate in the cash economy. They are geographically dispersed and therefore are often marginalized. According to the World Bank, 69.3 percent of rice producers in Liberia live below the poverty line. This is 5.5 percentage points higher than the national average. Worse, 49 percent of these food crop farmers are highly vulnerable and food insecure in one of the most food insecure countries in the world.

According to findings from the regional consultations, smallholder farmers are challenged by poor infrastructure, low market access and poor crop quality and yield. Surplus production mainly of perishable foods, whenever available, often rots in the field. Value addition through better post-harvest handling, storage, and processing of perishable food would increase the incomes of small-scale farmers.

Other major problems of smallholder farmers include limited access to quality inputs (e.g. certified high yielding seed, irrigation and fertilizers), high levels of pests and diseases, limited agroprocessing capacity which constrains value addition, challenges to maintaining power equipment and high post-harvest losses. In addition, limited road and market infrastructures which create poor access to markets, land tenure issues, inadequate credit, limited coverage of extension agents and competition from cheaper imported rice contribute to poor yields of rice and low productivity of small-scale farmers.

Sector-wide, value addition is limited and few capable private operators exist. Those in operation are mainly informal petty traders who lack modern marketing skills, market information, and requisite organizational capacity to increase their market share and profitability. High post-harvest losses, lack of industrial processing, and inadequate feeder roads and marketplaces further restrict

the marketing system. As a result, small-scale producers earn very little income and remain poor.³¹ Farmers' organizations are not better off; generally, they have limited storage, processing and marketing capacity, and limited access to financial services which makes it difficult for their members to effectively exploit agricultural value chains and access major regional markets.

2.5. SDG 2.4: Ensure sustainable food systems and implement resilient agricultural practices

The High-Level Panel of Experts on Food Security and Nutrition (HLPE) defines a sustainable food system as "a food system that delivers food and nutrition security for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised." This means that "the environment, people, institutions, and processes by which agricultural products are produced, processed, and brought to the market are sustainable."

Agricultural output is derived from three types of farming systems or production structures which are: i) traditional farming systems that involve production of food and export crops (mainly coffee and cocoa, and recently, rubber), plus oil palm both for home consumption and for the market; ii) commercial farms that are mainly owned and operated by Liberians engaged in the production of fruits, coffee, oil palm, cocoa and poultry and pigs; and iii) concession plantations that produce mostly rubber and palm oil and are owned and operated by foreign firms (CAAS-Lib 2007).

Farm production varies throughout the country, but forest-based farming predominates. The country is within the tropical rain forest belt of West Africa and occupies about 43 percent of the remaining Upper Guinea Forest (CASS-Lib 2007). In 2015, forestry contributed 10.5 percent of the national GDP, totalling US\$ 94.7 million (CBL 2015). In the central part of the country, farmers grow tree crops, rice, and cassava, while vegetables and other food crops are grown on a smaller scale. The northern region—where the majority of the rice is grown—is traditionally Liberia's "bread basket", while populations in the coastal belt rely on fishing and production of various food and tree crops as primary livelihoods (LASIP 2010).

The fisheries sector contributes about 12 percent to Liberia's agricultural GDP and 3 percent of the overall GDP (Fisheries Policy and Strategy 2014). Revenue to the Government from license fees, vessel registration fees, inspection fees, observer fees, import and export charges, and fines totalled US\$ 400,000 in 2011 and rose steeply to nearly US\$ 6.0 million by mid-2013, due to the fines gathered from the successful prosecution of foreign vessels fishing illegally in Liberian waters. Fish provides an estimated 65 percent of animal protein intake within the country, mainly because it is significantly cheaper than meat or chicken and readily available. Marine small-scale fisheries, comprised of the semi-industrial, artisanal fisheries and subsistence sub-sectors, provides livelihoods for approximately 33,000 full-time fishers and processors located along the coast in nine of Liberia's fifteen counties. These counties account for more than half of the country's population and many, including many rural communities, women and youth, are dependent or partially dependent on fisheries for livelihoods. Around 80 percent of those working in the sector are Liberians of whom 60 percent are female.

³¹ Cooper, J. Empowering Small Farmers in Liberia. < https://www.changemakers.com/economicopportunity/entries/farming-liberia>

The livestock sub-sector plays a minimal role in the Liberian economy, accounting for about 14 percent of the agricultural GDP (FAO 2012). Most animals are owned by traditional farmers, household-based chicken, goats, ducks, pigs, sheep and cattle rearing predominates. Livestock population declined during the civil war from 1990-2003, but by 2010 the numbers had more than recovered. Demand for livestock products greatly outstrips domestic supply. As a result, imports of livestock products and live animals are high. According to FAOSTAT, 9.6 million tonnes of meat, valued at US\$ 9.7 million was imported in 2009.

Few farmers use improved inputs, rotate crops, intercrop, perform integrated biological pest control practices, plant drought-resistant crop varieties, apply erosion control measures, or effectively manage water and soil. Furthermore, rural farmers rarely possess appropriate documentation to prove and protect claims to land due to the cost and complexity of pursuing formal documentation of rights. Comprising a majority of the agricultural labour force, women often bear the brunt of this difficulty.

Farming systems and farmers who depend on them are encountering multiple environmental challenges that have the potential to obstruct livelihoods, limit sustainable economic growth and imperil the ambition to achieve zero hunger. These include the degradation of natural resources (forestry, land and water), loss of biodiversity (forests, ecosystems, marine, wetlands and mangroves) and climate change. Lands are being degraded by unregulated mining, uncontrolled forestry practices, slash and burn agriculture, sand mining for urban construction and human settlement. Forests are being destroyed by commercial logging, settlement expansion, road construction, shifting agriculture (slash and burn), large-scale plantation operations, mining, and wood fuel extraction for household use. Continuing rampant illegal fishing in Liberia's exclusive economic zone, where coastal fish resources are believed to be fully exploited while the deep-sea fisheries are under exploited as well as the destruction of coastal wetlands, and water pollution from households, agricultural run-off, leaking fuel storage, vessels etc. all amount to significant environmental challenges that Liberia must overcome if food systems are to be sustainable.

Vulnerability to climate change, mainly due to high levels of poverty and dependence on agriculture, fisheries, mining and forestry is increasingly becoming a major development challenge. Climate change is expected to result in more extreme weather situations such as heavy rains and drought in West Africa, where Liberia is prone to flooding but not to drought. Heavy rains, storm surges, sea level rise and increased erosion, puts both urban and rural infrastructure at risk, particularly for the poor. Furthermore, heavily populated parts of the coast would be affected by frequent inundations, increased coastal erosion, and sea-level rise. Ongoing work in Liberia is confirming the correlation between temperature and precipitation patterns and malaria, cholera, dysentery, giardiasis, amebiasis, typhoid fever - diseases that afflict thousands throughout the country. Other studies have inferred that during the peak of the dry season, the drying of ponds and inland rivers are major factors in the reduction of fish populations, with the surviving fish threatened with pollution, caused by pesticide run-offs and industrial discharges (NAPA 2008)

It is clear that climate change is already negatively affecting Liberia, and will make it even harder to achieve food security as it reduces agricultural productivity and harms the livelihoods of the poor and most vulnerable (FSNS 2015). There are important uncertainties in the way the global climate will change, magnified regionally and at country levels. For Liberia, models predict relatively uniform increases in temperature across the country, although the increase ranges 1 to 2.5 degrees (IFPRI 2012). At the same time, the effects on rainfall vary considerably from predictions

of a similar pattern of rainfall in the North with increases in the South and along the coast to predictions of decreases in precipitation over nearly all of Liberia (IFPRI 2012). When the effects of climate change on food production are modelled, a decrease in crop yields in the North (Liberia's "bread basket"), and increases in the East and along the coast are predicted (IFPRI 2012).

The overall development challenges in terms of climate risks are the: i) degradation of agricultural lands and the loss of biodiversity, putting smallholder households at risk; ii) absence of an effective early warning system (i.e., a system of meteorological stations) that could allow farmers and other stakeholders to make informed decisions on production strategies; and iii) coastal erosion mainly in low-lying areas such as the urban centers of Robertsport, Monrovia, Buchanan and Cestos (NAPA 2008).

2.6. SDG 2.5: Maintain genetic diversity of seeds, plants and animals

Documentation on genetic diversity efforts is virtually lacking in the country. The few records of previous trials at the Central Agricultural Research Institute (CARI) were destroyed during years of armed conflict and the sheer lack of good management. Moreover, because typical traditional farmers maintain only oral records of their operation, much of their knowledge is lost with the passing away of old, experienced farmers. Nevertheless, some progress has been made in recent years to remedy this dearth of information.

In tubers such as cassava (the nation's second staple food) a degree of success has also been realized with the emergence of varieties such as the *Bassa Girl, Madati* and the *CARICAS* series. This effort was reinforced by the introduction of over 200 advanced breeding lines from the International Institute for Tropical Agriculture (IITA) in 2007/2008. This introduction was firstly to run various trials as to their suitability in Liberia; and secondly to avail to Liberian farmers a wider pool of genetic material for increasing their productivity. This diversity is of particular importance as it has resulted in the production of cassava that is of good food quality, ideal for household meals; and/or for industrial quality, suitable for processing into higher value cassava products. The newly introduced lines and varieties are generally disease-resistant or tolerant to the natural conditions; but more importantly, are higher yielding, compared to the indigenous land races used by traditional farmers and are often of higher nutritive value. Particular attention is paid to identifying and introducing materials capable of higher yields and of greater nutritive value.

Whilst these adaptive trials have been successfully carried out at CARI, the efforts of the subsistence farmers cannot be understated. It is through their traditional farming practices that desirable varieties have been selected and preserved over the years. Using the knowledge of their environment, traditional farmers have selected and preserved land races (indigenous varieties) of food crops such as rice, cassava, yams, pepper and bitter balls (garden eggs) which they grow yearly and keep portions therefrom as seeds/planting material for subsequent years. Although the selection done by traditional farmers may appear to be unscientific, the practice fulfils a critical need in meeting their biodiversity needs for the crops they grow in order to meet their food security needs. The introduction of new materials (varieties or breeding lines) increases the biodiversity and puts increased production capacity and materials at the disposal of small Liberian farmers to better tackle their food security and nutrition needs.

In like manner, new and improved varieties of rice, yams, maize and pulses were introduced between 2008 and 2009 for adaptability trials at CARI. The objectives of these introductions were as follows:

- To improve crop yields with the introduction of higher yielding materials;
- To facilitate diversification of diet through the introduction of alternative food crops to rice;
- To enhance nutrition by increased availability of pulse, and;
- To increase livelihood opportunities through value addition of produce in farming communities.

Information relating to animals is even more difficult to come by because of the lack of appropriate adaptive and/or basic research. According to FAO, cattle, sheep and goats are the main ruminants, and most of these are owned by traditional farmers who use local, less productive animal breeds and basic techniques (FAO 2012). They have access to few inputs, and receive few or no government support services. Households in counties bordering Côte d'Ivoire (Grand Gedeh, Maryland, River Gee and Nimba counties), in which grasslands are vast, remain most likely to own goat, sheep and cattle, although the numbers of cattle are low. Table 4 from the FAO publication shows population trends of ruminants (cattle, sheep and goats) and non-ruminants (pigs and poultry) from 1985-2010; it shows that the total livestock units declined from 1985-1995, and increased by about 7 percent from 2005-2010.

Table 4: Livestock and poultry population trends (1000 head) in Liberia, 1985-2010

	Year			Annual growth rate (%)	
Species	1985	1995	2005	2010	2005-2010
Cattle	42	36	36	40	1.9
Sheep	238	210	210	264	4.3
Goats	235	220	220	338	8.9
Pigs	127	120	130	265	17.3
Chickens	3,500	3,500	5,300	6,800	4.7
Total LU	129	120	140	201	7.3

LU: Livestock Unit; conversion factors: cattle (0.50), sheep and goats (0.10), pigs (0.20) and poultry (0.01). *It should be noted that the recent report by Koikoi (2011) suggests that numbers of livestock are much lower than the FAO data in this table. Further studies, including an agriculture census, are needed to clarify the situation.

Source: FAO, 2012; FAOSTAT accessed on 6th July 2012.

The same publication reports that more than 74 percent of the cattle population are found in Grand Gedeh, Maryland, Lofa, Bong, and Nimba counties; and 77 percent of the sheep and goat populations are in Nimba, Grand Gedeh, Bong, Lofa, River Gee and Grand Cape Mount counties. Households in all counties own sheep and goats, but cattle ownership is restricted to households in 9 out of the 15 counties. The percentage of households owning cattle is highest in Grand Gedeh and Maryland; while Grand Gedeh, Maryland, Nimba, River Gee, Grand Kru and Bong have the highest percent of household ownership of sheep and goats.

Palatability: While crop varieties are gradually increasing in numbers, including new varieties that have been produced by CARI, the key challenge continues to be the limitation of resources and/or institutional arrangements to undertake seed multiplication and distribution in an efficient, sustained manner. While rice remains Liberia's staple, there is a preference for imported rice because of the presence of impurities, mainly stones, in the locally-produced rice. This is a result of improper post-harvest handling of rice, particularly during drying and milling. Accordingly, over the years, Liberians have come to prefer imported rice, which regrettably, has only reinforced their tastes for foreign-produced rice.

The rate of adoption and utilization of improved genetic materials of plants and animals by Liberian farmers has, at best, been negligible. As a consequence, most farmers continue to use their indigenous, low-yielding varieties. More extension effort is needed for Liberian farmers to adopt improved genetic materials for increasing yields.

Chapter 3: National Policy and Programmatic Response

3.1. Overarching Policy Frameworks

iberia Rising 2030 (Vision 2030) defines Liberia's long-term development vision of becoming a middle-income country by the year 2030. The Agenda for Transformation (AfT) (2012 – 2017), the current medium-term planning vehicle towards the achievement of this goal, is being revised to account for new challenges and opportunities. The 2012 – 2017 AfT replaced the Poverty Reduction Strategy, the post-conflict emergency reconstruction framework of 2008 - 2011 which contributed to macroeconomic stability and improvements in social sector indicators prior to the onset of the EVD epidemic in 2014.

The pillars of the AfT and their respective goals are:

- Peace, Security and Rule of Law: "create an atmosphere of peaceful co-existence based on reconciliation and conflict resolution and providing security, access to justice, and rule of law to all";
- ii) Infrastructure and Economic Transformation: "to transform the economy so that it meets the demands of Liberians through development of the domestic private sector—using resources leveraged from FDI in mining and plantations; providing employment for a youthful population; investing in infrastructure for economic growth; addressing fiscal and monetary issues for macroeconomic stability; and improving agriculture and forestry to expand the economy for rural participation and food security";
- iii) Human Development: "to improve quality of life by investing in more accessible and higher quality education; affordable and accessible quality healthcare; social protection for vulnerable citizens; and expanded access to healthy and environmentally-friendly water and sanitation services"; and
- iv) Governance and Public Institutions: "in partnership with citizens, create transparent, accountable and responsive public institutions that contribute to economic and social development as well as inclusive and participatory governance systems."
- v) A fifth and crosscutting pillar which aims to achieve greater inclusiveness, generate economic opportunities with a special focus on rural areas, youth and women, institute social safety nets, and broaden and deepen the provision of services.

The goal for the agriculture and food security sector under the AfT is to "promote a robust, competitive and modernized agriculture sector supportive of sustainable economic growth and development." The six strategic objectives established by the Government in furtherance of this goal are:

- i) Increase in agricultural productivity, value-added and environmental sustainability, especially for smallholders, including women and youth;
- ii) Increase in the integration of smallholder agriculture with domestic and international markets:
- iii) Increase in fishery production in a sustainable manner;

- iv) Increase in access to machinery, fertilizer, storage, credit, training, technical assistance, market information and improved technologies, and related services, including through farmer groups and nuclear farms;
- v) Increase in access to land and security of tenure; and
- vi) Improvements in the nutritional status of Liberians.

Indicators for measuring progress toward the goals and objectives of the AfT are per capita income and consumption indicators which require average annual GDP growth of 9 percent over the next 18 years to achieve the benchmark of US\$ 1,000 per capita, measures for Millennium Development Goal (MDG) targets, and national census indicators focused on the unmet basic needs of citizens.³²

3.2. Food Security and Nutrition Policies, Programs and Projects

The multi-sectorial policy framework for the food security and nutrition sector is the 2015 National Food Security and Nutrition Strategy (FSNS). This updated version of the 2008 FSNS commits government to substantially reducing food insecurity and improving nutrition in the country. The overall goal is to ensure that all Liberians have reliable access to the food and are able to utilize that food to live active and healthy lives. The strategy prioritizes the needs of food insecure and nutritionally-vulnerable groups, including the elderly, female-headed households, orphans, the disabled, HIV-affected households, EVD-affected households, infants and children under five years of age, particularly those under two years of age, and pregnant and lactating women.

The strategy also identifies priority actions to improve food availability, access and utilization and to improve the nutritional status of Liberians with the goal of reducing vulnerability to food insecurity and enhancing the capacities of individuals, communities and institutions. To enhance food availability, the FSNS calls for addressing the food production constraints farmers face; maintaining predictable and stable food imports; strengthening Liberia's strategic food reserve mechanisms; and making appropriate use of international food assistance, whether in support of development or to respond to any future food security crises.

The six priority action areas to improve access to food are:

- i) Enhancing access to employment in the agricultural sector;
- ii) Broadening and securing access to factors of production and productive assets;
- iii) Improving adult literacy for adults and access to education for girls:
- iv) Improving agricultural markets and marketing;
- v) Improving educational opportunities that integrate nutrition, agriculture and food security; and
- vi) Strengthening safety net programs to ensure access to food by those in Liberian communities who are least able to obtain it through their own efforts. Key actions to promote better food utilization and improved nutritional status include reducing malnutrition among vulnerable groups; increasing access to safe water, sanitation and hygiene practices; and reducing morbidity from common communicable diseases.

³² The MDG targets and indicators are to be replaced by appropriate Sustainable Development Goals (SDG) targets and indicators when the successor to the AfT is developed.

The FSNS identifies women's empowerment and gender as crosscutting issues and migration and urbanization, climate, biofuels production, staple food price volatility, smallholder sub-sector investment, EVD and obesity as emerging issues. The enabling factors to facilitate progress toward the objectives of the strategy include increased human capacity, research, and community-level approaches to addressing food insecurity and undernutrition within households and communities.

The Government has prepared three important agricultural policy documents: 2006 Statement of Policy Intent for the Agricultural Sector, 2009 Food and Agriculture Policy and Strategy (FAPS) and 2014Fisheries and Aquaculture Policy and Strategy. The policies have supported agricultural development as well as broader food security and nutrition objectives.

The 2006 Statement of Policy Intent for the Agricultural Sector was an interim measure with a vision of the holistic development of agriculture into a sustainable, diversified, income generating, modernized, and competitive sector well-integrated into domestic and international markets. It recognized the need for effective land administration, flexible land use planning approaches, adaptive sustainable land management practices, and other improvements to support agricultural development. The first of its five priorities was 'to improve the nutritional status of the population and to ensure stability of access and availability of food'. The Statement's call for formulation of a comprehensive food security and nutrition strategy was achieved in 2008.

Under the theme, "From Subsistence to Sufficiency", the 2008 Food and Agriculture Policy and Strategy (FAPS) also envisioned a nation with food and nutritional adequacy and security that enables a nourished population, and thus contributes to optimal health, education and training, economic growth and development, and improved and sustained quality of life. Still being implemented today, the policy and strategy sought a revitalized and modernized agriculture sector contributing to shared, inclusive and sustainable economic growth and development. The objectives of the FAPS are: i) availability of safe and nutritious foods in sufficient quantity and quality to meet the nutritional needs of all Liberians; ii) inclusive and pro-poor growth in agricultural production, including competitiveness, value addition, diversification and linkages to markets; and iii) effective and efficient human and institutional capacities to undertake planning, delivery of services, investments, and monitoring activities, while sustaining natural resources, mitigating risks to producers and mainstreaming gender and youth.

The 2014 Fisheries and Aquaculture Policy and Strategy envisages a modern, vibrant and sustainably managed fisheries sector that is capable of:

- i. Providing increased profitable fisheries employment opportunities;
- ii. Engaging participatory fisheries management; contributing to GDP, national food and nutritional security;
- iii. Improving living conditions; and
- iv. Deriving net benefits from a vibrant fish trade supported by value addition systems and fisheries infrastructure for fish landing and export, as well as efficient fishing input supply and distribution systems.

The goal of the Fisheries and Aquaculture Policy and Strategy is the establishment of a sustainably managed and economically viable fisheries sector that generates prosperity for current and future generations. The four policy objectives are sustainable management of fisheries resources and ecosystems; development of aquaculture to meet national fish demand deficits and

for foreign exchange; strengthening of fisheries management and development; and enhancement of value addition, marketing and fish trade for improved foreign exchange earnings and employment opportunities.

The three key agricultural development frameworks are the Comprehensive Africa Agriculture Development Programme (CAADP) of 2003, the Liberia Agriculture Sector Investment Plan (LASIP) of 2010, and the Liberia Agriculture Transformation Agenda (LATA) of 2015.

CAADP is an African-wide initiative. It is a policy framework for agricultural transformation, wealth creation, food security and nutrition, economic growth and prosperity for all African countries. It is an integral part of the New Partnership for Africa's Development (NEPAD).

LASIP is a five-year agricultural sector investment plan being Liberia's response for the implementation of CAADP, the continental agricultural development agenda developed by NEPAD. It laid out the broad policy framework for investment in various areas identified by government as strategic for transforming agriculture in Liberia. LASIP covered the period 2011 - 2016.

LATA is a two-year agriculture development plan designed by the Ministry of Agriculture (MOA) in collaboration with other agencies of government to create conditions for Liberia to achieve a higher level of economic resilience and inclusive growth. A new five-year LATA is in the advanced stage of preparation. It aims at deepening the impacts of all development initiatives in agriculture; consolidating on gains made in the recovery period; strengthening coordination and harmonization both among GOL entities and with partners; creating conditions for attracting more youth and women to engage in agricultural ventures; and accelerating private sector participation and investment in agriculture, in particular, along the food value chain. The upcoming LATA is a national programmatic framework for agricultural development for the period 2017 - 2022 in furtherance of the Agenda for Transformation.

Whereas LASIP is a policy framework, the LATA is a programmatic agenda which defines concrete actions for the implementation of agricultural policies identified in LASIP. LASIP and LATA set the stage for better coordination and harmonization of interventions; sought to create enabling environment for increased private-sector participation; aimed at the alignment of partners' interventions with GOL priorities; targeted modernization of the sector; and pursued the creation of conditions for accelerated transformation of Liberian agriculture from subsistence farming to viable commercial ventures.

Table 5, below, summarizes major ongoing projects in the agriculture and fisheries sectors and other projects that may have elapsed but did contribute to the revitalization of the agriculture sector during the post-conflict period. These major projects included the Smallholder Agriculture Productivity Enhancement and Commercialization (SAPEC), Smallholder Tree Crop Revitalization Support Project (STCRSP), West Africa Regional Fisheries Project (WARFP), West Africa Agricultural Productivity Project (WAAPP-1C Liberia), Maryland Oil Palm Plantation (MOPP), Agriculture Sector Rehabilitation Project (ASRP), Agriculture Infrastructure Development Project (AIDP) and Climate Change Adaptation Agriculture Project (CCAAP), Food and Enterprise Development (FED), Liberia Agribusiness Development Activity (LADA), Liberia Agriculture Upgrading, Nutrition and Child Health (LAUNCH) and Health, Agriculture and Nutrition Development for Sustainability (HANDS).

The total cost of these sixteen major projects is in the tune of US\$ 590.31million. Major financiers of these programs include IFAD, IDA/World Bank, GEF/AGG, Japanese and Trust Fund, AfDB, USAID. The principle objectives of these programs were to reduce rural poverty, reduce food insecurity, strengthen capacity and reduce illegal fishing.

Table 5: Donor funding for various project for the revitalization of agriculture and fishery sectors

Project	Duration (years)	Cost (millions)	Financier(s)	Objective(s)	Target	Coverage
SAPEC	6	USD 46	AfDB	To reduce rural poverty and household food insecurity	110,000	12 counties
STCRSP	5	USD 46.8	IFAD/IDA/ World Bank	To reduce post conflict poverty and food insecurity and improve livelihood for rural communities	15,000 HHs	1 county (Lofa)
WARFP	5	USD 14	World Bank/ GEF/AGG	To strengthen capacity to govern and manage targeted fisheries, reduce illegal fishing and increase local value added to fish products	Governance for marine fisheries	Marine fisheries
WAAPP-1C Lib	5	USD 14	Japanese Trust Fund/ World Bank	To enhance food security, reduce importation of rice and increase income to smallholder rice producers	150,000	8 counties
MOPP		USD 203.3	AfDB	To rejuvenate the Decoris oil palm plantation, establish the our grower scheme and construct an oil mill	750 out grower families on 6000ha	3 counties
ASRP	8	USD 24.37	AfDB/IFAD	To increase household income and food production	10,000 hhs	4 counties
AIDP		USD 37	IDA/World Bank	To re-establish basic infrastructure and revive agriculture activities	Oil jetty and bridges.	Nation wide
CCAAP	4	USD 2.5	World Bank/GEF/ UNDP	To increase resilience of communities and decrease vulnerability to climate change		2 counties
Food and Enterprise Development (FED)	5 (Sept. 2011 - Dec. 2016	USD 75	USAID	To improve food security of vulnerable populations. Focus cropsand products - rice, cassava, super gari (fortified cassava flour)	4,659 HHs	Grand Gedeh, River Gee
Liberia Agribusiness Development Activity (LADA)	5 (Dec. 2015 - Dec. 2020)	USD 19.3	USAID	To promote private sector investment in the agricultural sector to increase smallholder farmer incomes	20,000 HHs	Bong, Lofa, Nimba, Montserrado
Liberia Agriculture Upgrading, Nutrition and Child Health (LAUNCH)	6 (June 2010 - June 2016)	USD 40	USAID	To improve food security of vulnerable populations Focus crops - rice, cassava, vegetables	29,600 HHs	Bong, Nimba

Project	Duration (years)	Cost (millions)	Financier(s)	Objective(s)	Target	Coverage
Health, Agriculture and Nutrition Development for Sustainability (HANDS)	5.5 (June 2010 - Dec. 2015)	USD 35	USAID	To improve food security of vulnerable populations; focus crops and products - rice, cassava, super gari (fortified cassava	4,659 HHs	Grand Gedeh, River Gee
Sustainable cocoa value chain	5 (Up to 2020)	EUR 8.5	EU NGOs managed (Solidaridad managed)	To promote economic opportunities for smallholder farmers through the development of a sustainable cocoa value chain in Liberia.	5,000 Cocoa farmers	Lofa, Bong & Nimba
Rural development through sustainable agriculture	5	EUR 12	EU	To promote increased smallholder productivity and diversification to improve resilience and food security.		South-eastern counties
Sustainable fisheries value chain	5	EUR 7	EU WB managed	To support the development of a competitive, efficient and sustainable fisheries value chain (inland and aquaculture) with private investment and linkages to markets.	Inland fisheries & aquaculture	MOA (Bureau of Fisheries) & fish markets in Monrovia and Buchanan
Capacity building for the Ministry of Agriculture	5	EUR 2	EU FAO- managed	To design and deliver Food Security and Sustainable Agriculture (FSSA) policies in Liberia within the context of the Liberia Agricultural Transformation Agenda (LATA).	MOA	Nationwide

Source: Compiled from documents review

3.3. Health and Water and Sanitation

The National Health and Social Welfare Policy and Plan (NHSWPP, 2011-2021) of the Ministry of Health aims to improve the health and social welfare status of the population of Liberia on an equitable basis by:

- 1) Increasing access to and utilization of a comprehensive package of quality health and social welfare services that are delivered close to the community;
- 2) Making health and social welfare services demand-driven by transferring management and decision-making to lower administration levels; and
- 3) Providing accessible and affordable health care and social protection to all Liberians.

Services are to be delivered through the Essential Package of Health Services (EPHS) and Essential Package of Social Services (EPSS), both of which utilize a primary health care approach that encompasses community empowerment, decentralization and partnership. According to the policy and plan, the EPHS builds upon the country's prior Basic Package of Health Services which was developed in 2007 and places emphasis on maternal and child health services, adolescent health services, emergency services, and communicable diseases control. Phase One of the

EPHS was intended to cover 2011–2013, after which Phase Two would expand the EPHS to include chronic disease care such as for reproductive cancers, non-communicable diseases, and tropical diseases. The EPHS is delivered through four sub-systems: the community health system, the district health system, the county health system, and the national health system. The EPSS prioritizes those services that are necessary for the social well-being of the population, especially those considered most vulnerable.

The Ministry also developed a *National Nutrition Policy (NNP)* in 2007 which sought to ensure adequate nutritional intake and utilization for all people, especially the most vulnerable and ensure health and well-being for sustainable economic growth and development. The objective of this policy is to reduce the prevalence of malnutrition and improve infant and young child feeding through policy, food security, food safety, disease prevention, breastfeeding and complementary feeding, micronutrients, management of acute malnutrition, combatting obesity, monitoring and communication. The policy introduced a set of priority interventions called Essential Nutrition Actions.

Liberia's Water, Sanitation and Hygiene (WASH) Sector Strategic Plan 2011-2017 outlines approaches to strengthening institutions, developing new policy instruments, increasing funding and ensuring effective implementation to overcome challenges in the sector.³³ The WASH sector goal is to "increase access to safe water supply and sanitation and improve hygiene practices, thereby contributing to improved human welfare, development and Liberia's long term sustainable growth." The strategic objectives are to:

- i) Establish and strengthen institutional capacity to manage, expand and sustain Liberia's WASH services strategic objectives;
- ii) Increase equitable access to environmentally friendly and sustainable water and sanitation services and promote hygiene behaviour change at scale;
- iii) Establish information management systems and strengthen monitoring, data collection, communication and sector engagement; and
- iv) Improve sector financing and financing mechanisms. The plan recognizes the importance of cooperation and collaboration between government, partners and civil society for required investments.

The table below summarizes projects underway in the health, water and sanitation sectors in Liberia at a total estimated cost of US\$116.72.

30

³³Government of the Republic of Liberia. **2010**. *Water, Sanitation and Hygiene (WASH) Sector Strategic Plan for Liberia, 2011-2017*. Ministry of Planning & Economic Affairs, Ministry of Public Works, Ministry of Health and Social Welfare, Ministry of Education, WaterAid, UNICEF, USAID/CHF – Global Communities, UNDP GoAL WASH Programme, WASH Liberia.

Table 6: Donor-assisted Projects in Health, Water & Sanitation

Project	Financier(s)	Cost (millions)	Objective(s)	Coverage
Liberia Urban Water Supply Project	World Bank	USD 10	To increase access to piped water supply services in the project area in Monrovia and improve the operational efficiency of Liberia Water and Sewer Corporation (LWSC).	Monrovia & LWSC
Liberia-Urban Water Supply and Sanitation Project (UWSSP)	AfDB	UA 26.1	To provide access to adequate, safe and reliable water supply and public sanitation services in Monrovia, Buchanan, Kakata, and Zwedru.	Monrovia, Buchanan, Kakata & Zwedru
Fostering Innovative Sanitation and Hygiene in Monrovia	AfDB	EUR 1.2	To increase access to sustainable and affordable sanitation services with improved hygiene and livelihood for Monrovia's urban poor.	Monrovia
Strengthening West Africa Public Health Systems (SWAPHS)	AfDB	USD 11.4	To help the country build human resource capacity and systems for emergency response and preparedness, and improve infrastructure and governance.	Liberia
Post Ebola Recovery Social Investment Fund (PERSIF)	AfDB	UA 2	To establish a Social Investment Fund that will finance demand-driven, small-scale activities that aim to improve community response to outbreaks.	Liberia
Ebola Fight Back Budget Support Program	AfDB	UA 40.2	To address the fiscal gap created by the epidemic, support measures to respond to the crisis, and help address longer term issues to develop economic resilience.	Liberia, Côte d'Ivoire, Guinea, & Sierra Leone

Source: Compiled from documentary review

3.4. Education

Liberia has developed a number of key policy documents on education, including those that aim to ensure gender equality and non-discrimination in education. The most comprehensive of these frameworks in the post-conflict era is the *Education Sector Plan 2010 – 2020* which outlines policies, strategies and priorities for reconstruction and the development of education in Liberia. The mission articulated in the plan is "to provide all Liberians with the opportunity to access and complete affordable education of a quality, relevance and appropriateness that meets their needs and that of the nation"; and the vision is "A system of education that is flexible, evolves with time and fully meets the needs and aspirations of the people individually and collectively as a nation." The goals for each level or kind of education as well governance of the sector that the paper discusses are as follows:

Table 7: Education Level and Goals

Level or Type of	Goal for each level of education
Education	
Pre-Primary / Early	To ensure that all children achieve their full potential and are ready for
Childhood	primary schooling by providing quality, integrated ECD services and
Development (ECD	programs for all children from zero to age 5 through an inter-sectoral collaborative approach;
Primary Education	Provision of resources necessary for all school age children, and others
	so desiring, to receive and complete primary education of a quality that adequately prepares them for lifelong learning
Secondary Education	Provision of resources that would allow all school age children, and others
	so desiring, to receive and complete a junior high school program of
	quality;
Technical Vocational	Provision of increased opportunities for the acquisition of relevant and
Education and	appropriate technical and vocational education and skills training of
Training	quality;
Teacher Education	Provision of competent, well-qualified and motivated teachers for all
	educational institutions;
Higher Education	Better regulation and monitoring while ensuring improvement in the quality and relevance of programs and institutions of higher learning; and
Management and	Establishment of processes through which the Ministry of Education is
Financing of the	able to manage an efficient and accountable decentralized system that
Education System	delivers relevant learning and training opportunities of quality.
Liberia Primary	Sought to restore primary education after years of functioning on an ad-
Education Recovery	hoc emergency basis following the end of the civil war in 2003. It resulted
Programme	in enrolment increase in the primary sector, from 260,499 during the
_	2005/2006 academic year to 308,748 in 2007/2008
Source: Compiled from docume	anto ravious

Source: Compiled from documents review

3.5. Social Protection

Social protection³⁴ is a component of the human development pillar of the overarching AfT, and to contribute to this pillar, the *National Social Protection Policy and Strategy* outlines actions that should be implemented to facilitate the establishment of an effective social protection system capable of tackling poverty and inequality in the country. It envisions the progressive establishment of a comprehensive social protection system in Liberia by 2030. The overall policy objective is "to build a social protection system that tackles extreme poverty, vulnerability and inequality in Liberia whilst contributing to economic growth and peace and security, through social protection programs which improve food security, access to health and education and enable the working poor to access improved income."

The specific objectives are to: i) strengthen Liberia's National Social Protection System to develop a nationally owned and implemented sector delivering coordinated and targeted protection programs; 5-year priorities include building a comprehensive and integrated management information system; developing an appropriate M&E framework; and developing and implementing

³⁴ The Policy and Strategy defines social protection as " a package of policies and programs, implemented as part of public action, that provide income or consumption transfers to the poorest, protect the most vulnerable against livelihood risks, and improve access to economic opportunities, with the aim of reducing food insecurity and deprivation, while increasing resilience of vulnerable households and groups to shocks" This package comprises social assistance programs (i.e. cash and in kind transfers, fee waivers and school feeding); social insurance programs (i.e. pension schemes, micro-insurance schemes); and social legislation (mechanisms that protect employees from risks).

a fiscal strategy for expansion of social protection interventions; ii) provide social assistance to support the poorest and most vulnerable groups including children, the disabled and the elderly in attaining an improved standard of living consistent with a minimum social protection floor, and which enables those with labour capacity to graduate from extreme poverty; iii) provide social insurance to the poorest and most vulnerable to protect them against risks and shocks; and iv) improve coordination and strengthen linkages to policies and programs of other sectors, to ensure the poorest and most vulnerable households, people and groups can access basic social services and engage in economic activities to enhance acquisition of assets and capital as well as protect against risks. The priorities for social assistance include progressive expansion of the unconditional social cash transfer providing minimum income security to at least 25 percent of extreme poor households; expanding school feeding to a national program.

Following the review and approval of the policy by the Cabinet in July 2013, an act of the legislature transferred the Department of Social Welfare from the Ministry of Health to the Ministry of Gender and Development, forming a new Ministry of Gender Children and Social Protection in October 2013.

Among interventions that have been undertaken in the last decade to address poverty and household food insecurity is the social cash transfer pilot that was implemented in Bomi County from 2009 to 2012 by UNICEF with funds from Japan and the European Union. The pilot was later scaled up to include Maryland County following an evaluation conducted by Boston University (UNICEF 2012). The overall objective of the pilot was to contribute to poverty reduction, and improve the well-being and food security of the most vulnerable population. By December 2014, it had reached 3,813 beneficiary households in the two counties.³⁵ An impact evaluation conducted in 2014 found evidence that the program improved food intake, educational performance among school-age children, housing quality, and asset ownership among the program's extremely poor beneficiaries (Subah-Belleh Associates). The study also found evidence of multiplier effects that enabled the economic benefits of the cash transfers to go beyond the immediate beneficiaries to the entire community.

The outbreak of EVD affected the poor and most vulnerable in particular. As part of humanitarian response, over 15 NGOs and UN partners and the Ministry of Gender, Children and Social Protection implemented Ebola-related cash transfers to restore livelihoods. Results from a recent evaluation of UNICEF's supported pilot social cash transfer program implemented by the Ministry clearly showed that recipient households still continued to perform better than many other vulnerable households during the Ebola crisis. The World Bank, as part of its efforts to support the Government in its response to the Ebola crisis also provided a grant of \$5.1 million for cash transfers to Ebola-affected and labour-constrained households. This led to expansion of the cash transfers programs to 4 counties and resulted in coverage of 8000 households and with support from the UNDP, an additional 3000.

Building on lessons learned from the Ebola response, the Government with support from the World Bank has designed a new social safety net project. The project development objective is to establish the key building blocks of a basic national safety net delivery system and provide income support to households who are both extremely poor and food insecure in the Republic of Liberia.

³⁵ These two counties were selected based on the 2006 Comprehensive Food Security and Nutrition Survey (CFSNS) which ranked them as the most food insecure counties in Liberia.

The project consists of the following three components: (i) strengthening of the National Social Safety Net System through the development of an information system for the delivery of social assistance, data collection and household registration and an eligibility screening mechanism to assess the poverty and food insecurity conditions of households; (ii) cash transfers to extremely poor and food insecure households through the provision of income support to about 10,000 extremely poor and food insecure households; and (iii) project management and capacity building to enhance the capacity of the Ministry of Gender, Children and Social Protection to implement the project and strengthen coordination at the national and subnational levels.

In April 2016, the World Bank Board approved a loan of US\$10 million that is awaiting approval by the Legislature. As a co-financier, USAID has committed to providing an additional US\$ 6 million to build the Social Registry. Another partner is the International Labour Organization (ILO) which plans to support establishment of a social protection floor through a costing of social protection interventions and a national dialogue.

The World Bank is also funding a Liberia Youth Opportunities Project that it approved on November 6, 2015 for US\$10 million. The project development objectives are to improve access to income generation opportunities for targeted youth and strengthen the government's capacity to implement its cash transfer program. The project has four components: (i) Pre-employment Social Support and Household Enterprises for Urban Youth, addressing youth labour market participation and behavioural constraints; (ii) Productive Public Works and Life Skills Support, providing vulnerable youth in rural areas with immediate consumption smoothing support through productive public works and life skills training; (iii) Capacity Building for Cash Transfer Program, supporting the building blocks for a basic safety net system, including (a) improving targeting; (b) strengthening ICT systems and electronic payments systems; (c) establishing information management systems; (d) ensuring a functional M&E system; and (e) strengthening of social accountability and grievance redress systems; and (iv) Project Implementation and Coordination, supporting implementation and coordination across ministries and agencies.

3.6. Environmental Protection, Climate Change Adaptation and Disaster Risk Management

Liberia has adopted several policies and strategies to address environmental degradation, adapt to climate change and mitigate disaster risks. The most prominent of these are as follows:

Environmental Policy of Liberia: The overall policy goal is to "ensure long-term economic prosperity of Liberia through sustainable social and economic development which enhances environmental quality and resource productivity on a long-term basis that meets the requirements of the present generation without endangering the potential of future generations to meet their own needs". ³⁶ The policy seeks to: i) maintain ecosystems and ecological processes essential for the

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³⁶ The guiding principles of the policy include sustainable natural resource use and sound management; land security and resource tenure; constitutional right to a healthy environment; development and dissemination of environmentally friendly, socially acceptable and economically viable technologies; food security strategies linked to sustainable natural resource and environmental development; increased awareness; enforcement of environmentally related laws; public and private sector planning based on analysis of environmental and social costs or benefits foregone as a result of environmental damage and/or degradation; integrated and multi-sectoral systems approach to resource and environmental planning; regular monitoring, evaluation and assessment of the environment; effective involvement of women and youth in natural resource policy formulation, planning, decision making and program implementation; opportunities for communities and individual resource managers to sustainable manage their environment; Use of incentives in addition to regulatory measures; Decentralization of decision-making to the appropriate level of government and civil

functioning of the biosphere; ii) ensure sound management of the natural resources and the environment; iii) protect human, flora, fauna, their biological communities and habitats against harmful impacts, and to preserve biological diversity; iv) integrate environmental considerations in sector and socio-economic planning at all levels; throughout the nation; and v) provide common solutions to environmental problems at regional and international levels.

The specific objectives are to: i) ensure a quality environment, good health, and a decent well-being for all residents in Liberia; ii) use the Liberian environment in such a way that will be beneficial to the present and future generations; iii) halt and reverse the current environmental degradation, manage the ecosystems in the biosphere for the maintenance of diverse biological diversity; iv) raise public awareness and promote understanding of the essential linkages between socio-economic development and environmental protection and to ensure that environmental knowledge becomes an integral part of the education system; v) encourage the participation of the civil society, NGOs, CBOs, and private sector in the proper management of the environment; vi) foster communal management of the environment on common or customary land; vii) enact or promulgate environmental legislation and regulatory measure, which will be complemented by social and economic incentives and institutional arrangements to influence positive environmental management; viii) establish a resource inventory and environmental accounting for accurate monitoring of the state of the Liberian environment; and ix) ensure actual costs for environmental use and abuse are borne by the user under the 'user pays' and 'polluter pays' principles.

The 2012 National Disaster Management Policy seeks "to enhance national and local capacity to minimise vulnerability and disaster risks, prevent, mitigate and prepare for adverse impacts of hazards within the context of sustainable development." Its policy objectives are to: i) create a foundation for the development of an effective and functional legal, institutional framework and good governance for disaster management, by getting the national legislature to pass an Act into Law creating the NDMA as an autonomous body; ii) provide the basis for sound disaster risk management by local and national organization, capacity enhancement and clear allocation of roles and responsibilities; ii) provide overall direction for integrating disaster risk reduction into development, recovery and humanitarian response policy and plans; iv) contribute to national risk management applications for sustainable national development; and v) strengthen disaster preparedness for effective, efficient and timely emergency response.

Strategies to effect the policy objectives are to: i) establish effective, efficient, timely and functional legal and institutional system for DRM; ii) strengthen disaster preparedness for effective, efficient and timely emergency response; iii) establish systems for and improve risk identification, assessment, monitoring and early warning of disaster risks; iv) enhance information and knowledge management for disaster risk management, and v) contribute to local and national risk management applications for poverty reduction.

There also is the *Liberia Food Security Cluster: Emergency Preparedness Plan (Standard Operating Procedures)* of November 2015 which arose from the humanitarian response to the EVD epidemic. The plan placed emphases on the four pillars of food security (access, availability, utilization and stability) during the preparation and roll-out phases of the response, and also

society; Use of the most cost effective means to achieve environmental objectives; and Sustainable harvesting of the natural resources and ecosystems.

identified medium term priorities. It identified the National Disaster Management Agency of Liberia as the coordinating entity for responses.

According to the *National Adaptation Programme of Action (NAPA)* of 2008, climatic risks pose a serious challenge to emerging development priorities in agriculture, fisheries, forestry, and public health. NAPA identifies sector-specific activities to counter. These are: i) Agriculture - crop cultivation in response to changing rainfall patterns of rainfall; Intercropping, irrigation, and the optimization of lowland/swamp farming practices; pest control; and maintaining fast growing nitrogen fixing tree species to improve soil fertility and multiple-purpose tree species on farmlands to maintain forest cover; ii) Public Health - identifying and disinfecting stagnant water sources; promoting hygiene and sanitation education and awareness; and strengthening efforts against malaria, including use of herbal treatments; iii) Fisheries - reducing the number of fishing licenses issued to foreign vessels; raising the licensing fee for demurral trawlers; regulating fishing practices to prevent overexploitation and fishing in restricted areas; instituting appropriate surveillance of Liberian fishing waters; funding research aimed at fishery-related database development; and formulating a national fishing policy;³⁷ and iv) Forestry - climate change awareness and finalization of wetlands legislation

Adaptation initiatives that the NAPA has recommended for prioritization include capacity building, dissemination of climate change and adaptation information and mainstreaming adaptation to climate change into key sectoral policies. Interventions to reduce the vulnerability of local communities to climate variability include integrated cropping/livestock farming, monitoring of climate change, and establishment of coastal defence systems for affected sea-side cities.

3.7. Gender

Women and girls in Liberia face entrenched and pervasive barriers that limit their ability to realize their full potential in the society, including participation in the political, economic and social domains. Although recent improvements in legal and policy frameworks have sought to reverse this situation to some extent, customary practices, norms and biases continue to prevent the equality of women and men. The *Liberia National Gender Policy (2009)* provides an overall context for mainstreaming a gender perspective into the national development agenda, and a mechanism for public sector and other stakeholder accountability for eliminating all forms of gender based discrimination.³⁸ The vision is "a just society where girls and boys, women and men enjoy their human rights equally on the basis of non-discrimination; where the full potentials of all, irrespective of sex, are harnessed towards achieving equitable rapid economic growth and equal access to social, financial and technological resources."

The overall goal of the policy is to promote gender equitable, socio-economic development and improve national capacities for enhanced gender mainstreaming in the national development processes, and the overall objective is to serve as a framework and guideline in mainstreaming gender and empowering women and vulnerable groups in the national development processes. Other related objectives are to enhance women and girls empowerment for sustainable and equitable development; create and strengthen gender responsive structures, processes and

³⁷ Several of these actions, including the latter, have been successfully completed or are under development.

³⁸ Liberia National Gender Policy (Abridged Version). Ministry of Gender and Development 2009

mechanisms for development in which both women and men participate equally, have access to, and benefit from all the country's resources.

Several sectors have adopted policies and strategies consistent with the principal gender policy. These include the *Strategy for Mainstreaming Gender in the Agriculture Sector* which was developed by the MOA in 2011 to contribute to the integration of gender in agriculture programs, policies and plans, raise the level of gender awareness and sensitivity within the Ministry, increase women's access to key agricultural resources and services, and enhance women's participation in agricultural research, public services, training and leadership roles in key agricultural institutions and farmers' cooperatives. Another is the *National Girls' Education Policy* that was adopted in 2011 by the Ministry of Education. The policy seeks to overcome barriers to female education through several measures that include meeting appropriate MDG targets, recruiting and training more female teachers, providing counselling in schools for girls, ending the impunity of teachers who commit sexual abuse and assault of students, and increasing the availability of small-scale scholarships for girls.

Strategic Frameworks and Programming of Development Partners

Official development assistance (ODA) plays an important role in Liberia's socio-economic development. According to the semi-annual Development Assistance Report (DAR) of the Ministry of Finance and Development Planning, FY2014/2015 aid projection amounted to US\$ 833,884,679 when compared to the FY2013/2014 projection of US\$ 785,215,100, a 6 percent increase (Ministry of Finance and Development Planning. Division of External Resources and Debt Management. *Midyear Development Assistance Report (July – December 2014) FY 2014/2015.* February 2015). The health sector was the largest aid recipient, followed by social development services, infrastructure and basic services, education, and agriculture. Twenty – five partners contributed over this period through projects and technical assistance. On the basis of disbursements, the top multilateral donors were the European Union (EU), International Development Association/World Bank, International Monetary Fund, and the European Investment Bank (EIB); and the top five bilateral donors were the United States Agency for International Development (USAID), Sweden, Japan, Ireland and Germany.

The country strategic frameworks and/or project activities of a sample of donors who have contributed to food security and nutrition activities in the country are discussed below.

United Nations System and Agencies:_The UN system's assistance to Liberia is articulated in the One Programme – Liberia (United Nations Development Assistance Framework (UNDAF)) 2013 – 2017. The objective of UNDAF is to improve the lives of the people of Liberia, particularly the most vulnerable, in alignment with national priorities. In line with the AfT, the One Programme pillars, which are providing the scope and strategic direction of the system's support over the five-year period are peace, security, and rule of law; sustainable economic transformation; human development; and inclusive governance and public institutions. The sustainable economic transformation pillar supports improved natural resource utilization and food security, private sector development, and improved access to basic infrastructure and energy. The system is assisting Liberia to improve health and nutrition services, social welfare and social protection, as well as water, sanitation and hygiene under the human development pillar.

Three UN agencies that play prominent roles in food security and nutrition are the World Food Programme (WFP), Food and Agriculture Organization (FAO) and the UN Children's Fund (UNICEF). WFP is providing assistance in the areas of emergency preparedness and response, resilience building and capacity strengthening. Key project activities include support for residual refugees from Côte d'Ivoire, provision of school meals, nutrition, asset creation, livelihood asset and market promotion, community grain reserves and food security monitoring, management information systems and disaster preparedness and response capacity strengthening. Through its Country Programming Framework 2016 – 2019, FAO's assistance is targeted towards enhancing capacity for policy development and advocacy to the agriculture sector and sub-sectors; improving production, productivity and competitiveness, value addition and marketing as well as diversification; and increasing sustainable natural resources/forestry management and utilization. The main components of UNICEF's Country Programme 2013 – 2017 include young child survival and development, inclusive quality, child protection, and policy advocacy, communication for development and partnerships.

Selected Development Partners: The goal of the Country Development Cooperation Strategy (2013 – 2017) of the top bilateral donor, USAID, is 'strengthened Liberian institutions positioned to drive inclusive economic growth and poverty reduction'. The development objectives of the agency's assistance are more effective, accountable and inclusive governance; sustained, market-driven economic growth to reduce poverty; improved health status of Liberians; and better educated Liberians. In the area of food security and nutrition, USAID's *Feed the Future* agriculture and food security programme sought to increase agricultural production and rural incomes; stimulate private enterprise growth and investments, prevent malnutrition through early identification and treatment; and develop community capacity to increase access to education for jobs. USAID also supported farm to market roads rehabilitation, capacity strengthening of the Liberia Electricity Corporation, and forest resources management.

Over the 2014 – 2020 the EU is providing direct support in the areas of good governance, energy, agriculture and education; and through regional West Africa funds, funding the West Africa Power Pool and regional economic integration and competitiveness through which Liberia is indirectly benefitting. The EU's investment bank (EIB) is also financing critical infrastructures such as the rehabilitation of the Mount Coffee hydro and the Roberts International Airport runway rehabilitation as well as access to microcredit through the Access Bank.

Two international financial institutions, the World Bank and the African Development Bank are also providing substantial assistance to Liberia. Under its Country Partnership Strategy 2013 – 2017, the World Bank is investing in economic transformation, human development, and strengthening of governance and public institutions. To promote and encourage economic transformation, the Bank is providing support to facilitate improved management and productivity in agriculture, forestry and fisheries; improved enabling environment and increased access to finance for SMEs; increased access to reliable and affordable energy; and increased access to reliable transportation services.

Through pillar 1 of its two strategic pillars of its Country Strategy Paper 2013 – 2017 (i.e. promoting inclusive economic growth through transformative infrastructure investments and enhancing governance and the efficient management of resources), the African Development Bank is assisting Liberia with energy and road infrastructure to promote the private sector, increased agricultural production and market access, employment creation, and improved welfare

and public service delivery. Capacity building, environmental sustainability and gender equality are mainstreamed throughout all of the bank's projects.

Chapter 4: Gaps, Opportunities and Priority Actions

his Chapter discusses key gaps in the current national response to Liberia's food security and nutrition challenges, and presents suggestions for the way forward towards achieving zero hunger in Liberia by the year 2030. It presents priority actions and recommendations that are key elements of the national road map towards achieving zero hunger. These key actions are informed by the findings and analyses of information contained in the preceding chapters, the gaps and opportunities discussed in this chapter, as well as the key outcomes of extensive consultations with farmers, community leaders, private sector practitioners, policy makers and financial partners also outlined below.

4.1. Main Outcomes of Consultations

During the strategic review, it was essential that consultations were held to discuss food security and nutrition issues with individuals and groups in local communities across Liberia. As such, five regional consultations were conducted which yielded 11 key messages that are outlined below in the words of the participants themselves.

Improve implementation: We have many good ideas on paper. Most of these are in the form of policies and strategies. However, implementation is a problem. Implementation is weak. Good intentions are not enough. The Government must implement what it says on paper it will do.

Increase access to agricultural credits: We remember during the seventies, there was the Agricultural Cooperative and Development Bank (ACDB). It was the farmers' bank. It used to give credits to farmers without too much hustle about collateral. Since the end of the war, we have not seen anything done to bring the ACDB back. We think the government should consider the reestablishment of the ACDB.

Re-establish agricultural development projects: We remember in the eighties the World Bank came with the Agricultural Development Projects (ADPs). These were projects worked directly with farmers: training farmers, demonstrating good farming practices, working with cooperatives, assisting farmers to get improved seeds, fertilizers and other essential supplies and tools, built farm to market roads, provided advice on health, in particular on schistose, malaria control and other issues, and helped farmers to increase their production and productivity. The ADPs were really helping us farmers. The Government should work with the World Bank or other donor partners to consider bringing back the agricultural development projects, but adapt them to the new realities on the ground today.

Develop ways to protect farmers: Farmers are experiencing problems when it comes to the selling their produce in the local markets. They do not get good prices for their produce when they bring them to the markets. This is especially true for those markets in and around Monrovia. These markets are controlled by people we locally call **"go-buy-chop"** market women. These are the people that "set" the prices for our goods when they arrive at the markets. Whether you like it or not you are forced to sell because if you don't accept their prices, then your goods will leave in

your hands and spoil. So, we suggest that the government should find ways to protect farmers so that they receive good money for their products because they work hard for them.

Encourage institutional consumption of locally-produced food: One way we think the government can help farming communities is to force relevant government institutions such as schools doing school feeding programs and government hospitals, to purchase local produce such as eddoes, cassava, and plantain, fruits and vegetables from local farmers.

Add nutrition to curricula: This nutrition business is important. But if it is so important, why have we not included it in the curriculum of our schools? The government should introduce nutrition in the curriculum of schools, commencing with primary and junior high schools. To support this idea, the government should provide scholarships to qualified students to study and specialize in this area, so that they can come back and teach our people about nutrition. Even in the local communities, the government should have people telling our people about this nutrition business. They even talk about this backyard gardening business and gardens on the "empty" lands in the cities, particularly the swamps. Gardens in the swamps are very good for producing dry season vegetables for market women to buy and sell. This is giving us plenty money. Government must therefore push the farming business in swamps and empty lands in the cities.

Enhance due diligence in identification of farmers: Most of the time when the government and donors bring in agriculture projects to help local communities, the assistance ends up going to people that are not farmers. So, the government should check well to ensure that projects intended to assist farmers reach those for whom they are intended. So, the government and donors should put in place a way of identifying and selection of real farmers. For example, they can look at the land holdings, types of farming, source of labour, among other information. Then once the selection is made, they should consistently follow-through and follow-up.

Enhance local engineering in food production: We hear that in other countries, local engineers are all over the place assisting local farmers build to produce simple machines for processing such things as cassava into gari or flour, or producing local animal feeds and fertilizers. Government should promote the training and use of local blacksmiths for producing farming tools throughout the country. This will bring back the blacksmiths as important people in the communities as it was before.

Provide more support to fisheries and livestock: the fisheries business is good. We can grow fish on land right in our communities. The government should teach, encourage and provide more support to fish farming business. Also, the government should find ways of supporting the farmers who have small ruminants business. In these areas, the government should provide lands and guarantee these lands for fishing and small ruminants farming.

Provide storage and preservation facilities: Our people can produce more food. The problem is, where will they keep it? There are no commercial storage and preservation facilities available. This is one area that the government needs to either step in or attract investors to come in and work with farmers and farmers' groups, market women and the transport people to make things easy for farmers and market women. This and the processing business we talk about, will add what you people call value to local production. Storage facilities at market places will protect perishable goods from spoiling like they do now.

Improve and expand infrastructure: The road business is giving us hard time. Even when farmers produce, the road conditions are so bad, especially during the rainy season, that by the time they move from the farms to the general markets, most of the foods have spoiled.

Government needs to do something about these roads business. During the normal time, the government put lot of emphasis on farm-to-market roads. Along with the road issue, the government should also expand "light" (power) and telecommunications. This time, even we in the villages can read some things on the internet that help us, one way or another. By the way, this processing business we are talking about in agriculture, it will not work if there is no good "light".

4.2. Key Gaps in the National Response

The national response has been less than satisfactory as it has not yielded the results needed to attain and sustain food security and nutrition, as well as the foundation for making significant progress towards zero hunger by 2030. The key gaps identified in the national response are discussed below.

Inadequate policy coherence and multi-sectorial coordination: Despite progress over the years, policies and strategies formulated by food security and nutrition institutions in Liberia are often misaligned. While policies and strategies exist in the agricultural sector as well as in nutrition, these policies are not generally aligned and sufficiently linked to the policies and strategies of other sectors, such as health, water and sanitation, and education, whose activities also impact food security and nutrition.

The institutional framework proposed by the 2015 National Food Security and Nutrition Strategy for multi-stakeholder coordination is credible and feasible, but is yet to be sufficiently operationalized and resourced. The framework comprises: i) a Food Security and Nutrition Steering Committee (FSNSC) chaired by the Vice President; a Secretariat that will manage the day-to-day activities of the FSNSC and will be a semi- autonomous body reporting directly to the Steering Committee Chair who is the Vice President; a food security and nutrition surveillance system; a consultative Food Security and Nutrition Stakeholders' Forum that includes appropriate public institutions, civil society, and international NGOs and agencies that meets once a year to assess progress on the implementation of the national FSNS; and four technical working groups (TWG) that will focus on reviewing the policy, strategy and programming needed to implement the action plan. The lack of operationalization of this coordination mechanism has resulted in limited, integrated and cross-sectoral programming, such as for home grown school feeding, and advocacy for modernization of food value chains, among other things.

Weak institutional capacities: Liberia has not recovered from the crippling effects of 14 years of civil conflict on institutional capacity. Although some of the experienced and highly trained Liberians who left the country because of the war have returned, others who were sent abroad for advanced degrees and professional training are in-country, and significant progress has been made to provide on-the job training and to improve academic quality at the country's higher education institutions, significant gaps persist with respect to human capacities as well as in systems and processes.

National and local institutions have weak capacities to deliver essential services such as in strategic planning, implementation, monitoring and evaluation as well as priority setting for comprehensive policy, legislation and regulation (FAO CPF 2016-2019). These challenges are particularly evident at public institutions with food security and nutrition responsibilities. For

example, the Ministry of Agriculture has limited capacity to deliver crucial services, respond to reforms adequately, provide effective coordination, and monitor its partners in the sector. There are still too few researchers at the Central Agricultural Research Institute (CARI) and agricultural extension agents at the county level. At the Ministry of Health which has jurisdiction over nutrition, the capacity of its nutrition staff and that of its public health and primary health care in core nutrition functions still leaves much to be desired. Furthermore, there is dearth of teachers and other academics in Liberia with expertise in nutrition and food security.

Particularly concerning is the Government's limited capacity for emergency preparedness and response, and community management of seasonal food price fluctuations which are essential to ensuring access to food. The Ebola outbreak unmasked significant weaknesses in national capacities. To a large extent, the explosion of the outbreak into a full-blown public health pandemic demonstrated the inadequacy of the national health system which had already reached the breaking point even before Ebola, and virtually collapsed under the weight of the pandemic. Food availability and access were also constrained because of disruptions to agriculture and other livelihood sectors as well as the already low coverage of basic social services. National and decentralized capacity for emergency preparedness and response and a credible program for community management of seasonal food price fluctuations, which could have helped save lives and livelihoods, were absent as Ebola exerted untold suffering on Liberians.

Low public sector resource flow: Resource flow from public finances to the agricultural sector has been low. While the Maputo declaration mandates that African countries commit at least 10 percent of their national budget to agriculture, Liberia's current budgetary allocations to the sector over the past three years have not exceeded 3 percent per annum. The adverse impacts of the government's limited fiscal space are not imperilling growth and development of the agriculture sector only, but also other food security and nutrition sectors such as health, water and sanitation, rural infrastructure and education. The result has been an increasing dependence on donor assistance for non-recurrent expenditures, but this source of resource inflows has been on the decrease over the last decade.

Crippling infrastructure deficit: Liberia ranks 122 out of 140 countries in the 2015/2016 Global Competitiveness Index of the World Economic Forum; and in the bottom quintile of African countries on an infrastructure index comparing all countries on the continent.³⁹ Along with limited human capacity, Liberia's infrastructure (i.e. roads and bridges, water and sanitation, power and information and communications technologies) deficit has become a major constraint to economic growth and social development due to underinvestment in pre-war years and the pillaging and devastation of the decade-old conflict.

Through the AfT, Government has recognized that the significant infrastructure deficit Liberia faces is a crippling constraint to growth and inclusiveness, and thus has prioritized infrastructure development in the areas of energy, roads and bridges, transport, post and telecommunications, information communication technology, and housing and public buildings.⁴⁰ Some progress has thus been made in some of these areas. Pavement of the *Fish Town – Harper Road* is underway; a 1,357-km-long double circuit high voltage (225 kV) line to connect the national networks of Côte

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³⁹ African Development Bank. Liberia Infrastructure and Inclusive Growth. 2013.

⁴⁰ The AfT ranks weak infrastructure first among key challenges; others are difficulty in accessing finance, difficulty in launching new export activities, weak and unclear property rights, low levels of human development, high administrative and regulatory costs, and continued security and stability risks.

d'Ivoire, Liberia, Sierra Leone and Guinea is being constructed through the *Regional Electricity Interconnection Project*, and the first turbine under the Mount Coffee Rehabilitation Project which began in May 2012 was inaugurated in December 2016, with full completion that will have installed capacity of 88 megawatts expected at the end of August 2017.

Despite these achievements, market access still remains limited for rural communities. Many smallholder farmers who are capable of producing surplus products often unable to sell their produce due to underdevelopment of agricultural value chains, including insufficient access to agricultural inputs and credit as well as opportunities for food processing, transformation, preservation, storage, transportation and marketing. To open-up markets so that local farmers can get their produce to market and negotiate favourable prices depends on the availability of rural infrastructure, particularly feeder roads as well as storage, processing and marketing facilities which are either non-existent or poorly maintained.

Poor climate for significant private sector investment: Liberia's private sector suffers from horizontal inequity, with power and privilege exerted by foreign and domestic elites and poorly developed capacity within the indigenous segment of society. Many state enterprises crowd out private actors; tax incentives and related macroeconomic policies are biased in favour of foreign investors; and the financial sector is narrow and underdeveloped, characterized by limited financial instruments, a low level of financial intermediation, and limited public trust. There is a shortage of credit for small and medium-sized enterprises, and particularly for the agricultural sector. In the three- year period between 2013 and 2015, agriculture accounted for 5.5 percent, 6.8 percent and 7.3 percent of total bank credit, respectively (CBL Annual Report 2015).

The Central Bank recently established a US\$10 million risk sharing facility for loans to export-oriented agro-businesses and input suppliers. But the lack of a financial institution that would cater exclusively to the needs of agriculture in particular, and those of the entire food security and nutrition sector, continues to discourage the investment of Liberians in these spheres of business. In the seventies and eighties, the Agricultural Cooperative and Development Bank (ACDB) helped Liberia's farming community by both mobilizing local capital and supplying agricultural credit. Regrettably, since the closure of the bank, as a negative by-product of the Liberian civil war, it has not been re-commissioned. Moreover, the government's financial sector reform strategy which sought to promote competition and efficiency in the system to allow it to more effectively support development of the private sector has yet to take off.

Limited public awareness of good food security and nutrition practices, particularly in rural communities: Behavioural change is not only necessary for agriculture as a business, but more importantly for motivating Liberians to practice essential nutrition actions and to utilize improved water and sanitation facilities when available. Unfortunately, there is no comprehensive and effective communication strategy to reach the most people at the lowest possible cost with appropriate and accurate information. The development and implementation of such a strategy has made it difficult to promote behavioural change toward good practices, strengthen awareness on and encourage good practices such as dietary diversification, and promote better use of locally-available nutritious foods in the country.

Limited food production focus and lagging agricultural modernization: While the non-food sub-sector (rubber, oil palm, cocoa, and coffee) attracts relative more private sector investment, the food sub-sector comparatively attracts less direct inflows of private capital. Furthermore,

despite the fact Liberia has experienced a subsistence agricultural economy throughout most of its existence, and given that the only means to upscale food production entails mechanization, commercialization, and modernization of the food production sub-sector, the requisite political will and commitment have not been sufficiently mobilized to change the culture of agriculture, particularly food production.

Limited employment of technology: Technology today impacts every aspect of life. Agricultural technologies in the areas of solar power energizing irrigation systems, food storage warehouses; and the use of the internet to predict weather patterns, receive market information and research findings on farming methods, improved seed varieties, and better use of fertilizers and pesticides, all enhance agricultural production. Liberia's agricultural pursuit is currently limited in the employment of technology.

Low perception of agriculture in wealth creation: Most Liberians, particularly the youth, have a limited and distorted view of agriculture. Most see agriculture only from the lenses of subsistence farming and the poverty that has come to be associated with it. Liberians do not see agriculture from the prospective of business: commercialization and wealth creation. This orientation needs to be addressed and changed. If agriculture holds the greatest potential for employment, and if young people are to be attracted to the sector, then Liberians must begin to see agriculture from the context mechanization, commercialization and wealth creation through the total value chain - from production, harvesting, and storage to processing and distribution.

4.3. Opportunities

Liberia has multiple policy and strategic frameworks to facilitate improvements in food security and nutrition, but must now take advantage of the opportunity to not only make zero hunger a national goal, but ensure that appropriate legal and programmatic actions are taken to achieve such a goal. One important opportunity that the current situation presents is in the domain of private sector investments. If food production is to be massively increased and improvements in nutritional outcomes assured, to the extent that Liberia achieves food and nutrition security, or achieves the capacity to feed itself with foods that nutritious, public sector investments will be insufficient because of the many competing demands on already-limited public finances. Furthermore, it is clear that for growth and development to become sustainable, governments must focus on enabling meaningful private sector participation in the economy, including through good macroeconomic policies, infrastructure development and transparent regulatory arrangements; this reduces risks for private actors and encourages them to invest in those activities consistent with their objectives.

The current food security and nutrition situation thus creates opportunities for private sector investments along the total food and nutrition value chains. Increased investment is needed in nutrition-sensitive and climate-smart agriculture as well as in the local production of nutritious food products. Value addition along the food and nutrition chains will, in turn, increase employment opportunities and foreign exchange earnings, which will also motivate and engender increased productivity and dietary diversification for a Liberia free of hunger.

4.4. Priority Actions

SDG 2.1: End hunger and ensure access to safe, nutritious and sufficient food all year round

Achieving SDG 2 in Liberia is not a sectoral matter, but a crosscutting issue involving multiple sectors such as health, water and sanitation, social development, education and infrastructure. Accordingly, the roadmap for making progress towards the identified key actions and recommendations will require a coordinated, multi-sectoral approach to leverage linkages across the relevant sectors in harmonized ways that achieve the goal of achieving zero hunger in Liberia.

Implement existing policies and strategies: Policies such as the Food and Agriculture Policy and Strategy, Food Security and Nutrition Strategy (2015) and National Social Protection Policy and Strategy. They have adequately provided for improving access through an integrated, multi-sectoral approach involving other sectors, and should be implemented to the extent possible. However, they could be reviewed and updated with the aim of ensuring they are consistent with current priorities, including Liberia's commitment to the 2030 Agenda and the country's zero hunger ambitions or, as was done with the development of LATA, annual plans linked to the prevailing context could be developed to reflect realities of the day and to operationalize these framework documents. The latter option is preferred because it would be much more efficient, and also would ensure that whatever document is formulated is not outdated by the time implementation commences.

Create employment opportunities, including in the agriculture sector: Support programs to enhance general employment as a means of generating and increasing household disposable income. Programs, particularly those focused on value addition, should be designed to get women and youth directly engaged in the food sub-sector; public works projects should embed components that are targeted to employing Liberia's most vulnerable populations; and more assistance should be given to the informal sector to boost its capacity to create employment opportunities. Much scope for food or cash for work schemes still exists in Liberia, and these should be studied and implemented as and when feasible.

Broaden access to education: Education is the best weapon against poverty and hunger. It is especially powerful in underdeveloped countries because it means better opportunity and more access to income and food. Education enhances opportunities for employment which in terms increases household incomes, support enhanced health status, hygiene and sanitation practices, and nutritional awareness. Specifically, the training of youths in marketable and entrepreneurial skills is essential

Empower women: Women constitute a greater proportion of the farming population. High rates of hunger have been shown linked to gender inequalities. One way to address hunger is to continuously empower women to gain access to food and be providers. Specifically, government should increase education of girls, promote agriculture land ownership for women, ensure equal access to credit for women, train women leaders in the establishment and maintenance of women groups in various aspect of the food value chain.

Strengthen access to markets: The road network in the country needs to be expanded and properly maintained year-round. Poor road conditions compromise the efficient movement of agricultural produce to markets. In the absence of storage and processing facilities, limited and poor primary, secondary and tertiary roads contribute to the waste of some agricultural products, especially perishable produce and ultimately serve as a disincentive to farmers.

Accessibility is also about the capacity of citizens to purchase agricultural products. Given the high level of poverty, the government should enhance and expand its poverty reduction programs so that many ordinary Liberians can earn incomes and enhance their capacities to purchase basic household food.

Invest in infrastructure: A purposeful effort should be made by the government to invest in the expansion and maintenance of infrastructures across the country. Infrastructures impact all aspects of life, including activities in the agricultural sector. Accordingly, meaningful efforts attending to the hunger issues in Liberia must be conceived, planned and implemented within the context of a holistic, multi-sectoral framework. Key infrastructures that must be attended are roads, power and telecommunications.

Expand social protection programs: Many households are still food insecure. Collaboration between relevant government agencies, such as the Ministry of Health, the Ministry of Agriculture, and the Ministry of Gender, Children and Social Protection, should be instrumental in identifying and targeting vulnerable households for assistance such as social cash transfer, school feeding, social insurance and essential packages for education. The piloted social cash program proved successful as it assisted vulnerable families meet food, education, and other basic needs. The program should now be institutionalized and expanded to other parts of the country drawing heavily on the experiences of the pilot projects carried out in Bomi and Maryland Counties. However, care should be taken to ensure that assisted households do not, over time, become assistance-dependent. The Social Protection Strategy and Policy should be a useful guide.

SDG 2.2: End all forms of malnutrition

Though chronic and acute under-nutrition decreased in Liberia since the end of the armed conflict, stunting rates of children and micronutrient deficiencies remain problematic. Nationally, 31 percent of children aged 6 to 59 months are stunted in their growth while the stunting rate for Monrovia, the region with improved access and abundance, is 27 percent. The prevalence rates at the county level are appalling, depicting high incidences of stunting and underweight in the south-eastern region of the country.

Micronutrient deficiencies are also a significant problem. A majority (59 percent) of children aged 6 to 35 months were found deficient in iron. For women, nearly 1 in 3 women was fond to be anaemic. Obesity is also a problem among women. The poor quality of diets is a contributing factor. Correspondingly, limitations in the national healthcare system do not support better nutritional and health status among the population. The same can be said of other related sectors such as education where educational attainment level of women is low and particularly correlated to child malnutrition.

The cost of doing nothing to address Liberia's nutrition insecurity, particularly malnutrition, has adverse generational consequences. According to the Cost of Hunger in Africa (COHA) program

of the AU Commission, which has led efforts to estimate the social and economic impacts of child undernutrition, annual costs associated with child undernutrition can range between 1.9 percent and 16.5 percent of GDP in a given year. Ghana is one of several countries that have recently undertaken the COHA analysis. The Ghanaian analysis estimated the associated cost to the domestic economy of malnutrition through health, education and labour in a single year. Although stunting had declined in the country over the years and prevalence at the time of the study (i.e. 2012) was 19 percent among children, total losses associated with child undernutrition were estimated at GH¢ 4.6 billion (US\$ 2.6 billion), which is equivalent to 6.4 percent of the country's GDP in 2012.

The Ghana report found that positioning nutrition interventions as a top priority for poverty reduction and broad-based development is often difficult, partly because of lack of data on their short- and long-term returns. Additionally, nutrition is too often regarded narrowly as "a health issue" only, when in fact it has broader social and economic implications. Liberia must overcome these challenges by doing what is right now, starting with the priority actions outlined below.

Improve Infant and Young Child Feeding: Focus on the nutrition of mothers and children during a child's first 1,000 days of life can have long-term consequences for growth, health and cognitive capacity. A mix of interventions including awareness and the direct provision of the right food are required. Foremost, mothers must learn to breastfeed and to do so exclusively for the first 6 months of a child's life. Following that, complementary feeding given to the child must feature extra nutrients such as vitamin A.

Adapt a community-based approach: Consistent with the action points already mentioned, the surest way to providing nutrition solutions that are linked with all other SDGs is to adapt a community-based approach. The rationale to this approach is that in order to address the problems of malnutrition on an equitable and sustainable basis, communities and households should be involved in the entire process of planning, implementing and evaluating nutrition programs as they would be involved in health and development programs. The point of departure will be to engage counties like Bong which already has a long a rich experience in community health to pilot community based nutrition.

The adapted approach would feature a community-based program with several distinct inputs: dietary improvement; food fortification; basic health services and agricultural extension services. Direct products of this model will include backyard gardens, community fishponds, consumption of micronutrient rich foods, use of iodized salt, improvement in antenatal care, mobilization of small farmers and households; and support of women farming groups. As show in the table below, outcomes of this process are numerous, ranging from behavioural change to increase in household income and the gradual elimination of micronutrient deficiencies.

⁴¹ Cost of Hunger in Africa (COHA) website. The COHA model is used to estimate the additional cases of morbidity, mortality, school repetitions, and dropouts and reduced physical capacity that can be associated to a person's undernutrition status before the age of five. In order to estimate these social impacts for a single year, the model focuses on the current population, identifies the percentage of that population who were undernourished before the age of five, and then estimates the associated negative impacts experienced by the population in that year. In general, the model estimates the associated economic losses incurred by the economy in health, education and potential productivity in a single year.

⁴² Cost of Hunger in Africa: Summary Report of the Social and Economic Impact of Child Undernutrition on Ghana's Long-Term Development. 2012.

Table 8: Input and outcomes for prevention and control of micronutrient malnutrition through community-based programs

Input	Output	Outcome
Dietary improvement: Food production for consumption; Information, Education and Communication (IEC); Food based dietary guidelines (FBDGs); complementary food production	 Number of home gardens; number of chicken and duck raising activities; number of community fish ponds Consumption of micronutrient rich foods (bioavailable) food combinations Dietary intake of enhancers Avoidance of inhibitors 	↑ Knowledge, Attitude and Practice (KAP) towards usage of micronutrient rich foods; ↓ micronutrient deficiency prevalence → gradual elimination major micronutrient deficiencies (IDA and VAD)
Food fortification: lodized and double fortified salt; other foods	 % household usage of iodized/ double fortified salt; % individual and household use 	↑KAP towards usage of micronutrient rich foods; ↓ IDA and IDD prevalence → elimination of IDA and IDD
Basic health services and community participation: antenatal care (ANC), immunization, parasitic control, hygiene and related activities/services	 Frequency of contacts with pregnant women (minimum 4 antenatal care contacts); % coverage of target groups 	Improved pregnancy outcomes (increased birth weights); ↓ IDA prevalence; ↓ worm infestation rates
Agricultural extension services:	 Mobilizing small farmers, households, women groups towards food production activities; number of poultry vaccinations held 	↑ Knowledge, Attitude and Practice (KAP) towards usage of micronutrient rich foods; increase in household income;↓ prevalence of micronutrient deficiency → gradual elimination

Source: Asia Pacific Journal on Clinical Nutrition, 2008

Align other sectors with nutrition goals: Agriculture, health, education, social safety nets all have a role to play in the advancement of nutrition; the private sector equally could have responsibility in the progress towards nutrition. However, until the respective programs and activities of the relevant agencies and sectors are designed and implemented with the common challenge of improving nutrition outcomes, very little will be achieved in the effort to control or prevent malnutrition in children especially at the cognitive stage of their development. Institutions should integrate their goals and donors should be encouraged to support rigorous impact evaluations and studies to build a richer evidence base of what works with nutrition-sensitive approaches in agriculture, health, social protection and other sectors.

Overall, an effective coordination mechanism is required among the key institutions involved in nutrition. Findings from key informant suggest that nutrition has not been given the prominence it deserves because institutions and agencies involve have adopted a standalone approach. They carry out their respective programs without due regards to what others are doing. Thus, institutions and donors must organize themselves in a forum where they meet regularly to collaborate and share experiences.

Direct more resources to nutritional programs: Considering that solutions to nutrition offers sound investments in the nation's future, government must prioritize budgetary appropriations to all nutrition programs. Government should accept that the absence of a firm support to nutritional efforts constitutes an economic toll not only to children and women but also to the nation as a whole. Efforts must be made to get donors and development partners to intensify funding toward the nutrition needs of the country.

Enhance human nutrition: Increase the production and availability of pulses and other leguminous plants to enhance human nutrition. Additionally, pulses have the potential of impacting livelihood opportunities through value addition of produce in farming and urban communities.

SDG 2.3: Double the agricultural productivity and the incomes of small-scale food producers

Agriculture in Liberia is a strategic sector because the single, largest segment of the population depends on this sector. The sector provides the greatest potential for increasing employment, reducing poverty, and increasing foreign exchange earnings. But to achieve these, the perception and culture of agriculture in Liberia must change. Liberia must move from subsistence farming to mechanized, commercial farming. Agriculture must be seen and attended to as a business. Particularly, funding to the sector must increase, primarily towards more investments in the production of food and the attainment of food and nutritional security. Accessibility to markets and affordability of food in local communities across the whole of Liberia must be expanded. More investments in the value chain development are required, especially in harvesting, storage, processing and marketing. Agricultural policies and programs, including land tenure and land-use issues, must be properly aligned, institutional frameworks rationalized, and interventions better coordinated at the central and local levels.

Move from subsistence agriculture to mechanized, commercial agriculture: Food production in Liberia is confined entirely to small-scale producers utilizing rudimentary tools and archaic production practices. Women constitute a greater proportion of the farming population, which is aging. Fewer young people are attracted to farming, while majority of them are migrating to urban centers in search of greener pastures and social amenities. This situation is depleting the available manpower pool in agriculture in rural communities. Agriculture must be mechanized: production, harvesting, and storage, processing and marketing. Improved technologies (seeds and inputs) must be adopted; lowland irrigation of food crop production accelerated; and rural infrastructure (road networks, telecommunication and electricity) improved.

Increase funding to agriculture and invest more in food production: The Maputo Declaration, to which Liberia is a signatory, commits African countries to enhance agricultural growth and development by investing at least 10 percent of its annual national budget to the agricultural sector. Liberia remains far behind this target, with not more than two percent of its budget going to agriculture annually. Liberia must meet her promise to herself.

Investments in agriculture in Liberia are relatively high, but are basically in export-oriented, cash crops like rubber, cocoa, coffee and oil palm. Comparatively, investment in food crop production is low. Towards ending hunger, a conscious effort must be made towards increasing investments in national food production. A strategy that promotes and targets production of various food crops across the country through comparative advantages of counties for specific food crops should be considered.

A key component of such a strategy must be the provision of subsidies to food production. Given that most Liberians reside in the agricultural sector and that the sector holds the greatest potential for: employment, poverty reduction, and increase in foreign exchange earnings, the government should take affirmative actions towards having sustained growth and development of the sector,

particularly the food sub-sector. Government should be seen as directly lending support to the sector and taking ownership of a sustainable program to instil growth and end hunger.

Towards this end, the government should create, establish and institutionalize a subsidy program for food production to ensure that Liberia is sustainably food and nutrition secured. The subsidy program should primarily target food production so that Liberia can become self-sufficient (be able to feed herself) in meeting its dietary demands by the year 2030. Subsidy to food (crops, livestock & fisheries) production should originate from multiple sources: fiscal policy, including the budget, the private sector, and donor assistance. Food subsidies should be considered while import duty privileges for agriculture machinery, tools and essential agricultural supplies should be the norm. Tax incentives including tax rebates should also be considered for farmers and entities engaging in the exportation of excess food. Finally, grants for national food production should be a constant element in Liberia's donor marketing agenda, while private sector resources should constantly be mobilized directly or through public-private partnerships to support the sustained food production. To ensure prominence and continuity, aspects of the subsidy program relative to fiscal regime should be legislated.

Organize Farmers' Based Organizations: Organize and build the capacities of Farmers' Based Organizations such as cooperatives for pooling resources in various aspects of agricultural activities such as up-scaling farmers' operations from subsistence level to viable enterprises along value chains for crops, fisheries and livestock production and commercialization. Such organizations will facilitate easy ownership, enhance commitment to organizational goals and activities, such as sharing of equipment needed for up-scaling operations of their members, thus moving them from the subsistence level to potentially viable business entities.

Strengthen policies and institutional frameworks: Enhance the policy environment, institutional capacity and legal framework for access to land and ensure continuity in program development and implementation in agriculture. At the institutional level, improve coordination at the central and local levels, as well as with donors. Additionally, provide a framework that enables farmers to access agricultural credits from financial institutions as well as policies that provide tax incentives on agricultural equipment, tools, and supplies, and subsidies to the agricultural sector. The reestablishment of the Agricultural Cooperative Development Bank (ACDB), with linkages to the newly established community's banks across the country should be considered. Historically, the bank was useful in providing credits and other financial services to farmers and residents of rural communities.

Strengthen partnerships: Partnerships at both the central and local levels need to be strengthened. Partnerships between the government and donors and non-governmental organizations (NGOs) working in food security needs to be better coordinated. Government must provide leadership by establishing the framework in which donors and NGOs can work. This framework should provide a clear vision, core values, and timed priorities. It should also provide for sector aid regulation, management and reporting to ensure that all donor and NGO projects and programs are within the government's priorities. As is done in the health sector, a Coordinating Mechanism could be established to meet quarterly to compare notes and share experiences on activities in communities across the country.

Increase investments in the value chains and modernize food production sub-sector: With a new orientation towards mechanized farming and the perception of agriculture as a business,

conscious efforts need to be made to encourage businesses to invest in different elements of the agricultural value chain. These are harvesting, storage, processing, and the bulk movement of agricultural produce from the points of production or storage to processing plants or markets for household purchase and consumption.

Mechanize production, harvesting, processing, storage and marketing in the food sub-sector. Additionally, in the context of a holistic extension program; adapt appropriate technologies such as solar powering and accelerated lowland irrigated food crop production. Further, improve rural infrastructure (feeder roads, telecommunication and electricity). These transformations will increase farm sizes, ensured, higher yields, and enhance the income of small farmers.

Develop a national irrigation policy: A national policy on irrigation for food production is necessary so that lowlands are developed for food production. This will facilitate moving food production from the uplands to more productive lowlands, on the one hand; and maintaining the uplands for tree crops and other horticulture crop production.

Promote sustainable urban and peri-urban food production: An era of insecurity occasioned by the protracted civil strife in Liberia has resulted in a significant demographic shift in the country. Nearly 50 percent of the population especially youth and women now resides in urban and peri-urban centers and are not likely to return to their homes of origin. This change in demography provides Liberia a unique opportunity to review its approach to meeting agriculture and food security needs of the country. This new situation is motivating agriculture production in urban and peri-urban centers in Liberia as evidenced by the proliferation of rice and ethnic vegetables production on undeveloped lands, particularly lowlands, in Monrovia and other urban centers. This development is creating alternative livelihoods and income generation, particularly for youth and women groups.

Introduce gender-friendly technologies: Gender-friendly equipment for reducing the drudgery associated with all aspects of farming should be available to women to increase their productivity. Conceivably, this might entail organizing crop-specific women farming groups and provide them needed gender-friendly equipment that ease the labour-intensiveness associated with production, harvesting, processing, storage and marketing of food crops. Such women groups will maximize the utility of equipment and enhance their productivity and income generating capacities. This will enhance the participation of women in agriculture.

SDG 2.4: Ensure sustainable food systems and implement resilient agricultural practices

Liberia is endowed with good natural resources for food and nutritional security. However, food production systems and practices do not promote sustainable food production. Rudimentary farming methods, non-use of improved seeds, underutilization of fertilizers and pesticides, over-exploitation of fishery resources, forest degradation, and soil erosion due to torrential rains, rampant plantation operations, and vulnerability to climate change all contribute to Liberia's inefficient food production system.

Coping mechanisms in the sector include living in the wild on animals and natural foods. But living on wildlife adversely impacts conservation, while living on forest resources often undermines the

environment. Both of these negatively impact agriculture, sustainable food production and access to local nutritious products.

Establish effective linkages between SDG interventions: Given the problems with the farming systems, the goal to realize zero hunger cannot be achieved if there is no linkage between the pillars. The desire to double small-holder productivity and incomes cannot be achieved in isolation of addressing malnutrition; neither can it be done without adapting to climate change nor having the right varieties of seeds or breed of livestock. Government must lead stakeholders in appreciating this linkage and working with them to provide an effective interlink with all interventions. This is the surest means by which farming systems are made sustainable and directed at achieving zero hunger by 2030.

Adapt a holistic approach to food production: Liberia needs to invest and strengthen the value chain in food production, simultaneously. While transitioning from subsistence agricultural production to mechanized, commercial production systems and practices, Liberia should invest in modern harvesting practices to reduce wastes in harvest and post-harvest handling. Concomitantly, Liberia should invest in modern storage facilities to accommodate the higher agricultural produce that modern farming practices will bring. This too, will reduce post-harvest handling. To add value to agricultural produce, Liberia should commence processing of produce beginning with small non-complicated manufacturing facilities as was done in India in the cottage industries to make such agro products as orange and pineapple juices. Finally, outlets to markets must be secured and physical roads improved to reach these markets.

Establish and invest in a National Home-Grown School Feeding Program: One of the main underlying causes of food insecurity and malnutrition in Liberia is income poverty, especially among smallholder farmers. The low level of access to education is another major hurdle: many heads of households have low education levels, children enter schools at mature ages, and gender disparity persists. With food insecurity relatively high and malnutrition a serious public health and socio- economic problem, Liberia must pursue integrated and multi-sectorial programmatic approaches that have proven track records, and could have significant, long-term consequences on improving the food security and nutritional status of Liberians, particularly small-scale food producers and children.

The Strategic Review commends the proposed *Multi-sectorial Agriculture Project (MAP)* which aims to link agriculture, nutrition, and education through an integrated Home-Grown School Feeding (HGSF). The goals of the proposed project are to: a) improve food and nutrition security in vulnerable communities through increased production and consumption of nutritious foods; and b) increase income for smallholder farmers particularly women and youth through improving access to markets. MAP will use local food grown by smallholder farmers for the school feeding program as well as other markets and in so doing, tackle hunger and improve nutrition; increase children's access, participation and achievement in school; support local livelihoods; and promote inclusive agriculture growth.

Home Grown School Feeding has been adopted by the Government through its education sector recovery plan, "From MESS to BEST by 2020"; and it is being promoted at the continental level by the AU as a strategy to improve education, boost local economies and smallholder agriculture, and advance the Sustainable Development Goals. In particular, Home-Grown School Feeding contributes to SDG 1 (end poverty), SDG 2 (end hunger), SDG 3 (healthy lives), SDG 4 (inclusive

and equitable quality education), SDG 5 (empowerment of girls), SDG 8 (inclusive and sustainable economic growth), SDG 10 (reduction of inequality within and among countries), and SDG 17 (global partnerships). The MAP's home grown school approach presents a unique opportunity to strengthen the nexus between food security and nutrition, agriculture and education.

Employ technology: Technology has revolutionized every aspect of human life. In agriculture, it can be employed in the transfer of farming technologies, or the remittance of money from urban centers to farmers in distant local communities, or whatever forms it takes, benefits farmers, households and local communities. Technology can be used to provide early warning mechanisms that are presently lacking in Liberia farming systems.

Develop government capacity for emergency preparedness and enhance community management of seasonal food price fluctuations: The recent Ebola epidemic demonstrated Liberia's vulnerability to disasters, including pandemics. This necessitates further development of government emergency preparedness and response (EPR) capacity. Accordingly, Liberia needs to improve its institutional, policy and operational EPR capacity in line with the Disaster Risk Management Policy, including the development of a disaster information early-warning system, greater public awareness of disaster risk reduction, integration of disaster risk reduction into national, sectoral and local policies, and enhancement of national contingency plans, stock management and appropriate coordination mechanisms.

To offset seasonal fluctuations in food prices and reduce hunger during the lean season, Liberia needs to scale up community grain reserves (CGRs) initiatives that have been piloted over the last few years. CGRs enable community members to borrow rice and other grains during times of scarcity and high prices, and to repay after the harvest in cash or in kind. The CGRs are often managed by trained women's groups.

Establish a National Disaster Management Agency: There is a National Disaster Relief Commission (NDRC) Secretariat that is located in the Ministry of Internal Affairs. It manages emergency response/relief coordination in the provision of assistance to victims of disasters. Additionally, there is the newly established department at the Ministry of Health purposely set up to manage the response to future emergencies such as Ebola. The Government, with support from its UN partners, has established the legal and institutional framework for a Disaster and Risk Management Agency. This is in line with the ECOWAS Treaty and humanitarian mandate in accordance with the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Sustainable Development Goals (SDGs) and Vision 2030 Agenda for Transformation. This agency needs to be established as soon as possible to enhance Liberia's preparedness for handling disasters and emergencies such as the EVD.

Promote climate change adaptation: Land, water and the soil are important natural resources for agriculture. Liberia needs to adapt agricultural practices and increase resilience of livelihoods to be able to withstand the challenges posed by climate change to sustain development. This calls for a shared understanding that climate change threatens agriculture and causes food insecurity. It is, therefore, important that collaborative efforts are made among various stakeholders to fight climate change problems. Liberia must adapt climate-smart agriculture.

Improve the management and regulation of fishery resources: Uncontrolled, over exploitation and illegal harvesting of fishery resources, all threaten their sustainability in Liberia. Regulations

exist to ensure proper management of these marine resources and guard against illegal exploitation of fishery resources but the application of such laws and regulations needs to be strengthened to ensure sustainability of fishery resources. The need to implement the Fisheries Policy and strengthen capacities (manpower development, equipment, supplies, etc.) for doing so is of priority.

Enforce conservation laws and regulations on forestry resources: Over exploitation of forestry resources and indiscriminate hunting of wildlife threatens the sustainability of these sources of food. It is necessary that existing conservation laws and regulations on forestry and wildlife management are enforced to keep forestry resources from becoming extinct due to over exploitation.

Promote conservation agriculture: Liberia needs to develop conservation agriculture to counter land degradation, increase adaptation to climate change for sustainable crop production, and improve rangeland management by adopting soil management practices that minimize the disruption of the soil's structure, composition and natural biodiversity. Conservation agriculture has proven potential to improve crop yields, while improving the long-term environmental and financial sustainability of farming.

Establish a farmer insurance scheme: Given Liberia recent past experience with caterpillars' infestation, there is need for a farmer insurance scheme to cushion farmers against such eventualities as well as against other shocks to which they are exposed.

Adopt non-conventional farming: In the context of well-meaning agro-forestry farming, encourage the adaption of non-conventional farming to cultivate animals and plant ordinarily harvested from the natural habitats. Train and support communities to engage in the cultivation of wild nuts and fast-multiplying animals like grass cutters, snails and bees.

SDG 2.5: Maintain genetic diversity of seeds, plants and animals

Liberia is a hotspot of biodiversity, owing to it having the largest tropical rain forests in the West African region. The country is well endowed with abundant fauna and flora. Notwithstanding, production of both animals and crops in the country is among the lowest in the region. Farmers have held on to and continue to utilize their low-performing crop varieties and animal species and are now caught in a web of low farm returns regardless of their efforts. Key informants agree that to achieve the goal of zero hunger by 2030, genetic diversity needs to be improved for production levels to increase.

Strengthen research and extension: Strengthen research and extension systems to increase the adaption rates by farmers of technologies proven to be of advantage. The entry point for Liberia is to support the Central Agriculture Research Institute (CARI) to enable it exercise a commanding role in sector-related research. Budgetary support to the institute should significantly increase so that the existing staff and scientists and researchers are developed into a cadre of professionals who are capable, available and technically facilitated to conduct research in animal and crop diversity and all aspects of agriculture.

Further, institutional linkages need to be reinforced. Liberian universities, junior colleges, technical institutions must all be encouraged to work collaboratively to facilitate change in Liberian

agriculture to achieve zero hunger. Correspondingly, extensions services must be packaged beyond the usual farm advisory messages. Extension must be largely inspired by the results of research to help farmers adapt to proven results of trials and experiments. Towards this end, the Department of Extension and Regional Coordination at the Ministry of Agriculture has to be strengthened to work with farmers' groups, cooperatives and community-based organizations to disseminate information to farmers throughout the country.

Introduce and promote the use of improved food crop varieties: There should be a program to ensure that farmers and rural dwellers in general get routinely informed on the availability and use of improved varieties of crops. This program should be developed in the context of an enduring farm advisory service aimed at helping farmers gain knowledge on the improved crop varieties and, more importantly, understand how to use information on these varieties. Knowledge gained by farmers on developments of this kind should hopefully lead the farmer towards adapting approaches to realizing greater yields from their farms at low-producing costs.

Given the general mind-set of farmers and rural dwellers to adhere to farming practices of the past especially where these practices are buttressed on cultural values, the introduction of improved crop varieties should not be expected to be demand-driven. Farmers will have to be programmed and thought to recognize the introduction of improved varieties as a change that benefits them. If properly understood and rightly applied, the new varieties are bound to help farmers realize direct benefits from their efforts.

Upgrade livestock germ-plasm: Upgrade livestock germ-plasm through increased use of improved animal breeds and species as breeding stocks with local breeds. Through the use of a targeted program with CARI and NGOs, trials should be arranged with farmers such that the best results of crosses with local breeds are multiplied and made available for general use by other farmers.

Promote diversity in the Liberian diet: Liberians must be persuaded to recognize and appreciate that other mixes of locally available foods can alternatively meet their dietary needs. The average household should be made to know that eddo and plantain are good substitutes for rice and cassava. As such, having those foods as substitutes during the rainy season when rice is scarce is a logical approach to avoiding hunger and still maintain a balance in health and nutrition all year round. Promote diversification of diet through the introduction and use of other crops as an alternative to rice and cassava.

Thus, the ministries of health, agriculture and gender should collaborate in working with households to recognize the virtue of diet diversification.

Commercialize indigenous poultry: Promote the commercialization of indigenous poultry, in particular, guinea fowl, ducks and chicken. Work with households to adopt practices of rapid multiplication of these varieties of fowl so that there is sufficient to meet home consumption needs and have the excess available for sale.

4.5. Cross-cutting measures: establishing the boundaries for Liberia's zero hunger ambition

The Government of Liberia is committed to achieve Sustainable Development Goal 2 which seeks to "end hunger, achieve food security and improved nutrition, and promote sustainable agriculture" by the year 2030; and in so doing has agreed to measure and monitor progress towards SDG 2's principal targets. The Government also adopted the Malabo Declaration on Accelerated Agricultural Growth And Transformation For Shared Prosperity And Improved Livelihoods which aims by 2025 to end hunger, reduce stunting and underweight prevalence rates, sustain annual agricultural GDP growth of at least 6 percent, and reduce livelihoods vulnerabilities by ensuring household resilience to climate and weather related risks.

The Malabo Declaration is a south - south initiative between Africa and South America that seeks to promote cooperation in the area of peace and security, good governance, agricultural transformation and economic growth and development.

These commitments to global and continental communities have long-term, transformative implications for the food security and nutritional status of Liberians, and should be pursued accordingly. There are three mutually-reinforcing actions that the Government must now take to translate these commitments into reality. The first is to prioritize food security and nutrition in the national policy architecture; the second is to set appropriate targets and indicators and establish a viable monitoring and evaluation framework to measure and monitor progress; and the third step is to legalize the multi-stakeholder coordination mechanism outlined in the 2015 National Food Security and Nutrition Strategy.

Prioritize food security and nutrition in the national policy architecture: The Government is in the process of domesticating the SDGs with the establishment of the SDGs Secretariat at the Ministry of Finance and Development Planning. The Secretariat comprises representatives from appropriate government ministries and agencies, the international community, civil society and other interest groups; and is expected to develop a framework for SDGs' prioritization and sequencing, among other functions. This is a key entry point for the prioritization of SDG 2 and its target areas. But efforts to increase the national visibility of food security and nutrition should not stop here; a further step should be the articulation of increased food security and improved nutrition as one of a minimum set of overarching goals for the upcoming national medium term economic growth and development plan, the updated Agenda for Transformation for 2018 and beyond, which will be informed by the SDG domestication effort.

Set appropriate targets and indicators and establish a viable monitoring and evaluation framework to measure and monitor progress: A desirable pathway to putting food security and nutrition, indeed zero hunger, at the forefront of the Liberia's development aspirations, is to establish aggressive and perhaps ambitious targets that are in line with Government's commitments to the global community and to Africa. Preferably, these targets should be those that are stated in the Malabo Declaration. The 'home-grown' zero hunger targets should also be anchored in the Agenda for Transformation that will succeed the current national plan, and contain appropriately defined requisite actions and commitments. One of these commitments should be the further strengthening of the Food Security and Nutrition Monitoring and Surveillance System which is not yet fully established, and would be critical to multi-stakeholder coordination and integrated food security and nutrition programming.

Formalize the multi-stakeholder coordination mechanism outlined in the 2015 National Food Security and Nutrition Strategy: In line with many zero hunger strategic reviews that have

been undertaken in other African countries (i.e. Cameroon, Mozambique, Namibia, Nigeria and Zimbabwe), the Liberian review recognizes the importance of a multi-sectorial and integrated approach to addressing gaps in the food security and nutrition sector, including in the areas of coordination and implementation. This finding provides an opportunity for Liberia to enhance its national commitment to making significant progress toward zero hunger by providing a legal basis for cross-sectoral coordination.

The institutional framework proposed by the 2015 National Food Security and Nutrition Strategy for multi-stakeholder coordination consists of a Food Security and Nutrition Steering Committee chaired by the Vice President; a Secretariat reporting to the Steering Committee Chair; a food security and nutrition surveillance system; a consultative Food Security and Nutrition Stakeholders' Forum; and four technical working groups (TWG) representing the pillars of food security.

Enacting a legal framework for multi-sectorial coordination of food security and nutrition will enhance priority-setting, promote synergies, linkages and complementarities, and improve, monitoring, reporting and communication. The legal framework must establish direct funding of the mechanism through the national budget.

Chapter 5: Liberia Zero Hunger Road Map (2017 – 2030)

5.1. The Zero Hunger Roadmap and Coordination Mechanism

The Zero Hunger Roadmap below constitutes Liberia's pathway to achieving Sustainable Development Goal 2 by 2030. It presents the key outcomes (i.e. findings and recommendations) of the Liberia Zero Hunger Strategic Review in the form of a matrix that: a) summarizes the current food security and nutrition situation in the country; b) identifies milestones or what needs to be achieved; c) presents what actions are required; d) establishes a timeframe for undertaking the action; e) lists key partners that are deemed well-placed to contribute to the respective action based on institutional mandate and history of work in the country, among other considerations. The Road Map is arranged along the targets of SDG 2 to ensure consistency with the methodology of the Strategic Review.

Sustained and coordinated implementation of the Zero Hunger Road Map will be the primary responsibility of a Food Security and Nutrition Steering Committee (FSNSC) that has been established following subsequent consultations with the Office of the President and other stakeholders. The objective of the FSNCC will be to ensure cross-sectoral coordination of food security and nutrition programming in general, and integrated implementation of the Zero Hunger Road Map in particular. The FSNSC will be housed in the Office of the President, and will comprise principal food security and nutrition stakeholders, including appropriate government agencies, international development partners, the private sector and civil society. The Committee is chaired by the President or a delegated authority as the President may direct, and the Food Security and Nutrition Secretariat situated in the Ministry of Agriculture shall provide appropriate services for the Committee.

5.2. Contributors to the Development of the Liberia Zero Hunger Road Map

Government: Governance Commission; Ministry of Agriculture; Ministry of Health; Ministry of Gender, Children & Social Protection; Ministry of Internal Affairs; Ministry Commence & Industry; Ministry of Finance & Development Planning; Ministry of Education; Ministry of Youth and Sports; Office of Legal Adviser to the President; and the Liberia Institute of Statistics and Geo-Information Services (LISGIS).

Private Sector and Civil Society: Federation of Liberian Youth; Liberia Bankers Association; Liberia Marketing Association; Liberia Chamber of Commerce; Liberia Business Association; and New African Research and Development Agency (NARDA).

International Partners: World Bank; European Union Delegation to Liberia; USAID-Liberia; United Nations Development Programme (UNDP); African Development Bank; Office of the Special Representative of the President of ECOWAS Commission in Liberia; UN Food and Agriculture Organization (FAO); United Nations Entity for Gender Equality and the Empowerment of Women (UN Women); United Nations Fund for Population Agency (UNFPA); United Nations Children's Fund (UNICEF); and UN World Food Programme (WFP).

5.3 The Liberia Zero Hunger Road Map

Overall Goal: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

Target 1: End hunger and ensure access by all people to safe, nutritious and sufficient food all year round

Current Situation: where are we today?	Milestone: where do we want to be by 2030?	Priority Actions: what must we do to get there and how?	Time Frame	Key Partners: which actors will help Liberia achieve zero hunger?
Unemployment and low incomes: Pervasive poverty; high unemployment especially among youths; 68 percent of employed Liberians work in the informal sector without regular wages or benefits Low incomes resulting from limited access to food, production, productivity and value addition Unequal treatment of women and girls (i.e. low land ownership, low remuneration and inequitable representation of women in the public sector)	Youth employment and empowerment program developed National employment scheme established Incentives to attract private sector in food value chain provided Women access to agricultural land increased Women access to agricultural credit and inputs increased Women trained in basic management skills	Create employment opportunities, including in the agriculture sector and empower women: Develop and implement a national program for youth empowerment and employment Create a national employment scheme Provide incentives to attract private sector investment in food value chains Increase women access to agricultural land Increase women access to agricultural credits & inputs Train women in basic management skills Implement literacy programmes	Medium to Long term 2021 – 2029	Leads: Ministry of Labor (employment); Ministry of Agriculture (agriculture and related sectors); and Ministry of Gender, Children and Social Welfare (women empowerment) Supporting Partners: Ministry of Youth and Sports, Ministry of Education, Food and Agriculture Organization, World Food Programme, Private sector, development partners and civil society.
 Weak Social Protection Systems Social protection coverage is low; Social protection programs are fragmented and uncoordinated Social protection programmes funding is declining 	 Social protection programs are fully funded Identification, targeting and delivery systems are strengthened Monitoring, evaluation and reporting are enhanced 	 Expand and increase coverage and access to social protection programs Source the additional funding Strengthen identification, targeting and delivery systems Strengthen monitoring, evaluation and reporting 	Medium to Long term 2021 – 2029	Lead: MGCP Partners: MFDP, MOA, MOE WFP, FAO Donor/partners
Disharmonized and coordination environment	 Zero Hunger Road Map implementation and 	Implement existing policies and strategies, including enhancing	Medium term	Lead for coordination: Office of the President

 Policies on food security are formulated but are not fully implemented Liberia remains vulnerable to natural disaster emergencies and the absence of a disaster management agency 	coordination structure (Food Security and Nutrition Steering Committee) is established, chaired by the Office of President and with a functioning Secretariat at Ministry of Agriculture Existing policies reviewed, updated and implemented, Policy implementation mechanism developed Disaster management agency established and operationalized (adequately resourced and capacitated)	coordination Incorporate FSNSC supporting role in terms of reference of the FSNS Secretariat Review and update existing policies Develop mechanism for implementation Develop national capacity for emergency preparedness, including at central government and local levels Disaster management agency legislated and operationalized	2021 – 2025	Partners: MOA, MOE, MOC, MOL, MFDP, MOH, WFP, FAO, Lead for emergency preparedness, response and management: Ministry of Internal Affairs Partners: MOD, LNP, LNRCS, GSA, MPW, MOH, MOE, LBS, MICT, Community Radio, CSOs, WFP, FAO Donor/Partners
Challenged education environment 47 percent of females and 33 percent of males age 6 and older have never attended school Lack of adequate school infrastructure Many unqualified teachers; Lack of adequate educational material High cost of education for poor households	 More appropriate school facilities built Appropriate educational materials provided School system standardized, including curricula More teachers trained and better incentives provided, Technical and Vocational Education and Training education (TVET) provided 	Broaden access to education (linked to other SDGs) Review and revise curriculum to include agriculture, food security and nutrition Build more appropriate school facilities (including boarding facilities) Train and provide better incentives for more teachers Provide more and appropriate educational materials Adopt better standards for schools as related to teachers, facilities and curriculum Promote TVET education	Medium term 2021 – 2025	Lead: MOE, Partners: UNICEF, FAO, WFP, MOA, MOH, MOC, Donor/partners

Underdeveloped food supply system: Inadequate rural infrastructure Limited and poor roads network Inadequate and unreliable power supply Limited water and sanitation facilities and limited telecommunication facilities	 Roads improved, including expanded feeder roads network Storage and processing facilities provided Market information system improved Water and sanitation improved Power and telecommunication facilities improved and expanded. 	Invest in infrastructure and strengthen access to markets Improve roads network Provide storage and processing facilities Improve information system Improve and expand water & sanitation Improve and expand power and telecommunication	Short to Long-term 2018 – 2029	Lead: MPW: Partners: MOA, LMA, MOT, MOC, LNP, Transport Union, UNWOMEN, UNICEF, FAO, WHO Donor/partners
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Target 2: End all forms of malnutrition

Goal: Reduce prevalence of stunting to 10% by 2025

Current Situation	Milestone	Priority Actions	Time Frame	Key Partners
Stunting remains prevalent 31.6% of children aged 6 to 59 months stunted 41% of the national population outside the capital have poor dietary diversity Iron-deficiency exists in 59% of children aged 6 to 35 months, 38% of pregnant women, and 33% of non-pregnant women	 DNI implemented Prevalence of stunting substantially reduced Micro-nutrient deficiency symptom reduced Incidence of underweight reduced Exclusive breast feeding expanded More nutritionists trained Improved infancy feeding practices Strengthened capacity for private sector participation in value addition, including food fortification 	 Improve Infant and Child Feeding Implement Direct Nutritional Interventions (DNI) Conduct baseline survey to estimate bench mark Teach good food consumption practices for healthy diets (diversify diets) Advocate and educate women in exclusive breast feeding Add nutrition to the curriculum Provide micro-nutrient supplementation Improve and expand water & sanitation Improve and expand the management of acute malnutrition Train more nutritionists 	Short to Long-term 2018 – 2029	Lead: MOH, Partners: MOE, MOA, MGCP, LWSC UNICEF, FAO, UNWOMEN, WFP and any other member in the SUN Network Donor/partners
Limited education and advocacy for	 Vigorous awareness and 	Adapt a Community-based multi-		Co-lead: MOA, MOH,

good consumption practices Limited participation of communities and households in planning, implementing and evaluating nutrition programs	sensitization conducted Community members trained in nutrition	sectoral approach to nutrition Conduct rigorous awareness and sensitization Train community members in nutrition	Short to Medium term 2018 – 2025	Partners: MOE, MOA, MGCP, LWSC UNICEF, FAO, UNWOMEN, WFP and any other member in the SUN Network Donor/partners
Nutrition Policy harmonization limited and coordination framework poor: Approach to Nutrition not multisectoral; nutrition narrowly seen as health issue; inadequate attention to nutrition issues Nutrition is not mainstreamed and is inadequately underfunded.	 Inter-sectoral coordination committee established National nutrition policy legislated Nutrition made prominent in education, health, and agriculture Resource mobilization strategy formulated and implemented Appropriate nutrition programs designed and developed 	Align other sectors with nutrition goals Establish inter sectoral coordination committee Develop and legislate national nutrition policy framework. Make prominence nutrition in education, health and agriculture Direct More Resources to Nutritional Programs Formulate and develop resource mobilization strategy Design and develop appropriate nutrition programs Mobilize resources Implement program	Short to Medium term 2018 – 2025	Lead: MOH Partners: MOA, MOE, MFDP, National Legislature Donor/partners
Nutritious foods abound but diet is poor and knowledge on balance diet is limited.	 Production and availability of pulses and legumes increased Pulses and legumes fortified Awareness created on nutritious foods 	Increase production and availability of pulses and legumes Utilize pulses and legumes to fortify food Create awareness on the value of nutritious foods	Medium term 2021 – 2025	Lead: MOH, Partners: MOA, MOE, MFDP' MOGCP, MICAT, MIA WFP, FAO, UNDP, UNWOMEN, UNICEF Donor/Partner

Target 3: Double agricultural productivity and incomes of small-scale food producers Goal: Double smallholder productivity and incomes by 2030

Current Situation	Milestone	Priority Actions	Time Frame	Key Partners
Poor farming practices and methods: Shifting cultivation Poor infrastructure Poor crop quality and yield Limited access to inputs Agro-processing capacity lacking Farm equipment and implements not gender friendly	 Agriculture operations mechanized National policy on irrigation and lowland developed Farmers trained in modern farming techniques Inputs and facilities provided Farming seen and conducted as business Women trained in handling new technology Gender friendly tools and equipment procured 	Move from subsistence agriculture to mechanized, commercial agriculture Advocate for change in the national orientation to farming while maintaining nutrition sensitivity Mechanize agriculture operations Develop national policy on irrigation and lowland development Train farmers in modern farming technique Provide the inputs and facilities, Train women in handling new technology Procure gender friendly tools and equipment	Medium term 2021 – 2025	Lead: MOA Partners: MPW, Legislature, MOI, MIA private sector Donor/partners
Agriculture sector financing: Limited affordable credit for famers and farmers' organizations, particularly for food production Limited investment for irrigation infrastructure and low pace of irrigation schemes Low number and capacity of farmers'	 Agriculture credit scheme established Direct support provided to food value chain Baseline capacity survey 	Increase funding to agriculture and invest more in the food value chain • Establish agriculture credit scheme for farmers • Give direct budget support • Increase investments in the value chains and modernize food production sub-sector Strengthen and organize farmer'	Short to Long-term 2018 – 2029	Lead: MOA Partners: National Legislature, MFDP, MOA, CBL, Bankers Association, Chambers of Commerce UNDP, WFP, FAO Donor/partners Lead: MOA
based organization Poor functionality Lack of management training Limited market access for small holder famers	 Baseline capacity survey conducted Farmers identified and organized Farmers trained in the management of their FBOs Link SHF to Market 	based organizations including cooperatives • Undertake baseline survey to determine priority areas for forming of FBOs • Identify and organize farmers • Train farmers in management of their FBOs • Strengthen cooperatives movement in the country • Develop and implement a	2021 – 2025	Partners: LIPA, UNDP, WFP, FAO Donor/partners

		sustainable Home Grown School Feeding programme		
Land reforms and tenure: Land ownership by women limited Lack of continuity in capacity building programs Poor coordination and harmonization at central, local and donors levels	 Legal framework for women access to land developed Individual and institutional capacities built Coordination at central and local levels improved 	Strengthen policies and institutional frameworks Develop legal framework for women to access land Ensure continuity in program development and implementation in agriculture Improve coordination at the central and local levels, as well as with donors	Medium term 2021 – 2025	Lead: MOA. Partners: MIA, LME, LLA, National legislature, Judiciary Donors/Partners
Low interest in agriculture and agribusiness: Rural - urban migration is high, especially by the youth Abundant, underutilized lowland in peri-urban communities Ready market exist for fresh vegetable and fruit in peri-urban communities but not utilized	 Policy framework developed on establishing peri-urban food production Urban farming promoted Inventory of land suitable for food production conducted Incentive provided for urban farming 	Promote sustainable urban and periurban food production Develop policy framework on establishing peri-urban food production Sensitize and promote urban farming Conduct inventory of land suitable for urban food production Provide incentive for urban farming	Medium term 2021 – 2025	Lead: Partners: MOA, MIA, MGSP, Marketing Association, CDA Donor/partners

Target 4: Sustainable food systems and resilient agricultural practices Goal: Make all food systems sustainable by 2030

Current Situation	Milestone	Priority Actions	Time Frame	Key Partners
Limited coordination and	SDGs are fully	Establish effective linkages between	Short term	MOA, MFDP, MGSP, MOE,
harmonization	domesticated and linked	SDG interventions	2018 – 2020	MPW, MOH
A number of programs exist with	with the national plan,	 Interlink all pillars under SDG 2 		Donor/partners
similar objectives	Agenda for Transformation	Adopt an integrated approach to		
		interventions		

Poor farming methods and practices Ineffective, traditional farming	Modern farming practices adopted	Adapt a holistic approach to food production	Medium term 2021 – 2025	Lead: MOA,
system Low quality inputs	Utilization of modern inputs improved	Adopt modern integrated agricultural practices		Partners: MIA, MOH, MOI
> Lack of early warning systems.	 Early warning system established Multi sectoral approach adopted 	 Promote cultivation methods that include crop rotation and intercropping Improve the use of inputs Establish Early warning system Link agriculture to other sector 		Donor/partners
Limited adoption and use of technology for market information and intelligence Lack of use and application of ICT in agricultural	 Farmers trained in the utilization of the internet Internet penetration exceeds the average rate for Africa 	 Employ technology as appropriate Train farmers in the utilization of the internet to collect information (Information and communication) Work toward universal coverage 	Medium term 2021 – 2025	Lead: MOA, Partners: LIPA, MLME, LEC, MCI, CARI, CDA
practices, Limited access to electricity and energy	Researchers and extension workers trained to deliver extension packages	 of internet Provide access to electricity throughout the country (access to affordable energy) Train researchers and extension workers in the use of ICT to work with farmers. Strengthen capacity of CARI and CDA to ensure they are autonomously and functional, thus providing the much need information, technology and skills to farmers 		Donor/partners
Climate Change Adoptable Agriculture National adaptation program of action (NAPA) has been formulated; unusual rains and	 Capacity of personnel built in climate change risk management Information of climate change disseminated 	Promote climate change adaptation Build/strengthen the capacity of relevant institutions in climate change risk management Develop and disseminate climate	Medium term 2021 – 2025	Lead: MOA, Partners: MLME, EPA,
draughts are occurring more frequently; erosion intensifying in coastal areas	 Climate change mainstreamed in sectoral policies and programs Coastal defense system for affected sea-side communities 	 bevelop and dissermate climate change and adaptation information Mainstream climate change in key sectoral policies and programs Establish coastal defense systems for affected sea-side communities 		Donor/partners

 Marine/Fisheries Development: Liberia economic zone is rich in maritime resources. Uncontrolled exploitation by foreign vessels is high Fishery bureau lacks the capacity for enforcing existing regulation 	 Fishery inspectorate unit established Fishery inspectors recruited and trained Fishery unit equipped Coast Guard & Fishery collaboration enhanced 	Improve the management and regulation of fisheries resources Establish fishery inspectorate unit Recruit and train fishery inspectors Equip the fishery inspectorate to patrol coastal and inland waters Collaboration between coast guard and fisheries enhanced Develop and implement policies that prevent exploitation of the local market by multinational corporations	Medium to Long-term 2021 – 2029	Lead: MOA Partners: MOD, Maritime Authority, MOCI Donor/partners
Forest and natural resource management: Liberia possess one of the largest forest in west Africa; Forest degradation is high; Unimplemented conservation laws and regulations Conservation agriculture is not practiced	 Forest rangers recruited and trained Rangers equipped and patrolling the forest Farmers are sensitized on conservation agriculture Farmers trained to adapt conservation agriculture 	Enforce conservation laws and regulations on forestry resources Recruit and train more forest rangers Equip the rangers to patrol the forest Sensitize farmers on conservation agriculture Train farmers to adapt conservation agriculture	Medium to Long-term 2021 – 2029	Lead: EPA Partners: FDA, MOA, MIA, MOJ Donor/partners
Famers insurance schemes ➤ Liberia lacks agriculture or farmer insurance	Insurance available and accessible for farmers	Establish a farmer insurance scheme	Medium to Long-term 2021 – 2029	Lead: MOA Partners: MFDP, Private sector

Target 5: Maintaining Genetic diversity of seeds, plants and animals

Goal: Liberia has climate-resilient seed and animal varieties where yields surpass West Africa averages

Current Situation	Milestone	Priority Actions	Time Frame	Key Partners
Research and Development CARI is operational and new germplasm of plant and animal identified but findings are not getting to the farmers Research - extension linkages	 Budgetary support to CARI and Extension increased More scientists and extension staff are recruited and trained 	Strengthen research and extension Increase budgetary support to CARI and extension services Recruit and train more scientists and extension staff Progressively improve the	Medium to Long-term 2021 – 2029	Lead: MOA Partners: MFDP, Institutions of higher learning, TVET Donor/partners

weak, and extension services poor	Research packages are developed and disseminated to farmers	extension agents to farmers' ratio and increase support for agriculture specialized researchers. • Disseminate agriculture related research findings/results • Strengthen and expand farmers field schools		
➤ Low yielding local varieties	 High yielding planting materials are increased Distribution of improved planting materials are accelerated 	Introduce and promote the use of improved food crop varieties and non-conventional farming: Increase multiplication of high yielding planting materials Accelerate the distribution of improve materials Support snails farming Support grass cutter farming Support Bees keeping	Medium to Long-term 2021 – 2029	Lead: MOA Partners: MIA, UL, Cuttington and other higher learning institutions Donor/partners
Existing livestock production is low	Improved breeds imported Local breed crossed with improved breeds Improved offspring disseminated to farmers	 Upgrade livestock germplasm Import improve breeders Cross improved breed with local breed Multiply offsprings and disseminate to farmers Build technical capacity for development of good animal husbandry including veterinary services Improve production and management of poultry (birds and feeding) and pigs; Develop market/demand for livestock and livestock products in the country 	Medium to Long-term 2021 – 2029	Lead: MOA Partners: MIA, UL, Cuttington and other higher learning institutions Donor/partners
Low nutrient diets(starch) predominant	 People sensitized on other nutritious food More nutritionists trained 	Promote diversity in the Liberian diet Sensitize the community in production, consumption, utilization of locally produced nutritious food	Medium to Long-term 2021 – 2029	Lead: MOA Partners: MOE, MOH, MCAT

		ECOWAS nutrition capacity initiative-draft higher level education curriculum drafted) • Work with private sector to strengthen capacity for food fortification		
Livestock production mainly on the free range	 Program developed to increase the production of chickens, ducks and guinea fowls by small holder farmers Small holder farmers in poultry management trained 	Commercialize indigenous poultry industry Incentivize local production and marketing of indigenous breeds of poultry and poultry products (chickens, ducks and guinea fowl) by small holder's farmers Train small holder farmers in poultry management	Medium to Long-term 2021 – 2029	Lead: MOA, Partners: MIA; Private sector, MICA Donor/partners

Chapter 6: Summary and Conclusion

6.1 Summary

GOAL 2 of the 17 Sustainable Development Goals that comprise the 2030 Agenda commits Member States of the United Nations to "end hunger, achieve food security and improve nutrition, and promote sustainable agriculture" by the year 2030. Liberia adheres to this declaration and is committed to achieving zero hunger by 2030. Through a transparent, consultative and inclusive process, the Government conducted a Liberia Zero Hunger Strategic Review in 2016/17 that has articulated what the country needs to do to achieve not only this global goal but also the more aggressive 2025 timeline for ending hunger established by the African Union's Malabo Declaration.

The Review identified several challenges Liberia must overcome on its way to zero hunger. In general, these impediments include: 1) constraints on access to food for most Liberians imposed by high poverty rates, an under-performing labour market and poor road conditions, particularly in rural communities; 2) comparably high prevalence of chronic malnutrition and micronutrient deficiencies largely due to sub-optimal infant and young child feeding practices, lack of dietary diversity and fortification, and nutrition education; 3) low agricultural output and productivity because of subsistence production by small-scale farmers who are challenged by poor infrastructure, low market access, and poor crop quality and yields; 4) weak and unsustainable food systems and multiple environmental challenges, including vulnerability to extreme weather situations; and 5) limited information on genetic diversity because of inadequate research and extension services.

The Review also found significant gaps in the national response to food insecurity and malnutrition as well as opportunities. The gaps include inadequate policy coherence and multi-sectorial coordination across key food security and nutrition sectors, weak institutional capacities, low public sector resource flows, limited access to credit and social protection, poor infrastructure and a disfavouring climate for private sector investments in the food sub-sector. The opportunities, given the orientation of government and stakeholders, include making zero hunger a national goal and putting into place appropriate legal and programmatic actions to achieve this objective; and in light of limited fiscal space for increased public sector resourcing, enabling private sector investments along the total food and nutrition value chains in order to enhance food security and nutrition while increasing employment and household income and purchasing power.

The Review recommended a number of priority actions to address these challenges and gaps that constitute the underlying causes of food insecurity and malnutrition in Liberia. The major recommendations of the Review, arranged by SDG 2 target, are as follows:

- 1. SDG 2.1 (access to food): strengthen access to markets, with priority given to investment in rural infrastructures; and expand social protection programs
- SDG 2.2 (nutrition): implement proven Direct Nutrition Interventions (DNI); improve Infant and Young Child Feeding (IYCF); and adopt multi-sectoral approaches to nutrition

- 3. SDG 2.3 (smallholder productivity and incomes): move from subsistence agriculture to mechanized, commercial agriculture; increase funding to agriculture, including investments; increase private investment in the value chains; and strengthen partnerships
- 4. SDG 2.4 (sustainable food systems and resilience): ensure effective linkages between SDG 2 interventions; employ appropriate technology; develop government capacity for emergency preparedness; expand community grain reserves; establish emergency food reserves and buffer stocks; promote climate change adaptation; and enforce conservation laws and regulations
- 5. SDG 2.5 (genetic diversity): improve and expand research and extension services; and strengthen seed and livestock breeds multiplication and distribution.

The Review put forth several cross-cutting recommendations (i.e. prioritization of food security and nutrition in the national policy architecture, formalization of the multi-stakeholder coordination mechanism outlined in the 2015 National Food Security and Nutrition Strategy, and investment in a National Home-Grown School Feeding Program). Both over-arching and SDG 2 target-specific recommendations are discussed in Chapter 4 and summarized in the Liberia Zero Hunger Road Map presented in Chapter 5. The Road Map outlines the current situation, desired milestones, priority interventions or actions, and time frames in which the milestones are to be achieved. It also identifies responsible government institutions and partner agencies for each action.

6.2 Conclusion

Liberia has played a leading role in the development and adoption of seminal global and continental frameworks that have committed countries to achieving zero hunger in less than two decades. These frameworks include Sustainable Development Goal 2 of the 2030 Agenda which seeks to "End hunger, achieve food security and improved nutrition, and promote sustainable agriculture" by 2030, and the African Union's Malabo Declaration which aims to end hunger by 2025.

By commissioning and leading the Liberia Zero Hunger Strategic Review, the Government reaffirmed its commitment not only to improving the food security and nutrition status of Liberians, but doing so as soon as possible. This Zero Hunger Strategic Review Report contains actions that the Government and its partners must prioritize if the Government's commitment is to become reality in the not too distant future. Specifically, the Government and all of partners who participated in the Review have articulated not only what Liberia needs to do, but what Liberia will do to achieve its zero hunger goals by 2030, if not earlier.

The Review has been a watershed, yielding a baseline and a road map that comprises priority actions and milestones. The hope of all stakeholders who participated in the open and consultative process is for the Review's findings to find their way into national plans such as the Agenda for Transformation, inform subsequent government and development partner programming, and help secure resources Liberia needs as it works toward a future of zero hunger and shared growth. The Government has taken substantive steps in this direction with approval of the Food Security and Nutrition Steering Committee and support for the establishment of a National Home Grown School Feeding scheme.

References

Bertelsmann Stiftung, BTI 2016 - Liberia Country report. Gutersloh: Bertelsmann Stiftung. (2016)

Comprehensive Assessment of the Agriculture Sector (Feb 2007)

CAAS_Liberia Volume 2.1 (2007)

CAAS Liberia Volume 2.2 (2007)

CAAS_Liberia Volume 2.3 (2007)

Citizen Guide to the National Budget (2016)

Comprehensive Food Security & Nutrition Survey (2006)

Crop and Food Assessment for Liberia (2006)

Cross-Border Trade and Food Security (2010)

Delivering Education and Health Services to the People (2013)

Diagnostic WB Policy Notes: Social Protection Sector in Liberia Evaluation of Bong Social Cash Transfer Pilot – final report (2012)

Domestication Agenda 2030 for Sustainable Development & AU Agenda 2063 Using the New Deals Principle: Liberia's Road Map (2016)

Draft Revised LATA: Action Plan for Agri Transformation (2015)

Emergency Food Security Assessment (2015)

Fact Sheet: Food Security and Nutrition in Liberia (2000-2011)

Fisheries Policy Document (2014)

FAO, IFAD and WFP. 2015. The State of Food Insecurity in the World 2015. Meeting the 2015 international hunger targets: taking stock of uneven progress. Rome, FAO.

Food and Agriculture Policy and Strategy (FAPS) (Sept 2009)

Food Security in Action (2009)

Food Security Alert (2011)

Food Security & Nutrition Strategy Plan (2008-2010)

Food Security and Nutrition Strategy Action Plan (2015-2020)

Food Security and Nutrition Survey (2008)

Food Security and Nutrition Survey (2009)

Response of Liberia to Global Food Price Increases (2007)

GOL & UN Joint Programme on FS & Nutrition (2008)

Household Food Security and Nutrition Surveillance (2010)

Household Income and Expenditure Survey (2016)

Human Development Report (2016)

IFC Annual Report (2016)

Impacts of Rising Food & Fuel Prices and Influx of Refugees in Liberia (2011)

Impact of High Prices on Food Security in Liberia – Jt. Assessment (2008)

Introduction: Social Protection for Social Justice (2011)

ILO – World Social Security Report (2010-2011)

Larbi, Asamoah, Country Pasture/Forage Resource Prolife – Liberia. FAO (2012)

Liberia Agriculture Sector Investment Program Report (Sept 2010)

Liberia: Review of Ongoing Agric Development Efforts (2000)

Liberia Labour Force Survey (2010)

Liberia Market Price Monitor (2012)

Liberia Market Price Monitor (April 2012)

Liberia Market Price Monitor (April 2011)

Liberia Market Review (Feb 2007)

Liberia Market Price Monitor (May 2013)

Liberia Social Protection Summary (2012)

LIGIS. 2008 POPULATION AND HOUSING CENSUS

MDG Report on Liberia (2010)

Mid-term Report of the Implementation of the Istanbul Programme of Action for LDCs: Liberia's case 2016National Food Security & Nutrition Strategy (2015)

National Food Security and Nutrition Strategy (Mar 2008)

National Policy on Girls Education (2013)

Paczynska, World Investment Report (2016)

Post-Ebola: The Economic Stabilization and Recovery Plan (2015)

Sector Working Group on Agriculture: PRS II

SDG Domestication Agenda for UNCT (Oct 2016)

SDG 2: End Hunger, Achieve Food Security and Improved Nutrition and Provide Sustainable Agriculture Systems (2014)

Social Protection: Exploring Issues, Debates and Evidence (2011)

Social Protection for Food Security (2011)

Social Protection Strategy and Policy – Final (2013)

Annex 1 – Main Social Protection Programs in Liberia, (2012)

Annex 2 - Social Protection Programs

Annex 3 – Costing and Protection

The Agenda for Transformation (Liberia's Medium Term Economic Growth and Development Strategy) (2012-2017)

The State of Food and Nutrition Insecurity in Liberia (2010)

USAID: Food Security Desk Review for Liberia (2016-2020)

Using Social Transfers to Improve Human Development (DFID) (2006)

WAAPP Newsletter (Apr 2016)

Annex 1: Map of Liberia



Source: Liberia Institute of Statistics and Geo Information Services (LISGIS)

Annex 2: Advisory Board Members

No.	Names	Position
1	Dr. Amos C. Sawyer	Lead Convener, Governance Commission
2	Honorable Dr. Moses Zinnah	Minister, Ministry of Agriculture
3	Honorable Dr. Bernice Dahn	Minister, Ministry of Health
4	Honorable Julia Duncan-Cassell	Minister, Ministry of Gender, Children & Social Protection
5	Honorable Dr. Henrique F. Tokpa	Minister, Ministry of Internal Affairs
6	Honorable Axel M. Addy	Minister, Ministry Commence & Industry
7	Honorable Boima S. Kamara	Minister, Ministry of Finance & Development Planning
8	Honorable George Werner	Minister, Ministry of Education
9	Honorable Saah N'Tow	Minister, Ministry of Youth and Sports
10	Madam Larisa Leshchenko	Country Manager, World Bank
11	H.E. Tina Intelmann	Ambassador/Head, European Union Delegation to
		Liberia
12	Dr. Anthony Chan	Mission Director, USAID-Liberia
13	Cllr. Seward Cooper	Legal Adviser to the President
14	Mr. Augustine Tamba	President, Federation of Liberian Youth
15	Mr. John Davies	President, Liberia Bankers Association
16	Dr. Kamil K. Kamaluddeen	Country Director, UNDP-Liberia
17	Dr. Margaret H. Kilo	Resident Representative, African Development Bank
18	Madam Lusu K. Sloan	President, Liberia Marketing Association
19	Mr. Francis Dennis	President, Liberia Chamber of Commerce
20	Mr. Dee-Maxwell Kemayah, Sr.	President, Liberia Business Association
21	H.E. Babatunde O. Ajisomo	Ambassador, Special Representative of the President of
		ECOWAS Commission in Liberia
22	Mr. Marc C. Abdala	Country Director, Food and Agriculture Organization
23	Mr. Lancedell Matthews	Executive Director, NARDA
24	Madam Awa Ndiaye Seck	Country Representative, UN Women-Liberia
25	Dr. Oluremi Sogunro	Country Representative, UNFPA-Liberia
26	Dr. Bienvenu Djossa	Country Representative, WFP-Liberia
26	Mr. Sheldon Yett	Country Representative, UNICEF-Liberia
27	Dr. T. Edward Liberty	Director General, LISGIS

Annex 3: Research Team Members

- 1. G. Pewu Subah
- 2. Dr. J. Qwelibo Subah
- 3. James A. Thompson
- 4. Prof. Willie T. Belleh
- 5. Guzeh K. Subah
- 6. Oliver Gayflor Subah

Annex 4: Technical Secretariat Members

1. Ministry of Agriculture

2. LISGIŚ

3. Ministry of Gender

4. WFP

5. FAO

6. UNICEF

7. UNFPA

Tarnue Koiwou Diavana Z. Koikoi Gabriel Fernandez

Kabeh Fromoyan Enders

Jesse O. Yuan Kathrine Faigon Alfred Sayon

Annex 5: Terms of Reference and the Zero-Hunger Strategic Review

Liberia Zero Hunger Strategic Review Terms of Reference

1. Context

The Republic of Liberia is committed to achieving the 2030 Agenda for Sustainable Development, and to measuring and monitoring progress towards the goals and targets that President Ellen Johnson Sirleaf and other Heads of State and Government adopted in New York in September 2015. Food security and nutrition are prominently featured in the Agenda, with Sustainable Development Goal 2 (SDG2) calling on member states to "End hunger, achieve food security and improved nutrition, and promote sustainable agriculture" by 2030. As Liberia begins to localize the SDGs and their targets, a comprehensive countrywide perspective will be needed on the main challenges to achieving each of the goals; the direction and focus of national priorities; and the role of the private sector, civil society, and development partners in helping the country to make progress toward attaining the national SDG goals and targets.

Dr. Amos C. Sawyer, Chairman of the Governance Commission and former president of Liberia, Interim Government of National Unity, has consented to lead a Liberia Zero Hunger Strategic Review that will help to clearly articulate what Liberia will need to do to achieve SDG2 by 2030. The Zero Hunger Strategic Review will be an open, consultative process that will assess the economic, political and social environment for food security and nutrition; identify gaps in the national response, including policies, programmes, resource flows and implementation capacities of relevant government institutions and non-governmental partners at the national and local levels; and discuss opportunities and requirements for collaboration between the public and private sectors, and other partners.

The baseline that is established will inform the identification of priority actions as well as strategic outcomes that should be pursued if the country is to achieve SDG2 by 2030. The findings and other recommendations of the country-led, multi-stakeholder and participatory Zero Hunger Strategic Review aim to contribute to domestication of the 2030 Agenda, national development planning, and the plans and programmes of development partners and United Nations agencies, including the World Food Programme.

2. Objectives

The Liberia Zero Hunger Strategic Review seeks to:

- a. Provide a comprehensive understanding of the food security and nutrition context of Liberia, including strategies, policies, programmes, institutional capacities and resource flows;
- b. Identify key development and humanitarian challenges the country faces in achieving zero hunger by 2030;

- c. Review the role of the private sector in the food security and nutrition sector, and related areas;
- d. Analyze gaps in Liberia's response to achieving food and nutrition security;
- e. Explore, if necessary, how South-South and Triangular Cooperation could contribute to achieving zero hunger in Liberia, and also how Liberia can help other countries make progress toward zero hunger in line with the 2030 Agenda;
- f. Propose actionable areas where government and partners can work together to ensure significant progress toward zero hunger in Liberia; and
- g. Recommend strategic outcomes that should be achieved by Liberia by 2030, as well as milestones and/or a road map that will facilitate the achievement of these outcomes.

3. Suggested Roles of the Lead Convener

As Lead Convener, Dr. Sawyer will:

- a. Provide overall leadership for the Liberia Zero Hunger Strategic Review;
- b. Establish and chair an appropriate advisory board or consultative committee that will comprise decision-makers from relevant ministries and agencies, relevant partners, including United Nations agencies, civil society and the private sector, and would be expected to provide strategic guidance during the Review and support implementation of the Review's recommendations;
- c. Lead consultations with relevant stakeholders, and champion Government of Liberia and partner ownership of the Zero Hunger Strategic Review;
- d. Oversee the work of institution(s) or individuals selected to undertake appropriate research and manage relevant consultations that will contribute to timely delivery of the Liberia Zero Hunger Strategic Review Report; and
- e. Chair the launch of the Liberia Zero Hunger Strategic Review Report at a high-level event involving government officials, development partners, United Nations agencies, and other stakeholders.

4. Responsibilities of the Advisory Board or Consultative Committee

The establishment of a senior level advisory board or consultative committee by the lead convener has proven useful in a number of countries where a national zero hunger strategic review has been conducted. Such a high-level panel for the Liberia Zero Hunger Strategic Review could comprise key decision-makers from government institutions, international partners and stakeholders, including from the private sector and subject matter experts.

The principal responsibility of the advisory board or consultative committee would be to acknowledge, discuss and validate research findings and recommendations in a consultative manner. Specific roles could include:

- a. Discussion and approval of critical sections of the draft Strategic Review Report, including the challenges, gaps analysis, priority actions and recommendations;
- b. Review of current food security and nutrition coordination arrangements at the national and sub-national levels, and recommendation of improvements, if necessary;
- c. Participation at the validation workshop;
- d. Reviewing and approval of arrangements for the high-level event during which the final report will be launched;

- d. Development of a follow-up strategy to facilitate implementation of the priority actions and recommendations of the Report, including their incorporation into national development planning arrangements and the strategies and plans of partners and stakeholders; and
- e. Championing or advocacy of the priority actions and recommendations of the Strategic Review Report with key stakeholders, including government, private sector, civil society, development partners and United Nations agencies.

5. Responsibilities of the Technical Team or Secretariat

Experience elsewhere also has demonstrated the utility of having a Strategic Review Technical Team that would provide requisite operational or secretariat services, including managing of the day-to-day aspects of the process to ensure that the objectives of the Review are achieved within an agreed timeframe. The team would be established by the Lead Convener, and could comprise government technical focal points, representative(s) of the institution or individuals providing research support, the WFP Liberia focal point for country strategic planning, and others. The responsibilities of the technical team or secretariat would be the:

- a. Development of a work plan containing key milestones, consultation dates, and other relevant information;
- b. Organization of meetings of the advisory board or consultative committee and performance of appropriate tasks, including the recording of deliberations;
- c. Organization of appropriate consultative meetings, including the validation workshop;
- d. Recording and incorporating outcomes of consultations, workshops and field visits into the Strategic Review report; and
- f. Organization of the high-level event during which the Strategic Review Report will be launched.

6. Research Team: Research Support and Reporting

It is necessary to engage the services of an institution or group of individuals to conduct relevant research that will provide a sound and credible foundation for the analysis, priority actions and recommendations of the Strategic Review; and produce the Liberia Zero Hunger Strategic Review Report.. In consultation with the lead Convener, to support the Zero Hunger Strategic Revive in Liberia, Subah Belleh Associates (SBA) was selected to complete stakeholder's consultation and to consolidate the analytical context and draft the strategic Review Report

Researchers supporting the Strategic Review should: a) have significant knowledge of the economic and political landscape in the country, including relevant food security and nutrition policies and programmes; b) possess a broad understanding of the roles of key humanitarian and development actors (i.e. government, international community, private sector and civil society) c) be familiar with resource flows and related challenges for food security and nutrition; and d) be able to discuss the capacities, including strengths and weaknesses, of key public institutions having oversight, regulatory and operational responsibilities for food and nutrition in Liberia.

Specifically, the main tasks of the Research Team (Institutions) in support of the Zero Hunger Strategic Review include literature and secondary data review as well as documentation of the outcomes of all consultations, workshops and field visits as described in details bellow and as per

the attached review timeline. SBA will also be responsible for providing full support to the Lead Convener.

SITUATIONAL ANALYSIS

 Establish a comprehensive analysis of the food security and nutritional situation within the targets of the Sustainable Development Goal two, identify the main trends, problems and causes.

RESPONSE ANALYSIS

• Identify the food security and nutritional goals or target that are implied or established in the national plans or agreed in the regional framework to facilitate progress towards Zero Hunger; and the financial, institutional and human resources have been allocated and utilized to achieve policy and programmatic results.

GAP ANALYSIS

• Determine the progress that policies and programmes aimed at improving food security and nutrition have made for women, men , girls and boys and identify planning implementation and funds gaps in the response, highlighting if any population groups has specific needs and priorities

PRIORITIES AND ACTIONS AND IMPLEMENTATION

To gather the analytical content and stakeholders feedback required for the Review Report, the following deliverables are expected:

- 1. Agree with the lead convener of the composition of the Review Advisory Board;
- 2. The Research Team manages the overall implementation of the review from an administrative and logistical point of view, and may include the lead Convener or his representative as well as the research team;
- 3. Establish a work plan with key Milestones and set dates and venues for the consultations;
- 4. Compile list of stakeholders to engage for the consultations;
- 5. Organize consultations for every key milestone identified ensuring stakeholders are informed appropriately to ensure ownership of the process and final product;
- 6. Prepare final validation workshop for the Review report
- 7. With the support of the Convener, hold high level launch of the Review Report embedding the Review's recommended actions in the government plans and partners'
- 8. As appropriate, the research findings may be communicated through an executive summary and in six chapters as follows:

EXECUTIVE SUMMARY: key findings and recommendations **INTRODUCTION**: country background, report objectives and methodology

I. ANALYSIS OF THE FOOD SECURITY AND NUTRITION SITUATION

- ✓ Macroeconomic, geographic, political and demographic context as relevant
- ✓ Food security and nutrition situation analysis along the Sustainable Development Goal 2 targets (i.e. food access, nutrition, food availability/smallholder farmers production, sustainability and biodiversity) and target 12.5 on food loss and waste, with focus on current status, future trends and causal relationships

II. NATIONAL POLICY AND PROGRAMMATIC RESPONSE

a. Policies, strategies and plans

- ✓ Synthetic analysis of the government's plans and targets in development, food security, nutrition, social protection, disaster management, and other relevant sectors
- ✓ Synthetic analysis of the plans of key non-governmental (i.e. international organizations, private sector, civil society, etc.) partners

b. Programmes and key implementation activities and tools

- ✓ Presentation of all major activities with a declared objective or potential to improve food security and nutrition and contribute to achieving SDG2
- ✓ Benefits, delivery mechanisms, targeting, coverage and impact of programmes

c. Financial resources for food security and nutrition

- ✓ Resourcing levels, sources and trends in the food security and nutrition and other relevant sectors (i.e. agriculture, health, education, social protection and rural infrastructure/development)
- ✓ Resourcing levels, sources and trends of food security and nutrition programmes
- ✓ Contributions and roles of government, donors and private sector in providing resources
- ✓ Medium term prospects for resourcing food security and nutrition programming

d. Institutional arrangements and capacities

- ✓ Roles and responsibilities of government institutions, civil society and private sector partners in developing and implementing food security and nutrition policies and programmes
- ✓ Overall structure and operational management of programmes
- ✓ Coordination mechanisms

III. THE PRIVATE SECTOR

- a. Identification of key participants/players in the sector;
- b. Analysis of their current contributions to food security and nutrition; and
- c. Discussion of their potential contributions to achieving zero hunger.

IV. SOUTH-SOUTH AND TRIANGULAR COOPERATION (only if necessary and appropriate)

- a. Review of the current level of engagement, experiences and cooperation partners in South-South and triangular cooperation.
- b. Capturing of Liberia's national "solutions" (i.e. good practices, experiences, methodologies, innovations) that could be relevant for promoting progress towards SDG 2 in Liberia and in other countries (particularly within Africa);
- c. Identification of Liberia's national interest and (aspiring) role as partner for SSC for the next 5-15 years (verified through interviews with key stakeholders in the government); and
- **d.** Mapping of opportunities (possible activities) for South-South and Triangular Cooperation which could be supported by the government and partners.

V. GAPS IN THE FOOD SECURITY AND NUTRITION RESPONSE

a. Gaps in legal and policy frameworks;

- b. Gaps in programme design and implementation;
- c. Gaps in resourcing (i.e. overall funding relative to needs and to SDG2 targets);
- d. Gaps in institutional capacities;
- e. Gaps in private sector contribution to zero hunger in Liberia; and
- f. If necessary, gaps (i.e. capacities, expertise, skill-sets, methodologies, practices) in Liberia's South-South and Triangular Cooperation approach and performance which Liberia could address by learning from other countries.

VI. OPPORTUNITIES, PRIORITY ACTIONS AND RECOMMENDATIONS

- a. Discussion of opportunities to fill gaps in the national response through government, partner, civil society or private sector interventions, including an analysis of and how the gaps could be addressed through South-South or Triangular Cooperation;
- b. Discussion of opportunities to improve plans, programme design, implementation and effectiveness, coordination, institutional capacities, resourcing, etc.;
- c. Identification of the strategic outcomes to be achieved by 2030, as well as actions that should be prioritized in the short, medium and long term to ensure achievement of the outcomes (Note: as appropriate, the priority actions could be accompanied by possible targets as well as suggested implementation and resourcing modalities, and together with the strategic outcomes, would constitute a national zero hunger road map); and
- d. Key recommendations to achieve zero hunger by 2030.

6) Research methodology and output

The researchers could use a combination of desk review of existing relevant documentation (i.e. government and partner policies, programmes and other planning documents); interviews or discussions with appropriate Government officials at all administrative levels; consultations with UN agencies, humanitarian agencies and NGOs working in the area of food security and nutrition; and interviews or discussions with other international actors, including multilateral financial institutions and donors, and private sector actors. If available, relevant cases could be used to contextualize findings and explore key issues.

The Liberia Zero Hunger Strategic Review Report, including the executive summary, should be communicated in roughly 50 to 100 pages written in English. There should be an annex in which the consultation process should be described, and this should include the names, positions and agencies represented by stakeholders, as well as the timelines for each phase of the work.

Figure1: The Zero-Hunger Strategic Review Structure

Liberia Zero Hunger Strategic Review

Strategic Review Overview Potential Contributions of the Strategic Review **Lead Convener** Dr. Amos Saywer Contribute to Liberia's Vision Led in country by former president Dr. Amos C. Sawyer **Advisory Board** 2030 by helping shape direction and focus of national planning efforts GoL, UN, Development Provides comprehensive understanding of food security and nutrition context of Liberia Partners; Private sector and Civil Society Comprehensive process to catalyze Liberia's domestication and implementation of SDG2 to and a consensus on what Liberia needs to do to achieve zero hunger by 2030 Research end hunger Support Technical Identifies priority actions for Team Subah Belleh plans and programmes of government and all.artners Serve as a model for SDG localization Associates











