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USAID OFFICE OF FOOD FOR PEACE
SIERRA LEONE FOOD SECURITY COUNTRY
FRAMEWORK FY 2010-2014

OCTOBER 2009



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ACRONYMS & ABBREVIATIONS

A4D	Agriculture for Development Program
ABC	Agricultural Business Center
ACDI/VOCA	Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance
AED	Academy for Educational Development
AfDB	African Development Bank
AIDS	Acquired immunodeficiency syndrome
AIN-C	Atención Integral a la Niñez en la Comunidad (Community-Based Integrated Child Care Program), Honduras
ARD	Association for Rural Development
ARI	Acute respiratory infection
ASREP	Agricultural Sector Rehabilitation Project
AU	African Union
BCC	Behavior change communication
BFF	Baby-friendly farm
BMI	Body mass index
CAADP	Comprehensive Africa Agriculture Development Program
CARE	Cooperative Assistance for Relief Everywhere
CBGP	Community-based growth promotion
CEPEL	Creating an Enabling Environment in Sierra Leone
CIA	United States Central Intelligence Agency
C-IMCI	Community integrated management of childhood illness
C-IMNCI	Community-based integrated management of neonatal and childhood illness
CIVICUS	World Alliance for Citizen Participation
CLTS	Community-led total sanitation
CMAM	Community-based management of acute malnutrition
CORAD	Consortium for Rehabilitation and Development
CPAP	Country Program Action Plan
CRS	Catholic Relief Services
CSB	Corn-soy blend
DA	Development Assistance
DACO	Development Assistance Coordination Office
DC	District of Columbia
DfID	Department for International Development
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DOTS	Directly Observed Treatment Strategy
DRP	Development Relief Program
EBF	Exclusive breastfeeding
EC	European Commission
EmONC	Emergency obstetric and neonatal care
ENA	Essential Nutrition Actions
ESF	Economic Support Fund
EU	European Union

EWR	Early warning and response
FAO	Food and Agriculture Organization of the United Nations
FANTA	Food and Nutrition Technical Assistance Project
FANTA-2	Food and Nutrition Technical Assistance II Project
FESS	Foundation for Environmental Security and Sustainability
FEWS NET	Famine Early Warning System Network
FFA	Food for Assets
FFM	Formal financial market
FFP	USAID Office of Food for Peace
FFS	Farmer field school
FFW	Food for Work
FGC	Female genital cutting
FIAS	Foreign Investment Advisory Service
FRC	Finnish Refugee Council
FSCF	Food Security Country Framework
FSTP	Food Security Thematic Program
GDI	Gender-related development index
GDP	Gross domestic product
GOSL	Government of Sierra Leone
HDDS	Household Dietary Diversity Score
HIV	Human immunodeficiency virus
HKI	Helen Keller International
IADP	Integrated Agricultural Development Program
ICC	Interagency Coordinating Committee
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFM	Informal financial market
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
IMCI	Integrated management of childhood illness
IMNCI	Integrated management of neonatal and childhood illness
IMR	Infant mortality rate
IOM	Institute of Medicine
IPT	Intermittent preventive treatment
IQC	Indefinite Quantity Contract
ITN	Insecticide-treated bednet
IVS	Inland Valley Swamps
IYCF	Infant and young child feeding
JICA	Japanese International Cooperation Agency
kcal	Kilocalorie(s)
kg	Kilogram(s)
km	Kilometer(s)
LEAD	Livelihood Expansion and Asset Development
LINKS	Promoting Linkages for Livelihood Security and Economic Development
LISGIS	Liberia Institute of Statistics and Geo Information Services
LRRD	Link Relief, Rehabilitation and Development
m	Meter(s)

M&E	Monitoring and evaluation
MAFFS	Ministry of Agriculture, Forestry and Food Security
MAHFP	Months of Adequate Household Food Provisioning
MAM	Moderate acute malnutrition
MCH	Maternal and child health
MCHN	Maternal and child health and nutrition
MED	Microenterprise development
MFMR	Ministry of Fisheries and Marine Resources
MICS	Multiple Indicator Cluster Survey
MIS	Market information system
mm	Millimeter(s)
MMR	Maternal mortality ratio
MOA	Liberia Ministry of Agriculture
MOE	Liberia Ministry of Education
MOHS	Ministry of Health and Sanitation
MOHSW	Liberia Ministry of Health and Social Welfare
MTI	Ministry of Trade and Industry
MUAC	Mid-upper arm circumference
MYAP	Multi-year assistance program
NARP	National Agricultural Response Plan
NCHS	National Center for Health Statistics
ND	No data
NERICA	New Rice for Africa
NEPAD	African Union's New Partnership for Africa's Development
NGO	Nongovernmental organization
NRM	Natural resource management
NSADP	National Sustainable Agricultural Development Plan
NTD	Neglected Tropical Disease
OR	Operations Research
OTP	Outpatient Therapeutic Program
P4P	Purchase for Progress
PAGE	Promoting Agriculture, Governance and the Environment Project
PAHO	Pan American Health Organization
PD	Positive Deviance
PDI	Positive deviance inquiry
PFM	Public Financial Management
PHU	Peripheral Healthcare Unit
PLHIV	People living with HIV
PM2A	Prevention of Malnutrition in Children Under 2 Approach
PMP	Performance Management Plan
PMTCT	Prevention of maternal-to-child transmission of HIV
PRRO	Protracted Relief and Recovery Operation
PRS	Poverty Reduction Strategy
PRSP	Poverty Reduction Strategy Paper
RCH	Reproductive and Child Health
RCPRP	Rehabilitation and Community-Based Poverty Reduction Project
RFCIP	Rural Finance and Community Improvement Program

RIU	Research into Use
ROSCA	Rotating savings and credit association
RPSDP	Rural and Private Sector Development Project
RUTF	Ready-to-use therapeutic food
SAM	Severe acute malnutrition
SD	Standard deviation
SLARI	Sierra Leone Agricultural Research Institute
SLIHS	Sierra Leone Integrated Household Survey
STI	Sexually transmitted infection
TB	Tuberculosis
TWG	Technical working group
U5MR	Under-5 mortality rate
UK	United Kingdom
UN	United Nations
UNAIDS	United Nations Joint Program on HIV/AIDS
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIPSIL	United Nations Integrated Peacebuilding Office in Sierra Leone
UPoCA	Unleashing the Power of Cassava in Africa in Response to the Food Price Crisis
US	United States
USAID	United States Agency for International Development
USD	United States dollar
USG	United States Government
USGS	United States Geological Survey
USTP	Use of STABEX Transfers Program
VAM	Vulnerability analysis and mapping
VS&L	Village savings and loan
WARO	West Africa Regional Office
WFP	World Food Program
WHO	World Health Organization
WISH	Women's Initiative for Safer Health
WV	World Vision

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EXECUTIVE SUMMARY

The purpose of the United States Agency for International Development (USAID) Food Security Country Framework (FSCF) for Sierra Leone is to provide programming guidance to current and potential USAID/Sierra Leone food security partners on the development of Title II-funded multi-year assistance programs (MYAPs) for the period 2010-2014 in Sierra Leone, and to improve program and resource integration.

Sierra Leone suffered from years of political instability caused by government mismanagement, corruption, marginalization of rural communities and collapse of local government that culminated in a violent 11-year civil war (1991-2002) resulting in the destruction of most of the country's social, economic and physical infrastructure; mass exodus of skilled professionals; loss of an estimated 20,000 lives; extensive human rights abuses, especially against women and children; and displacement of over two million people. Despite progress since the end of the war in reintegrating ex-combatants and child soldiers, resettling refugees and the internally displaced, establishing peace and security, rebuilding national and local governance structures, promoting economic growth, especially in agriculture, and re-establishing basic services in education and health, Sierra Leone is still the poorest low-income country in the world, ranking last out of 179 countries in the United Nations (UN) Human Development Index. Recovery from the devastating effects of the war on the economy, public services, infrastructure and government institutions has been slow and food insecurity continues to be a serious problem, evidenced by the estimated 4.4 million people (70 percent of the population) living in poverty, the 1.6 million (26 percent) living in extreme poverty and the very high levels of chronic malnutrition (36 percent) among children under 5.

There are numerous contextual factors that currently constrain improvements in food insecurity in Sierra Leone, including poor governance; corruption; weak civil society; and rural social hierarchies and patriarchal systems that result in inequitable access to land, and discrimination and marginalization of the extreme poor, women and youth. A lack of gender¹ equity² is also a constraint, including lack of education and income-generating opportunities and decision-making power for women, high levels of illiteracy among women, poor levels of remuneration, excessive workload, early marriage, high fertility and gender-based violence against women. In some instances, community-level dependency and sense of entitlement that hamper development efforts have also been constraints. Despite these constraints, opportunities exist to work closely with local government in the current decentralization process and with ward committees, chiefs, and community leaders and groups to improve accountability, transparency and democratic processes; strengthen civil society; and improve opportunities for marginalized poor, women and youth. Opportunities also exist to support Government of Sierra Leone (GOSL) initiatives to decrease food insecurity and collaborate with numerous strong stakeholders in the process.

¹ Gender refers to the social constructs that define men's and women's roles and how they are socialized. Sex refers to the biological difference between men and women.

² Gender equity considers the differences in women's and men's lives and recognizes that different approaches may be needed to produce outcomes that are equitable.

An analysis of the components of food security – availability, access and utilization – within the Sierra Leone context reveal the following specific constraints negatively affecting progress in improving each area.

FOOD AVAILABILITY	FOOD ACCESS	FOOD UTILIZATION
<ul style="list-style-type: none"> • Low agricultural productivity due to environmental degradation, lack of inputs, pest/disease, lack of mechanization • Climate change and altered rainfall patterns • Lack of sufficient quantity of diverse crops • Untapped potential of inland valley swamps (IVS) • Lack of labor • High post harvest losses • Lack of extension services and applied research • Lack of animal health services 	<ul style="list-style-type: none"> • Rural livelihoods highly dependent on agriculture with lack of substantial, sustainable income generating opportunities • Poorly developed agricultural value chains • Poor access to markets and market information • Lack of credit • Poor road network • Weak private sector 	<ul style="list-style-type: none"> • High levels of maternal mortality • Poor access and quality of health services • Poor maternal nutrition • Early childbearing and high fertility • Improper infant and young child feeding (IYCF) practices • High prevalence of infectious disease (e.g., malaria, diarrhea, acute respiratory infections [ARIs]) • Lack of access to clean water and adequate sanitation • High levels of anemia • Poor micronutrient supplementation (e.g., vitamin A)

The Title II program can contribute to addressing these constraints by striving “to reduce food insecurity among vulnerable rural populations in Sierra Leone.” The new MYAPs should give priority to activities designed to improve food availability, access and utilization at the household and community level and reduce the vulnerability of the individuals, households and communities targeted by the program to common shocks they experience. Desired outcomes include:

- Improved agricultural productivity and rural household incomes
- Reduced chronic malnutrition among children under 5

Specific information about the priority outcomes and activities recommended in the FSCF are outlined in **Box I** and described in more detail in **Section 6.2**.

BOX I: PRIORITY OUTCOMES AND ACTIVITIES FOR THE SIERRA LEONE TITLE II PROGRAM

The Title II program should give priority to activities expected to:

- *Improve agricultural productivity and rural household incomes, by*
 - Transferring improved agricultural technologies and practices, both production and post-harvest
 - Assessing markets and increasing and improving market linkages
 - Promoting increased village-level savings and investments
 - Focusing Food for Assets (FFA) activities on the development of community assets to support improvements in household incomes

- *Reduce chronic malnutrition among children under 5 years by*
 - Preventing malnutrition among children under two
 - Improving IYCF practices for children under two
 - Improving prevention and treatment of childhood illnesses
 - Improving detection and referral of children under 5 with severe acute malnutrition (SAM)
 - Improving maternal nutrition and health
 - Improving nutritional status and nutrition awareness among single and newly-married adolescent girls and their families
 - Improving adoption of key practices through effective use of behavior change communication (BCC) interventions
 - Improving access to safe drinking water and appropriate sanitation and improving hygiene practices

The Title II program should be targeted to the areas of the country that are the most vulnerable to food insecurity and where interventions can be expected to have a significant impact on a comparatively large number of people. An analysis of district-level data representing the chronic dimensions of food insecurity in Sierra Leone – that is, the percentage of the population in extreme poverty, the percentage of children under 5 that are chronically malnourished and population levels affected – indicates that potential Title II Awardees should select from the following food insecure districts when considering the geographic targeting of their programs: Bombali, Kailahun, Kenema, Koinadugu and Tonkolili. Title II Awardees, whether individually or in a consortium, should ideally cover the entire district, as appropriate, rather than small areas in a larger number of districts, for greater efficiency in resource use and potentially greater impact reflected in district-level data. If areas of a district are covered by other food security projects, this should be clarified with an explanation of how the project will complement and not duplicate efforts. Any determination of food insecurity within areas in a district should be evidenced-based, using data collected through surveys and/or rapid assessments and indicators that are known to correlate with food insecurity and vulnerability.

The new MYAPs should ensure that all vulnerable households and individuals in the community – including the very poor, women and youth – have the ability to participate

in the various program activities and that the activities will not be monopolized by community elites. Participatory community problem analyses and prioritization exercises that include a targeting mechanism may help to identify the most vulnerable and food insecure households that should be provided every opportunity to participate in program activities and to assist with obtaining buy-in among all community members, including elites, regarding program targeting. All households with children under 2 and pregnant and lactating women will need to be given priority for nutrition activities aimed at improving food utilization. This is necessary to adequately address the very high prevalence of chronic malnutrition among children and its long-term, negative effects. Programs that involve food for work, on the other hand, need to be directly targeted to the poorer, more food-insecure households and individuals.

Other key design considerations that the FSCF recommends incorporating in order to achieve the priority outcomes and activities for the Sierra Leone Title II program include:

- Finding the right balance between food and cash, considering both the increased level and proportion of direct distribution necessary to implement the Prevention of Malnutrition in Children under 2 Approach (PM2A) in addition to Food for Assets (FFA) and the cash resources needed for expertise, technical assistance and training to implement PM2A, technical aspects of activities to improve access and availability, and supplies and expertise for FFA projects
- Instituting a holistic, integrated programming approach so the most vulnerable can access activities in each of the major programs areas to maximize impact and reduce food insecurity
- Using a community participatory approach to decrease community-level dependency
- Integrating strengthening of civil society in MYAP activities through capacity strengthening around democratic processes, accountability and transparency with community groups
- Integrating gender equity into program design through formative research to better understand existing gender dimensions, how gender issues affect the various aspects of the program and the ability of Title II Awardees to achieve food security objectives, and how to transform the enabling environment at the community level so men and women dialogue, participate and gain equitably from program efforts
- Anticipating the need for emergency response to national or localized shocks through developing early warning system and response plans, working closely with communities, chiefdoms, district governments, and national and regional stakeholders such as the United Nations Development Program (UNDP) and the Famine Early Warning System Network (FEWS NET)
- Developing effective monitoring and reporting systems
- Establishing a strong commodity management system
- Applying formative research to identify and develop an effective approach to behavior change
- Incorporating operations research to improve program design
- Developing effective sustainability and exit strategies
- Developing strategic partnerships with district councils, paramount and section chiefs, and ward committees; USAID-funded projects, especially the Promoting Agriculture, Governance and the Environment (PAGE) project in areas where

an Awardee may overlap with PAGE; Sierra Leone Agricultural Research Institute (SLARI); District Health Management Teams (DHMTs); United Nations Children's Fund (UNICEF) and the Ministry of Health and Sanitation (MOHS)

- Promoting appropriate management of the environment through integrating sustainable use of natural resources into interventions to support agricultural-based livelihoods, rural income strategies, mitigation and preparedness for shocks and resilience building
- Strengthening human resource capacities

Organizations that desire to partner with USAID/Sierra Leone in food security programming will need to explore mechanisms for collaboration and joint programming to ensure efficient use of resources. Prospective Title II Awardees are encouraged to demonstrate how their Title II programs build on the comparative advantage of Title II and maximize synergies and complementarities with other programs, including Mission and USAID regional and centrally funded projects. Potential Title II Awardees should demonstrate how their proposals align with and support GOSL strategies and programs, and, as applicable, how they coordinate with or complement food security initiatives funded by other donors like the European Commission (EC), United Kingdom (UK) Department for International Development (DfID), World Bank, World Food Program (WFP), Food and Agriculture Organization of the United Nations (FAO), Research into Use (RIU), and other organizations working in food security. Potential Title II Awardees are strongly encouraged to work in consortia to maximize complementarities and efficiencies of scale.

I. OBJECTIVES OF THE PROGRAMMING STRATEGY

The purpose of the United States Agency for International Development (USAID) Food Security Country Framework (FSCF) for Sierra Leone is to provide programming guidance to current and potential USAID/Sierra Leone food security partners on the development of Title II-funded multi-year assistance programs (MYAPs) for the period 2010-2014 in Sierra Leone, and to improve program and resource integration.

The FSCF uses USAID's definition of food security and risk and vulnerability as a basis for describing the current food security situation in-country and identifying who are the food-insecure, where they are located, why they are food-insecure and what actions are necessary to reduce their food insecurity. The FSCF also describes the institutional context in which the USAID/Sierra Leone FSCF will be implemented, in terms of existing United States Government (USG) and Government of Sierra Leone (GOSL) strategies and programs, as well as that of other donors.

The audience for this FSCF is Title II Awardees, nongovernmental organizations (NGOs), institutions, donors, GOSL entities working in food security in Sierra Leone, and USAID staff in Sierra Leone and Washington, DC. The Sierra Leone FSCF is based on a review of the literature and current data on food insecurity in Sierra Leone, field visits to USAID/Sierra Leone food security partner projects, and key informant interviews with staff from USAID/Sierra Leone, USAID/Washington, the GOSL, NGOs and other institutions that are stakeholders in food security programming in the country.

2. DEFINITION OF FOOD SECURITY

In 1992, USAID's Policy Determination 19 established the following definition for food security: *"Food security exists when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life."*³ The definition focuses on three distinct but interrelated elements, all three of which are essential to achieving food security:

- **Food availability:** having sufficient quantities of food from household production, other domestic output, commercial imports or food assistance
- **Food access:** having adequate resources to obtain appropriate foods for a nutritious diet, which depends on available income, distribution of income in the household and food prices
- **Food utilization:** proper biological use of food, requiring a diet with sufficient energy and essential nutrients, potable water and adequate sanitation, as well as knowledge of food storage, processing, basic nutrition, and child care and illness management

³ USAID April 1992, I.

This document uses the above definition of food security, with the addition of the concepts of risk and vulnerability,⁴ as a framework to describe the context and determinants of food insecurity in Sierra Leone and the programmatic actions necessary to reduce food insecurity in-country.

3. OVERVIEW OF THE COUNTRY CONTEXT

Sierra Leone is a West African country⁵ with a land area of 72,300 square kilometers (km²) which is divided into four regions and 14 districts,⁶ a population of 6.4 million,⁷ and rich agricultural and mineral resources. It has suffered five military coups and a violent 11 year civil war (1991-2002) since its independence in 1961. Political instability, particularly since the mid-1980s, was caused by an overpowering and inefficient central government, widespread corruption, marginalization of rural communities and the collapse of local government. Economic growth averaged just 1.5 percent in the 1980s due to misguided economic policies and mismanagement. Planned macroeconomic and structural reforms were derailed by the civil war that resulted in destruction of most of the country's social, economic and physical infrastructure; mass exodus of skilled professionals; loss of an estimated 20,000 lives; extensive human rights abuses, especially against women and children; and displacement of over two million people.

Since the end of the war in 2002, Sierra Leone has implemented a successful, multi-donor funded Disarmament, Demobilization and Reintegration program for ex-combatants and child soldiers and a Reconstruction, Resettlement and Rehabilitation program to resettle refugees and internally displaced persons back into their communities. Successful national elections were held in 2002, and a Truth and Reconciliation Commission from 2002-2004 helped bring peace and healing to the nation. United Nations (UN) operations in-country in its current form as the United Nations Integrated Peacebuilding Office in Sierra Leone (UNIPSIL) aims to consolidate peace, promote sustainable development and strengthen the democratization process. The country has made good progress in establishing peace and security; rebuilding national and local governance structures; promoting economic growth, especially in agriculture; re-establishing basic services in education and health; and collaborating with a wide range of key stakeholders to try to improve food security.

Sierra Leone, however, is still the poorest low-income country in the world, ranking last out of 179 countries in the UN Human Development Index. Although progress has been made on numerous fronts, recovery from the devastating effects of the war on the

⁴ The concept of risk, which is implicit in the USAID definition of food security, was added to the conceptual framework that underlies the USAID Office of Food for Peace (FFP) Strategic Plan for 2006-1010 as a fourth pillar (see Annex 4). The concept of vulnerability is also addressed in the FFP Strategic Plan in the sense that food security can be lost as well as gained and is defined as the inability to manage risk. See USAID 2005, 20.

⁵ See Map 1 in Annex 1.

⁶ Sierra Leone's 14 districts can be grouped into the following four regions: Eastern: Kailahun, Kenema and Kono districts; Northern: Bombali, Kambia, Koinadugu, Port Loko and Tonkolili districts; Southern: Bo, Bonthe, Moyamba, and Pujehun districts; and Western: Western Area Urban and Western Area Rural.

⁷ July 2009 estimate.

economy, public services, infrastructure and government institutions has been slow.

Table I presents a selection of basic economic and social indicators for Sierra Leone in comparison to its neighbors Liberia and Guinea.⁸ Many indicators demonstrate that Sierra Leone is doing far worse than Guinea and Liberia. In particular, the high levels of malnourished individuals in the population, high levels of poverty and high prevalence of chronic malnutrition among children are all indicative of large problems of food insecurity in the country. The numerous factors that either promote or constrain food security in Sierra Leone are briefly described below.

Relatively good economic growth, but challenges in the agricultural sector limit its contribution to growth and food security. Sierra Leone's economy has recovered strongly since the end of the civil war. Real annual gross domestic product (GDP) growth was over 7 percent in 2005-2006, 6.8 percent in 2007, and is estimated at 6 percent in 2008, despite the food price crisis and global recession. This growth is due largely to broad recovery in the mining, construction and service sectors, but especially to agriculture, which contributes to 45 percent of the GDP. Agriculture is by far the largest sector in Sierra Leone, with over 80 percent of the economically active population employed via a family farm or business.⁹ Despite the agricultural sector's contribution to economic growth and the large percentage of the population employed in the sector, over 79 percent of farmers in Sierra Leone live below the poverty line.¹⁰ This is due to numerous challenges faced by both farmers themselves and agricultural institutions, discussed in more detail in **Section 4**.

Progress in rebuilding national and local government is relatively good. The GOSL, with support from the international community, has made good progress towards rebuilding national and local government institutions. There have been presidential and parliamentary elections in 2002 and 2007 and local elections in 2004 and 2008, all of which have been considered by international observers as relatively free, fair, peaceful, well administered and broadly reflective of the will of the majority of the electorate. As a part of the rebuilding process, the GOSL has also made progress reestablishing basic services in health care and education in urban and rural areas, improving government revenue flows, and initiating decentralization of responsibilities and resources from the central to the district level. Of particular importance in the decentralization process is the recent district council development of district-level plans and district health management team (DHMT) development of district-level health plans.

⁸ Sierra Leone, Guinea and Liberia together make up the Mano River Union. The goal of the Union is to foster economic cooperation among the three countries.

⁹ GOSL November 2007a, 26.

¹⁰ GOSL February 2005, 31.

TABLE I: SELECTED BASIC ECONOMIC AND SOCIAL INDICATORS

BASIC INDICATOR	SIERRA LEONE VALUE	SIERRA LEONE RANK/ # OF COUNTRIES	LIBERIA VALUE	LIBERIA RANK/ # OF COUNTRIES	GUINEA VALUE	GUINEA RANK/# OF COUNTRIES
Population						
Total population (in millions) ¹¹	6.4	104/238	3.5	133/238	10.1	82/238
Percent of total population under 15 years (%) ¹²	44.5		44.1		42.8	
Percent of population rural (%) ¹³	59		42		67	
Gross domestic product						
Gross Domestic Product per capita (PPP) (US\$) ¹⁴	\$ 630	172/178	\$ 335	176 / 178	\$ 1,118	167/178
Contribution of agriculture to GDP (%) ¹⁵	45		52		49	
Poverty						
Human Poverty Index ¹⁶	51.2	129/135	40.5	118 / 135	50.9	128/135
Population living below national poverty line ¹⁷ (%)	70		64		49	
Population living in extreme poverty (%)	26		48		19	
<i>Human development</i>						
Human Development Index ¹⁸	0.329	179/179	0.364	176 / 179	0.423	167/179
Gender Development Index ¹⁹	0.311	157/157	0.351	153/157	0.412	144/157
Education						
Adult Literacy Rate (% ages 15 and above) ²⁰	37	141/147	54	130 / 147	30	135/147
School enrolment ratio (female as % of male) ²¹	73	149/157	73	147 / 157	73	148/157
Net primary school enrolment (%) ²²	43		40		66	
Percent of children attending primary school (female as % of male) ²³	71		88		84	

¹¹ Sierra Leone and Guinea: CIA World Factbook; Liberia: LISGIS 2008.

¹² CIA World Factbook entries.

¹³ Sierra Leone and Guinea: UNDP 2007a, 246. Note: data is from 2005; Liberia: UN World Urbanization Prospects.

¹⁴ UNDP 2008a, 31-32. Note: data is from 2006.

¹⁵ Sierra Leone and Guinea: World Bank Data and Statistics. Liberia: Liberia MOA 2007, 9.

¹⁶ UNDP 2008a, 35-40.

¹⁷ Sierra Leone: GOSL February 2005, 24; Liberia: LISGIS 2007; Guinea: Republic of Guinea 2007, 13.

¹⁸ UNDP 2008a, 31-32. Note: data is from 2006.

¹⁹ UNDP 2008a, 39-40.

²⁰ UNDP 2008b.

²¹ UNDP 2008b. Combined primary, secondary and tertiary enrollment ratio.

²² UNDP 2008b. Note that net primary school enrollment data is from 1991, no later data available to date.

²³ Sierra Leone and Guinea: UNDP 2008b; Liberia: Liberia MOE, 20; Note that data for Sierra Leone is from an unspecified period prior to 2005.

Net secondary school enrolment (%)	No data		19.6		24	
Percent attending secondary school (female as % of male) ²⁴	71		69		53	
Age at marriage						
Percent of women aged 15-49 married before age 18 (%) ²⁵	62		No data		No data	
Percent of women aged 20-49 married by age 18 (%) ²⁶	No data		44		71	
Percent of women aged 20-24 married by age 18 (%) ²⁷	No data		38		63	
Life expectancy, fertility, & mortality						
Life Expectancy at birth (in years) ²⁸	42	176/179	45	172 / 179	55	150/179
Total fertility rate (births per woman) ²⁹	5.1		5.2		5.7	
Maternal Mortality rate (per 100,000 births) ³⁰	1300		994		980	
Under-5 Mortality rate (per 1000 live births) ³¹	140		110		163	
Infant mortality rate (per 1000 live births) ³²	89		71		91	
Malnutrition³³						
Prevalence of underweight in children under 5 (%) ³⁴	21		19		23	
Prevalence of stunting in children under 5 (%)	36		39		39	
Prevalence of wasting in children under 5 (%)	10		7.5		11	
Percent of population undernourished (%) ³⁵	47		40		17	

²⁴ Sierra Leone and Guinea: UNDP 2008b; Liberia: Liberia MOE, 49.

²⁵ Statistics Sierra Leone and UNICEF 2007, 60.

²⁶ Liberia: LISGIS, MOHSW, National AIDS Control Program and Macro International Inc. 2008, 81; Guinea: Guinea National Institute of Statistics – Ministry of Planning and ORC Macro, 99.

²⁷ Ibid.

²⁸ UNDP 2008b.

²⁹ Sierra Leone: Statistics Sierra Leone and Macro International Inc. 2008, 8; Liberia: LISGIS, MOHSW, National AIDS Control Program and Macro International Inc. 2008, 47; Guinea: Guinea National Institute of Statistics – Ministry of Planning and ORC Macro, 62.

³⁰ Sierra Leone: data represents an adjusted maternal mortality ratio (MMR) derived from the Statistics Sierra Leone and UNICEF 2005; Guinea: UNICEF Statistics and Monitoring, Data refer to most recent year available during the period 2000-2007 and are levels reported by national authorities; Liberia: LISGIS, MOHSW, National AIDS Control Program and Macro International Inc. 2008, 247.

³¹ Sierra Leone: Statistics Sierra Leone and Macro International Inc. 2008, 12; Liberia: LISGIS, MOHSW, National AIDS Control Program and Macro International Inc. 2008, 102; Guinea: Guinea National Institute of Statistics – Ministry of Planning and ORC Macro, 197.

³² Ibid.

³³ Malnutrition data analyzed using World Health Organization (WHO) 2006 Child Growth Standards.

³⁴ Sierra Leone: Statistics Sierra Leone and Macro International Inc. 2008, 22; Liberia: LISGIS, MOHSW, National AIDS Control Program and Macro International Inc. 2008, 137; Guinea: WHO Global Database on Child Growth and Malnutrition, analyzed using data from Guinea National Institute of Statistics - Ministry of Planning and ORC Macro 2006.

HIV prevalence						
Adult HIV prevalence rate (15-49 yrs) (%) ³⁶	1.7		1.5		1.5	
Water and sanitation						
Population using an improved water source, (% 2004) ³⁷	57		61		50	
Population using improved sanitation (% 2004) ³⁸	39		27		18	

Potential for political turmoil is still great. Despite GOSL progress, immense challenges remain due to decades of economic mismanagement, rampant corruption and lack of government capacity to manage the development process. Of great concern is that the root causes of the conflict still exist, including poor governance, corruption, gender³⁹ discrimination, and political and economic exclusion. The GOSL's decentralization process, while transferring power to elected district councils, has not adequately clarified the relationship between the councils and traditional chiefs, who still hold much power. Sierra Leone's critical challenges are to sustain democratic governance, peace, justice and security; accelerate development; protect the human rights of vulnerable groups; create employment, particularly for youth; increase capacities for managing development and tackling income poverty; broaden political participation, especially among marginalized groups such as women and youth; accelerate the pace of social advancement; and reduce heavy dependence on donor support.

Civil society is weak but opportunities for building social capital exist. Civil society in Sierra Leone is fragmented⁴⁰ and characterized by weak organization and lack of resources.⁴¹ Some citizens are engaged in civil society structures, such as cooperatives, farming and fishing associations; professional and local business associations; trade unions and youth and women's groups; but participation in such organizations remains low. Lack of social trust is a characteristic of civil society in Sierra Leone and may be the reason why groups are small and fail to have linkages with each other. Most civil society organizations lack internal democracy, accountability and transparency, with leadership often resting in the hands of founders or appointed

³⁵ FAOSTAT nd (a). Undernourishment refers to the condition of people whose dietary energy consumption is continuously below a minimum dietary energy requirement for maintaining a healthy life and carrying out a light physical activity with an acceptable minimum bodyweight for attained-height.

³⁶ Sierra Leone: Statistics Sierra Leone and Macro International Inc. 2008, 34; Liberia: LISGIS, MOHSW, National AIDS Control Program and Macro International Inc. 2008, 194. Guinea: République de Guinée April 2006, 284.

³⁷ UNDP nd (a). Please note the data on access to improved water source are slightly different from those presented in Section 4. The data in the table above is population level data from 2004 while the data in Section 4 is household-level data from 2007. The data above was used to facilitate comparison among Sierra Leone, Liberia and Guinea.

³⁸ Ibid. Please note the sanitation figures are slightly different from those presented in Section 4. The data in Table I is population-level data from 2004 while the data in Section 4 is household-level data from 2007. Table I data was used to facilitate comparison among Sierra Leone, Liberia and Guinea.

³⁹ Gender refers to the social constructs that define men's and women's roles and how they are socialized. Sex refers to the biological difference between men and women.

⁴⁰ For example, formal and informal community groups are not linked in any way.

⁴¹ CIVICUS 2006.

leaders. In addition, women generally do not have decision-making power within Sierra Leone's civil society structures. However, the continued existence of functioning community-level institutions, such as labor clubs and rotating savings and credit associations (ROSCAs), despite the war and the renewed openness to group formation are important opportunities. Marginalized groups, such as women and youth, value these groups, which provide them with social interactions and help to elevate their role, status and voice within communities.

Transition from relief to development is progressing, however community-level dependency may hamper progress. Following the war, the GOSL outlined a National Recovery Strategy (PRS; for relief and reconstruction to restore national security and governance, re-launch the economy and provide basic social services to vulnerable groups) and an Interim PRS (to transition from peace-keeping to peace-building and from relief to equitable growth and sustainable development). The 2005-2007 PRS built on the gains of these two strategies, solidifying the country's transition to development. UN Development Assistance (DA) Frameworks also reflect a move from "peace-building, recovery and a transition to sustainable development" during UN operations from 2004-2007⁴² to "peace consolidation and accelerated development" in 2008-2010.⁴³ Despite Sierra Leone's progress in moving from relief to development, dependency and a sense of entitlement still exist in some communities.

Rural livelihoods, although dynamic, are highly dependent on agriculture and lack substantial and sustainable income-generating opportunities, especially for women. Although 73 percent of the rural poor are economically active, 64 percent are unpaid family workers and 33 percent are self-employed.⁴⁴ Sixty percent of unpaid family workers and 36 percent of the self-employed rural poor actively seek to increase their income through means other than their primary activity – crop production. Many more women are unpaid family workers (60 percent) than men (47 percent). The ratio of women's-to-men's earnings is less than half (45 percent), significantly affecting women's purchasing power.⁴⁵ In addition, women are often able to access fewer days of paid labor, even at the reduced rate. Given that the rural poor are net buyers of food, poor women must either rely on men for food security, or manage within their own limited means. Women generally have fewer employment options, given their lower status and decision-making power compared to men; are more prominent in the informal sector, due in part to lower education levels; incur costs to operate informally that are five times those of men; and are less familiar than men with necessary procedures to formalize business operations.⁴⁶

⁴² UN Country Team March 2003, ii.

⁴³ UN February 2007, I.

⁴⁴ GOSL November 2007a, 109-116.

⁴⁵ UNDP 2008a, 44.

⁴⁶ FIAS 2006, 11.

Rural-to-urban migration of youth negatively affects rural development.

Sierra Leone is undergoing rapid urbanization. Currently 41 percent of the population lives in urban areas and this is anticipated to increase to 48 percent by 2015.⁴⁷ A large portion of the population migrating to urban areas is youth, frustrated with low productivity and incomes in rural agriculture and traditional hierarchies in which they feel marginalized. The sense of marginalization has been exacerbated by negative perceptions of youth after the war, given their coerced or willing participation in the conflict. In addition, many youth fled or were sent from rural areas to reside in urban centers during the war. Many of these youth have been slow to return to rural areas, either because they have no home to return to or they prefer the amenities and potential opportunities in urban centers over backbreaking labor-intensive farming, even though 28 percent of economically active urban youth are under-employed and 15 percent are unemployed.⁴⁸ The attraction of youth to urban areas has had serious consequences on agriculture by continually reducing the labor supply.⁴⁹ This has particularly negative effects on food availability and access: in some instances poor rural farmers in Sierra Leone are unable to harvest their entire crop because of lack of labor.⁵⁰ There is a need to develop appropriate interventions to improve farming techniques to ensure high and sustainable increases in farmer incomes and attract youth back to rural areas, and a better understanding of rural labor problems, how they affect farmer decisions and the most appropriate actions to overcome these problems.

Inequities in access to land increase vulnerability of the rural poor. Land tenure in Sierra Leone is a complex issue. Access to land is seen as inalienable for landowning extended families and chiefdoms, and key to holding together the extended families that are a source of food and livelihood security. Rural communities quickly returned to the traditional land tenure system and chieftancy structure following the war. Land can be family or clan owned, received through inheritance, used by permission from the chief or rented on a short-term basis, with the first two the most common in rural areas.⁵¹ Women generally cannot inherit land, and their land use options are dictated by their fathers, brothers or husbands and the strength of their lineage family within the community. Youth are dependent on the older male figures in their lives (i.e., fathers, uncles, brothers) for access to land, or if they are in a new community, on a member who will vouch for their good character. The land use system makes it difficult for the vulnerable – especially women, youth and outsiders – to access land and/or invest in its improvement. This is because in the traditional system, which generally does not involve legal tenure, landowning families are reluctant to allocate lands for extended periods for fear of claims on the land, especially when users implement long-term improvements or plant tree crops. Paramount chiefs preside over land access issues even among landowning families and settle disputes when returnees attempt to access or re-access lands or outsiders, such as youth from other

⁴⁷ UNDP 2007a, 246.

⁴⁸ GOSL November 2007a, 111.

⁴⁹ In the past, the attraction of youth to the mining industry also decreased rural labor supplies, but youth involved in mining are now either returning to agriculture or, more often, seeking opportunities in urban areas, given low returns to labor in mining and increased mechanization in the industry.

⁵⁰ GOSL November 2007a, 228. Note: Underemployment is defined as employed persons actively seeking to increase earnings (Ibid, 292).

⁵¹ WFP August 2005, 88.

communities, settle in new areas because they no longer feel welcome in their original homes due to the war. Although the peace process – with its communication campaigns around people’s rights, land rights, and roles and responsibilities of chiefs and government – has resulted in greater attention to the voices of marginalized groups such as women and youth, these groups still face challenges. One change that has taken place since the war is the ability of youth groups and women’s groups to request access to land independently of a sponsor or male family member.

Rural social hierarchies increase vulnerability of rural poor to food insecurity.

Class and age marginalization and exploitation, prevalent in pre-war Sierra Leone, were exacerbated by the war and are still prevalent today.⁵² Class and age marginalization often go hand-in-hand, especially in rural areas where chieftdom and village elites often dominate and exploit the poor and the young, especially with regard to labor and access to land and other resources. This negatively affects the ability of the poor and young to improve their incomes, as well as access and availability to food. Disenfranchisement of youth was one cause of the war and youth became a pool of recruits for the rebels. However, class marginalization is found within and across all social groups – women, youth, the educated and non-educated, as well as those in rural and urban areas. Older women tend to dominate and exploit younger women’s labor, especially younger wives in polygamous households who come from resource-poor and weak patrilineages. This is a concern for women’s groups and development interventions. Privileged youth from higher socio-economic classes can also dominate youth clubs. The Integrated Agricultural Development Programs of the 1980s, meant to assist small-scale farmers to increase productivity and income and improve livelihoods, failed because of top-down centrally controlled approaches and, in some cases, worsened rural situations by empowering local elites.

Government- and community-level safety nets require strengthening. The GOSL depends largely on major food aid agencies such as the World Food Program (WFP), international NGOs such as those implementing the current Title II program, and other donors to support safety net programs for the vulnerable poor, including Food for Work (FFW) and Food for Assets (FFA), vulnerable group feeding, supplementary feeding for pregnant and lactating women and moderately malnourished children, and school feeding programs. The GOSL recently implemented a pilot National Social Safety Net Program, providing cash transfers equaling 11 United States (US) dollars per month for six months to 16,890 elderly impoverished individuals in 65 of the country’s 156 chiefdoms.⁵³ Despite positive pilot results, continuation and expansion of the program will depend on donor and GOSL support, therefore its future is unclear. Traditionally, communities also implemented their own safety net programs for vulnerable groups, and although these were disrupted due to the war, there is great potential to revive them.

⁵² GOSL June 2004e, 3-5.

⁵³ Ministry of Employment and Social Security, Sierra Leone National Social Safety Net Program (Social Assistance), Regional Experts Group Meeting on Social Protection, Dakar, Senegal, June 7-11, 2008 (presentation).

Gender equity⁵⁴ is a critical issue for the food security and nutrition situation.

Sierra Leone's gender-related development index (GDI) ranks the lowest in the world and reflects significant gender gaps between women and men.⁵⁵ Only 25 percent of adult women are literate, compared to 49 percent of men; combined gross enrollment rates for primary, secondary and tertiary education are 38 percent for girls and 52 percent for boys; and as noted above, women earn less than half of what men earn. The wide prevalence of gender inequity, discrimination and patriarchal traditions in Sierra Leone undermine food security in several respects. Specifically, women's tenuous access to land, limited employment opportunities, low wages, undiversified livelihoods, poor access to inputs and technical resources, high burden of household and family farm labor, and the social practice of early marriage and childbearing all adversely affect food security and nutrition outcomes through various pathways. Twenty-seven percent of women in Sierra Leone marry before their 15th birthday and 62 percent marry before the age of 18 years.⁵⁶ The fertility rate of rural women 15-19 years is twice that of urban women of the same age, and rural women's fertility has already peaked by 20-24 years, much earlier than urban women at 25-29 years.⁵⁷ A recent trend of early childbearing outside of marriage further diminishes young women's access to resources and support that would be available to them if they were married, specifically in terms of land access and child support. More broadly, this suggests there have been shifts in gender relations and in the social fabric of Sierra Leone following the war. Domestic violence is also serious, with 70 percent of urban women reporting having been beaten by a male partner and 85 percent of women feeling a husband is justified in beating his wife.^{58 59} This high level of violence has grave consequences in terms of women's and children's health and nutritional status and women's access to resources. In post-conflict Sierra Leone, several new laws have been adopted to protect women's rights. However, the extent to which these laws are actionable is unclear because historically Sierra Leone has operated with two sets of laws: one of customary law that governs marriage and land rights and the other state law. This lack of clarity further limits the extent to which women can realize their rights in marriage and property ownership and is exacerbated by the high level of domestic violence.

Changes in women's status and influence on food security as a result of the war are unclear. There is lack of a clear understanding of how women's status may have shifted due to the war and women's capacity to influence family food security. For example, in Sierra Leone, as in much of West Africa, men traditionally control the staple food granaries and in many instances women are not allowed to enter the granaries to

⁵⁴ Gender equity considers the differences in women's and men's lives and recognizes that different approaches may be needed to produce outcomes that are equitable.

⁵⁵ GDI is a composite index measuring average achievement in the three basic dimensions captured in the Human Development Index – a long and healthy life, access to knowledge and a decent standard of living – adjusted to account for inequalities between men and women.

⁵⁶ Statistics Sierra Leone and UNICEF March 2007, 60.

⁵⁷ Statistics Sierra Leone and Macro International Inc. 2008, 8. The age-specific fertility rate based on history of live births for rural women 15-19 years of age is 185 births/1,000 women – twice that of urban women of the same age range (94/1,000). Rural women's peak fertility (224/1,000) occurs between the ages of 20-24 years, while that of urban women (192/1,000) occurs between the ages of 25-29 years.

⁵⁸ Unpublished report cited in UNFPA 2005: Human Rights Watch. *Gender-based Violence in Sierra Leone, A Case Study*. Consultative Meeting: Bucharest, Romania, 17-20 October, 2005.

⁵⁹ Statistics Sierra Leone and UNICEF March 2007, 65.

take food for their family when needed. However, increasingly there is some indication that this practice may be changing. In addition, men and women traditionally had specific roles in contributing to the family food basket to ensure food security, but these roles may have changed as a result of displacement and loss of male household members due to the war or migration in search of labor given the difficult economic situation and lack of income-generating opportunities in rural areas.

Maternal mortality is extremely high. Sierra Leone has one of the highest maternal mortality ratios (MMRs) in the world: 1,300 annual deaths per 100,000 live births.⁶⁰ The extremely high MMR is due to a myriad of factors, including an inadequate number of comprehensive and basic emergency obstetric and neonatal care (EmONC) facilities; lack of equipment, supplies and staff; poorly trained and unmotivated staff; poor access to electricity and water; user fees and charges for drugs and other materials; perceptions of poor service delivery; long travel times given poor road conditions; large distances from some villages to health units; and women's poor nutrition and care before and during pregnancy. Exemption from fees exists for vulnerable groups, but policy implementation is unclear and extra fees are sometimes charged to cover Peripheral Healthcare Units (PHUs) overhead and staff salaries. Common direct causes of maternal mortality include severe eclampsia,⁶¹ obstructed labor, hemorrhage, malaria and anemia. Only 33 percent of pregnant women in rural areas give birth under the care of a health professional.⁶² Malaria is prevalent in Sierra Leone, and pregnant women living in malarial areas are four times more likely than other adults to get malaria and twice as likely to die from it. In addition, women are valued for their childbearing role and the number of children they have, an underlying factor contributing to the high total fertility rate in rural Sierra Leone (5.8 births per woman) and high levels of adolescent pregnancy, which both contribute to the high MMR. Girls younger than 15 and those 15-19 years have a five-fold and two-fold increased risk of dying in childbirth, respectively. Lastly, UNICEF estimates that over 90 percent of women in Sierra Leone have undergone female genital cutting (FGC), which can contribute to obstructed labor and maternal mortality.⁶³

Infant and child mortality and morbidity are very high. The infant mortality rate (IMR) in Sierra Leone is 89 deaths per 1,000 live births, while the under-5 mortality rate (U5MR) is 140 deaths per 1,000 live births.⁶⁴ Major causes of child mortality and morbidity in Sierra Leone are malaria, dehydration caused by severe diarrhea and acute respiratory illness. Recent analyses show that malnutrition is the underlying cause of 57

⁶⁰ Different MMR values for Sierra Leone can be found in the literature due to differing methods in data collection and analysis, ranging from 495 annual deaths per 100,000 live births (unadjusted Multiple Indicator Cluster Survey [MICS] 2005) to 1,800 annual deaths per 100,000 live births (MICS 2001). According to the GOSL Reproductive and Child Health Strategic Plan 2008-2010, the MICS 2005 level was thought to be too low, and through consultation with the GOSL a "2005 MICS Adjusted MMR" was agreed upon: 1,300 deaths per 100,000 live births. The MMR reported in the text is the value cited by the GOSL.

⁶¹ Eclampsia is convulsions or coma occurring in pregnant or puerperal women, associated with pre-eclampsia (hipertensión, edema and/or proteinuria in pregnancy).

⁶² Statistics Sierra Leone and Macro International Inc. 2008, 13.

⁶³ Statistics Sierra Leone and UNICEF March 2007. Note: Membership in the Sande/Bondo Societies, secret societies where women reportedly undergo FGC, is used as a proxy for FGC. Ninety-four percent of women ages 15-49 years belonged to the society.

⁶⁴ Statistics Sierra Leone and Macro International Inc. 2008, 12.

percent of under-5 deaths in Sierra Leone. Other underlying contributors to child morbidity and mortality include improper infant and young child feeding (IYCF) practices, lack of access to clean water and adequate sanitation, high levels of anemia, poor prevention and treatment of malaria and vitamin A and iodine deficiencies, and poor immunization. Lack of access to quality health services exacerbates the problem of high infant and child mortality and morbidity. Women's heavy work load and lack of access to resources and household decision making negatively influence their ability to adequately prevent and treat child illness. High levels of child morbidity can potentially drain already scarce resources.

HIV prevalence is low, but the potential for rapid increase is high due to risky behaviors. The prevalence of infection with HIV is low in Sierra Leone, 2.5 percent in urban areas and 1 percent in rural areas, but factors such as high unemployment, a large population of youth, little knowledge about HIV prevention and high level of risky behaviors create the potential for a rapid increase in prevalence. The Joint United Nations Program on HIV/AIDS (UNAIDS) estimates that in 2007 there were 55,000 adults and children living with HIV in Sierra Leone; of those, 30,000 were women and 4,000 were children. UNAIDS also estimates there were 3,300 deaths from AIDS in 2007.⁶⁵ HIV prevalence among pregnant women was 2.4 percent in 2003 and 4.4 percent in 2006, indicative that prevalence is increasing, especially among young women.⁶⁶ Although 69 percent of women and 83 percent of men have heard of AIDS, only 38 percent of women and 56 percent of men know at least two ways to prevent infection with HIV.⁶⁷ Only 7 percent of women and 21 percent of men report using a condom during high risk intercourse.⁶⁸

4. FOOD SECURITY SITUATION IN SIERRA LEONE

4.1 FOOD INSECURITY AT THE NATIONAL LEVEL

4.1.1 Food Availability

4.1.1.1 Aggregate food supplies

Whether sufficient food is available in a country depends on domestic production, imports, food assistance, exports, and the availability and size of stocks. According to the Food and Agriculture Organization of the United Nations (FAO), food supplies at the country level increased from 1,940 calories per person per day in 1990-92 to 1,980 in 1995-97, but fell to below 1990-92 levels in 2003-2005 (**Figure 1**). The latter decrease is most likely due to years of fierce fighting and unrest following the 1997 military coup and the devastation the latter years of the war caused to the agricultural sector.⁶⁹ Although the average amount of calories available in the country for human

⁶⁵ UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance October 2008, 4-5.

⁶⁶ Ibid, 7.

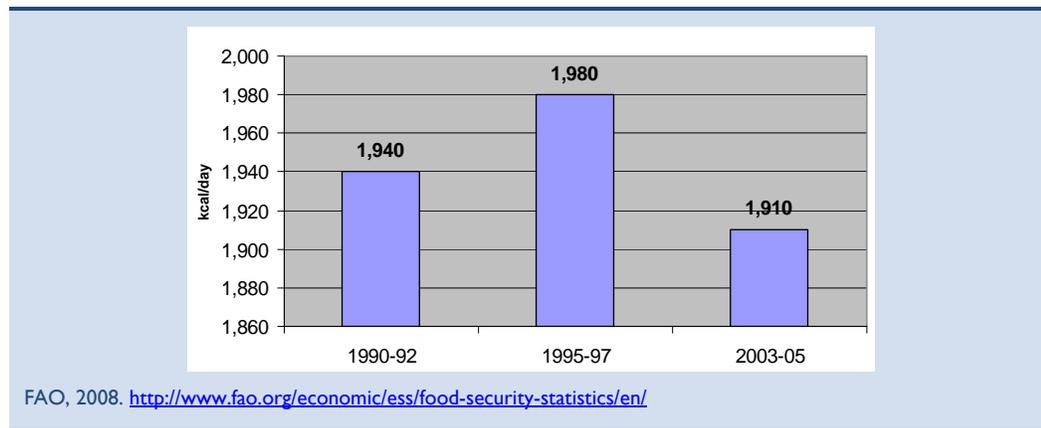
⁶⁷ Statistics Sierra Leone and Macro International Inc. 2008, 26-34.

⁶⁸ Ibid, 30-31.

⁶⁹ FAOSTAT nd (b).

consumption is more than the minimum average daily requirement, which FAO estimates are 1,750 calories per person per day, the downward trend demonstrates a worsening situation.⁷⁰ Actual food consumption may be lower than the quantity shown depending on household food losses including, for example, storage, preparation and cooking. Also, given the high level of inequality in Sierra Leone, the amounts of food actually available to poor people is likely to be significantly below these averages.⁷¹ The average is also lower than Sierra Leone's neighbors Guinea (2,540) and Liberia (2,010), Sub-Saharan African countries (2,220), and low income countries in general (2,240).

FIGURE 1: FOOD SUPPLY PER PERSON (KCAL/DAY)



4.1.1.2 Food consumption

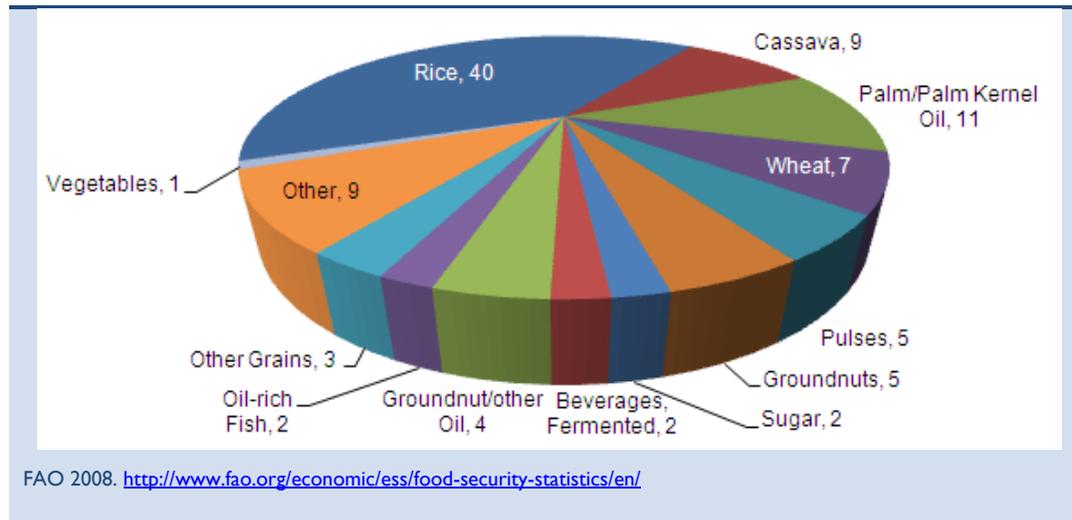
Rice accounts for 40 percent of the calories consumed in Sierra Leone and is the basic staple throughout the country (**Figure 2**).⁷² The predominance of rice, cassava and wheat in the diet and lack of significant animal source proteins and pulses results in extremely low dietary diversity and contributes to the problem of micronutrient deficiencies in Sierra Leone, especially among women, adolescent girls and children.

⁷⁰ FAOSTAT nd (c).

⁷¹ The Gini coefficient for Sierra Leone – a measure of equality in income distribution among individuals or households – is one of the highest in the world (62.9), representative of a high degree of inequality (UNDP 2007, 284).

⁷² FAOSTAT 2008. No specific data provided on meat and dairy consumption. The latter may be included in “Other” category, which is undefined.

FIGURE 2: COMPOSITION OF THE NATIONAL DIET (% SHARE DAILY ENERGY, FAO, 2003-2005)



4.1.1.3 Food production

Domestic production provides the majority of Sierra Leone’s staples – rice and cassava – as well as pulses, oils, vegetables and fruits. Rice is the most important crop in Sierra Leone, cultivated by farmers in all districts and occupying up to 50 percent or more of average smallholder upland acreage.⁷³ Rice production increased throughout the 1960s and 1970s due to GOSL and FAO programs in integrated agricultural development; fell in the 1980s due to government mismanagement, corruption and lack of support to the sector; decreased significantly in the late 1990s as a result of the war; but has increased substantially since the peace accords were signed (**Figure 3**).⁷⁴ The land area cultivated to rice production fluctuated slightly over the past few decades and dropped significantly during the war, but is now 1.5 times the acreage devoted to rice prior to the war (currently 600,000 hectares).⁷⁵ However, per capita production of rice was less in 2003-05 (71 kg/person/year) than prior to the war (1990-92, 80 kg/person/year).⁷⁶ Yield per hectare has increased little over time and is basically now at levels the country obtained four decades ago; therefore, increases in production are primarily due to increases in area cultivated. The Ministry of Agriculture, Forestry and Food Security (MAFFS) estimates Sierra Leone is currently only 70 percent self-sufficient in rice production but has the potential to be well over 100 percent self sufficient.⁷⁷ According to MAFFS, to achieve this goal yields and area under cultivation will need to increase and post-harvest losses will need to be reduced through agro-processing technologies and facilities.

⁷³ WFP August 2005, 53.

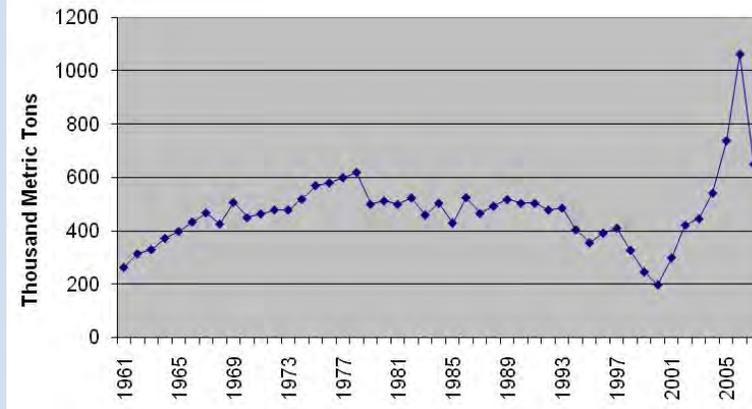
⁷⁴ Analysis of FAO data reveals the spike in production in 2006 is probably due largely to a dramatic increase in area cultivated, which rose to 1,000,000 hectares. However, data from the recent CAADP Report on Food Availability and Safety Nets does not contain this 2006 spike in rice production or increased area cultivated.

⁷⁵ FAOSTAT 2009.

⁷⁶ FAOSTAT nd (d) and FAOSTAT nd (f).

⁷⁷ GOSL 2009c, 6.

FIGURE 3: RICE PRODUCTION IN SIERRA LEONE (1961-2007)



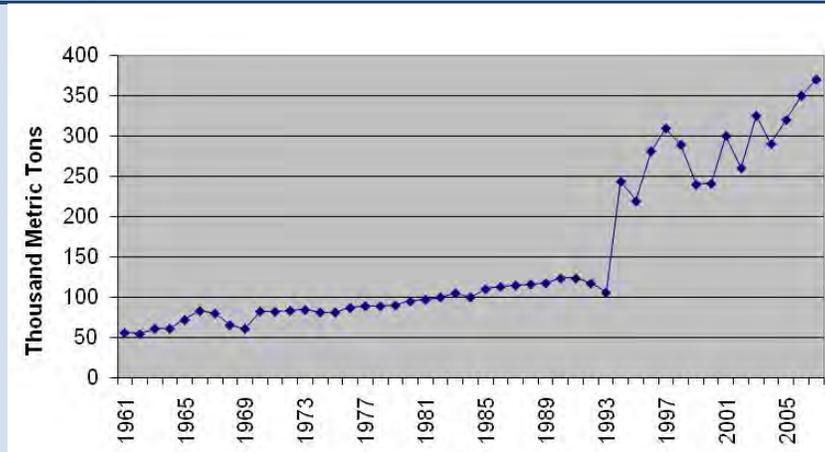
FAO, 2009. <http://faostat.fao.org/site/567/default.aspx#ancor>

Cassava is the second most important crop for farmers. Cassava tubers and leaves are consumed by households and cassava products, such as garri,⁷⁸ flour and chips, are in high demand in urban areas. In 2007 cassava production was three times its pre-war levels (**Figure 4**). The area cultivated in cassava increased dramatically from 1961 to 2007, from 20,000 hectares to 70,000. The major part of this increase took place during and after the war, when cassava played an important role in food security, as it still does today. Yield per hectare has almost doubled since 1961, but current levels are still slightly below those obtained immediately prior to the conflict. Per capita production has increased significantly from 29 kg/person/year in 1990-92 to 58 kg/person/year in 2003-05.⁷⁹ However, despite progress in developing and disseminating improved cassava varieties, gaps between farmers' yields and those at research centers are high. To improve farmer yields, production practices and input investments, including fertilizer use, will need to improve.

⁷⁸ Garri is mashed, fermented and roasted cassava tubers that can be stored for long periods or pounded into flour.

⁷⁹ FAOSTAT.

FIGURE 4: CASSAVA PRODUCTION IN SIERRA LEONE (1961-2007)



FAO, 2009. <http://faostat.fao.org/site/567/default.aspx#ancor>

Although not a major part of the diet, vegetable and fruit/citrus crop production has remained somewhat stable over the past two decades in terms of area cultivated and production, with only slight increases. Vegetable production and sale is largely handled by women. Produce is primarily sold in Freetown, although it is often sold in neighboring countries from districts along borders. Pulse and especially groundnut production has been slowly increasing due to their nutritional and cash value: groundnut is mostly cultivated by women on small plots of land because of labor constraints. Oil crop, such as palm oil, production has also remained about the same over the past two decades, but acreage harvested has almost tripled while yield per hectare is less than half what it was two decades ago. Palm oil is not only an important staple in the diet but also an important source of income for rural households. Men harvest the palm fruit and generally sell the final product, while women process the palm fruit into oil. Much work is still needed to rehabilitate palm plantations. Generally speaking, greater diversification of the crop sector is needed to improve dietary diversity and nutritional status of the Sierra Leone population, and to promote more sustainable agricultural practices and a faster growing rural economy.

Rural smallholder farmers account for 60-70 percent of agricultural output, involving two-thirds of the farming population.⁸⁰ Smallholder farmer land holdings average 0.5-2.0 hectares. Only about 13 percent of the rural poor do not own land, which usually occurs through their family/clan or via inheritance, and only 7 percent experience constraints to agricultural production due to lack of access to land.⁸¹ However, a greater proportion of female-headed households did not own land (43 percent) compared to male-headed households (38 percent). Farmers predominately practice the bush fallow⁸² farming system, which is used on about 60 percent of Sierra Leone's

⁸⁰ GOSL June 2004b, 5.

⁸¹ GOSL November 2007a, 128, 262. Note: 15 percent of the rural population had no access to land.

⁸² The bush fallow farming system involves clearing forest or bush, primarily using slash and burn methods, cultivating the land for 2-3 years and then leaving it fallow to allow regeneration of organic matter and nutrients.

cultivated arable land. Fifty percent of the rural poor both cultivate crops and have some livestock, most commonly chickens.⁸³ Only 15 percent of the country's 5.4 million hectares of arable land is under cultivation.⁸⁴ Smallholder agricultural producers in Sierra Leone have experienced numerous constraints to agricultural production that have negatively affected their food availability, many of which are described below.

Low agricultural productivity. As discussed above, crop yields per hectare have improved little since the end of the war. Major causes of low productivity include deforestation and soil erosion, lack of access to agricultural inputs, low levels of mechanization, and pest and disease attacks.

- **Deforestation and soil erosion:** Sierra Leone has high levels of deforestation, estimated at 3,000 hectares per year.⁸⁵ Only 5 percent of the country's total land area is closed high forest.⁸⁶ Causes of deforestation and soil erosion include the brush fallow system with its declining fallow period and intensity of upland production, high demand for wood for fuel, over-harvesting of young trees for construction poles, bushfires used for herding and hunting, and mining in forested areas. Fallow periods averaged eight years in 1979 but are declining to 3-5 years due to pressures on land use, forcing farmers to travel long distances to find fallow land and to cultivate mountain tops and steep slopes, and burdening women and children with longer distances to weed and collect fire wood.⁸⁷ Agro-forestry development is still in its inception. The GOSL is working with partners, including NGOs, to conserve forested areas, such as the Gola Rainforest conservation project located in Kenema, Kailahun and Pujehun districts in southeastern Sierra Leone and is also promoting agro-forestry but with limited adoption and replication, perhaps due to lack of convincing results on farmer fields.⁸⁸
- **Lack of access to agricultural fertilizers and pesticides:** Farmers make little use of inputs like fertilizers and pesticides in uplands and lowlands largely because they cannot afford them, but also due to lack of supplies. Fertilizers, made available by MAFFS at highly subsidized prices, were used in the 1980s and early-1990s, but farmers have since stopped using agro-chemicals, with the exception of a few commercial vegetable growers. Currently there are no established input service institutions to supply farmers on a sustainable basis, only a few sellers operating on an ad-hoc basis.⁸⁹ Private sector providers have been slow to develop given lack of rural farmer purchasing power. Negligible quantities of a few types of fertilizers can be found in vegetable growing areas, but they are insufficient to cover the potential demand, sold at high prices, of low quality and do not correspond to soil and plant needs.⁹⁰ There are about 20 types of pesticides available on the formal market in Sierra Leone, but their price is prohibitive for poor rural farmers. A large informal

⁸³ GOSL November 2007a, 164.

⁸⁴ GOSL 2009a, iii.

⁸⁵ UNDP 2007b, 38.

⁸⁶ GOSL 2009a, 34.

⁸⁷ GOSL 2009a, 33.

⁸⁸ GOSL June 2004d, 17.

⁸⁹ GOSL 2009d, 48-49.

⁹⁰ GOSL June 2004b, 25-26.

market also exists, but includes unregulated and banned pesticides that are environmental and health concerns for the GOSL.⁹¹ Training is needed in improved cultivating practices, including principles of integrated pest and production management to prevent and control pests, such as crop rotation and use of pest resistant varieties.⁹²

- Lack of access to seeds: The war severely affected the seed multiplication sector and resulted in the closing of three regional seed centers. The Sierra Leone Agricultural Research Institute (SLARI) is working on the maintenance and multiplication of quality seeds, but this activity is in its initial stages. The war also disrupted farmers' capacity to select planting material. A large part of material that is being used is unsuitable to agro-ecological conditions because better seed is not available. A system of participatory farmer access to and testing and direct selection of improved varieties of rice and other crops in coordination with research centers like SLARI would be very beneficial, however varieties need to possess qualities that fit farmer needs. Low uptake of new varieties in the past, despite extensive distribution systems, was largely due to their high input demand, beyond the financial reach of the majority of farmers, and resulted in farmers' dependence on inter-farmer seed exchange or their own stocks. Recent GOSL and development partner support to farmers with seeds, cuttings and seedlings is positive, but requires sustainable mechanisms. The new higher-yielding New Rice for Africa (NERICA) rice is an example that shows much promise. It is short duration, harvesting is easier because it is taller, and it has better weed, pest, disease and drought resistance.
- Low levels of mechanization: Over 80 percent of power for crop production and post-production activities is provided by manual labor using rudimentary tools and equipment.⁹³ There is a great need for locally-fabricated, well-constructed hand tools, such as bush knives, pruning saws and felling axes, however there are few blacksmiths and those that exist need basic tools, equipment and training.⁹⁴ Less than 1 percent of power is provided by draught animals and 19 percent is provided through tractor/tiller mechanization.⁹⁵ Tractors are most appropriate for large-scale mechanization schemes (e.g., in the Bolilands [see **Section 4.2.1** on Bolilands]) while power tillers have a potential role among smallholder farmers, however 98 percent of the rural poor have no access to tillers.⁹⁶ Constraints to mechanization include lack of spare parts, workshops and mechanics for servicing; the small number of commercial farmers who can afford to purchase machines; and lack of credit. A great deal of planning, appropriate management, and business and technical training is needed for mechanized interventions to prove successful, but they have potential if constraints can be overcome. Access to hand tools and tillers can potentially be facilitated through farmer-based organizations. Although both women

⁹¹ GOSL June 2004f, 10.

⁹² GOSL 2009c, 7.

⁹³ Ibid, 18-27.

⁹⁴ GOSL June 2004g, 16.

⁹⁵ GOSL 2009c, 18.

⁹⁶ GOSL November 2007a, 246.

and men with the means can hire tractors or oxen, few have the resources, and among those who do, socio-cultural perceptions prevent women from operating them, resulting in higher costs for women to hire men to do so.

- **Pest and disease attacks:** The collapse of infrastructure and services caused by the war has also increased the incidence of plant pests and diseases. Cassava crops are devastated by grasshoppers, rice by riceblast, sweet potato by the virus complex, maize by the stem borer and vegetables by army worms, just to name a few. Pest-induced annual crop losses are estimated at 10 percent with some management and 35 percent loss without pest management.⁹⁷ Grasscutters (a rodent) and birds also consume crops.

Climate change and altered rainfall patterns. Agriculture in Sierra Leone is rain fed and benefits from its humid tropical climate that provides good average annual rainfall (3,000 mm) between the months of May and October. However, 95 percent of rains come between July and September, resulting in extremes of water surplus during this time and water deprivation in some areas, especially the uplands, in the dry period (November to April). Variability in initiation of the rains has also had negative repercussions on agricultural production, with rains sometimes starting too soon, too late or erratically. Irrigation is practiced on less than 0.5 percent of the country's 807,000 hectares of irrigable land.⁹⁸

Lack of sufficient quantity of diverse crops. Although families traditionally grow a diversity of crops, in reality, in 2007 for example, relatively few poor rural households harvested more than just rice and cassava, and about half of households that did cultivate other crops sold over 40 percent of them.⁹⁹ Cultivation and yields of these other crops are insufficient to meet both the demand for cash and family nutritional needs. Promoting a variety of diversified crops in sufficient quantity, including pulses, groundnut and vegetables, will help to ensure stable food production and food security.¹⁰⁰ Upland multi-story tree cropping with diversified under-planting will also be important, incorporating, for example, various combinations of tree crops such as cocoa, coffee, plantain, banana, kola nut, oil palm and citrus with crops such as cassava and pigeon peas to meet immediate needs as well as lay the basis for food and income generation in the long term.¹⁰¹ Appropriate combinations of crops with differing maturation cycles can allow staggering of harvest to alleviate labor pressures.

⁹⁷ GOSL June 2004f, 8-9.

⁹⁸ GOSL 2009a, iii.

⁹⁹ GOSL November 2007a, 166, 188-194, 196.

¹⁰⁰ GOSL 2009c, 12.

¹⁰¹ EU March 2009, 41. Referring to EU STABEX Cocoa Project.

Untapped potential of Inland Valley Swamps (IVS). Although the lowlands are acknowledged as potentially more agriculturally productive, farmers perceive them as less important than upland areas because lowland cropping does not always allow the same level of diversified intercropping, has higher labor requirements, and the produce (namely rice) is of lower edible quality (see **Section 4.2.1** on IVS). For this reason, it can be a relatively minor component of the overall farm holding and produce is generally used for sale or for repaying loans. However, yearly fluctuations in cultivation of lowland and upland do exist and reflect farmer shifts in subsistence and market-oriented production that depend on available resources and returns for their efforts. When considering expansion of rice production, lowlands are both the more environmentally appropriate option and have the highest potential. They also have better profitability potential for market-oriented small-scale entrepreneurs of food and cash crop production. An example of these entrepreneurs is youth and women, although challenges for them to access IVS must be overcome (see paragraphs below on access to land). As demand for food increases, IVS are the primary opportunity for land expansion. However, given labor shortages, lowland production is more feasible with mechanization, including, for example, power tillers, harvesters, threshers, winnowers and hullers. Mechanization, however, is capital intensive and requires good planning and management as well as private sector involvement for sustainability.¹⁰²

Lack of rural labor. Lack of labor for agricultural activities has been a problem in Sierra Leone for a number of years, especially since the end of the war, due primarily to youth remaining in or moving to urban areas in search of opportunities or preferring to work in alluvial diamond mining, although the latter is becoming less an option given low returns and increased mechanization. Around 7 percent of rural poor households leave harvest in the fields, primarily due to lack of labor. The percentage is highest in Kenema district, where 20 percent of households are not able to harvest the entire crop, 83 percent of which is due to lack of labor.¹⁰³ Labor constraints that affected agricultural income generation were reported highest in Kailahun, Kenema, Bombali, Kambia, Bonthe and Pujehun (see **Table 6**). Women's access to agricultural labor is particularly limited, often to female relatives and children, but at times they do access extra labor through rotational labor clubs, and women with resources also hire labor using cash or payment in-kind.

High post-harvest losses. Farmers in Sierra Leone experience relatively high post-harvest losses for all the major crops, including rice and cassava, as well as vegetables, fruit and other crops.

- **Rice:** The rice harvest is often delayed due to insufficient capacity to hire and/or organize work groups. Concrete drying floors are important for drying rice, but 80 percent of the rural poor had no access to concrete drying floors in 2007. Access was poor in all districts.¹⁰⁴ In the absence of concrete drying floors, some farmers leave their rice to dry in the field and experience losses due to rodents, birds,

¹⁰² GOSL 2009c, 7.

¹⁰³ GOSL November 2007a, 228.

¹⁰⁴ GOSL November 2007, 236.

termites and/or bad weather. Post-harvest rice losses are about 20 percent and the milling rate is only about 50-60 percent, if not less.¹⁰⁵ Only 4 percent of poor rural household processed their rice in 2007 because only 4 percent had access to rice hullers/mills. These figures were similar for all districts.¹⁰⁶ The availability and capacity of hullers and mills is low due to lack of spare parts and electricity, and destruction and vandalism during the war. For this reason, rice processing generally consists of manual threshing, parboiling and hand pounding with mortars and pestles. Rice is usually stored in boxes, barns or baskets around the home where it is prone to infestation. Farmers generally prefer the latter to communal stores to keep their stock secret and avoid management problems with communal stores, but even if they desired to use communal stores, only 12 percent of rural poor households had access to them.¹⁰⁷ This low level of access was similar in all districts. Improved practices have recently been introduced in a few communities, such as timely harvesting, thresher use, drying on concrete drying floors, storing in rodent proof individual or community stores, and milling using modern mills.¹⁰⁸

- Cassava: Cassava is an important crop for both food and cash that could result in more production and income if harvesting, storage and processing were improved. Farmers sell almost half of cassava produced.¹⁰⁹ Income from cassava production could be improved if farmers avoided damaging skins during harvest, which increases spoilage, and practiced adequate preservation and processing of fresh cassava. Only 14 percent of poor rural households processed cassava in 2007, most likely because 93 percent of poor rural farmers had no access to a cassava grater. This figure was equally high in all districts except Bonthe, where 66 percent had access but only 19 percent used the service.¹¹⁰ In the absence of graters, manual processing is exceedingly slow and laborious.¹¹¹ If graters are available farmers prefer those with engines rather than hand-operated graters to process cassava into garri and appear willing to pay for this service.
- Vegetables, fruits and other crops: With regard to vegetables and fruit, producers lose 40-50 percent of their harvest due to poor road networks, insufficient and high cost of transport, and lack of cold storage. This has a significant impact on women who are the main producers of vegetables. Tree crop technology for processing oil palm, coffee and cocoa has always been poor and even prior to the war modern technology was limited to government-owned estates, which are now in total disrepair.¹¹² Only 10 percent of the rural poor processed palm oil in 2007 and 99 percent had no access to a palm oil mill. Coffee and cocoa harvesting and sale is very important in Kailahun and Kenema districts in eastern Sierra Leone, where as

¹⁰⁵ The milling rate is the ratio of rough rice to milled rice. The quantity of rough rice multiplied by the milling rate results in the quantity of milled rice that can be expected.

¹⁰⁶ GOSL November 2007a, 202, 240.

¹⁰⁷ Ibid, 238.

¹⁰⁸ GOSL June 2004g, 7.

¹⁰⁹ GOSL November 2007a, 186.

¹¹⁰ Ibid, 202, 242. Non-use of cassava grater was attributed to partly to cost (two percent) but mostly to "other" undefined reasons (13 percent).

¹¹¹ GOSL 2009b, 5.

¹¹² GOSL June 2004b, 26-27.

many as 30-40 percent of farmers produce cocoa and coffee, but less than half process it for sale.¹¹³ Appropriate technologies are needed in post harvest storage and processing for virtually all crops and produce of the farming system. It will be important for the Title II program to consider the most appropriate technologies to introduce given the specific situation in which they are operating.

Lack of extension services. The 11-year civil war completely disrupted Sierra Leone's agricultural extension delivery and management system. Current constraints in the extension system include inadequate extension staff to farmer ratios of about 1:2,500; low staff motivation; lack of/poor transport; poor salaries; inadequately trained staff; poor links between extension and research; adoption of different and uncoordinated extension models by agencies, NGOs and programs; and overburdening/conflicted functions and roles of extension staff.¹¹⁴ In 2007, 88 percent of poor rural smallholders had not received a single visit from an extension agent; this figure was equally high in all districts.¹¹⁵ Of those who did receive visits, about 50 percent were provided by NGOs, 40 percent from GOSL staff and 10 percent from cooperatives, though in over half of the districts by far the highest percentage of visits were from NGOs. In the past, extension services have tended to focus on farmers with more resources, and since men tend to be better resourced than women, this has excluded women from new and improved technologies.

Need to expand farmer field school (FFS) approach. GOSL efforts to improve the extension system include adoption of the FFS approach, a participatory technique based on non-formal adult education methods that include experimental learning via weekly meetings through which farmers, both men and women, learn and apply new information, use their prior experience, observe results and address problems to make informed decisions. FFSs include topics on improved crop varieties and cultivation techniques, improved harvest and post-harvest storage, processing, and marketing, as well as training in leadership, business and resource management. Focus has, however, been more on crop production and more effort is needed in the other topics, as well as agro-forestry and nutrition. FFSs have the potential to develop, with adequate support and business training, into formal, legal entities, such as farmer-based organizations and agricultural business centers (ABCs); provide services and increased access to inputs, labor saving equipment, and volume marketing and sales; and link to adaptive research centers, such as those being developed by SLARI, and GOSL extension services currently being revitalized.

Scarcity of livestock and poor animal health services. Sierra Leone's livestock sub-sector is small and underdeveloped due to high livestock losses and destruction of facilities and equipment during the war, and poor GOSL policy and program development.¹¹⁶ Currently poultry are the most numerous (1,300,000) and widely owned livestock in Sierra Leone, followed by cattle (209,000), goats (122,000) and sheep

¹¹³ GOSL November 2007, 206, 222.

¹¹⁴ GOSL 2009d, 9, 49.

¹¹⁵ GOSL November 2007a, 256.

¹¹⁶ GOSL 2009d, 30.

(120,000).¹¹⁷ Fifty-nine percent of poor rural households raise chickens – this figure is over 50 percent in eight of the country’s 14 districts. About 50 percent of goats and sheep are found in the northern districts of Koinadugu, Bombali and Port Loko alone while the rest are spread out throughout the rest of the country.¹¹⁸ About 16 percent of the rural poor own goats and 10 percent own sheep. Women generally manage poultry and small ruminants. Sheep tend to suffer from diseases of the foot and gastrointestinal system. Low reproduction and high mortality affect animals due to poor nutrition/lack of appropriate feed, intestinal parasites and other diseases. Newcastle disease is common among poultry but can be prevented if vaccines, especially thermo-stable vaccines, are available. Infrastructure for veterinary services was destroyed during the war, trained personnel left the country and reestablishment of services have been slow due to lack of qualified staff, drugs, equipment and laboratory facilities. In 2007, virtually none of the rural poor had access to veterinary services (99.5 percent); this figure was equally high in all the districts.¹¹⁹ There are relatively large volumes of egg and poultry products imported to meet local demand given lack of local capacity to meet demand. Few NGOs that specialize in animal health operate in Sierra Leone, though Heifer International recently initiated work in the country. A Comprehensive Africa Agriculture Development Program (CAADP) working group on livestock has suggested the following “quick wins” in animal services: 1) regular vaccination of poultry against Newcastle Disease to improve flock health and decrease mortality; 2) annual vaccination of small ruminants against *Peste de Petits Ruminants*, a viral disease that is now endemic and the cause of more than 50 percent of deaths among small ruminants, especially goats; 3) deworming of large and small ruminants with broad-spectrum antihelminths; and 4) training of community para-vets (the latter a “medium-term win”).¹²⁰

Lack of access to land among women. Women’s constraints regarding land are due to the primarily patrilineal inheritance system where access and property pass through the male. If a woman is with her patrilineal family, she has the same rights to use land as any male relative, and in most cases she can use the land for any kind of cultivation, but she cannot directly inherit land.¹²¹ When a woman marries, she is entitled to use land at her marital home, but her marital land rights depend greatly on the status of her patrilineal family: if it is strong, she can more effectively enforce her marital rights and her male relatives will protect her, but a woman from a weak or poor family may not be able to exercise her marital rights and is vulnerable to exploitation, especially if her family cannot return the bride price in case she wishes to terminate the marriage. In polygamous households, low-ranking wives from less influential lineages are not able to make demands of their husbands, and without the protection of their families they accept what land they are able to acquire.¹²² Under Islamic inheritance laws, strongest in the north (e.g., Koinadugu), women do have the right to inherit land and property, although the laws disproportionately favor men and there is little evidence women fare

¹¹⁷ GOSL 2009e, 13.

¹¹⁸ GOSL November 2007, 234.

¹¹⁹ Ibid, 250.

¹²⁰ GOSL 2009e, 77-79, 83.

¹²¹ Unruh and Turray 2006, 9-10.

¹²² Hanson-Alp 2003, 23.

better than in other areas of the country.¹²³ A woman may also lose land rights if her husband dies and she has no children or refuses to marry her late husband's brother. This scenario affected many women who lost husbands during the war. One changing trend among certain ethnic groups (Temne and Mende, in the central and southeastern parts of Sierra Leone) is that a widow maintains land rights despite not marrying her late husband's brother; however, upon her remarriage outside her late husband's family or her death the land will be given back to her late husband's family. Following the war, women's groups have been able to negotiate access to land, increasing their income generation and their decision-making power in the community.

Lack of access to land also affects youth. Youth generally have limited choice in the location or type of land they can access for agricultural production. Those from land-owning families access land through family members, fathers, uncles or mothers who may negotiate with male relatives. Youth who move to new areas because of frustration with labor obligations with elder family members, in-laws or chiefs in their home villages will depend on the good-will of a host in the new community to vouch for their character and negotiate land for their use.¹²⁴ Youth have developed ways to gain some independence and potential income through youth groups, which are now able to gain income or food for work by hiring themselves out, or in some areas lease land from land-owning families and invest in improvements, such as tree crops.

Poorly developed agricultural value chains. Agricultural value chains, which normally include a range of activities from research and input supplies to production, processing and marketing, are short and underdeveloped in Sierra Leone, in part due to the war but also to poor agricultural policy; outdated or poorly enforced rules and regulations; lack of credit, infrastructure (i.e., facilities, equipment, roads), market information and business capacity; high transport costs; unreliable deliveries; and lack of trust among members of the value chain (i.e., farmers, traders, wholesalers, retailers, importers). There are generally few intermediaries between producer and consumer, few market channels, little transformation of products, and few support services. Record keeping can be extremely poor even among large processors. Opportunities exist for significant improvement of value chains in staples such as rice and cassava through use of improved seed, milling for rice and grating/drying for cassava; cash crops, such as ginger for both domestic and international markets through provision of quality planting material and appropriate cultivation and processing; and with time, tree crops, especially cocoa, due to a comparative advantage and expanding market,¹²⁵ but also coffee and oil palm through improved tree stocks and processing, grading and quality control. Farmer-based organizations, such as ABCs, are being promoted by MAFFS as a means to provide farmers with support necessary to improve value chains through training in improved cultivating techniques and business skills, and access to input supplies, processing equipment and marketing. However, adequate market analyses are needed around any potential cash crops to ensure profitability.

¹²³ Ibid, 28.

¹²⁴ Ibid, 22.

¹²⁵ EU March 2009, 12.

Poor access to markets. The majority of daily community and periodic markets were destroyed during the war. Though they are slowly being rebuilt, farmers, especially in remote communities, still suffer from poor access to markets for their crops due to the absence of appropriate and sustainable infrastructure, such as a good road network and storage and processing facilities, and also lack the price information, finances and capacity strengthening in business they need to make their marketing activities more lucrative.¹²⁶ Markets can also be sources of agricultural inputs and manufactured commodities, so lack of access hampers crop sales but also the capacity to acquire needed inputs and other materials. Small operators in the private sector dominate marketing of food crops in Sierra Leone, but have limited areas of operation due to the country's poor roads, which result in high transport costs, limited market access and integration, and constrained demand. In some areas transporters and traders simply refuse to collect or deliver inputs and products because of the deplorable road conditions.¹²⁷ Between 50-60 percent of poor rural households depend on buyers that reach them at the farm level for sale of their rice, maize, cashew and citrus.¹²⁸ Relying on farm-level traders rather than buyers in town, traders in the market or selling directly could place farmers at a disadvantage, particularly with lack of market information to be able to bargain effectively. Although poor feeder road networks to food producing areas is a constraint to both women and men, women are disproportionately affected because their food crops, primarily vegetables, are highly perishable, and unlike rice, palm oil and other cash crops, must be transported with minimal delay, especially given lack of cold storage. The majority of vegetables are sold in markets by women farmers themselves, especially in Kailahun district in the east and Koinadugu district in the north.¹²⁹

Lack of market information. Market access is also hampered by lack of an integrated marketing system to collect and disseminate market information for resource-poor farmers. Only about 29 percent of poor rural farmers had access to information about agricultural prices in 2007, primarily from ABCs.¹³⁰ This does not differ significantly by district. Poor access to market information is due mainly to inadequate GOSL funding and staffing for this activity, though efforts are underway to establish a functional system. The capacity of the private sector, especially farmer groups (men and women) should be strengthened to make effective use of market information.

Poor access to credit. Small scale farmers in Sierra Leone lack access to affordable credit.¹³¹ The only formal financial market (FFM) source of credit in rural Sierra Leone is the community bank. Informal financial markets (IFMs) include moneylenders, itinerant traders, Roscas (*Osusu* clubs), relatives and friends.¹³² Commercial banking is generally urban-oriented and prefers lending to large clients with acceptable collateral. Many banks believe it is not cost effective to provide services in rural areas due to remoteness of villages, low income derived from providing these services, high levels of illiteracy,

¹²⁶ GOSL June 2004b, 26.

¹²⁷ GOSL June 2004f, 24.

¹²⁸ GOSL November 2007, 198-218.

¹²⁹ *Ibid*, 220.

¹³⁰ *Ibid*, 226.

¹³¹ DfID Sierra Leone August 2008, 29-30.

¹³² GOSL June 2004h, 3.

low population density and limited business activities.¹³³ Rural populations are also limited by high travel costs, lack of minimum levels of cash to start an account and lack of collateral for loans. As poor road conditions impede market development, they in turn affect rural financial institutions and their provision of credit to traders and farmers. Some banks are opening rural branches and mobile units, and small scale micro-credit operations do exist, for example through NGOs, but generally the formal financial markets are not adequately meeting the needs of smallholder farmers. Informal financial markets continue to be the first option for the rural poor, but they are often inadequate, expensive, short term and not conducive to effective development. However, they continue to be attractive because they are collateral-free and transactions are close, timely and flexible.¹³⁴ Local traders and itinerant middlemen that provide credit to farmers during the hungry season can require repayment in-kind following the harvest that is five-to-six times the original loan.¹³⁵ In 2007, about 27 percent of the rural poor took out loans, the vast majority from family members or friends and virtually none from microfinance institutions or community banks.¹³⁶ The highest percentages of farmers taking loans or credit were in Kambia district (59 percent) and Koinadugu (39 percent). The vast majority of loans were seasonal (not long-term). Women generally have even fewer possibilities of obtaining credit through FFM than men because they have fewer valuable assets and lack familiarity with the banking system. When they do have access to credit, women tend to use it for petty trading rather than improving agricultural productivity because agriculture is not viewed as a means to wealth in Sierra Leone.¹³⁷

Weak private sector. The private sector is the largest category of stakeholders in the agricultural sector in Sierra Leone and includes, for example, subsistence farmers, farmer associations, traders, wholesalers, processors and service providers in rural finance.¹³⁸ High interest rates, lack of access to credit, poor rural infrastructure (i.e., banks, roads, communications), corruption and the high cost of doing business have discouraged the private sector.¹³⁹ ¹⁴⁰ Subsistence farmers make up over 80 percent of the private sector in agriculture. They are risk adverse, with little or no formal education and few resources, and need encouragement to adopt improved farm inputs and cultivating techniques through education, microfinance and good extension services to raise productivity. The GOSL is currently encouraging farmers to formally organize as legal entities into farmer associations or ABCs. ABCs have the potential to contribute significantly to agricultural and economic development through production, processing, marketing and providing access to credit and inputs, but they need resources and

¹³³ Ibid, 8.

¹³⁴ GOSL June 2004f, 19.

¹³⁵ GOSL June 2004a, 8.

¹³⁶ GOSL November 2007a, 252-255.

¹³⁷ GOSL June 2004e, 17.

¹³⁸ GOSL 2009c, 28.

¹³⁹ GOSL June 2004f, 8.

¹⁴⁰ DfID August 2008, 24. Note Sierra Leone ranks 150 out of 179 countries in Transparency International's Corruption Perception's Index and 160 out of 178 in the cost of doing business index, which included problems with registering property and licensing, arbitrary taxes, and barriers to hiring and firing.

training in order to fulfill their objectives. FFSs can be nurtured until they are able to form, join or graduate to ABCs.¹⁴¹

4.1.1.4 Imports and food aid

Primary food imports in Sierra Leone include rice and wheat. Increases in rice production in Sierra Leone have enabled the country to reduce rice imports in the past two decades (**Table 2**). Imports of rice represented 14 percent of total production in 2003-2005, compared to 52 percent in 1995-97.¹⁴² Wheat is not grown in Sierra Leone, and wheat imports are increasing in importance, reflecting changes in consumption in the population.

Proportionally, food aid imports changed very little in the past two decades, representing approximately 19 percent of total cereal imports, similar to pre-war levels (**Figure 5**).¹⁴³ However, absolute amounts of food aid did increase in 1995-97 (159 metric tons) compared to 1990-92 and 2003-05 (114 metric tons each period). Food aid represented 5 percent of total food consumption in 2003-05, compared to 11 percent during the war (1995-97).¹⁴⁴ Of the Mano River Union countries, Liberia has the highest share of food aid as a part of total consumption (14 percent) while Guinea has the lowest (2 percent). Sierra Leone will continue to depend, at least in part, on food aid over the medium term given poor food availability and access in-country.

TABLE 2: RICE AND WHEAT IMPORTS

CEREAL GRAIN	YEAR		
	1990-92	1995-97	2003-05
Rice imports (tons)	372,000	602,200	239,868
Rice imports as percent of rice production	25	52	14
Wheat imports (tons)	45,300	53,200	77,657

Source: FAO, 2008 <http://www.fao.org/economic/ess/food-security-statistics/en/>¹⁴⁵

¹⁴¹ GOSL June 2004a, 2.

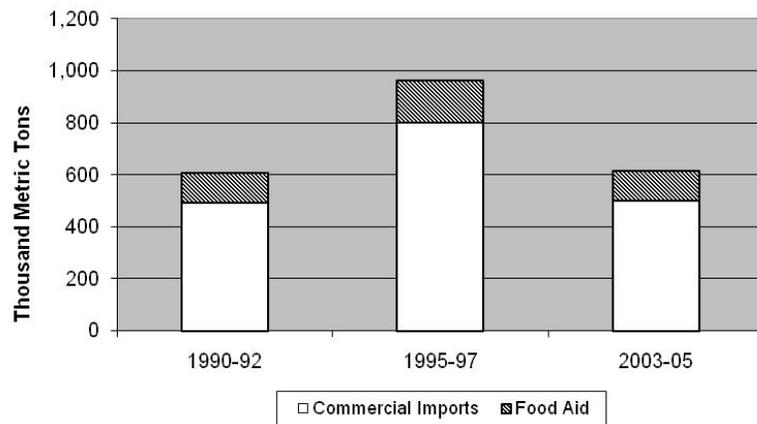
¹⁴² FAOSTAT.

¹⁴³ Food aid as percent of total cereal imports calculated from FAO data on food aid and cereal imports (FAOSTAT nd [e]).

¹⁴⁴ FAOSTAT 2008.

¹⁴⁵ Rice and wheat imports calculated from FAO data on imports (kg/person/year) and total population. Rice imports as percentage of rice production calculated based on FAO data on rice production noted above.

FIGURE 5: CEREAL IMPORTS



FAO, 2008. <http://www.fao.org/economic/ess/food-security-statistics/en/>

4.1.2 Food Access

4.1.2.1 Poverty and characteristics of the poor

Lack of access to food due to poverty is one of the root causes of food insecurity in Sierra Leone. The poor, including rural poor farmers, are net purchasers of food, and even if food supplies in the country are adequate, they will still be food insecure given their lack of purchasing power to access an adequate diet. An estimated 4.4 million people, or 70 percent of the population, is living in poverty, 1.6 million (26 percent) of whom live in extreme poverty. These individuals are by definition too poor to afford an adequate diet.¹⁴⁶

The poor in Sierra Leone have a number of distinct characteristics. The likelihood of poverty is higher among households with a large number of dependants and low levels of education (**Table 3**). Poverty differs little by marital status of the household head. Poverty among traditional male-headed households where the man has one wife is slightly less than among polygamous households – 70 versus 75 percent, respectively.

¹⁴⁶ Poverty data are taken from the Poverty Reduction Strategy Paper (PRSP), developed from the Sierra Leone Integrated Household Survey 2003/04 and used to develop two poverty lines, Food/Extreme and Full Poverty. The Food/Extreme Poverty line was defined as the level of expenditures required to attain the minimum daily nutritional requirement of 2,700 calories per equivalent adult. This translated into an expenditure of Le 1,033 per day or one USD equivalent at May 2004 national prices. A person whose expenditure on food fell below this threshold was considered to be food/extreme poor. If a household was unable to provide the level of theoretical expenditure to attain the minimum nutritional requirement, it implied that even if the total household's expenditure was dedicated to food, the household would be unable to minimally feed itself. The household was then said to be in food/extreme poverty. The Full Poverty line was defined as Le 770,678 per year or Le 2,111 per day per capita – an individual whose expenditure on food and basic needs fell below this level was considered poor (full poverty). The number of individuals in poverty and extreme poverty presented above was calculated using poverty prevalence in the PRSP and 2008 population estimates.

Traditional male-headed household make up about 56 percent of the population in Sierra Leone and have an average size of six, while polygamous households make up 23 percent of the population and have an average family size of nine.

About one in five households in Sierra Leone is female-headed. These households have an average family size of six.¹⁴⁷ The total proportion of female-headed households living in poverty differed little from the total proportion of male-headed households – 68 versus 70 percent, respectively.¹⁴⁸ The intensity of poverty, or poverty gap, also did not differ – 29-30 percent – however the prevalence of poverty is slightly higher among female-headed households where the female head is relatively young when compared to male-headed households with male heads in the same age range. But, for female-headed households where the female-head is older, the opposite is true. That is, the prevalence of poverty is higher among male-headed households where the male-head is older when compared to female-headed households with female-heads in the same age range. Poverty may affect households headed by younger women more than they affect households headed by younger men because of young women’s poorer income-generating opportunities, and lower pay, status and power in comparison to young men. In turn, poverty may affect households headed by elderly men more than elderly women due to smaller family size and greater level of assistance received by elderly women from their children and other family members. The percentage of men over 65 years that are economically active is actually double that of women in the same age group (61 versus 33 percent).¹⁴⁹ Poverty among *de facto* female-headed households – where the household is headed by a man but he is absent – which make up about 4 percent of female-headed households, is slightly higher (73 percent) than among *de jure* female headed households (67 percent). The prevalence of poverty decreases more drastically for female-headed households with education than male-headed households with the same educational level. Unfortunately, no data is available on urban versus rural poverty among female-headed households. However, the data here generally demonstrate that poverty is pervasive in Sierra Leone, especially among rural agricultural households with low educational levels and a large number of dependants.

TABLE 3: POVERTY BY CHARACTERISTIC (2003/04)

CHARACTERISTIC	PROPORTION OF POPULATION IN POVERTY
National	70
Number of dependants	
1-3	45
4-6	67
7+	75
Marital status	
Traditional male-headed	70
Polygamous male-headed	75
De facto female headed	73
De jure female headed	67

¹⁴⁷ GOSL November 2007b, 5.

¹⁴⁸ GOSL February 2005, 28-29.

¹⁴⁹ GOSL November 2007a, 109.

Age of household head (years)	Household type	
	Male headed	Female headed
15-25	63	67
26-35	64	69
36-45	71	70
46-55	72	69
56-65	74	67
66 and above	79	60
Education level		
None	75	72
Primary education	63	58
Senior secondary school	45	28

Source: GOSL 2008c, 24-40.

Poverty is also highest in households where the head is engaged in agriculture, is an unpaid family worker or is self employed (**Table 4**). Although 73 percent of the rural poor are economically active, 64 percent are unpaid family workers and 33 percent are self-employed.¹⁵⁰ By far the main income sources for rural households are agricultural-related, including sale of food crops such as cassava, upland and lowland rice, palm oil, groundnuts, vegetables, gari, livestock, animal products and fish (both marine and freshwater), and cash crops such as cocoa and coffee. Non-agricultural activities include sale of firewood and charcoal; mining; wage labor such as seasonal field work, carpentry and masonry; remittances from migration to urban areas, primarily for construction; sale of sand/stone; and petty trade, including sale of soap, prepared food, woven baskets and mats, woven cloth, and snuff.¹⁵¹ Women are primarily responsible for marketing food crops and fish while men sell cash crops (e.g., cocoa, coffee) and palm oil, large livestock and bush meat. They also sell poultry products and vegetables from backyard gardens and participate in petty trading and sale of charcoal and firewood. Meanwhile men, particularly youth, work in mining, and both young men and women work in seasonal wage labor. A comparison of main income activities among rural households between 2003 and 2005 showed that in five districts of Sierra Leone there was a small shift to more non-agricultural sources of income, including mining, petty trade, wage labor and sale of firewood and charcoal. In four other districts there was a shift to greater reliance on agriculture for income, including on cash crops such as cocoa, coffee and palm oil sales, and in another four districts the primary income sources remained relatively the same, some primarily relying on agriculture and others a mix of agriculture and non-agricultural sources of income.¹⁵² This reflects the dynamic and transitional nature of poverty and the poor's constant struggle to adapt to changes and livelihood opportunities.

¹⁵⁰ GOSL November 2007a, 109-116.

¹⁵¹ WFP August 2005, 60-62, 95.

¹⁵² Ibid, 60-62, 95; and WFP July 2003, 38-39, 96.

TABLE 4: POVERTY BY EMPLOYMENT OF HOUSEHOLD HEAD (2003/04)

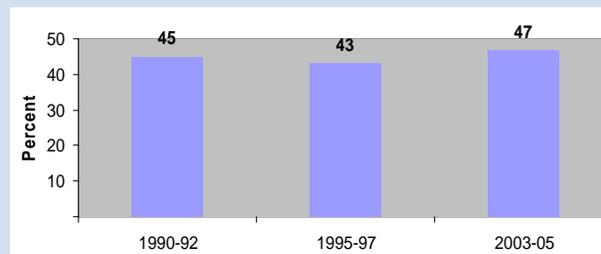
EMPLOYMENT OF HOUSEHOLD HEAD	PROPORTION OF POPULATION IN POVERTY
Agriculture	83
Public employee	45
Parastatal/NGO	34
Private sector	31
Self-employed	51
Unpaid family worker	77

Source: GOSL 2008c, 31.

4.1.2.2 The undernourished

The high levels of poverty in Sierra Leone are also reflected in the numbers and percentage of the population that are undernourished.¹⁵³ According to FAO estimates, the percentage of the population that is undernourished rose from 45 to 47 percent between 1990-92 and 2003-05 (**Figure 6**).¹⁵⁴ The numbers of people who are undernourished have also increased since the beginning of the 1990s, from 1.9 million to 2.5 million (**Figure 7**).¹⁵⁵ There has been no improvement in the depth of hunger in Sierra Leone in the past two decades, which has remained 380 kcal per person per day; this is a new measure from FAO, which includes how much food deprived people fall short of minimum food needs in terms of dietary energy.¹⁵⁶ The intensity of food deprivation is low when it is less than 200 kcal per person per day and high when it is higher than 300 kcal.

FIGURE 6: PROPORTION OF UNDERNOURISHED



FAO, 2008. <http://www.fao.org/economic/ess/food-security-statistics/en/>

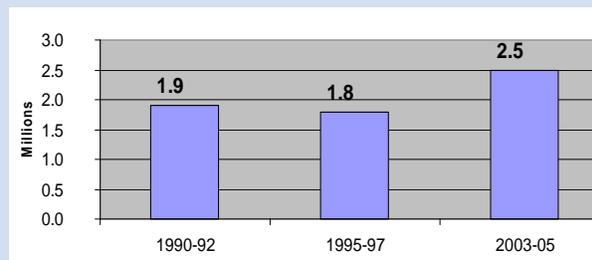
¹⁵³ The percentage of the population that are undernourished is a FAO-developed indicator that measures the extent to which the total amount of food energy available in a country is below the minimum required for maintaining a healthy life and carrying out light physical activity. It is calculated based on estimates of the per capita dietary energy supply available in a country, assumptions about the distribution of food supplies across households and a minimum energy requirement threshold.

¹⁵⁴ FAOSTAT nd (g).

¹⁵⁵ FAOSTAT nd (h).

¹⁵⁶ It is measured as the difference between the minimum dietary energy and the average dietary energy intake of the undernourished population (food-deprived).

FIGURE 7: NUMBERS OF UNDERNOURISHED



FAO, 2008. <http://www.fao.org/economic/ess/food-security-statistics/en/>

4.1.3 Food Utilization

As noted above, utilization of food refers to the proper biological use of food, requiring a diet with sufficient energy and essential nutrients, potable water and adequate sanitation, as well as knowledge of food storage, processing, basic nutrition, and child care and illness management. As seen in **Section 3**, there are many constraining factors to food security and utilization of food as a component of food security, such as poor access to and quality of health care services, clean water and appropriate sanitation; high risk of infection with malaria and other types of infections; and poor dietary practices. These, as well as high levels of gender inequity, contribute to very high levels of maternal mortality and infant and child mortality and morbidity. The following paragraphs will review the main food security problems related to utilization of food in Sierra Leone, focusing on key indicators that reflect utilization of food and information from studies that provide a better understanding of why the values for these indicators demonstrate such a poor situation related to food utilization. **Section 4.2.3** will then present key indicators that reflect utilization of food in the various districts of Sierra Leone, of which unfortunately there is limited, dated information. However, an analysis of these indicators by district will provide some indication of where food utilization is poorest in Sierra Leone, and can be updated when new information becomes available.

4.1.3.1 Recent trends in nutrition

Sierra Leone has not seen significant improvements in nutrition since the end of the war. Over the past decade, the levels of malnutrition among children under 5 appear to have fluctuated slightly but currently remain very high (**Table 5**).¹⁵⁷ The reasons for the increase in malnutrition between 2000 and 2005 are not clear, but may be related to the results of the war, movements of refugees to resettle back to their homes and general lack of services as the country worked to rebuild. Levels of exclusive breastfeeding (EBF) among children under 6 months are appallingly low and have been so for almost a decade with little improvement. The percentage of children 6-9 months breastfeeding and receiving complimentary foods has improved from 52 percent in 2005 to 73 percent in 2008, but the quality of complementary foods provided to children is poor, as will be discussed in **Section 4.1.3.3**. Less than half of children 6-59 months received vitamin A

¹⁵⁷ Table 5 presents anthropometric data separately for analyses using the 1978 National Center for Health Statistics (NCHS) reference and the 2006 WHO standard. The 2007 Ministry of Health and Sanitation (MOHS) survey analyzed data using both references/standards.

supplementation in the last six months. Anemia affects 76 percent of children 6-59 months, a major public health concern.¹⁵⁸ Malaria is a major contributing factor to anemia in Sierra Leone, and despite campaigns to distribute free insecticide treated bednets (ITNs) only 26 percent of children under 5 sleep under an ITN. In addition, only 30 percent of children who experience fever are provided treatment for malaria.¹⁵⁹ Intestinal parasites such as hookworm as well as poor diet also increase levels of anemia in children.

Nutritional status of women is also poor. A 2005 WFP vulnerability analysis and mapping (VAM) found 13 percent of rural women 15-49 years were moderately or severely malnourished (body mass index [BMI] less than 18.5 kg/m²). The proportion of malnourished women in urban areas was less (6 percent). Postpartum vitamin A supplementation increased between 2000 and 2005, from 33 percent to 55 percent, but still requires much improvement. Anemia affects 46 percent of women and, as with children, is influenced by a high level of infection with malaria, intestinal infections and poor diet. Less than a third of pregnant women sleep under an ITN and half receive intermittent preventive treatment (IPT) for malaria during pregnancy.

4.1.3.2 Child malnutrition

The problem of child malnutrition in Sierra Leone is a serious one. Thirty-six percent of children under 5 suffer from chronic malnutrition, indicative of poor food utilization reflecting long-term factors negatively influencing children's past growth.¹⁶⁰ According to World Health Organization (WHO) classifications, the public health problem of chronic malnutrition in Sierra Leone is high.¹⁶¹ Levels of underweight and wasting also indicate a serious public health problem.

¹⁵⁸ WHO considers anemia prevalence over 40 percent in a population to be a major public health problem.

¹⁵⁹ Statistics Sierra Leone and Macro International Inc. 2008, 19.

¹⁶⁰ Long-term factors, such as chronic insufficient protein and energy intake, frequent infection and sustained inappropriate feeding practices (Cogill 2003, 11).

¹⁶¹ WHO classifies prevalence of chronic malnutrition of 30-39 percent as high.

TABLE 5: NUTRITION AND HEALTH INDICATORS FOR CHILDREN UNDER-5 AND WOMEN 15-49 YEARS AND CHANGES OVER TIME, AS AVAILABLE

CHILD NUTRITION AND HEALTH	2000 (MICS)	2005 (MICS; WFP VAM FOR BMI) ¹⁶²	2007 (MOHS RAPID ASSESSMENT)	2008 (DHS, PRELIMINARY REPORT)
Nutrition status indicators using 1978 NCHS Growth Reference				
Chronic malnutrition (height-for-age Z-score < -2 SD) ¹⁶³	34	40	30	-
Underweight (weight-for-age Z-score < -2 SD)	27	30	25	-
Wasting (weight-for-height Z-score < -2 SD)	10	9	10	-
Nutrition status indicators using 2006 WHO Growth Standard				
Chronic malnutrition (height-for-age Z-score < -2 SD)	-	-	35	36
Underweight (weight-for-age Z-score < -2 SD)	-	-	18	21
Wasting (weight-for-height Z-score < -2 SD)	-	-	12	10
Other health and nutrition indicators				
Anemia (mild, moderate and severe)	-	-	-	76
Exclusive breastfeeding (children 0-5 months)	2	8	-	11
Breastfeeding and receiving complementary food (children 6-9 months)	-	52 ¹⁶⁴	-	73
Vitamin A supplementation in last six months (children 6-59 months)	58	49	-	-
Children under 5 sleeping under an ITN	2	5	-	26
Children under 5 with fever treated for malaria	61	52	-	30
Women's nutrition (15-49 years)				
Women's malnutrition (BMI < 18.5, rural only)	-	13	-	-
Anemia (mild, moderate and severe)	-	-	-	46
Postpartum vitamin A supplementation	33	55	-	-
Pregnant women sleeping under an ITN	-	-	-	28
Pregnant women receiving IPT in last pregnancy	-	2	-	50

The fetal stage through 2 years is the period of most rapid growth and a critical time in child development. At this age, children are most vulnerable to growth faltering, most often caused by illness, infection and sub-optimal feeding practices. In Sierra Leone, the prevalence of stunting, underweight¹⁶⁵ and wasting¹⁶⁶ is already quite high at 6 months, demonstrating that newborn infants are already starting out with very poor nutritional status at birth, and/or experience poor feeding practices and/or illness that seriously

¹⁶² 2005 WFP VAM used for women's BMI only. Women's BMI was also collected in the 2003 WFP VAM but data are not comparable (2005 VAM presents rural, urban and district data for women of reproductive age 15-49 years while the 2003 VAM presents national, regional and district data for women with children 0-59 months of age).

¹⁶³ SD = standard deviation(s)

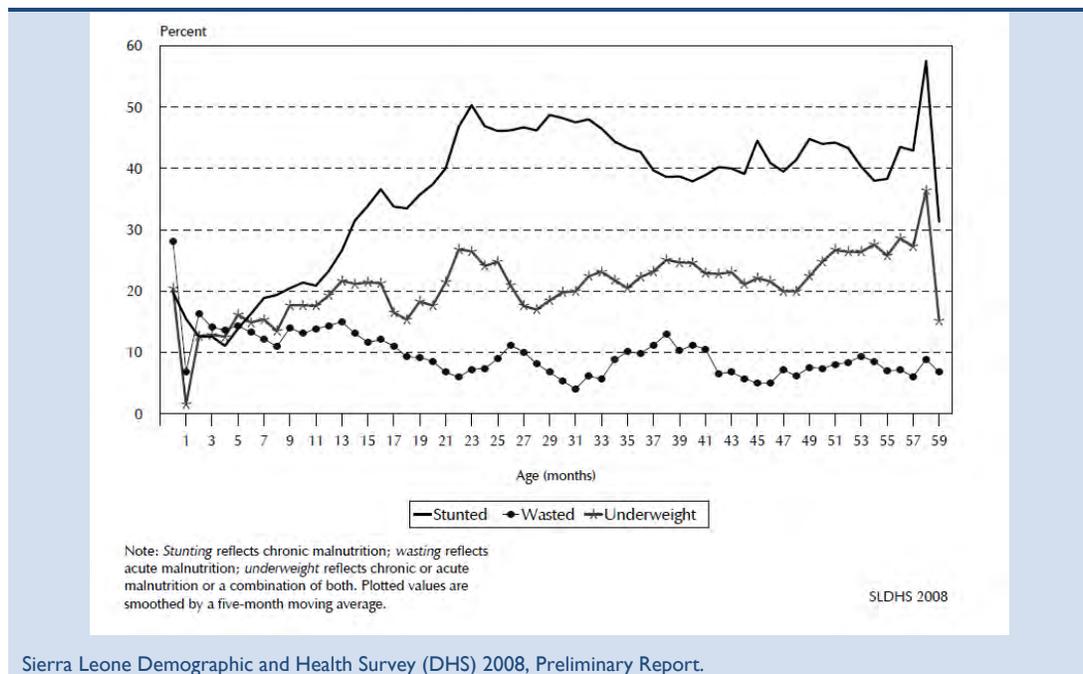
¹⁶⁴ UNICEF nd (b).

¹⁶⁵ Reflects both chronic (past) and/or acute (present) malnutrition, though does not allow distinguishing between the two.

¹⁶⁶ Reflects current or acute malnutrition.

compromise their growth at a very early age. Levels of stunting continue to increase dramatically up to about 23 months and then level off, as can be seen in **Figure 8**. Because stunting is frequently irreversible, especially after age 2 when the pace of growth slows, it is important to intervene with health and nutrition support before children become stunted. Moreover, if chronic malnutrition is not dealt with at this early age it will have an adverse affect on these children, on their ability to learn, and their health and productivity in adulthood. As seen in **Figure 8**, prevalence of underweight slowly increases among children until about 23 months and then levels off somewhat, and prevalence of wasting may decrease slightly among children older than 13 months but remains strikingly high.

FIGURE 8: PROPORTION OF CHILDREN STUNTED, WASTED AND UNDERWEIGHT BY AGE, SIERRA LEONE, DHS, 2008, PRELIMINARY RESULTS



4.1.3.3 Factors that influence child malnutrition

The key factors that influence children’s poor nutritional status in Sierra Leone include poor maternal nutrition and health, poor IYCF practices, and child illness and infection. These are described further below.

Women’s poor nutritional status. Poor nutritional status among women before conception and during pregnancy due to poor diet and infections, such as malaria, results in higher risk of giving birth to a low birth weight infant. An estimated 24 percent

of newborn infants in Sierra Leone suffer from low birth weight.¹⁶⁷ In addition, poor nutrition and health among mothers affects their capacity to appropriately care for their children. This results in a cycle of malnutrition across generations, as malnourished mothers give birth to low birth weight infants or their children soon suffer from malnutrition following birth due to poor practices and illness, and these children in-turn become malnourished adults. Unfortunately, more information, including results of studies on the nature of the relationship between maternal malnutrition, low birth weight and child malnutrition specific to Sierra Leone, is not available.

Lack of appropriate breastfeeding and complementary feeding practices.

Appropriate breastfeeding and complementary feeding practices are essential for maintaining and improving children's nutritional status, which in-turn reduces the risk of child mortality and improves children's health and psycho-motor development.¹⁶⁸ WHO recommends initiation of breastfeeding within one hour of birth; EBF for children 0-5 months; and appropriate feeding for children 6-23 months, including continued breastfeeding, feeding solid/semi-solid food a minimum number of times per day, feeding a minimum number of food groups per day, continued feeding during and after illness, feeding appropriate quantities of food, providing food with appropriate consistency, and feeding nutrient dense foods. Active, responsive feeding is also extremely important to ensure children receive the assistance and attention necessary to consume sufficient quantities of food during mealtimes and when given snacks. In addition, proper hygiene and food handling is very important to prevent illness, including handwashing for the caregiver and infant before food preparation and eating, among other practices. A description of some of these practices in Sierra Leone, given available information, is provided below.

Poor initiation of breastfeeding and provision of colostrum following birth.

Only 33 percent of women initiate breastfeeding within one hour of birth.¹⁶⁹ Common reasons women give for not initiating breastfeeding include that the mother is too tired and in pain, the child has not coughed yet (a sign of readiness to breastfeed), the mother and child need to be washed first, and the need for the "white milk to come."¹⁷⁰ Reasons for not providing colostrum include the belief that it is impure, the wrong color or spoiled from spending nine months in the breast. Providing water to infants at birth is also common and reasons for doing so include the belief that it is needed for child growth, it cleans the stomach, it heals the umbilical cord, it is the only way to satisfy a child's thirst, the mother has no milk, the mother is sick, and it gives the mother a chance to rest.

Very low levels of EBF. Only 11 percent of infants under 6 months are exclusively breastfed in Sierra Leone.¹⁷¹ Women most often introduce food before the child turns 6 months because the child is old enough to walk or sit up and this is a sign to the mother

¹⁶⁷ Statistics Sierra Leone and UNICEF 2007, 23. Note: data from mother's self report of infant being "very small" or "smaller than average." Only 29 percent of infants are weighed at birth, making it very difficult to obtain population-level data on low birth weight.

¹⁶⁸ PAHO and WHO 2004.

¹⁶⁹ Statistics Sierra Leone and UNICEF 2007, 15.

¹⁷⁰ Moore December 2007, 15.

¹⁷¹ Statistics Sierra Leone and Macro International Inc. 2008, 20-23.

the child should be provided food, mothers feel breastmilk is insufficient and porridge will keep the child from crying, and to free the mother for work.¹⁷² However, a few mothers also provide reasons for not giving food before 6 months, including that it is easier to just keep giving breastmilk, suggested complementary foods are too expensive and ingredients for complementary foods are not available.

Early cessation of breastfeeding. By 20-23 months, 50 percent of children are no longer provided breastmilk. Reasons mothers give for early cessation of breastfeeding include preparing for a new pregnancy, needing to resume work or school, the belief that a child who breastfeeds too long will be lazy or stupid, that educated richer people do not breastfeed long, and because the husband provides money for a weaning ceremony so he decides when it will happen.¹⁷³ However, by far the most common reason for giving up breastfeeding was because the father wanted to resume sexual relations with the mother.¹⁷⁴

Low quality, quantity and diversity of complementary foods. Although by 6 months a relatively high percentage of infants in Sierra Leone have received complementary foods, the foods that are provided are often of very low nutrient quality and lack the diversity needed to maintain adequate growth. Infants may receive little more than rice or cassava and water once or twice a day in addition to breastmilk if they are still being breastfed. Mothers do mention a variety of foods that can be introduced into a child's diet, including rice, beans, greens, corn-soy blend (CSB), bulgar pap, groundnuts, plantain flour, banana, orange and mango, among others, so it appears mothers would be open to providing these foods if they had access to them. However, there are also a few very important taboos regarding food for children, including egg, fish and meat.¹⁷⁵

Lack of motivation and support to sustainably adopt appropriate IYCF practices. During the FSCF field visits, mothers shared how they have enjoyed preparing special meals together for their children at Hearth sessions (designed to recuperate moderately malnourished children) and that they have changed what they are feeding their young children, adding beans, groundnut and sesame seed to greens and the staple food to increase their children's dietary diversity and encourage weight gain. However, some mothers have found it difficult to be motivated to continue the practice at home alone, and the NGO working in the village has introduced the idea of mothers practicing in pairs to provide more motivation and peer-support. Thus, although knowledge and access are key factors to adopting new practices, there are other factors that influence adoption, such as support from family or community members, that are necessary to sustain mothers' motivation to change their behaviors and maintain them over time.

¹⁷² Ibid, 25.

¹⁷³ Ibid, 26.

¹⁷⁴ In many areas of Sierra Leone it is taboo for a man to have sexual relations with a woman who is breastfeeding.

¹⁷⁵ Moore December 2007, 24, 57.

Late introduction of complementary foods is a problem for some caretakers.

At least 28 percent of infants do not receive any complementary foods from 6 to 8 months, a critical time to begin complementary food introduction.¹⁷⁶ FSCF team visits to some sites also revealed that some infants as old as 9 months had not started complementary feeding because “the child did not want to eat.” Therefore, in addition to promoting EBF for the first 6 months, it is also important to promote introduction of quality complementary foods in a timely manner, helping mothers, caretakers and other key family members better understand how and why to effectively do this when their young children seem resistant.

Poor feeding practices during child illness and recovery. As noted above, infections and illness such as malaria, diarrheal disease and acute respiratory infections (ARIs) – the leading causes of illness among children in Sierra Leone – also contribute to poor child nutritional status. Aside from prevention and prompt treatment, which will be discussed below, it is imperative that children who are ill be offered and encouraged to eat adequate amounts of food, liquids and, if still breastfeeding, breastmilk during illness and recovery to prevent weight loss and ensure continued adequate weight gain. However, less than a third of children with diarrhea received oral rehydration therapy or increased fluids and at the same time continued feeding when they had diarrhea.¹⁷⁷ Mothers often do not feel there are special steps to take for sick children other than referral to a clinic and providing medicine. Many mention giving fluids during diarrhea, as well as porridge, rice, local herbs, breastmilk and soup for fever, but feeding during illness and recovery is an area that requires more attention in order to effectively improve child nutritional status.¹⁷⁸

Lack of adequate prevention and treatment of malaria. Malaria is the leading cause of sickness and death among children under 5 in Sierra Leone. As seen in **Table 5**, few young children sleep under ITNs and few with fever are treated for malaria. Common reasons for not using ITNs include that they are perceived to have a bad smell, cause burning eyes, are confining or provoke a suffocating feeling, and are too small to fit larger beds. Also, some ITNs received free were sold whole or cut and sold as sponges, distribution rarely occurred or health staff were charged for the nets.¹⁷⁹ This information points to a need for more emphasis to be placed on both preventing and quickly treating malaria, improving access to quality services that facilitate prevention and rapid treatment, and obtaining a better understanding of barriers that keep families from using ITNs for their children or obtaining rapid treatment.

Lack of knowledge regarding danger signs of ARI and inadequate prevention and treatment of ARI and diarrhea. Rapid identification of danger signs and treatment are critical for children with ARI and diarrhea. In 2005 only 14 percent of women knew the two danger signs of ARI and only 46 percent of children with symptoms of ARI were taken for treatment.¹⁸⁰ Less than half (47 percent) of children

¹⁷⁶ Statistics Sierra Leone and Macro International Inc. 2008, 20.

¹⁷⁷ Statistics Sierra Leone and UNICEF March 2007, 30.

¹⁷⁸ Moore December 2007, 29-31.

¹⁷⁹ Ibid, 35-37.

¹⁸⁰ Statistics Sierra Leone and UNICEF March 2007, 33.

with diarrhea were taken to a health provider, and although 73 percent of children with diarrhea were provided with either a packet of oral rehydration solution or home fluids, improvement is still necessary and this practice should continue to be encouraged.¹⁸¹ Appropriate deworming for children is also critical. Children in the poorest areas of the country and the poorest households with the lowest educational levels have the lowest access to health services and antibiotics. Poor access to clean water and sanitation and poor hygiene practices are significant contributing factors to diarrhea; this will be discussed further in **Section 4.2.3**.

Micronutrient deficiencies. As mentioned above, anemia and vitamin A and iodine deficiencies are problems for children in Sierra Leone. Anemia may be caused by malaria, dietary deficiencies or parasitic infections; therefore improving malaria prevention and treatment, a more iron-rich diet and deworming are important strategies for anemia control. Although routine provision of vitamin A supplementation is low, coverage should increase given twice-yearly country-wide “Mami en Pikin Welbodi Week” campaigns that include vitamin A supplementation. Thirty-three percent of school-age children suffer from iodine deficiency in Sierra Leone, a leading cause of preventable mental retardation and impaired psychomotor development in young children. Iodine deficiency also increases the risk of stillbirth and miscarriage among pregnant women, and among children contributes to poor school performance, reduced intellectual capacity and impaired work performance. In its extreme form it causes cretinism.¹⁸² GOSL policy is that all imported salt must be iodized, however locally produced salt is readily available in markets throughout the country and is not iodized due to lack of facilities. Only 45 percent of households in 2005 consumed salt that was adequately iodized. Use of iodized salt was lowest in the Western Area and south (37 percent) and highest (59 percent) in the east.

4.1.3.4 Gender and nutrition

Women in Sierra Leone play an important role in household nutrition and food security through their responsibilities as marketers, food producers and caregivers. Their status within the household and community can affect the nutritional status of their children and the food security status of their household. Research on the relationship of women’s status to child nutrition in developing countries conducted by the International Food Policy Research Institute (IFPRI)¹⁸³ determined that in sub-Saharan Africa, higher status of women was associated with improved nutritional status of their children. This is because women who are more empowered have better nutritional status, are better cared for and are therefore more able to care adequately for their children.¹⁸⁴

Women’s low status in Sierra Leone is partly reflected in the relatively high percentage of rural women who suffer from moderate and severe malnutrition (BMI < 18.5 kg/m²) (13 percent). This high prevalence of women’s malnutrition is related to a number of factors. Women’s nutrition in general, and especially during pregnancy, is poor. Women suffer from low quantity and diversity of food in their diets as well as many food taboos

¹⁸¹ Statistics Sierra Leone and Macro International Inc. 2008, 18.

¹⁸² Scott.

¹⁸³ Smith et al. 2003.

¹⁸⁴ Ibid, xii.

during pregnancy. Food allocation in the household does not favor women. Cultural norms dictate that men eat first and be given the most nutritious portions of the meal. Women's reasons for following this norm range from the husband being the provider and boss, the family depending on him, out of love and respect, and/or so he does not take another wife. If a wife does not provide her husband with the most and best food, he may think she is angry, having an affair or he may become violent. During pregnancy, women also need to reduce their workload to ensure they maintain their health and the health of the fetus. However, this is virtually impossible given women's many obligations in agricultural work and household chores, such as hauling water and firewood and caring for young children. As noted above, women's capacity to care for themselves and their children is especially difficult given their limited decision-making power and access to resources necessary to improve the health situation of their children as well as their own.

Additionally, studies conducted in Uganda, India and Latin America have also linked domestic violence with poor health and nutritional outcomes in children and their mothers suffering the abuse, and domestic violence is often linked to depression and low self-esteem in women. In Sierra Leone, 70 percent of urban women reported having been beaten by a male partner during a survey that covered 1998-2000.¹⁸⁵ Eighty-five percent of women considered a husband justified in beating his wife for reasons ranging from going out without telling him to neglecting the children, arguing and refusing sex. This ranged from 66 percent in the Western Area to 90 percent in the north, with higher percentages in rural areas compared to urban, among women married or in union compared to those never or formerly married, and to those with a lower education level.¹⁸⁶ Many factors that led to gender-based violence during and after the war have resulted from traditional gender values, roles and responsibilities, and many people consider gender equality the same as "peaceful conformity to socially prescribed gender roles."¹⁸⁷ Some progress has been made in legislation on domestic violence but more work in this area is still necessary. Therefore, it is plausible that the high prevalence of domestic violence in Sierra Leone will adversely affect a mother's ability to provide optimal care for her children; gender inequity likely contributes to the poor health and nutritional status of women and children and ultimately to poor household food security.

An additional challenge in Sierra Leone is the high rate of adolescent pregnancy. The percentage of adolescent girls married before age 15 is highest in rural areas, and in households with low socioeconomic status and low maternal education. Marriage to a girl below the age of 18 years is illegal according to the GOSL Child Rights Bill, but enforcement is a critical problem. The practices of child and adolescent marriage and early pregnancy contribute to poor maternal and child health. Adolescent mothers and their infants are at greater risk of poor nutrition outcomes in the long term, and adolescent mothers, by virtue of their age and life stage, fall at the lowest end of the

¹⁸⁵ Unpublished Human Rights Watch report cited in UNFPA 2005.

¹⁸⁶ Statistics Sierra Leone and UNICEF March 2007, 65.

¹⁸⁷ UNFPA 2005, I.

social and gender hierarchy. At their time of greatest need in terms of young child nutrition and care, they have the least decision-making power and the least access to resources to ensure optimal health, nutrition and growth in their children.

4.2 GEOGRAPHIC DISTRIBUTION OF FOOD INSECURITY

Underlying the national situation of food insecurity in Sierra Leone is the food security situation in each of the country's regions and respective districts. This section focuses on describing food availability, access and utilization at the regional and district level. It also presents information on national- and household-level risks and vulnerabilities.

4.2.1 Food Availability

The following describes the agro-ecology of the arable land systems available in Sierra Leone as they relate to food availability.

Uplands are located throughout Sierra Leone and make up almost 80 percent of arable land in the country. They are composed of forest, savannah woodlands and grasslands, ranging from flat land to hills, and are low in fertility but suitable for cultivating a variety of food and cash crops. Smallholder farmers cultivate all the major food crops in the uplands, traditionally with 10-15 different crops intercropped in one season (e.g., rice, cassava, sweet potato, maize, sorghum, millet, groundnuts, beans, sesame), but always dominated by upland rice. The intercropping helps improve pest and disease management and allows for greater food availability over a longer period of time. Rice yields vary from 0.8-1.3 tons per hectare – low by Sub-Saharan Africa standards – but upland rice still accounts for 64 percent of rice produced in Sierra Leone.¹⁸⁸ Farmers generally prefer upland rice for consumption while the less palatable lowland rice is usually destined for sale. Recent data demonstrate, however, few differences in consumption versus sale of upland and lowland rice among poor farmers – about 58-68 percent for food and 7-8 percent for sale¹⁸⁹ – perhaps demonstrating a worsening situation where families are depending more on less-preferred lowland rice in their diet.¹⁹⁰

Upland areas are also used for tree crops, including cocoa, coffee, oil palm, citrus, kola nuts, cashew, coconuts, mangos, banana, papaya, avocado and guava. Cocoa and coffee are grown mostly in the east and south while other tree and fruit crops grow throughout the country. Large plantations are not common and most tree crop holdings are one to five hectares. Uplands comprise the vast majority of arable land in all the districts, ranging from 80-90 percent, with the exception of Bonthe (45 percent), Kambia (69 percent), Port Loko (72 percent) and Moyamba (76 percent).

Lowlands make up 20 percent of arable land in Sierra Leone and are comprised of:

- **Inland valley swamps (IVS):** IVS make up about 9 percent of arable land. They are fertile valleys and flood plains with the potential for dry season irrigation and

¹⁸⁸ GOSL June 2004b, 6.

¹⁸⁹ The remainder was used for seed (19 percent) and repayment (seven to 15 percent).

¹⁹⁰ GOSL November 2007a, 182-184.

multiple cropping, and have a comparative advantage for rice production and sustainable cultivation in general. Farmers can potentially cultivate IVS for several years with no significant drop in yields. In the dry season IVS can support cultivation of cassava, sweet potato, maize, tomatoes, lettuce, carrots, cucumber, watermelon, groundnut, pepper, onion and even a second crop of rice where IVS are perennial.¹⁹¹ Rice yields are 1.6-2.5 tons per hectare – double that of upland rice – but labor demands are twice that of upland rice. Only about 16 percent of inland valley swampland is under rice cultivation yet IVS produce about one-quarter to one-third of the country's rice output. However, IVS have problems with drainage and water control, iron toxicity that can affect rice yields, and farmers do not adequately prepare IVS, removing tree stumps or leveling the soil. IVS exist throughout the country but at relatively low proportions of total land (ranging from 3-12 percent of arable land in each district).

- **Mangrove swamps:** These swamps make up 3 percent of arable land in Sierra Leone and are moderately fertile but subject to sea water flooding in the rainy season. They are therefore suitable for cultivation of specific types of paddy rice depending on the salt-free period of cultivation. They also support dry season vegetable production. Mangroves are complex ecologies requiring a high degree of management. Mangrove rice cultivation is very labor intensive, salt-water grass weed must be cleared yearly prior to transplanting, and fish and crabs can damage the rice crop. Mangroves are mostly found in the northwest and southern coastal areas of the country, ranging from 2-19 percent of arable land in the six districts where they are found.¹⁹²
- **Bolilands:** These are large, saucer-shaped basins that make up just 2 percent of the arable land in Sierra Leone. They have little or no drainage, flood during the wet season, have low fertility and are used for one crop of rice per year, but this is usually followed with dry season cultivation of vegetables, cassava or sweet potato. Only about 2 percent of arable Bolilands are used for rice cultivation. They are good for mechanical cultivation because they are large and level, but problems include poor drainage, weed infestation, low soil nutrients and high acidity. The Bolilands are concentrated mostly in the central part of the country in Bombali, where 11 percent of arable land is Boliland, but also found in Kambia and Tonkolili (5 percent of arable land in each of these districts).
- **Riverain grasslands:** These grasslands make up 3 percent of arable land in Sierra Leone. They are fertile lands, highly flooded in the rainy season, up to four meters, resulting in early planting before water levels rise and late harvesting after water has receded. This is the most difficult ecology for rice production given the short period between harvest and planting, and only about 1.5 percent of arable Riverain grassland is currently used for rice cultivation. Tall grasses common in Riverain grasslands make harvest difficult and grasscutters (rodents) damage crops. Riverain

¹⁹¹ Perennial IVS have sufficient water for two rice growing cycles.

¹⁹² Mangrove swamps are found in Kambia, Port Loko, Bonthe, Moyamba, Pujehun and the Western Area.

grasslands are most commonly found in the southern part of the country, mostly in Bonthe (32 percent of Bonthe's arable land).

By far the most important land for smallholder agricultural production in Sierra Leone is the uplands, followed by the IVS. Smallholder farmer holdings have traditionally been 60-80 percent upland and 20-40 percent lowland. Household labor generally focuses on the upland farm, since it constitutes the bulk of annual production. The overall labor requirements for a cycle of upland cropping are, on average, 185 man days per hectare compared to 309 man days per hectare for lowland rice production. Only 20 percent of upland labor is hired. Upland activities include removing brush, burning and felling (December to February), clearing and weeding (March to April), sowing and hoeing (April to June), weeding, bird scaring and rodent fencing (July to August), and harvesting and storage (September to December). Some tasks are gender specific: men clear fields of trees and brush for planting, in lowland rice areas prepare canals and bunds (soil embankments) for rice cultivation, prepare earthen mounds for vegetable growing, and also harvest crops; women do the majority of planting and transplanting, weeding, scaring birds (together with children), harvesting, threshing, processing, transporting, storing and marketing. Women further undertake backyard vegetable gardening and raise poultry to supplement household nutritional needs and extra cash which they normally control, collect firewood and water, conduct other household chores and take care of the children. Household labor shortages generally occur during planting and harvesting, and reciprocal work groups are hired or engaged to supplement needs during peak demand.¹⁹³

The hungry season in Sierra Leone, when poor rural families run out of staple rice stocks and other foods, is generally from June to August/September. Cassava, sweet potato and yams, including wild yams, are important foods in the diet when rice supplies run out. However, inadequate post-harvest storage for tubers like cassava and sweet potato can decrease available stocks. Millet (Fundi type) grown in the north is also important to fill food gaps because it has a three month production cycle, allowing two production cycles per year. Upland forest foods have traditionally contributed to the household diet during the hungry season, for example, fruits, nuts, tubers and bushmeat, but little information is available regarding their current contribution, household perceptions about use of these foods and the amount of forest foods still available given deforestation that is negatively affecting their availability.

Table 6 presents many of the constraints to agricultural production discussed in Section 4.1.1.2 by district as perceived by rural households. By far the largest constraints experienced by the rural poor are lack of credit, poor supply or quality of seed, and lack of tools/technology for planting, harvesting and processing. Lack of credit is generally high in the majority of districts but especially in Kenema, Bombali, Kambia and Moyamba; a range of 83 percent of households in Kambia to 88 percent in Kenema mentioned that their agricultural production and income were negatively affected by lack of finance/credit. Poor supply and quality of seed most affected households in the districts of Moyamba, Bombali, Koinadugu and Kailahun, ranging from 54 percent in

¹⁹³ GOSL June 2004b, 11; GOSL June 2004e, 10.

Kailahun to 64 percent in Moyamba. Lack of tools and technology for planting, harvesting and processing most affected the districts of Koinadugu, Kenema, Kono, Moyamba and Bo, ranging from 47 in Moyamba and Bo to 57 percent in Koinadugu. For the majority of these areas, the lack of finance/credit, seeds and tools/technology are largely due to the extreme effects of the war as well as the rural isolation. The lack of these resources is also due to needs related to cash crop production, for example, cocoa, coffee and oil palm in Kenema, Kailahun and Kono, and vegetables in Koinadugu and Bombali. Some of these areas also have the highest levels of extreme poverty in the country, as seen in **Table 8**.

TABLE 6: PROPORTION OF HOUSEHOLDS CITING CONSTRAINT TO IMPROVED INCOME FROM AGRICULTURAL PRODUCTION (2007)

RURAL POOR AND DISTRICT	ACCESS TO LAND	INSUFFICIENT LABOR	FINANCE/CREDIT	SUPPLY/QUALITY SEED	LACK OF PESTICIDES/FERTILIZERS	LACK OF TOOLS/TECHNOLOGY	PRE-HARVEST CROP DAMAGE	POST-HARVEST CROP DAMAGE	LACK OF ACCESS TO MARKETS	LACK OF KNOWLEDGE ABOUT MARKETS
Rural poor	7	22	85	54	28	50	15	5	6	1
Kailahun	5	+21	77	+54	10	46	9	+13	6	+3
Kenema	2	+35	+88	38	25	+56	4	+12	6	+3
Kono	5	18	69	48	15	+51	12	+10	+8	1
Bombali	+13	+34	+87	+60	+34	42	2	2	+7	1
Kambia	+19	+21	+83	44	+38	35	12	3	+16	+2
Koinadugu	3	14	79	+60	28	+57	+27	+7	3	+2
Port Loko	5	14	65	50	+30	30	12	3	2	1
Tonkolili	2	12	72	41	+59	33	+14	1	6	1
Bo	5	13	78	45	12	+47	+33	1	3	1
Bonthe	+18	+24	74	44	16	27	5	3	+18	+3
Moyamba	11	16	+83	+64	26	+47	11	3	1	0
Pujehun	5	+21	77	39	29	41	+18	4	2	1
Western Area Rural	+15	6	23	10	4	14	1	0	0	0
Western Area Urban	8	1	9	0	3	4	0	0	1	1

Source: GOSL November 2007a, 262.

+ = top four values in each column.

4.2.2 Food Access

4.2.2.1 Urban/rural differences in poverty

Geographic location of a household in Sierra Leone influences the likelihood of being poor only in that the percentage of individuals living in poverty in Freetown is much lower than in other urban areas of the country and rural areas (**Table 7**). Poverty and extreme poverty are highest in rural areas – 79 percent and 33 percent, respectively. Poverty in urban areas other than Freetown is also extremely high (70 percent), although extreme poverty in other urban areas is somewhat lower than in rural areas

(20 percent). This situation reflects, in part, the concentration of economic resources and employment and educational opportunities in Freetown. It also reflects the level to which rural areas, as well as other urban areas of the country, still lag behind Freetown in terms of conditions that facilitate reductions in poverty, including access to well-functioning basic services and employment-generating opportunities that can improve access to food.

TABLE 7: POVERTY AND EXTREME POVERTY BY URBAN AND RURAL AREAS (PERCENT, 2003/04)

AREAS	POVERTY	EXTREME POVERTY
National	70	26
Urban	54	15
• Freetown	15	2
• Other urban	70	20
Rural	79	33

Source: GOSL February 2005, 24, 26.

4.2.2.2 District-level differences in poverty

Poverty is very high, affecting well over half of the population in all of the districts of Sierra Leone, but especially high (greater than the rural average of 79 percent) in Kailahun, Kenema, Bombali, Port Loko, Tonkolili and Bonthe (**Table 8**). These poverty figures are from the Sierra Leone Integrated Household Survey conducted in 2003/04. The high level of poverty in Kailahun district at that time was explained by the devastation of the civil war and its impact on cocoa and coffee production, main income earning activities in the district, as well as the district's remoteness. In Kenema, the majority of the population at the time of the survey was engaged in artisanal mining, which is not a reliable source of income, while households in Bombali relied heavily on subsistence agriculture depending on short-term rental to access land, and had no real other sources of economic activity or income.¹⁹⁴ Port Loko and Tonkolili had extremely high percentages of their populations internally displaced during the war – 87 and 90 percent, respectively; though the vast majority were resettled by 2003, the destruction of their livelihoods most likely attributed to these high levels of poverty.¹⁹⁵ Over half of the residents of Bonthe were displaced by the war and 72 percent experienced significant damage to their home as a result of the war, the third highest of all the districts. Extreme poverty – a measure of the proportion of the population unable to meet their basic nutritional requirements – was highest (above the rural average of 33 percent) in Bombali, Kailahun, Kenema and Bonthe, indicating these districts not only suffer from high levels of poverty, but also very high levels of poor access to food (see

¹⁹⁴ GOSL February 2005, 25; WFP July 2003, 96.

¹⁹⁵ WFP July 2003, 90.

Annex I Map 2 for levels of extreme poverty by district). Poor households allocate about 63 percent of their expenditures to food compared to 36 percent among the non-poor.¹⁹⁶

Poor rural households in Sierra Leone continue to face limited income-generating opportunities, restricting their capacity to work their way out of poverty. Though only 4 percent of rural heads-of-household were unemployed in 2007, 46 percent were underemployed, defined as actively seeking additional work to bring in needed income.¹⁹⁷ Underemployment of the household head was highest in Kenema (60 percent), Kambia (60 percent), Tonkolili (52 percent) and Bonthe (65 percent) districts. Thirty-four percent of poor rural youth were underemployed, with figures highest in Kambia (53 percent), Tonkolili (47 percent), Bonthe (42 percent) and Pujehun (43 percent). The majority of the rural poor were either self-employed (33 percent) or unpaid family labor (64 percent). Ninety percent of the rural poor and 94 percent of the underemployed rural poor work on family farms; this did not differ significantly by district. Of the rural poor who are unemployed, 79 percent of this unemployment was due to lack of available work.

TABLE 8: POVERTY AND EXTREME POVERTY BY DISTRICT (PERCENT, 2003/04)

DISTRICT	POVERTY	EXTREME POVERTY
Kailahun	92	45
Kenema	88	38
Kono	66	22
Bombali	89	63
Kambia	69	9
Koinadugu	77	29
Port Loko	82	20
Tonkolili	84	32
Bo	64	25
Bonthe	85	35
Moyamba	68	16
Pujehun	59	14
Western Area Rural	45	15
Western Area Urban	15	2

Source: GOSL February 2005, 25.

Table 9 provides a summary of main income activities by district collected for a WFP VAM exercise in 2005.¹⁹⁸ By far the main income sources for rural households were agricultural-related but with some differences by district. Beyond the **Table 9** data, the WFP VAM also discussed percent of income from agricultural and non-agricultural

¹⁹⁶ The Sierra Leone equivalent of ROSCAs.

¹⁹⁷ GOSL November 2007a, 109-122, 292.

¹⁹⁸ WFP August 2005, 60-62, 95.

sources. In Kailahun, Kono, Koinadugu, Bo and Bonthe, 64 percent of income came from agriculture, primarily from the sale of cassava, upland rice and palm oil. Port Loko and the Western Rural Area were mainly dependant on non-agricultural activities for income, including petty trade (e.g., sale of soap, toiletries, candies, cookery, woven baskets and mats, snuff/cigarettes), and remittances primarily from male household members working in urban areas. Districts whose income came half from agriculture and half from non-agricultural sources included Kenema, Kambia and Moyamba, where main sources of agricultural income were upland and lowland rice, cassava and palm oil, though income from rice was less than the other crops, suggesting more was consumed. Petty trade, remittances and wage labor were common sources of non-agricultural income, though mining was also important in Kenema, and other activities, like sale of livestock, animal products, firewood and charcoal, generated 10 percent of income. Tonkolili, Pujehun and Bombali obtained about 46 percent of income from agriculture, 30 percent each from wage labor and 24 percent from other activities, with main agricultural sources of income including upland and lowland rice, cassava and groundnuts.

TABLE 9: PROPORTION OF HOUSEHOLDS INVOLVED IN INDICATED INCOME GENERATING ACTIVITIES BY DISTRICT (PRIMARY FOUR INCOME ACTIVITIES ONLY, MULTIPLE RESPONSES, 2005)

DISTRICT	PRIMARILY AGRICULTURAL INCOME SOURCES						PRIMARILY NON-AGRICULTURAL INCOME SOURCES				
	SALE OF OTHER FIELD CROPS ^A	SALE OF RICE	PALM OIL SALES	COCOA/ COFFEE SALES	SALE OF GARI	SALE OF FISH	PETTY TRADE	WAGE LABOR	MINING	REMITTANCES	OTHER ^B
Kailahun	99	51	44	67							
Kenema	90		55	31				65			
Kono	73	63	41	93							
Bombali	100	45					54				40
Kambia	69	45					67			57	
Koinadugu	55	100					50			39	
Port Loko	62	52					100			29	
Tonkolili	86		52				51				67
Bo	84	42	53					35			
Bonthe	100		82			40	40				
Moyamba	100		36		51		59				
Pujehun	60		54					39			100
Western Area Rural	46						100			51	35

Source: WFP August 2005, 95.

^a Other field crops: primarily cassava, but also include sweet potato, groundnut, pulses, etc.

^b Other: sale of livestock and animal products, firewood and charcoal

Note: no data available for Western Area Urban

Poor households must also pay for various expenditures despite their lack of income. Districts that depended more on agriculture for income generally spent less of their income on food, with the exception of Bonthe where little rice was cultivated in 2005 and 70 percent of household expenditure was on food. The greatest non-food

expenditures were for medical care, school fees and clothing. Bombali had the highest percentage of expenditures on debts, possibly because of loans to purchase seeds.

4.2.3 Food Utilization

Table 10 provides data on the geographic distribution of poor food utilization in Sierra Leone, including data on malnutrition among children under 5, women's malnutrition, access to safe drinking water and sanitation, and access to health services.

As previously mentioned, young children in Sierra Leone suffer from very high levels of chronic malnutrition, underweight and wasting throughout the country. Chronic malnutrition is higher in rural areas, where 39 percent of the children under 5 are stunted compared with 30 percent in urban areas. Districts with the highest levels of stunting (equal to or greater than the rural average) include Moyamba, Port Loko, Koinadugu, Tonkolili, Bo and Kailahun, ranging from 46 percent in Moyamba to 39 percent in Kailahun (see **Annex I** Map 3 for levels of stunting by district). Levels of underweight are highest in Bo, Koinadugu, Kambia and Port Loko, ranging from 30 percent in Bo to 25 percent in Port Loko. Wasting levels are high in almost all districts of the country, but especially in the south. Unfortunately there is a lack of nutritional surveillance data available on wasting levels, so it is not possible to analyze trends in wasting over various seasons during the past few years. The Ministry of Health and Sanitation (MOHS) is planning on establishing a nutrition surveillance system in the near future. Given that decreasing levels of chronic malnutrition is a key objective of Title II multi-year programs, levels of chronic malnutrition will be considered in the final analysis of districts with the greatest food insecurity in **Section 6**.

Prevalence of moderate and severe malnutrition among women 15-49 years in Sierra Leone are highest in Bombali, Bonthe, Port Loko, Kenema and Moyamba, with values ranging from 29 percent in Bombali to 13 percent in Moyamba. It is important to note, however, that prevalence of moderate and severe malnutrition among women between 10 and 19.9 percent indicates the need for nutrition interventions, including, for example, supplementation, increased food production, education and/or behavior change. Sites visited during the FSCF team field work showed that in some areas NGO and MOHS efforts to improve women's diets during pregnancy through education and group activities are influencing the quantity of food women consume, but not necessarily the diversity of foods necessary to maintain or improve health. This is an area that requires further emphasis in the future.

TABLE 10: NATIONAL- AND DISTRICT-LEVEL DATA ON CHRONIC MALNUTRITION, UNDERWEIGHT AND WASTING AMONG CHILDREN UNDER 5, WOMEN'S MODERATE AND SEVERE MALNUTRITION, ACCESS TO SAFE WATER AND SANITATION, AND ACCESS TO HEALTH SERVICES

LOCATION	PERCENT OF CHILDREN UNDER 5 W/ CHRONIC MALNUTRITION (< -2 SD) ¹⁹⁹	PERCENT OF CHILDREN UNDER 5 UNDERWEIGHT (<-2 SD)	PERCENT OF CHILDREN UNDER 5 WASTED (<-2 SD)	PERCENT OF WOMEN 15-49 YEARS W/ MODERATE AND SEVERE MALNUTRITION (BMI<18.5) ²⁰⁰	PERCENT HOUSEHOLDS WITH ACCESS TO SAFE WATER ²⁰¹	PERCENT OF HOUSEHOLDS WITH ACCESS TO SAFE SANITATION ²⁰²	PERCENT OF POPULATION WITH HEALTH CLINIC < 30 MINUTES AWAY ²⁰³
National	36	21	10	-	39	45	46
Urban	30	16	11	6	56	82	72
Rural	39	23	10	13	29	25	31
/							
Kailahun	+39	17	9	8	33	38	+30
Kenema	37	20	9	+15	33	30	47
Kono	27	15	+11	6	+28	38	+24
Bombali	36	19	7	+29	34	+24	40
Kambia	35	+29	+15	12	+27	28	+26
Koinadugu	+42	+29	8	12	37	+13	40
Port Loko	+44	+25	+10	+17	+28	35	34
Tonkolili	+40	20	5	8	+23	+24	37
Bo	+40	+30	+16	10	34	30	35
Bonthe	35	18	+14	+23	38	+19	+26
Moyamba	+46	19	+13	+13	+24	26	+24
Pujehun	31	17	+12	7	53	32	45
Western Area Rural	29	19	8	n/a	2	58	78
Western Area Urban	26	12	+11	11	48	93	75

Note: Values marked with a “+” are equal to or worse than the rural average.

¹⁹⁹ Statistics Sierra Leone and Macro International Inc. 2008, 22. Note: children's anthropometric data analyzed using WHO 2006 Growth Standards.

²⁰⁰ WFP August 2005, 66-67, 99.

²⁰¹ GOSL November 2007a, 144. Safe water source is defined as water piped into dwelling, or from borehole, tube or mechanical well, or protected well/spring.

²⁰² Ibid, 146. Safe sanitation is defined as a covered pit latrine, ventilated improved latrine and flush toilet (to sewer or septic tank).

²⁰³ Ibid, 99.

Only 29 percent of the rural population has access to a safe drinking water source,²⁰⁴ compared to 56 percent in urban areas. Meanwhile just 25 percent have access to safe sanitation facilities,²⁰⁵ much less than the 82 percent of urban dwellers who do.²⁰⁶ All districts have very low access to safe drinking water, however the lowest are Tonkolili, Moyamba, Kambia, Porto Loko and Kono, ranging from 23 percent in Tonkolili to 28 percent in Port Loko and Kono. Almost all districts also have very low access to safe sanitation facilities. The districts with the lowest access to safe sanitation include Koinadugu, Bonthe, Bombali and Tonkolili, ranging from 13 percent in Koinadugu to 24 percent in Bombali and Tonkolili. A mere 5 percent of the population uses an adequate water purification method (i.e., boiling, adding bleach, using a water filter, using solar disinfection);²⁰⁷ by far the most common purification method among those who use one is bleach.

Access to health care – measured as the percentage of the population with a health clinic less than 30 minutes away – varies among the districts, but those with the lowest access are Kono, Moyamba, Kambia, Bonthe and Kailahun, ranging from 24 percent in Kono and Moyamba to 30 percent in Kailahun. Review of all the data reveals a relationship between high levels of malnutrition above the rural average for both women and children and poorer than average access to safe water and sanitation and health services, especially in Moyamba, Tonkolili, Port Loko and Koinadugu. In reality, however, there is a relationship between high levels of malnutrition and low access to safe water, sanitation and health services in all the districts, since none except for Western Area Rural and Western Area Urban are really “better off” in terms of access to these services; all levels are very low. Even though Western Area Rural and Western Area Urban have better access to services, they are far from perfect, which is also reflected in the malnutrition levels in these areas. Poverty, especially extreme poverty, is also related to malnutrition levels, and an analysis of poverty and chronic malnutrition will be presented in **Section 6** in order to better define geographic priorities for the Title II program.

4.2.4 Risks and Vulnerabilities

4.2.4.1 National- and regional-level risks and vulnerabilities

Sierra Leone has the potential for experiencing both slow-onset and sub-national shocks as well as rapid-onset and national-level shocks that can increase risk and vulnerability and affect food security and nutrition outcomes. Sources of shocks most relevant for Sierra Leone include:

- 1) Civil unrest or war in neighboring countries, such as Guinea, that can lead to an influx of refugees into the border areas of Sierra Leone
- 2) Internal civil conflict due to perceived inequities given the regional political divide²⁰⁸

²⁰⁴ Safe water source is defined as water piped into dwelling or from borehole, tube or mechanical well, or protected well/spring.

²⁰⁵ Safe sanitation is defined as covered pit latrine, ventilated improved latrine or flush toilet (to sewer or septic tank).

²⁰⁶ GOSL November 2007a, 144, 146.

²⁰⁷ Statistics Sierra Leone and UNICEF March 2007, 39.

²⁰⁸ The current ruling party is from the north and west while the opposition party is from the east and south.

- 3) High fuel and food prices that can increase the vulnerability of both urban and rural populations, particularly with respect to rice, due to the country's reliance on imports
- 4) Changes in prices of primary exports (e.g., cocoa, coffee, bauxite, rutile²⁰⁹) that can result in unfavorable changes in trade, foreign exchange and domestic prices
- 5) Dependence on donor support (approximately 50 percent of GOSL budget) that, if delayed in disbursement, can cause cutbacks in poverty alleviation expenditures
- 6) Changes to weather patterns that affect crops
- 7) Crop damage by pests, animals and disease²¹⁰
- 8) Flooding and drought in localized geographic areas²¹¹
- 9) HIV, although prevalence rates are currently relatively low in Sierra Leone (1.6 percent of the population); prevalence rates could potentially rise very quickly in future years if preventive measures are not promoted on a wide scale

Given the importance of agriculture and the overall lack of diversity in the economy in Sierra Leone, these shocks can potentially impact individual households in terms of incomes and expenditures and nationally in terms of gross domestic product (GDP) growth. This was particularly evident during the food price crisis in 2008, when assessments by the GOSL and partners revealed the need to respond with programs to alleviate the impact of the crisis in urban centers, particularly the Western Urban area located in and around Freetown, but also urban centers throughout the country, and in rural areas, since rural smallholder farmers are net buyers of food. Often it is the poor who are most vulnerable to the types of shocks described above and who take the longest to recover from their impact. Women are also more adversely affected by shocks given their low status and decision making power and inability to access resources to decrease their vulnerability or respond to the shock.

4.2.4.2 Household-level risks and vulnerabilities

Table 11 provides a summary ranking of the most frequently cited shocks by rural households in 13 districts of Sierra Leone in 2005. Crop damage by animals and pests, lack of agricultural inputs, illness/injury of household members, and lack of household labor were the most frequently cited shocks. In 10 of 13 districts, crop loss from animals and pests was either the first or second most frequently cited shock among households; the percentage of households that cited this shock ranged from as little as 18 percent in Pujehun to 40 percent in Koinadugu and Tonkolili, with about half of the districts having 30-40 percent of households affected. Eight of 13 districts cited lack of agricultural inputs as one of the top three most frequently cited shocks, affecting as few as 12 percent of households in Port Loko and as many as 38 percent in Bombali.²¹² The percentage of rural farmers affected by input constraints represented in **Table 6**, which is from 2007, is higher for specific inputs than those presented here, perhaps indicating a

²⁰⁹ Rutile is a reddish-brown to black mineral that consists of titanium dioxide and is a major source of titanium.

²¹⁰ One example is the recent infestation of caterpillars from neighboring Liberia that has the potential to affect a wide range of crops, including rice, cocoa, coffee and oil palm.

²¹¹ 2005 WFP VAM found that flood was one of the top 4 major shocks experienced by households in Kambia and Bonthe and drought by households in Bo and Moyamba.

²¹² Although some of the reported "shocks" could be described as "constraints", they are reported here as they were in the 2005 WFP VAM.

worsening of the availability of inputs over time. In any case, the data confirms that households in the majority of districts are vulnerable as a result of the poor agriculture value chain.

Households in seven of the 13 districts mentioned illness, either short-term or chronic, or death of a household member as one of the top three most frequently cited shocks, with 20-40 percent of households experiencing this type of shock in the majority of these seven districts. The many health challenges faced by households are key factors that contribute to this significant risk, including knowledge gaps, poor environmental health services, poor health service provision, the relative high cost of health care, and women's lack of decision-making power and resources around health.

Large-scale natural disasters, such as droughts and floods, rarely occur in Sierra Leone, but more localized drought and flooding does occur. Environmental disasters were mentioned as one of the top three major shocks in two districts: Bo, where 21 percent of households experienced drought, and Bonthe, where 26 percent of households experienced flooding.

TABLE 11: RANKING OF MOST FREQUENTLY CITED HOUSEHOLD SHOCKS BY DISTRICT (2005)²¹³

DISTRICT	RANKING OF SHOCKS			
	1	2	3	4
Kailahun	Illness or injury	Security	Lack of agricultural inputs	Lack of household labor
Kenema	Chronic illness	Crop Damage (animals/pests)	Death of household member	Illness or injury
Kono	Crop damage (animals/pests)	Illness or injury	Price fluctuations	Lack of agricultural inputs Lack of household labor
Bombali	Lack of agricultural inputs	Crop damage (animals/pests)	Lack of household labor	Political problems
Kambia	Lack of agricultural inputs	Crop damage (animals/pests)	Illness or injury	Flood
Koinadugu	Crop damage (animals/pests)	Price fluctuations	Lack of agricultural inputs	Lack of household labor
Port Loko	Crop damage (animals/pests)	Price fluctuations	Lack of agricultural inputs	Theft of crops
Tonkolili	Crop damage (animals/pests)	Illness or injury	Death of household member	Lack of agricultural inputs
Bo	Crop damage (animals/pests)	Drought	Lack of household labor	Lack of agricultural inputs
Bonthe	Crop damage (animals/pests)	Lack of agricultural inputs Flood	Lack of household labor	n/a

²¹³ WFP VAM, 2005. Food Security and Nutrition Survey, August, 2005, p. 98. Based on percent of households citing shock, 1=highest percent.

Moyamba	Crop damage (animals/pests)	Lack of agricultural inputs	Lack of household labor	Drought
Pujehun	Death of household member	Illness or injury	Crop damage (animals/pests)	Chronic illness
Western Area Rural	Illness or injury	Lack of agricultural inputs Unemployment	Lack of household labor Death of household member	Chronic illness

Source: WFP August 2005.

Table 12 presents a summary ranking of the most frequently cited coping strategies mentioned by rural households in each district. About half of the coping strategies were food related strategies, such as reducing food consumption, borrowing food or eating less desirable food. However, the most commonly cited coping strategy was a non-food related strategy: borrowing money. In 9 of 13 districts, borrowing money was the most frequently cited coping strategy, mentioned by 15-28 percent of households. In eight of 13 districts – Kailahun, Kono, Bombali, Kambia, Koinadugu, Tonkolili, Bo and Bonthe – borrowing food was among the top three coping strategies, ranging from 26 percent in Bonthe to 8 percent in Bo. In eight districts – Kailahun, Kono, Bombali, Port Loko, Tonkolili, Bo, Moyamba and the Western Rural Area – reducing food consumption was one of the top three most frequently cited coping strategies, mentioned by 11-22 percent of households. This strategy was often cited more frequently than selling assets, though there were exceptions, such as Kenema and Pujehun, where households cited selling livestock before reducing food consumption.

Coping strategies, which function to mitigate the effects of shocks on livelihoods and food security, can provide short-term relief, but can also potentially result in long-term negative effects. Coping strategies can be categorized into sustainable coping strategies and non-sustainable coping strategies, the latter resulting in negative effects on household tangible and non-tangible assets. The majority of the most frequently cited coping strategies in **Table 12** are non-sustainable, such as borrowing money or food,²¹⁴ reducing food consumption, and selling household assets or livestock. The only sustainable coping strategies mentioned were wage labor, petty trade and eating less desirable food. In seven of the 13 districts, one of these sustainable coping strategies was either the first or second most frequently cited by households. For vulnerable households in Sierra Leone, mitigation of potential shocks, such as those described above and facilitating access to more sustainable coping mechanisms when shocks arise, are critical for reducing household risk and vulnerability.

²¹⁴ Borrowing food or money is non-sustainable for poor vulnerable households when they do not have the resources to return the money or food, or borrowing involves a high rate of interest that places additional stress on limited household resources.

TABLE 12: RANKING OF MOST FREQUENTLY CITED HOUSEHOLD COPING STRATEGIES BY DISTRICT (2005)²¹⁵

DISTRICT	RANKING OF COPING STRATEGIES			
	1	2	3	4
Kailahun	Borrow money Additional wage labor	Borrow food ^a	Reduce food consumption	Sell household items
Kenema	Wage labor in other area	Sell livestock	Sell household items	Borrow food
Kono	Borrow food	Reduce food consumption	Eat less desirable food	Additional wage labor
	Borrow money			
Bombali	Eat less desirable food	Borrow food	Reduce food consumption	Borrow money
Kambia	Borrow money	Borrow food	Additional wage labor	Reduce food consumption
Koinadugu	Borrow money	Borrow food	Petty trade	Reduce food consumption Additional wage labor
Port Loko	Borrow money	Reduce food consumption	Additional wage labor	Sell household items
Tonkolili	Borrow money	Reduce food consumption	Borrow food	Eat less desirable food
Bo	Eat less desirable food	Reduce food consumption	Borrow food	Wage labor in other area
			Borrow money	
Bonthe	Borrow money	Borrow food	Eat less desirable food	Reduce food consumption
Moyamba	Reduce food consumption	Eat less desirable food	Additional wage labor	Borrow food
Pujehun	Borrow money	Additional wage labor	Sell livestock	Petty trade
Western Area Rural	Borrow money	Petty trade	Reduce food consumption	Borrow food
				Additional wage labor

Source: WFP August 2005.

^a Note: Highlighted cells denote food-based strategies for coping and non-highlighted cells denote non-food based strategies for coping.

5. STRATEGIES, POLICIES AND PROGRAMS RELATED TO REDUCING FOOD INSECURITY IN SIERRA LEONE

This section provides a summary of the strategies, policies and programs that have been adopted by the GOSL, USAID and other development actors to address food security in Sierra Leone. USAID/Sierra Leone and its partners will complement and build on these approaches and interventions under the USAID/Sierra Leone FSCF.

²¹⁵ WFP August 2005. Based on percent of households citing coping strategy, 1=highest percent. Note: percentages below 10 not included in ranking.

5.1 GOSL POLICIES, STRATEGIES AND PROGRAMS

The GOSL has a number of policies, strategies and programs relevant to food security, including its PRS, a draft Policy for the Agricultural Sector of Sierra Leone, a Food and Nutrition Policy (being updated), the GOSL program Operation Feed the Nation, a Reproductive and Child Health (RCH) Strategic Plan, a National Policy Guideline and Action Plan on Water Supply and Sanitation, and a National Youth Policy, among others. A summary of strategies, policies and plans can be found in **Table 13**. A description of progress and priorities under CAADP, which is a very important component of efforts to improve food security in Sierra Leone, is provided in **Section 5.1.1**.

GOSL commitment to improving food security in post-conflict Sierra Leone began in 2002 with the establishment of Operation Feed the Nation, currently in a scale-up phase. The program is designed to help poor rural farmers increase production and incomes, reduce poverty and contribute to national food security. Sierra Leone's 2005-2007 Poverty Reduction Strategy Paper (PRSP) also emphasizes improvements to food security through policies and programs to support pro-poor sustainable growth and job creation. In addition, the GOSL developed the National Agricultural Response Plan (NARP) in 2008 to mitigate the impact of rising food prices through direct food support and education to vulnerable groups and support for increased and diversified farmer production. MAFFS is developing a new draft Policy for the Agricultural Sector of Sierra Leone to improve food security via diversified agricultural production, job creation and growth in the agricultural sector and a draft national rice strategy to increase production of this key staple. MAFFS is moving forward with the CAADP process that includes the development of a National Sustainable Agricultural Development Plan (NSADP). The Minister of Agriculture has developed a vision and policy objectives to support agriculture as the engine of economic growth for the country, and the MOHS is in the process of developing a new food and nutrition policy.

These strategies and plans demonstrate some progress in formulating guidance for development efforts to improve food security. However, further effort must be put into strengthening the capacity of the GOSL to prioritize, develop and implement up-to-date comprehensive strategies and action plans to further guide, harmonize and integrate efforts within and among ministries, donors and implementing partners around a number of areas, including food security. Currently there is no central GOSL coordinating mechanism to ensure complementarity of food security policies, strategies and programs. A 2008 GOSL report on PRS progress²¹⁶ found that lack of a comprehensive civil service reform has resulted in limited improvements in government staff capacity to implement, monitor and evaluate programs. It is noteworthy that the RCH Strategic Plan emphasizes its contrast to prior MOHS plans in that it is one comprehensive, evidence-based RCH program instead of many separate, ad hoc, overlapping or duplicative projects in reproductive and child health, demonstrating some progress in strategic planning. However, formulation of policy and planning in other areas that affect food security still need much work, including finalizing a policy for the agricultural sector and developing a new, more coherent water and sanitation strategy

²¹⁶ GOSL 2008c.

and framework to guide that sector, which is weak and split between several institutions. In addition, although there are national policies on the advancement of women and gender mainstreaming, few resources exist to ensure their implementation.

TABLE 13: SUMMARY OF STRATEGIES, POLICIES AND PROGRAMS RELEVANT TO ACHIEVING FOOD SECURITY OBJECTIVES IN SIERRA LEONE

STRATEGY/ PROGRAM	DATES	OBJECTIVES AND INTERVENTIONS	RESPONSIBLE
Government of Sierra Leone (GOSL)			
Sierra Leone Poverty Reduction Strategy (PRS)	2005-2007	PRS has three pillars: 1) promoting good governance, security and peace, 2) pro-poor sustainable growth for food security and job creation; and 3) human development. A new PRSP is being developed.	GOSL
Policy for the Agricultural Sector of Sierra Leone (draft)	2002	Overall policy objective: to promote sustained growth in the agricultural sector and the achievement of food security and job creation. Specific objectives: 1) increase diversified agricultural production and food availability; 2) raise rural incomes and employment while ensuring adequate protection of the environment; 3) maximize foreign exchange earnings from agriculture; 4) ensure balanced regional growth and equitable distribution of income.	GOSL
National Agricultural Response Plan (NARP)	2008	Overall objective: mitigate impact of rising food prices to ensure stable economic and social development. Specific objectives: 1) increase access of vulnerable groups to nutritious food and nutrition education through direct dietary support and education; 2) increase nationally-produced supplies of IVS rice, cassava, sweet potato, groundnut, vegetables, maize and cowpeas, poultry and small ruminants through inputs/stock/veterinary services support.	GOSL
Operation Feed the Nation	2002-ND	Overall goal: address food security issues and especially chronic hunger experienced during the hungry season to respond to the needs of large numbers of rural resource-poor farm families to successfully increase food production, contribute to national food security, improve household incomes and reduce poverty.	GOSL
National Rice Development Strategy (draft)	ND	Goal: establish a framework for significant increases in rice production to contribute to the improvement of food security and economic development in Sierra Leone. Specific objectives: 1) ensure increase in sustainable productivity and production of rice in Sierra Leone; 2) promote appropriate post-harvest handling, processing and marketing of rice; 3) develop appropriate infrastructure for rice production and marketing; 4) improve the capacity of stakeholders and institutions involved in the rice sector. Strategies: 1) increase area cultivated, mainly in lowlands where underutilized capacity exists, 2) increase productivity per unit area in all ecosystems.	GOSL
Private Sector Development Strategy for Sierra Leone	2009-2014	Goals: 1) sustain rapid, broad-based growth; 2) provide productive, well-paid jobs; 3) increase incomes for the self-employed. Specific outcomes: 1) promote and support entrepreneurship; 2) reduce the cost and risk of doing business; 3) increase access to affordable finance; 4) make markets work better; 5) provide adequate infrastructure.	GOSL
Sierra Leone National Food and Nutrition Policy	2003-2008	Objectives: 1) improve nutritional status and decrease malnutrition among general population, with a special focus on children and pregnant and lactating women; 2) decrease incidence of low birth weight; 3) incorporate food and nutrition into agricultural development; 4) improve agricultural production; 5) coordinate inter-sectoral and inter-ministerial policies and programs around food and nutrition, monitoring the nutrition	GOSL

		situation and evaluating nutrition and food security programs. MOHS is in process of developing a new nutrition policy	
Reproductive and Child Health (RCH) Strategic Plan	2008-2010	Goal: reduce maternal, under 5 and infant mortality rates by 30 percent of 2005 levels by 2010. Objectives: 1) increase number of maternal and child health (MCH) aides, state-enrolled community health nurses and community health officers; 2) ensure facilities have essential equipment and are functioning efficiently; 3) increase utilization of RCH services; 4) ensure development/enforcement of appropriate laws, regulations, rules and guidelines; 5) contribute to more effective monitoring and evaluation (M&E); 6) ensure effective governance and management of functions across the health system; 7) ensure adequate coordination of work that addresses systems-wide issues.	GOSL
Women's Initiative for Safer Health (WISH)	ND	WISH, an initiative of the Office of the First Lady of Sierra Leone, is a framework that includes the following components: 1) development of advocacy tools and dissemination of key messages to reduce maternal, under 5 and infant mortality using radio and TV; 2) community sensitization among religious leaders, groups of men and women, and communities; 3) training of community health promoters, women's groups and communities on behavioral change for better health, especially in terms of empowerment and early case referral; 4) construction of birth waiting homes for areas with poor health facility access; 5) equipping birth waiting homes and health posts at local village levels as well as provision of transportation and referral mechanisms to district hospitals.	GOSL
Sierra Leone National Policy Guideline and Action Plan on Water Supply and Sanitation	2005	Covers three areas: <u>Water resources management</u> – Strategies: 1) establish Water Resources Council for national, district and community levels; 2) increase awareness about water resources management; 3) assess surface and ground water resources; 4) update data collection networks; 5) establish geographic information system databases; 6) prepare river basin plans and responses to climate change; 7) prepare standards and regulations for various uses of water (e.g., drinking, industry) and water use rights, pollution control and conflict resolution over water use. <u>Overall water supply and sanitation, urban and rural</u> – Strategies: 1) increase coverage of water supply and sanitation facilities; 2) apply principles of community participation, ownership and management, and government administrative responsibilities; 3) strengthen institutional roles at national, district and local levels; 4) mobilize finances for the program; 5) provide necessary data for decision making; 6) build capacity of stakeholders; 7) monitor and evaluate implementation. <u>Rural water supply and sanitation</u> – Strategies: 1) those related to community ownership as addressed above, but also reflecting need for active participation of women, public sector facilitation and private sector provision of goods and services; 2) integrate water, sanitation and hygiene education; 3) develop guidelines on roles and responsibilities of beneficiaries and stakeholders, participatory planning, operation and maintenance, and M&E.	GOSL
Global Fund to Fight AIDS, Tuberculosis and Malaria	2008-2010 (phase I)	<u>HIV/AIDS</u> : Goal: reduce new infections. Strategies: 1) scale up existing comprehensive national response to HIV/AIDS, including prevention, treatment, care and support; 2) build capacity of health staff to provide antiretroviral therapy to those meeting criteria; 3) expand services to vulnerable groups at risk of HIV and/or affected by HIV (e.g., youth, migrant laborers); 4) establish national condom social marketing program including female condom pilot among sex workers in Western Region; 5) expand voluntary confidential counseling and	Principal Recipient: National HIV/AIDS Secretariat

		testing; 6) treat sexually transmitted infections (STIs); 7) enhance workplace protection; 8) reduce adverse consequences of HIV on labor and economic development. ^a	
	2008-2010 (phase I)	<u>Tuberculosis (TB)</u> : Goal: scale up TB interventions to ensure access to expanded services country-wide. Strategies: 1) early detection, diagnosis and treatment of new positive cases; 2) expand treatment (Directly Observed Treatment Strategy [DOTS]); 3) integrate with private practitioners and laboratories in urban centers, including penitentiaries and the military. ^b	Principal Recipient: MOHS
	2008-2010 (phase I)	<u>Malaria</u> : Goal: reduce malaria morbidity and mortality in all age groups in the 14 districts of Sierra Leone, with special reference to children under 5 and pregnant women. Strategies: 1) treat with anti-malaria drugs at facility and community levels; 2) provide IPT for pregnant women; 3) distribute and re-treat bednets; 4) support above strategies through advocacy, information, education and communication, campaigns, operational research, and M&E; 5) develop capacity of national malaria program at central and peripheral levels; 6) strengthen partnerships and Principal Recipient management support; 7) ensure improved access by supporting revision of a national Strategic plan for Malaria Prevention and Control. ^c	Principal Recipient: MOHS
National Strategic Plan to Scale Up Community-Based Interventions for Malaria Prevention and Control	2007-2012	Sub-plan of National Strategic plan for Malaria Prevention and Control (in revision). Objective: scale up community-based interventions, particularly home-based management of malaria.	GOSL
National Youth Policy	2003	Overall goal: create a level playing field for youth to actualize their fullest potentials, be competitive nationally and globally, and contribute as good, responsible citizens to the development of the country. Objectives: 1) design, articulate and implement policy through well-defined projects; 2) create reliable and efficient networks of information for youth to access; 3) collaborate with stakeholders to encourage youth employment in private and public sector; 4) guarantee health through sensitization on health issues, including HIV; 5) empower young women through incorporating gender sensitivity in all aspects of policy and programs; 6) mobilize youth to replace culture of violence with culture of peace and dialogue via campaigns, education programs and life skills training; 7) reinvent dignity of labor as integral aspect of youth culture and consciousness.	GOSL

^a Source: [GOSL 2008a](#).

^b Source: [GOSL 2009f](#).

^c Source: [GOSL 2008b](#).

5.1.1 CAADP

CAADP was established and endorsed by the African Union's (AU's) New Partnership for Africa's Development (NEPAD) in collaboration with FAO in 2002 and then by the Second Ordinary Session of the AU Assembly of Heads of State and Government in Maputo in 2003 (the Maputo Summit). The overall goal of CAADP is to: *“Help African countries reach a higher path of economic growth through agriculturally-led development, which eliminates hunger, reduces poverty and food insecurity, and enables expansion of exports.”*²¹⁷

The CAADP agenda is aimed at increasing agricultural growth rates to 6 percent per year by 2015 and allocating at least 10 percent of national budgetary resources to agriculture by 2009. Agricultural growth is to be achieved through the development of sound policies for agriculture and rural development to create the wealth needed for rural communities and households in Africa to reduce food insecurity and poverty and improve sustainable use of natural resources. To achieve the goal, CAADP focuses its interventions in key pillars. The key pillars for Sierra Leone are presented below.

5.1.1.1 CAADP Process in Sierra Leone

Sierra Leone is in the middle stages of country engagement in the CAADP process, which began with the establishment of the NEPAD/CAADP Secretariat in the MAFFS in 2005. Sierra Leone has completed the following steps in the Africa-wide CAADP cycle: 1) appointed a focal person for the CAADP country initiative process; 2) launched the CAADP cycle in collaboration with the Regional Executive Committee; 3) formed the national steering and technical committees; and 4) endorsed the outlined CAADP process (by the cabinet). A stocktaking and growth investment analysis exercise was just recently completed and is awaiting finalization to identify priority areas for investment. This will then lead to the drafting of the country compact for presentation at the CAADP roundtable, expected to take place mid-year in 2009.

There are five pillars in the CAADP framework for Sierra Leone. Each pillar has a thematic working group with terms of reference regarding working group objectives and expected outcomes. Each working group prepares reports to identify future directions in terms of policies, strategies and potential programs for each respective thematic area in relation to the CAADP pillars. The reports also identify “quick wins” for immediate actions by the GOSL, development partners, the private sector and other stakeholders. Eventually, the reports will form the basis for the CAADP compact that will be presented to donors for funding.

The five CAADP pillars for Sierra Leone are:

- Pillar I: Land Management; Thematic Working Group: Expanding the area under sustainable land management and reliable water control systems
- Pillar II: Rural infrastructure; Thematic Working Group: Improving rural infrastructure and trade-related capacities for better market access

²¹⁷ Comprehensive Africa Agricultural Development Program (CAADP), IEHA Coordinator's Meeting, Maputo, Mozambique, November 6-8, 2006.

- Pillar III: Food supply; Thematic Working Group: Enhancing the food supply while reducing hunger, including emergencies and disasters that require food and agriculture responses, with special attention to promoting crop sub-sectors and food security in Sierra Leone
- Pillar IV: Agricultural research and dissemination; Thematic Working Group: Technology development, dissemination and adoption
- Pillar V: Livestock, Fisheries and Forestry; Thematic Working Group: Expanding sustainable development of livestock, fisheries and forestry (natural resource management [NRM]).

Sierra Leone also has a sixth thematic working group on cross-cutting issues. This working group covers: 1) sector policy review and formulation, coordination and planning, monitoring and evaluation (M&E), and database development and management; 2) promoting efficient and effective sector resource mobilization and management systems such as capacity strengthening for agriculture and agricultural business, and academic and professional training; and 3) mainstreaming cross-cutting issues in agriculture such as gender, youth and farmer health (e.g., HIV, malaria) and sustainability issues.

5.2 USG STRATEGIES AND PROGRAMS

5.2.1 Alignment with Foreign Assistance Framework

All USG foreign assistance spending is supposed to be aligned with the five key objectives of the Foreign Assistance Framework and their program areas, program elements and program sub-elements. This is true for all USAID/Sierra Leone’s funded programs as well as the Title II development programs. The current alignment can be seen in **Table 14**, with the USAID programs funded by other accounts focused on the *Governing Justly and Democratically*, *Investing in People* and *Economic Growth* objectives and the Title II programs focused on the *Investing in People* and *Economic Growth* objectives.

TABLE 14: ALIGNMENT OF THE CURRENT ESF-FUNDED AND TITLE II PROGRAMS WITH THE US FOREIGN ASSISTANCE FRAMEWORK

OBJECTIVES	PROGRAM AREAS AND PROGRAM ELEMENTS	
	PROGRAMS FUNDED BY OTHER ACCOUNTS (E.G., ESF)	TITLE II PROGRAM
Governing Justly and Democratically	<ul style="list-style-type: none"> • Good Governance • Rule of law and human rights 	
Investing in People	<ul style="list-style-type: none"> • Health • Maternal and child health (MCH) • Family planning and reproductive health • Education • Basic education 	<ul style="list-style-type: none"> • Health • MCH • Water and sanitation • Social Services and Protection • Social Assistance
Economic Growth	<ul style="list-style-type: none"> • Agriculture • Agricultural enabling environment • Agricultural sector productivity • Economic Opportunity • Micro-enterprise productivity • Environment • Natural resources and biodiversity 	<ul style="list-style-type: none"> • Agriculture • Agricultural sector productivity

5.2.2 USAID Mission Strategies and Programs

The USAID/Sierra Leone Strategy is based on the Sierra Leone experience that in the absence of transparent democratic governance, civil unrest emerges and is expressed in increasingly destructive ways. It also recognizes that risk of civil unrest increases when there are perceptions or realities of public corruption and inefficiencies and where citizen's rights are denied, which all have the potential to lead to marginalization of the population and unrest. As noted in **Section 5.2.1**, USAID/Sierra Leone focuses on three US Foreign Assistance objectives in its work to support the GOSL in the implementation of the poverty reduction strategy: *Governing Justly and Democratically*, *Investing in People* and *Economic Growth*. Therefore, a central theme of all activities under the USAID/Sierra Leone current strategy is to enhance democratic governance, foster economic growth and improve NRM to benefit the people of Sierra Leone.

USAID/Sierra Leone's country programs are managed in-country by USAID/Sierra Leone, USAID/Guinea and/or USAID/Washington. **Table 15** provides a summary of the current programs, the majority of which focus on improving agricultural production, food security and/or the enabling environment around agricultural productivity. Programs managed by USAID/Sierra Leone include the Promoting Agriculture, Governance and the Environment (PAGE) project and the Creating an Enabling Environment in Sierra Leone (CEPESL) project. PAGE is designed to integrate transparency and civic participation aspects of governance with agricultural productivity, microenterprise development and NRM to enhance economic growth. It builds on previous USAID interventions that strengthened farmer associations, local district administration and civil society organizations. Activities include: improving access to improved technologies and good agricultural practices, strengthening agribusiness opportunities along the value chain, and strengthening and expanding existing loans and savings schemes; NRM through improved community land-use and natural resource plans; training and mentoring chiefs, district councilors and ward committees in democratic governance processes; training civil society organizations, women and youth groups in participation, advocacy, transparency and accountability; and establishing mechanisms for citizens to debate laws and their applications. The CEPESL program is a two-year program designed to support PAGE by facilitating the establishment of policies and laws for agriculture and NRM.

Two programs are managed by USAID/Guinea. The Mano River Regional Forestry Initiative supports sustainable management of forests in the Mano River region and the Monitoring Land Use and Land Cover Change in the Mano River Region project supports the Mano River Regional Forestry Initiative by annually identifying measurable impacts associated with USAID-supported agriculture, biodiversity and NRM field interventions.

Programs managed by USAID/Washington include the Title II-funded Livelihood Enhancement and Agricultural Development (LEAD) program, which will be discussed further in **Section 5.2.4**, and the Unleashing the Power of Cassava in Africa in Response to the Food Crisis (UPoCA) project that forms part of a West African regional initiative to provide improved varieties of cassava and equipment for improved

cassava processing. Other USAID/Washington programs described in **Table 15** include two health programs, one in neglected tropical diseases and the other in fistula treatment, training and research, as well as an education program to improve retention of girls and boys in school and a project to improve women's lives in rural Port Loko district. The Famine Early Warning Systems Network (FEWS NET), a USAID-funded project that provides early warning and vulnerability information on emerging and evolving food security issues, is tentatively planning remote data collection and early warning and response (EWR) activities in Sierra Leone in 2010.

TABLE 15: SUMMARY OF SELECTED USAID/SIERRA LEONE COUNTRY PROGRAMS

PROGRAM TITLE	DATES	PARTNER	TOTAL ESTIMATED COST	OBJECTIVE	GEOGRAPHIC COVERAGE	MANAGED BY
Promoting Agriculture, Governance and the Environment (PAGE)	2008-2012	Lead partner: Agricultural Cooperative Development International/ Volunteers in Overseas Cooperative Assistance (ACDI/VOCA); Sub-partners: World Vision (WV) and Association for Rural Development (ARD)	\$13,244,003	Increase agricultural productivity while supporting sustainable NRM and promoting transparent and participatory democratic governance	Districts: Kono, Koinadugu, Kailahun and Kenema (Lower Bambara Chiefdom and Kenema Town)	USAID/ Sierra Leone
Creating an Enabling Environment in Sierra Leone (CEPEL)	2009-2011	ARD	\$600,000	Facilitate the establishment of enabling policy conditions necessary in order to achieve sustainable and productive agriculture and NRM	National	USAID/ Sierra Leone
Livelihood Expansion and Asset Development (LEAD)	2006-2009	Lead Partner: Cooperative Assistance for Relief Everywhere (CARE)/Sierra Leone for the Consortium for Rehabilitation and Development (CORAD); Other partners: Catholic Relief Services (CRS), WV and Africare	\$27,403,000	Reduce food insecurity among vulnerable populations in project area through improving human capacities, livelihood capacities, infrastructure and linkages to service providers, and good governance at the community level	Districts: Bombali, Koinadugu, Kono, Kailahun, Tonkolili and Kenema	USAID/ Sierra Leone
Mano River Region Forestry Initiative	2006 to present	Multiple implementing partners	No information	Sustainable management of forests in Mano River region aimed at increasing farmer income, improving agricultural productivity and maintaining forest resources	National	USAID/ Guinea
Monitoring Land Use and Land Cover Change in the Mano River Region	2008-ongoing	US Geological Survey (USGS)	\$50,000 (USAID/Guinea) \$190,994 (USAID/Washington)	Monitor land use and forest cover change associated with USAID-funded forestry activities, supporting and monitoring Mano River Region Forestry Initiative	National	USAID/ Guinea

Unleashing the Power of Cassava in Africa in Response to the Food Price Crisis (UPoCA) Sierra Leone Project	2008-2011	International Institute of Tropical Agriculture (IITA)	\$472,393	Provide adequate supply of cassava products at economically affordable prices through availability of improved cassava varieties, production processes and farm gate processing	Districts: Kailahun, Kono, Bo, Bonthe, Bombali and Kambia (will extend to Pujehun [city] and Kpandedu [Kenema district])	USAID/ Washington
Improving Environmental Management and Mitigating land-use Conflicts in Alluvial Diamond Fields in Sierra Leone	2006-2009	Foundation for Environmental Security and Sustainability (FESS)	\$700,000	Reclaim land from artisanal diamond mining for agricultural use	District: Kono	USAID/ Washington
Neglected Tropical Disease (NTD) Control Program	2008-2011	Lead: Helen Keller International (HKI); in collaboration with GOSL and NTD Task Force	\$6,924,000	Reduce morbidity due to onchocerciasis, lymphatic filariasis, Soil Transmitted Helminthes, schistosomiasis and trachoma to levels where they are no longer of public health significance, using integrated community directed delivery mechanisms and innovative school health approaches	Nationwide	USAID/ Washington
Mercy Ships Obstetric Fistula Program Treatment, Training and Research	2008-2009	Engender Health (Mercy Ships as sub-partner)	\$701,840	Increase quality of life for women with debilitating childbirth injuries through specialized surgical interventions and holistic care	Nationwide	USAID/ Washington
Ambassador's Girls' Scholarship Program	2008-2009	World Education, Inc (working with five local NGOs)	\$451,910	Supports basic education for young girls, providing scholarships, supplies and meals	Districts: Koinadugu, Port Loko, Bombali Kono, Kenema and Kailahun	USAID/ Washington
Empowering Women for Sustainable Peace and Development	2009	Baptist Convention of Sierra Leone	\$443,000	Improve living conditions of rural women via training; tree and agricultural crop production; support youth in agricultural production and processing; sensitize communities to HIV, gender equity and violence issues; and train women's groups in income generating activities	District: Port Loko	USAID/ Washington

5.2.3 USAID Food for Peace 2006-2010 Strategic Plan

The USAID Office of Food for Peace (FFP) Strategic Plan is a key document for the design of Title II programs. The definitions and concepts of food security that are laid out in the FFP Strategic Plan, its strategic objective and intermediate results, the underlying conceptual framework used, and the target groups identified are all reflected in the USAID Sierra Leone FSCF. Some of the new directions in the FFP Strategic Plan are also reflected in the USAID Sierra Leone FSCF, for example, the focus on food insecurity and the emphases given to reducing the risks of and vulnerability to food insecurity shocks (including natural, economic, social, health and political shocks) and protecting and building human and livelihood assets. (See **Annex 2** for the FFP Strategic Framework and **Annex 3** for the Expanded Conceptual Framework for Understanding Food Insecurity, which provides the theoretical underpinnings for the FFP Strategic Plan.)

The FFP Strategic Plan is designed to meet the needs of both the chronically food insecure, who suffer from persistent food insecurity over time, and the transiently food insecure, who have a temporary inability to meet food needs or smooth consumption levels.²¹⁸ The strategic objective of the FFP Strategic Plan is “*Food Insecurity in vulnerable populations reduced,*” and its two intermediate results are *IR 1: Global leadership in reducing food insecurity enhanced* and *IR 2: Title II program impact in the field increased*. Key target groups under the FFP Strategic Plan are those populations at risk of food insecurity because of their physiological status, socioeconomic status or physical security, and/or people whose ability to cope has been temporarily overcome by a shock.

5.2.4 The FY 2007-2009 Title II MYAP in Sierra Leone

The current Title II MYAP in Sierra Leone, “Livelihood Enhancement and Asset Development,” or LEAD, is implemented by the Consortium for Rehabilitation and Development (CORAD), comprised of four CSs: Cooperative Assistance for Relief Everywhere (CARE; lead agency), Africare, Catholic Relief Services (CRS) and World Vision (WV). The program is implemented in 32 chiefdoms in six districts located in northern and eastern Sierra Leone. LEAD is designed to address food availability, access and utilization through activities focused on improving agricultural production and marketing, livelihood opportunities for youth, health and nutrition knowledge and practices, and the capacity of community-based groups to reestablish community safety nets and links to local government. The goal of these activities is to reduce food insecurity among vulnerable households and communities in the project areas.

Initially the primary focus of LEAD’s activities was on its livelihoods objectives. LEAD uses the FFS model to promote the use of improved agricultural practices, promotes the development of farmers groups to market produce, improves access to inputs such as seeds, and promotes the development of village-level savings and loan groups. LEAD has also been working with economically marginalized youth to provide business training and vocational training. Direct food distribution is used in FFA programs to improve

²¹⁸ “Smoothing” refers to any actions to even out or stabilize fluctuations in food consumption.

rural infrastructure, including feeder roads, drying floors and community farms, and also in vulnerable group feeding.

Following a midterm review, in addition its focus on livelihoods, LEAD placed more emphasis on its health and nutrition objectives and their integration within program components. One focus of the health and nutrition component of the program is rehabilitation of underweight children and more recently, in areas where community-based management of acute malnutrition (CMAM) has been introduced by the MOHS and the United Nations Children's Fund (UNICEF), on children with moderate wasting (through measurement of mid-upper arm circumference [MUAC]). Underweight or moderately wasted children are directed to the Positive Deviance (PD)/Hearth program.²¹⁹ As a part of a positive deviance inquiry (PDI), program staff first identify within a community positive practices among mothers who have few resources but healthy children with adequate growth.²²⁰ Mothers whose children are malnourished are taught to adopt these practices during "Hearth sessions" in which children are fed a special recuperative meal prepared by their caregivers and, prior to starting the Hearth sessions, receive needed basic medical care. The LEAD health and nutrition objective also includes baby-friendly farms (BFFs), where a group of breastfeeding women, especially those exclusively breastfeeding until their child turns 6 months, are provided a piece of land either close to the village or with a hut to protect children from the sun. Mothers cultivate crops for home consumption or sale and can take a break to either go home to breastfeed their child or do so in the hut. The program also facilitates community-level health outreach programs to improve access to health services for women and children in collaboration with DHMTs, programs to improve the health and nutritional status of pregnant and lactating women, and, to a limited extent, well and latrine construction to improve access to safe water and appropriate sanitation. Underpinning all these activities are trainings and meetings to improve community- and local-level governance, transparency, accountability and representation.

CORAD conducted the LEAD midterm review in June-September 2008. The review concluded that LEAD helped empower communities to use their own resources and make key decisions. Communities highlighted the village savings and loans, PD/Hearth, FFSs, BFFs, social safety net planning and creation of by-laws as methods that gave them a space to use their own resources and created a sense of unity and raised awareness about communal responsibilities. Sustainability of certain aspects of the program are uncertain, such as community capacity to fully care for their vulnerable after the program phases out, and use of health services, since the PHUs charge for services that should be provided for free. This highlighted the importance of advocacy to address the latter issue.

²¹⁹ Children with severe acute malnutrition (SAM, or weight-for-height Z-score < -3 SD) are referred to the CMAM program.

²²⁰ PDI focused on EBF and found no mothers exclusively breastfed. The program conducted a analysis of barriers to EBF and found that mothers and grandmothers agreed that EBF is ideal. Grandmothers explained they practiced EBF in the past and had healthier infants, all confirmed household food insecurity is critical and mothers have to farm (making EBF virtually impossible), and crying infants reflect poorly on mother's capacity, so other foods are provided before 6 months to quiet the child. Results were used to design BFFs described in text.

5.2.5 Lessons Learned and Recommendations from Past and Current FFP- and DA-Funded Projects in Sierra Leone

There are a number of lessons learned and recommendations from past and current FFP- and DA-funded projects in Sierra Leone that Title II Awardees should consider as they develop their MYAP proposals. This section will focus on lessons learned and recommendations gleaned from the final evaluations of two projects – the Development Relief Program (DRP; the Title II program that preceded LEAD) and the Promoting Linkages for Livelihood Security and Economic Development (LINKS) project (a DA-funded project that operated at the same time as the DRP) – as well as the mid-term review of the current Title II project, LEAD. Potential Title II Awardees should also review and incorporate into their proposals relevant lessons learned and recommendations from the final evaluation of LEAD when it becomes available. A brief summary of descriptions for each of these projects and the lessons learned and recommendations can be found in **Table 16**.

DRP was a Title II-funded project to improve household food availability, access and utilization implemented by CORAD from 2004 to 2007 in 29 chiefdoms in five districts: Bonthe, Kailahun, Koinadugu, Kono and Tonkolili. These districts were the most affected by the decade-long civil war and had large percentages of food-insecure individuals. The project had an agriculture component and a health component focused on the post-conflict rehabilitation in these areas. The agriculture component aimed to: 1) increase agricultural production and productivity, including reestablishing production of basic food staples such as rice, cassava, groundnuts and vegetables through training in improved practices provided during FFSs; 2) reduce post-harvest losses through rehabilitating community drying and storage facilities and training in pre- and post-harvest techniques; and 3) increase farmer access to markets through rehabilitation of farm-to-market roads and market facilities. The health component aimed to: 1) strengthen the capacity of PHUs to provide health services; 2) organize village outreach sessions, including growth monitoring and promotion and immunization; and 3) train village health workers in basic health, sanitation and referral services, covering topics such as safe delivery and early referral for complications in pregnancy, prevention and treatment of illnesses such as malaria and diarrhea, EBF, rehabilitation of moderately malnourished children, dietary diversification, and hygiene and sanitation, among others. The health program also facilitated organization and capacity strengthening in strategic planning and management for community-level health and nutrition groups, including the health subcommittee of the village development committee, and linked them to leaders at the chiefdom and district levels.

Recommendations based on DRP results focus on the need for more emphasis to be placed on reducing post-harvest losses; having a better understanding of rural hierarchies that can increase the vulnerability of the rural poor and their access to resources and the preferences of the rural poor, whose voices are often not heard; being realistic about the level of community contributions to the development process while avoiding dependency; improving child nutrition; enhancing sustainability; improving beneficiary involvement in program design; strengthening the quality of M&E; and sharing of lessons learned in the project. Results of indicators also point to the need for FFSs to

adequately address risks to food security such as pest damage and timely implementation of activities to better achieve targets.

LINKS was a DA-funded project to expand economic activities in rural communities and was implemented by CORAD from 2004 to 2007 in three districts: Kailahun, Koinadugu and Kono. Project interventions included agricultural production and marketing to increase production of staple crops (e.g., rice, cassava, vegetables) and rehabilitate plantations (e.g., oil palm, coffee, cocoa) through training and field testing using FFSs, and microenterprise development (MED) to increase and expand market-led agriculture and improve the flow of agricultural inputs and outputs through small grants, business training (through a fee-based course called “Making Cents”), village savings and loan (VS&L) programs, credit through the micro-finance institution “Finance Salone,” functional literacy training, market information system development and dissemination of market information via radio. Recommendations from the LINKS final evaluation include the need to expand topics covered by FFSs and in the business training to improve their impact; improve supervision of groups over time; expand access to investment credit given high demand, especially medium- and long-term capital as this is critical for the development of the agricultural sector, especially in tree crops and commercial vegetable production; increase adult literacy programs given the large demand for the program, especially linked to VS&Ls and agriculture and business skills development; and improve input and output marketing programs. The final evaluation reports of the LINKS program along with the lessons learned described in **Table 16** should also be reviewed carefully by potential Title II Awardees.

The LEAD program is described in detail in **Section 5.2.4**, and the recommendations from the mid-term review are outlined in **Table 16**. Most notable are the recommendations related to integrating project components at the community level to maximize impact, establishing strong links between community-based organizations and the GOSL for sustainability, improving community-level participation to increase sense of ownership and improve sustainability, placing more emphasis in FFS on decreasing post-harvest losses and improving storage techniques, expanding business training to include marketing skills, and facilitating meetings, discussions and cross visits among senior staff and field staff to improve planning and learning.

TABLE 16: SUMMARY OF PAST AND CURRENT FFP AND DA-FUNDED PROGRAMS IN SIERRA LEONE AND THEIR LESSONS LEARNED AND RECOMMENDATIONS

PROGRAM	DESCRIPTION	SUMMARY OF LESSONS LEARNED AND/OR RECOMMENDATIONS
<p>Development Relief Program (DRP)</p>	<p>Dates: March 2004-March 2007 Funding source: Title II Implemented by: CORAD Goal: Support Sierra Leone's recovery from war by restoring livelihoods for rural households in 29 chiefdoms in Bonthe, Kailahun, Koinadugu, Kono and Tonkolili districts Objectives: 1) Improve health status of 15,800 rural food-insecure households; 2) Improve supply and access to food for 37,000 beneficiaries Intermediate Results: <u>Health:</u> 1) Improve access to health services; 2) Improve health and nutrition practices; 3) Build capacity of community-based health/nutrition groups <u>Food availability and access:</u> 1) Restore agricultural production; 2) Restore storage and processing practices and facilities to reduce pre- and post-harvest losses; 3) Restore market infrastructure and market linkages; 4) Build community-level capacity for planning and decision-making to address agricultural problems; 5) link community-based organizations in agriculture with the wider governance structure; 6) maintain a safety net</p>	<p>Recommendations from DRP Final Evaluation, 2006</p> <p>Food Availability and Food Access</p> <ul style="list-style-type: none"> • Emphasize interventions to improve post-harvest losses, especially household focused interventions, such as training in post-harvest management technologies • Enhance utilization of community facilities, such as storage/drying, by taking into consideration factors that influence use, such as socioeconomic status of households in the community and location, size and defined purpose of structure • Improve technical aspects related to sustainability of FFW activities <p>Health</p> <ul style="list-style-type: none"> • Give more attention to improving nutritional status of children • Place special emphasis on enhancing sustainability of health activities, especially incentives for village health workers and traditional birth attendants and their integration into the GOSL health care system • Improve coverage of vitamin A supplementation and immunizations, especially measles • Document and replicate behavior change interventions • Improve monitoring of community-level capacity by including measures of a) quality of implementation and b) evaluation of results of the following: 1) community action plans and 2) meetings with chiefdom and district-level decision makers; do the latter, as applicable, for both village-level development committees and nutrition/health groups <p>Program Design</p> <ul style="list-style-type: none"> • Involve target beneficiaries in problem analysis and MYAP planning • Involve field staff and beneficiaries in revalidating and refining program strategies after project approval <p>M&E</p> <ul style="list-style-type: none"> • Strengthen CORAD member capacity to collect, analyze and interpret data that maximizes data quality and quality control • Maximize learning opportunities through regular sharing of lessons learned and cross visits
<p>Promoting</p>	<p>Dates: December 2004 - November 2007</p>	<p>Recommendations and lessons learned from LINKS Final Evaluation, 2008 and Raise Plus Set Aside Indefinite Quantity Contract (IQC) Evaluation of LINKS, 2007</p>

PROGRAM	DESCRIPTION	SUMMARY OF LESSONS LEARNED AND/OR RECOMMENDATIONS
<p>Linkages for Livelihood Security and Economic Development (LINKS)</p>	<p>Funding source: DA Implemented by: CORAD Goal: Expand economic activities in rural communities and reestablish agricultural input and output marketing linkages between these communities and the mezzo- and national-level market players in Kailahun, Kono and Koinadugu districts Intermediate Results: 1) Increase market-led agricultural production, storage and processing for 12,500 farmers; 2) Establish/expand 5,000 microenterprises through business training and capital grants or credit; 3) Facilitate agricultural economic activity or microenterprises for 1,250 marginalized youth in 420 communities and marginalized youth in district and chiefdom headquarters; 4) Develop and implement input and output markets around rice, cassava, vegetables, oil palm, coffee and cocoa; 5) Establish branches of Finance Salone in Kono and Kailahun to serve 4,500 clients; 6) Establish system to share economic information via radio and print at national and district level</p>	<p>Recommendations</p> <ul style="list-style-type: none"> • Provide increased attention to post-harvest storage and processing technologies, agricultural finance, commercially oriented practices, agro-forestry, and soil and water conservation in FFSs • Provide more comprehensive business training and ongoing supervision and support in financial management, obtaining additional funds, business planning and overall business development for FFSs, VS&L groups, recipients of small grants and loans, and input companies • Expand access to agricultural investment credit • Increase adult literacy programs • Increase input and output marketing programs, incorporating sustainable agriculture market interventions and market information systems • Reduce women’s workload through low-cost appropriate technologies (e.g. in post-harvest processing) • Establish confederations of groups, train them in advocacy and facilitate meetings with chiefdom, ward, district and national authorities to improve their influence on district development and national policies <p>Lessons learned</p> <ul style="list-style-type: none"> • Participants found the business training (Making Cents Simulation training tool) that formed part of the LINKS MED program very useful but it needs to be more comprehensive, including emphasis on bookkeeping, operating bank accounts and negotiating with banks; it also needs to be coordinated with literacy and numeracy training to improve its usefulness, and requires analysis of how it could be made sustainable given the fee-based approach did not draw participants (it required 80 percent subsidization) • VS&Ls, including their literacy and numeracy components, were very popular and appreciated by participants, however lack of transparency in provision of start-up grants and loans caused discontent among VS&L members, emphasizing the need for clear and transparent by-laws, procedures and criteria for selection • Finance Salone used industry best practices and a good management information system, but its reach did not extend beyond urban areas, making it difficult to achieve outreach targets; also loan portfolio quality was not consistent, with greater risk in Kailahun and acceptable risk in Kono; however the institutions appear sustainable with potential for improvement • MED groups need continued support in business training and capacity strengthening in governance and should not be loaded with resources and left on their own or they may be unsuccessful due to poor business practices and elite capture within the group • Youth most appreciated FFSs and their improved agricultural practices, using market research to launch new businesses and improved management of funds, including opening bank accounts; however, beneficiaries must be selected based on poverty level, not just because they are youth • The market information system (MIS) was useful to GOSL staff, NGOs, traders and some

PROGRAM	DESCRIPTION	SUMMARY OF LESSONS LEARNED AND/OR RECOMMENDATIONS
		<p>farmers; the latter used it to decide which crops to grow, which market to use for selling and what price to negotiate with traders; however most farmers do not have the storage capacity to allow them to use the MIS to decide when to sell produce or the level of household food security to switch between different cash crops based on the MIS data, and this must be taken into consideration in the future</p> <ul style="list-style-type: none"> • The small transport system initiative to facilitate movement of agricultural produce (imported tricycles) was not successful due to frequent breakdowns and lack of spare parts, and these types of constraints must be planned for in future programs (e.g., training youth in repair, facilitating contacts with distributors for parts) • The strongest groups were those that had training that resulted in immediate impact on improving income and/or food levels, well-established and enforced by-laws and regular meetings; these groups resulted in tangible additional benefits, such as increased access to labor and improvements to community infrastructure; this resulted in group members possessing a sense of ownership over their activities • The strong level of synergy and integration among the program components (e.g. FFSs, VS&Ls, grants program, business training, literacy training) resulted in notable impact
Livelihood Expansion and Asset Development (LEAD) Program	<p>Dates: October 2006 - September 2009 Funding source: Title II Implemented by: CORAD Goal: Reduce food insecurity among vulnerable populations in 32 chiefdoms in Kono, Kailahun, Kenema, Koinadugu, Tonkolili and Bombali districts</p> <p>Objectives: 1) Protect and enhance human capabilities of 16,000 poor farm households, 3,400 economically marginalized youth, and pregnant and lactating women and children in 16,000 poor farm households; 2) Protect and enhance livelihood capacities of 16,000 poor farm households and 3,400 economically marginalized youth; 3) Improve community infrastructure and</p>	<p>Recommendations from LEAD Mid Term Review, 2008</p> <p>General</p> <ul style="list-style-type: none"> • Integrate all project components in each community for maximum impact • Link communities and community-based organizations with GOSL ministries to ensure long-term support and sustainability • Establish regular meetings between project managers/coordinators and field staff for intersectoral exchange of information/ideas, planning and learning • Youth and microenterprise development • Train youth to repair agro-processing equipment <p>Health</p> <ul style="list-style-type: none"> • Integrate health messages in all sectoral areas (e.g., agriculture, FFA, MED, youth, governance) • Ensure health technical focal person participates in non-health working groups at least twice per year to assist with integration of health in other sectors • Improve community-level ownership of health activities through active involvement/discussion/planning at all levels, and including involvement of local councils, PHUs and the District Medical Officer <p>Agriculture and environment</p> <ul style="list-style-type: none"> • Standardize processes of delivery of capital grant equipment across consortia members (i.e., business training, group by-laws, business plans, bank accounts, matching fund [20 percent up front and 20 percent after one year]) • Provide grants to groups rather than individuals

PROGRAM	DESCRIPTION	SUMMARY OF LESSONS LEARNED AND/OR RECOMMENDATIONS
	<p>strengthen linkages to service providers in 375 rural communities; 4) Increase demand for basic principles of good governance (transparency, accountability and representation) in 990 community-based organizations</p>	<ul style="list-style-type: none"> • Encourage cross visits among farmers/farmer groups • Train FFSs to decrease post-harvest losses and improve storage techniques • Incorporate marketing skills in business management training • Support rehabilitation/construction of roads to improve farmer access to markets • Ensure staff possess technical capacity in business training and business plan development • Encourage farmers to move from experimental field trials to group commercial farms to improve production and marketing <p>Governance</p> <ul style="list-style-type: none"> • Hold two-day training/refresher on principles and practices of good governance at district level and to share lessons learned and best practices • LEAD working groups should work with governance staff in activities related to governance such as creation of by-laws and ensure meetings are process-oriented to ensure replicability and sustainability <p>FFA</p> <ul style="list-style-type: none"> • Ensure FFA activities add value to activities in specific communities through open communication/dialogue with community members, focusing on impact, not just fulfillment of targets • FFA activities should be discussed in the respective LEAD working group to ensure they adhere to agreed-upon allowable activities under FFA • The community-level project management group and local leadership should be separate entities so there is an identified individual to arbitrate disputes • Staff must clearly explain to communities that FFA activities are community assets; this should be emphasized in a memorandum of understanding with communities and in a process of working with community project development committees in handover of assets to community for their maintenance • Communities should contribute to FFA activities to increase sense of ownership of community asset being developed <p>Consortium level recommendations</p> <ul style="list-style-type: none"> • Conduct regular coordination meetings with partner sector representatives to share work plans and coordinate joint field activities • The LEAD coordination and compliance unit should share best practices and facilitate exchange visits among agencies to improve staff learning • LEAD working groups should identify key advocacy issues to be discussed with LEAD Steering Committee

5.3 ACTIVITIES OF OTHER DEVELOPMENT PARTNERS

Sierra Leone has a relatively small number of development partners, including bilateral donors, multilateral donors, UN agencies, and national and international NGOs. The largest development partners are the European Commission (EC) and the United Kingdom (UK) Department for International Development (DfID). The EC and DfID are committed to working closely with each other, the World Bank, the UN system and other donors to harmonize donor support under the country's poverty reduction strategy. EC and DfID are using a mix of funding mechanisms, including budget support, sector-wide approaches, multilateral trust funds, and bilateral programs and projects. They continue to support and build upon past gains in improving security and governance, and through 2013 will also focus on interventions to stimulate and sustain pro-poor economic growth and improve infrastructure and service delivery to the poor.

Table 17 provides a summary of major development partner activities related to agriculture and food security. By far the largest donor in this area is the EC, followed by the World Bank, International Fund for Agricultural Development (IFAD) and the African Development Bank (AfDB). It will be particularly important for the Title II program to be well aware of these programs and especially keep abreast of EC-funded activities in order to learn from them and coordinate and collaborate where possible to enhance Title II impacts. Donors providing smaller amounts of funding for agriculture and food security include Germany, which supports IVS cultivation, tree crop rehabilitation, fish farming, animal restocking, and youth repatriation and re-integration in Koinadugu, Pujehun, Kailahun, Kenema, Kono and the rural parts of the Western Area; the Japanese International Cooperation Agency (JICA), a relatively new donor that is supporting rice production in Kambia; and Irish Aid, which is also relatively new and is supporting agricultural programs in rural and peri-urban areas of the Western Area. It will also be important for the Title II program to be very familiar with the food security and livelihood activities of these and any other donor agencies that may be working in their operational area.

The following donors are supporting health programming in the health sector:

- DfID is the largest donor in health, providing support to the RCH project implemented in coordination with various UN partners, the World Bank, EC, JICA and Irish Aid, and covering emergency obstetric care, immunization, disease control and nutrition. The total budget for the three-year RCH project among the joint donors is 60.8 million US dollars (USD), of which 10.7 million USD is provided by DfID for the period 2008-2011.²²¹ Other DfID-funded health support includes, for example, 10.3 million USD for support to local district councils and the central GOSL; 10.3 million USD for MOHS capacity strengthening; and 1.2 million USD for NGO implementation of the RCH program in Bo, Tonkolili, Bombali, Koinadugu and Kono, pending MOHS establishment of a contracting system. DfID is also providing 52.8 million USD (32 million pounds) in bilateral support for water and sanitation

²²¹ Conversion of British pounds to USD via <http://www.oanda.com/convert/classic>, accessed on June 12, 2009.

for 2008-2013 and is supporting UNICEF efforts in water and sanitation with 14 million USD.

- The EC also has 5.3 million USD in water and sanitation projects in operation from 2006-2012 in Kailahun, Kono and Koinadugu districts to increase sustainable access to safe water and sanitation facilities, appropriate hygiene practices and community-led water management.
- The World Bank is also providing support to improve access to basic health services in maternal care, immunization and HIV/AIDS, and is supporting UNICEF efforts in water. The World Bank has a 28 million USD Health Sector Reconstruction and Development Project that is being implemented from 2003-2009, and a 23 million USD Reproductive Health Project that was recently approved.
- JICA is providing support in health and water and sanitation to Kambia District.

It will be especially important for the Title II program to be well aware of activities being supported by DfID and other donors under the RCH Strategic Plan, as well as water and sanitation activities being implemented by UNICEF or other actors in the Title II-proposed project areas in order to collaborate with key stakeholders and, if feasible, integrate resources to better achieve Title II health and nutrition objectives.

The Development Assistance Coordination Office (DACO) is responsible for coordinating development assistance between the GOSL and donors. Although there is improved harmonization among the principal donors that provide direct budget support in Public Financial Management (PFM) and these same donors are committed to harmonizing benchmarks across non-PFM sectors, there is still a lack of overall donor harmonization over other sectors of the PRS despite monthly donor coordination meetings and government establishment of an Aid Harmonization Committee. Lessons learned for donors, as expressed in an EC Strategy Paper,²²² include donor attention to complementarity of activities to avoid duplication and overlap, realistic assessment of institutional and human resource capacity to ensure sustained development at a realistic pace, and avoidance of in-year adjustments to budget support.

5.3.1 UN Programs

The United Nations Development Assistance Framework (UNDAF) guides the current UN programs in their support of the GOSL, focusing on 1) poverty reduction and re-integration; 2) human rights and reconciliation; 3) good governance, peace and stability; and 4) economic recovery. UNDAF gives high priority to improving food production and youth development. Under the UNDAF, various UN agencies are supporting food security efforts, particularly FAO, WFP and UNICEF. **Table 18** provides a summary of UN programs relevant to efforts to decrease food insecurity in Sierra Leone. FAO is promoting a three-pronged approach to improve food security through helping farmers organize into ABCs, promoting appropriate technologies for production and processing, and engaging the private sector. They are also working to promote fair trade and organic trade in cocoa production; mapping, rehabilitation and revitalization of IVS; and policy, safety net and program activities to respond to the food price crisis. WFP, in addition to what is described below, is implementing a pilot 1.37 million USD Purchase

²²² EC 2007.

for Progress program (P4P) in Sierra Leone, procuring part of its rice for the WFP 2009-2010 programs through low-income farmers in-country. In addition to the interventions described below, UNICEF is supporting the MOHS to develop a draft *IYCF Action Plan for Implementation of Behavior Change Communication Activities* and supporting a technical working group (TWG) meant to ensure a minimum package and harmonized tools, methods and approaches around nutrition among development partners. Also, the GOSL and UN Development Program (UNDP) Country Program Action Plan (CPAP) for Sierra Leone 2008-2010 includes strengthening of early warning systems and capacity of local communities to respond to crisis. CPAP specifically identifies UNDP support for development of district hazard/disaster profiles and contingency plans. Plans also include interactive forums between district councils and communities in Tonkolili, Kambia, Bonthe and Kailahun to improve management of development and service delivery. It will be very important for the Title II program to coordinate and potentially partner with and learn from the various UN programs, especially FAO, WFP and UNICEF programs, and the UNDP efforts with the GOSL and local authorities to strengthen early warning systems and response. More information regarding potential Title II Awardee initiatives in EWR can be found in **Section 6.2.3.10**, and collaborations with other stakeholders in this area in **Sections 6.2.3.14** and **7**.

5.4 NGO PROGRAMS IN SIERRA LEONE

USAID/Sierra Leone alone has a contact list of 65 international and local NGOs operating in the country (**Annex 4**). These NGOs work in both development and humanitarian assistance, supporting programs in agriculture, livelihoods, safety nets, health, nutrition, reproductive health, HIV, youth development and skills strengthening, child protection, and education, among many others. It is beyond the scope of this document to provide a description of all the NGOs working to improve food security, as well as complementary programs that can support efforts to improve food security. However, it is critical that NGOs network within their operational areas to better understand each other's goals, objectives and activities and strategize how they can complement development efforts while avoiding duplication.

TABLE 17: SUMMARY OF MAJOR DEVELOPMENT PARTNER ACTIVITIES SUPPORTING AGRICULTURE AND FOOD SECURITY

DONOR	PROGRAM/PROJECT	DATES	FUNDING (USD) ²²³	DESCRIPTION
EC	Use of STABEX Transfers Program (USTP)	2007-2010	\$5.9 million	Supports promotion and rehabilitation of cash crop production in Kenema, Kailahun and Kono districts and rice in Tonkolili and Bombali, and food security programs in Tonkolili, Bombali and Bo (4.2 million euro).
	Agriculture for Development Program (A4D)	2010-2015	\$22.6 million	Will support production, processing and marketing of cash crops (especially coffee, cocoa) and agro-forestry products (multi-story tree crops and diversified under-story crops) and ensure participatory decentralized planning, resource allocation and management of agricultural development among local stakeholders in the eastern province of the country (other areas yet to be determined, 16 million euro).
	Food Security Thematic Program (FSTP)	LRRD: 2009-2014 Safety net: ND	LRRD: \$14.1 million Safety net: \$3.8 million	Two components: 1) Link Relief, Rehabilitation and Development (LRRD) project to protect, maintain and recover productive and social assets, address vulnerability to shocks and strengthen resilience through prevention and management, improve food security and nutrition of marginalized groups and strengthen local and emerging institutions in Koinadugu, Bonthe, Pujehun, Kenema, Bo and the Western Area (10 million euro); and 2) Safety Net component provided to WFP for safety net measures in urban and peri-urban areas (2.7 million euro).
	FAO and WFP program (yet to be defined)	ND	\$24.9 million	Likely allocated to a project with FAO and WFP to implement major agricultural components of the NARP with a focus on rehabilitation and revitalization of agricultural production through, for example, development of IVS and setting up ABCs throughout the country (17.6 million euro).
IDA (World Bank)	Rural and Private Sector Development Project (RPSDP)	2008-ongoing (ND)	\$30 million	Improves efficiencies in value chain of agricultural production, including domestic market improvement, export promotion, support to farmer-based organizations, technical improvement and policy review/project management/M&E.
IFAD	Rural Finance and Community Improvement Program (RFCIP)	2008-ongoing (ND)	\$11 million	Supports access to financial services, community development and market access for rural poor in Kailahun, Kenema, Koinadugu and Kono.
	Rehabilitation and Community-based Poverty Reduction	2006-ongoing (ND)	\$10.8 million	Supports alleviation of rural poverty and food insecurity using FFS methods with focus on tree crops, IVS rehabilitation, processing equipment, feeder road rehabilitation and financial assistance in Kono and Kailahun.

²²³ Where applicable, Euros converted to USD using <http://www.oanda.com/convert/classic>, accessed June 1, 2009.

	Project (RCPRP)			
African Development Bank (AfDB)	Agricultural Sector Rehabilitation Project (ASREP)	2006-ongoing (ND)	\$10.8 million	Focuses on livelihood improvement, capacity strengthening and community development, rural infrastructure, rehabilitation of lowland oil palm, cocoa and coffee farms, IVS, rice seed production, tree crops, and extension services in Kambia, Kenema, Kono, Moyamba, Port Loko and Pujehun.

TABLE 18: SUMMARY OF UN PROGRAMS IN SIERRA LEONE SUPPORTING FOOD SECURITY

UN PROGRAM	DATES	BRIEF DESCRIPTION
FAO	2008-2010	Objective: increased production, availability and utilization of food. Strategies: 1) reduced post-harvest losses through support to food processing and infrastructural development; 2) strengthened national capacity for food security policies and strategies, and established national food and fish safety and information dissemination system; 3) increased adoption of improved farming methods and the practice of agriculture as a business; 4) strengthened national capacity for vulnerability mapping, food security surveys and analysis. ^a
WFP	2008-2010	Country Program: Objectives: 1) increased access to basic education and improved attendance and retention, especially among girls; 2) improved nutrition and health among vulnerable groups, including people living with HIV (PLHIV). Strategies: 1) support increased household investment in primary education; 2) improve nutrition of pregnant and lactating women and moderately malnourished children; 3) increase capacity of mothers and caregivers in most food-insecure communities to feed and care for children; 4) provide targeted nutrition support to PLHIV and their families; 5) enhance the capacity of government and district authorities to manage and sustain school feeding and nutrition interventions in support of vulnerable groups. Intervention area: Bombali, Kambia, Koinadugu, Port Loko and Tonkolili. Funding: 10.9 million USD. Beneficiaries: 179,300 (100,000 support for basic education; 20,000 take-home ration; 56,800 MCH and supplementary feeding; 2,500 PLHIV).
	2007-2009	Protracted Relief and Recovery Operation (PRRO): Objectives: 1) rehabilitate and protect livelihoods; 2) support access to primary education; 3) support improved nutrition and health status; 4) improve resiliency to food price crisis in urban and peri-urban areas; 5) build capacity of national institutions. Strategies: 1) rehabilitate tree crops, IVS, feeder roads and skills training for youth; 2) relieve short-term hunger of among school-going children among families rebuilding livelihoods; 3) support MCH activities, supplementary and therapeutic feeding and assistance to other vulnerable groups, including PLHIV; 4) food and cash for work (asset creation and agricultural production – e.g., IVS rehabilitation, nursery development, tree planting) and food for vocational training for youth in urban and peri-urban areas; 5) establish nutrition surveillance systems and build national capacity in food security monitoring. Intervention areas: Kenema, Kono, Kailahun, Bo, Bonthe, Pujehun, and urban and peri-urban areas. Funding: 49.2 million USD. Beneficiaries: 667,890 (37.3 percent MCH and vulnerable groups; 26.7 percent FFW, food and cash for work, food for training; 36 percent school feeding).
UNICEF	2008-2010	Objective: improved health and nutrition and decreased mortality among children under 5 years and women. Strategies: 1) support national policy development, strategic planning, M&E in maternal and child health and nutrition (MCHN); 2) build capacity of health institutions and systems, including provision of supplies and equipment, training health personnel and

		logistic support for M&E; 3) support prevention and management of SAM through CMAM, appropriate IYCF through an IYCF action plan, and over 2008-2010 support production of adequate complementary foods for young children through eight community production units to fortify-locally produced flours for infant feeding; 4) support to water, sanitation and hygiene, including introduction of Community-Led Total Sanitation (CLTS) approach in rural areas; 5) increase access to prevention, treatment, care and support services for HIV/AIDS; 6) develop and implement comprehensive communication plan in support of accelerated child survival and improved maternal health, including IYCF. ^b
UNAIDS	2008-2010	Objective: decreased prevalence of infection with HIV and improved treatment, care and support for PLHIV. Strategies: 1) strengthen the three “ones” (one coordinating body, one strategic plan and one M&E framework); 2) support decentralized response through district councils, chiefdoms and district HIV focal point; 3) conduct district-level assessments and map stakeholder strengths, challenges and gaps at district level; 4) strengthen M&E at all levels of response; 5) implement Partners Forum to bring together partners working in HIV/AIDS; 6) accelerate launch and implementation of operational plan on AIDS and strengthen multi-sectoral response. ^c
WHO	2008-2010	Objective: improved health and nutrition and decreased mortality among children under 5 years and women (RCH Strategic Plan). Strategies: 1) Nutrition: support institutional and policy development to MOHS and assist with establishment of nutrition information system; 2) EmONC: pre-service training for MCH Aids; technical assistance for development of guidelines, standards, norms and protocols; equipment and training in blood safety; strengthen program performance management systems; M&E; 3) Immunization: support in-depth program and annual program reviews and development of annual operational plans at national and district levels in context of RCH Strategic Plan; technical assistance with updating national immunization policies, Interagency Coordinating Committee (ICC) guidelines and performing national and local training on immunization as necessary; build district capacity to respond to outbreaks; strengthen vaccine management and support M&E.

^a Source: UN Country Team February 2007.

^b Source: UNICEF nd (a).

^c Source: UNAIDS nd.

6. COUNTRY FRAMEWORK TO REDUCE FOOD INSECURITY

6.1 ROLE OF MISSION PROGRAMS FUNDED BY OTHER ACCOUNTS IN SUPPORTING IMPROVEMENTS IN FOOD SECURITY

Current Mission programs that focus on expanding economic opportunities for the poor and increasing access to health services help improve the food security conditions in the country, contributing to improved food availability, access and utilization. Several of the Mission's programs that are funded by other accounts have a national-level focus, which is an area where the Mission bilateral programs have an advantage in comparison to the Title II programs, which are most effective at a more local level. Missions also have an important role to play in helping to improve the enabling environment in the country, which is one of the key contributing results recognized in the FFP Strategic Plan. The USAID/Sierra Leone CEPESL project supports the enabling environment in the GOSL's priority economic sector – agriculture – by facilitating the establishment of enabling policy conditions necessary to achieve sustainable and productive agriculture and natural resources management and, through this work, directly supporting the USAID-funded PAGE project.

Other Mission activities that contribute more directly to improving food security, some of which the Title II program can benefit from directly, include activities supporting improvements in food availability (programs improving agricultural productivity and NRM), access (support to the development of micro-enterprises and improvement of value chains) and utilization (improvement in access to specific health services, such as treatment for neglected tropical diseases and fistula repair). As the Mission moves forward with its strategic planning, other activities may be added to the Mission's program that will contribute to an improvement in food security in the country and other opportunities for collaboration and developing synergies and integration between Title II programs and the rest of the Mission's portfolio.

6.2 ROLE OF THE TITLE II MYAP IN ADDRESSING FOOD INSECURITY

6.2.1 Objectives and Desired Outcomes and Indicators

The overall strategic objective for the 2010-2014 Title II MYAP in Sierra Leone should be “*to reduce food insecurity among vulnerable rural populations in Sierra Leone.*” In Sierra Leone, this includes the poor – who by definition do not have sufficient income to purchase an adequate diet and other basic necessities – pregnant and lactating women, children under 2 and youth. (Also see **Section 6.2.3** for a further discussion of the priority vulnerable groups and how they will be targeted). This formulation puts the emphasis where it should be – on those populations in the country that are already food insecure or vulnerable to food insecurity. The rates of poverty and extreme poverty are higher in rural areas than in urban areas, and there are many more poor and extremely poor living in rural areas than in urban areas. The same is true for chronic malnutrition.

The rates of stunting are higher in rural areas and there are more stunted children living in rural areas than in urban areas. This formulation is also consistent with the strategic objective that was adopted by FFP for the period 2006-2010 (see FFP Strategic Framework in **Annex 2**).

The Title II program in Sierra Leone should be designed to contribute to improved food availability, access and utilization at the household and community level and reduce the vulnerability of the individuals, households and communities targeted by the program. Availability, access and utilization are the three elements necessary to achieving food security identified in USAID's definition of food security, and all three are important in the Sierra Leone context. The concepts of risk and vulnerability also form part of the "Expanded Conceptual Framework for Understanding Food Insecurity," which underlies FFP's Strategic Plan (see **Annex 3**). Understanding and assessing vulnerability and risk are also essential to addressing food insecurity in Sierra Leone, and the Title II program will have to focus on ways to reduce vulnerability of the poor and food insecure households and communities to the common types of shocks they experience.

Program success at the impact level should be measured in terms of reducing child malnutrition, both the prevalence of low height-for-age and weight-for-age, in children under 5. This is a measure of the success of the entire program as well as activities directed more specifically to improving the health and nutritional status of program beneficiaries. Both of the latter indicators are required FFP/Washington Performance Management Plan (PMP) indicators for programs with nutrition-related objectives and activities. The indicator on percentage of children underweight also allows USAID to report on its contribution to the achievement of Millennium Development Goal #1 to eradicate extreme hunger and poverty. The Sierra Leone Title II program will also need to address access to food, therefore Title II Awardees will need to track changes in access using required household food consumption indicators, namely, number of months of adequate household food provisioning (MAHFP) and household dietary diversity score (HDDS). More information on FFP's indicators and reporting systems can be found in **Section 6.2.3.11**.

6.2.2 Program Priorities

In order to achieve the strategic objective and desired outcomes noted above, the Title II MYAP in Sierra Leone should give priority to activities expected to:

- Improve agricultural productivity and rural household incomes
- Reduce chronic malnutrition among children under 5

Priority activities within each of these outcome areas are identified and discussed in the following sections. These priorities reflect the various assessments of the nature and extent of the food security problems in Sierra Leone and the focus of the GOSL, USAID/Sierra Leone and FFP discussed in the previous sections. They also build on the knowledge and experience of other programs and donors, including those of the past and current Title II program.

6.2.2.1 Improving agricultural productivity and rural household incomes

To improve food availability and access within the Sierra Leone context, priority needs to be given to activities designed to improve agricultural productivity and increase rural household incomes. Poverty is the root cause of food insecurity in Sierra Leone, and the vast majority of the population depends on agriculture for their livelihoods. The GOSL's vision is that agriculture will serve as the engine for overall economic growth in Sierra Leone. In order for agriculture to significantly contribute to improving economic growth, improvements must be made to rural smallholder capacity to contribute to that growth. Title II Awardees can improve smallholder capacity, increase their incomes and improve their food access and availability by developing a market-oriented, agricultural-based income generating program based on a value chain approach that links producers through markets to consumers and production to income. To accomplish this, Title II Awardees should focus the productivity and income generation component of their program on four main areas:

- Transferring improved agricultural technologies and practices, both production and post-harvest
- Assessing markets and increasing and improving market linkages
- Promoting increased village-level savings and investments
- Focusing FFA activities on the development of community assets to support improvements in household incomes

Many initiatives in these areas are already being implemented in the current Title II program, such as improving agricultural practices through FFS field trials, forming farmer groups and marketing associations and training them in marketing and development of input supply and market plans, initiation of start-up enterprises via capital grants, improving access to savings through VS&Ls, and increasing income generation opportunities for marginalized youth. These activities should be continued and expanded under the new program, with more emphasis placed on identifying markets and helping producers connect to them. Adopting a value chain approach for the agriculture/income generation component of the Title II program will be a key to its success. The value chain approach is an effective way to link the main areas of the agriculture/income generation component: technology transfer, marketing, VS&Ls and community assets.

For example, **Figure 9** presents a simplified value chain that exemplifies how the components of the program can function together for improved productivity and income generation. Title II Awardees begin with a market-based approach, analyzing the market to better understand market demand and the elements in the value chain needed to ensure a quality product that satisfies consumer demand. Title II Awardees provide technical services to producers that strengthen production, processing and storage; facilitate access to savings, credit and finance; and support community assets, such as maintained roads and storage facilities. Title II Awardees also train farmers in organization, business skills and marketing to build their capacity to sustainably continue implementing a market-based approach centered on value chains when the program eventually ends. Title II Awardees also facilitate links to markets via wholesalers and traders and build the capacity of farmers to develop and maintain these relationships on their own via farmer groups and associations. Designing the agriculture/income

generation component of the Title II program with this kind of focus on appropriate markets; ensuring the components of the value chain are in place to produce a quality product that meets market demand in a timely manner; providing appropriate technology transfer to ensure efficient and effective production, processing and storage; facilitating links to adequate credit and finance to facilitate the process; and strengthening community assets (e.g., properly maintained roads, improved storage facilities) will help all the components work together to more effectively improve smallholder incomes and access to food. Title II Awardees will also need to consider vulnerable households that may not have access to land and ways to ensure they can still benefit from the value chain approach, either through facilitating access to land or strengthening their capacities in off-farm income generating opportunities, including income generating opportunities linked to various steps in the value chain beyond production.

FIGURE 9: SIMPLIFIED VALUE CHAIN FOR IMPROVED PRODUCTIVITY AND INCOME GENERATION



Within the technology transfer component of the program, Title II Awardees will need to focus on post-harvest technologies as well as production technologies, livestock as well as crops, and lowland agriculture as well as crop diversification and sustainable farming in upland agriculture. The same extension system that transfers technologies in improved crop production should also provide technologies in post-harvest processing and storage and livestock technologies. Improvements in post-harvest processing and

storage will be of particular importance given that improved yields will be of little use if there is no suitable storage to ensure crops are available during the hungry season and/or they can be sold when market prices are favorable. Improved processing will also be essential as a part of the value chain approach to increase the quality and longevity of stored produce and increase its sale value. Improved productivity will also necessitate a transformation of agriculture from the current non-sustainable practices that include decreasing fallow periods in the bush fallow system and use of limited, ineffective inputs resulting in low yields to an integrated high productive approach, making effective use of lowland as well as upland areas for food crops as well as cash crops, through effective cultivation, diversification and conservation techniques.

Given the key role women play in agricultural production and processing and the potential role for youth in the agricultural sector, the next MYAP should continue to target them and facilitate their access to land, inputs, extension services, credit, training and other opportunities to improve their production and productivity and increase their incomes. To ensure targeting and participation of women and youth, Title II Awardees should dialogue and engage with men and elders at the community level to obtain their support and promote equitable access. Also, to be successful in promoting smallholder agricultural productivity, Title II Awardees will need to support MAFFS extension services and build their capacity and that of local partners to sustain this transformation in production, processing, storage and marketing.

To achieve program impact in improved income generation and access to food, both now and in future programs, Title II Awardees will require considerable expertise in marketing and business management and development. Given that programs could focus on a range of agricultural products and value-added activities, Title II Awardees will have to be able to access technical expertise in a variety of fields, including agronomy, pest management, farm budgeting, animal health and nutrition, and packaging and processing, for example. Some of this expertise may need to be on staff, while more specialized expertise could be accessed through partnerships with other organizations, including other USAID project implementers, local universities and NGOs, as well as the private sector.

Transferring improved agricultural technologies and practices, both production and post-harvest

Agricultural productivity is low in Sierra Leone, and small farmers need access to information about technologies to improve practices in a number of areas, including processing and storage to decrease post-harvest losses, crop varieties and cultivation techniques to maximize production in lowland agriculture as well as diversification and sustainability in upland agriculture, and technologies to maximize animal productivity. Title II Awardees can provide this type of assistance, but to be effective in raising farmers' incomes, the technology packages being extended need to focus on crops and animal products for which there are real and preferably growing markets.²²⁴ Title II Awardees should test packages they decide to promote to make sure they are adapted

²²⁴ Although not labeled as a diversification strategy, the combination of a market-led approach and an increased emphasis on entrepreneurship and investment should result in greater diversification of income sources in the target areas.

to specific localities and develop and disseminate clear messages about their use. The following paragraphs will discuss in greater detail the transfer of post-harvest and production technologies, including technologies in animal productivity.

The high post-harvest losses that farmers experience in Sierra Leone greatly decrease the availability of food as well as access since they will have less to sell. To improve agricultural productivity and incomes, Title II Awardees will need to place a great deal of emphasis on decreasing post-harvest losses. Title II Awardees should use the mechanism in the current MYAP – the FFS – to work with farmer groups, especially women, on adequate harvesting and processing techniques such as drying, milling, grating, roasting and storage. Title II Awardees should also collaborate with SLARI on the development of appropriate technology for improved drying, processing and storage. Some improved processing will benefit from access to mechanized technology (e.g., rice mills). For the latter, Title II Awardees will need to consider the most appropriate mechanism to support groups, such as capital grants to women's or youth groups, or facilitating links to credit or finance to acquire the technology and the training necessary to operate the technology and run the new business. If support is provided via a grant, the Title II Awardee and the groups should identify the most appropriate financial contribution for the group to make. Title II Awardees will need to consider an array of crops that could benefit farmers through improved post-harvest processing, not only rice and cassava, but also groundnuts, cocoa, coffee and palm oil, among others. Title II Awardees will need to analyze with communities the various choices they have for improving post-harvest processing and storage for the variety of crops they grow and decide which technologies they would like to try out/adopt given the resources available and cultural preferences.

Lowland areas in Sierra Leone, particularly IVS, are a critical untapped resource for improving rural farmer productivity and incomes. The current Title II program has already made inroads in transforming some IVS into productive areas, however this effort needs to be intensified and expanded in the next program so that farmers can more-fully reap the benefits of this potential land resource, particularly groups of women and youth. Title II Awardees should continue to use FFSs as a vehicle to work with groups of farmers on the most appropriate technologies and practices for IVS rehabilitation and cultivation. Title II Awardees should also link farming communities with research centers such as SLARI to test various improved varieties of planting material, including high-yield varieties of rice and other crops and improved cultivation techniques. Given the high amount of labor needed for IVS cultivation, especially when rehabilitating swamps, and lack of labor in rural areas, Title II Awardees, in conjunction with SLARI and other stakeholders working on IVS rehabilitation, should investigate the use of labor-saving agricultural techniques and options for appropriate mechanization. Mechanization options will depend greatly on the area; for example, draught animal use may be more appropriate in the north and hand-held tillers or other tools may be appropriate in areas where draught animals are not. However, Title II Awardees will need to analyze constraints to mechanization with communities, such as lack of spare parts and skilled mechanics for repair. The appropriate mechanism for introduction of mechanization must also be determined, such as grants to groups of women or youth, determination of the contribution of each group, and/or links to credit/financial

institutions. Given the high labor requirements for IVS, lack of labor in rural areas, and potential for youth to participate in and benefit from improved incomes from agricultural activities, Title II Awardees should consider formative research to better understand the factors that would attract youth to rural areas to farm as a business and income-generating venture.

Title II Awardees are also encouraged to engage in land mapping exercises involving chiefs, community leaders and community members to determine how much land is unutilized, and how it could be freed up for cultivation by those with little access in the community, including women and youth groups. This process could also assist the community in setting a transparent fee structure for rent of lowland areas, if applicable.

Upland agricultural areas make up the vast majority of arable land in Sierra Leone and are extremely important for rural farmers, but declining fallow periods are contributing to low soil fertility and poor productivity, pushing farmers deeper into poverty. Title II Awardees should support farmers in upland production to ensure use of appropriate agronomic and soil conservation practices, including effective intercropping for soil enrichment and pest and weed control, to maximize food and cash crop production in a sustainable manner.²²⁵ Title II Awardees should continue to use the FFS methodology in upland areas to test the best methods for sustainable upland production and do so in conjunction with SLARI to ensure that improved inputs, technologies and practices, including agro-forestry, are integrated into the FFSs. Title II Awardees should consider options for upland multi-story tree cropping with diversified under-planting, incorporating the most appropriate mix of field crops, fruit trees and, as appropriate, tree crops such as cocoa, coffee and palm for income generation, taking into consideration the agro-ecological zone. In working with farmers to select the most appropriate combination of crops, Title II Awardees will need to consider both immediate household needs for nutritious food and cash as well as long-term needs. They will also need to assess maturation cycles to allow staggering of harvest given labor constraints. In addition, Title II Awardees must conduct analyses of markets and value chains to select cash crops that are in demand and ensure they are processed to meet market preferences. Wherever possible, Title II Awardees should link FFS working with cash crops such as cocoa and coffee with other programs specialized in promotion of these types of products so that they can fully benefit from the latest technology and recommendations for production, processing and marketing. An appropriate combination of crops for home consumption and income generation in upland areas cultivated with sustainable techniques will help farmers reduce the proportion of income devoted to food purchases and improve their incomes.

Title II Awardees should also consider activities related to improving small-scale livestock production. Small farmers in the target areas are familiar with small-scale livestock, although the numbers of animals declined due to the war and have been slow to increase. Acquisition of small-scale livestock is an important part of farmer risk

²²⁵ GOSL June 2004b, 36, 41. In 2004 MAFFS recommended a maximum upland area for cultivation of 280,000 hectares, given an 18 month cropping period and a minimum 10 year fallow period, but presently lacks the monitoring system to determine if this is being met.

management strategies. Title II Awardees should avoid distributing animals. This will interfere in local markets and farmers are willing to buy them. Farmers, however, could use help in keeping their animals healthy. Programs that train community members as veterinarian assistants (para-vets) and help them set themselves up in their communities as micro entrepreneurs charging for services provided have worked well in other poor rural communities and might also be appropriate in Sierra Leone. These individuals will also need to be provided with general business skills training to be able to identify demand for veterinary services and how they can meet this demand profitably. Individuals with formal veterinary skills and those with appropriate capacity in business training should be contracted to provide these trainings so that para-vets can offer a standard package of extension advice and treatment. Para-vets will also need links to suppliers for materials they will require to operate effectively, and Title II Awardees can facilitate these links. Ideally, para-vets should also be trained in disease surveillance so they can feed information back to the MAFFS, which is in the process of establishing a national surveillance system with support from FAO. This is particularly important in districts with international boundaries where a large proportion of livestock movement occurs, particularly along the Guinea border. Control of animal diseases is a public good as it is necessary to rebuilding a healthy livestock sector in Sierra Leone. Title II Awardees should, therefore, consider how they could support advocacy efforts to increase public resources allocated to livestock management and health care. Assistance in improving animal feeding practices might also be effective, but only if undertaken as part of a program that addresses the other constraints in the market chain for these animals.

For these technology transfer activities to be sustainable, the Title II program has to work within the market system, including by helping farmers make links with private-sector input suppliers and avoiding subsidizing the distribution of inputs. Since farmers will not continue to use the new technologies and practices unless they are profitable, Title II Awardees will also have to give priority to understanding the economic costs and benefits of the activities they are promoting, and ensure that their staff and their farmer clients understand the economics of these programs and become more entrepreneurial in their outlook. Title II Awardees should also work closely with MAFFS extension staff, including them in program design, training, field activities and M&E to strengthen their capacity to continue to provide support to farmers when the Title II MYAP exits.

Assessing markets and increasing and improving market linkages

To be successful in helping farmers increase their incomes, the Title II program has to be market driven and farmers need to be helped to think more about market opportunities and profitability and analyze strategic ways to improve the value chain. Implementing a market-led strategy in Sierra Leone will not be easy. The country's domestic market is relatively small due to the small size and poverty of its population, and getting products to markets is difficult due to poor infrastructure and high transport costs. The private sector in Sierra Leone is also small and relatively undeveloped. Still, focusing on market opportunities, analyzing and working on value chains, and facilitating links with the private sector can produce results.

To help farmers better penetrate local and national markets, Title II Awardees should facilitate formation of FFSs, farmer-based organizations, and functional linkages between these groups and established marketing associations, including the private sector. One of the first steps Title II Awardees should take in this process is to work with farmers to assess market opportunities for products they may be able to supply. Ideally this type of assessment should be conducted on an ongoing basis, with a focus on products for which there is a growing demand. Activities that have been successful elsewhere have included helping farmer clients not only identify promising markets, but also obtain information on the specific needs of these markets with respect to, for example varieties, quality and packaging, and facilitating linkages with buyers. This will help to improve marketing opportunities, increase sales of specified agricultural products, increase the bargaining power of targeted smallholder farmers, and find effective linkages to markets for a wide variety of products. Identifying the domestic and regional traders with which to link should be based on the most efficient and effective price terms and payment arrangements for farmers. Also of importance will be facilitating farmer access to market information and training in the most effective use of this information.

Analyzing the value chains for promising products is also a priority. This is important not only to identify potential buyers but also as a means of identifying key constraints and the steps that the Title II Awardees and other actors will need to take to address these constraints to appropriate processing of products and moving of products from producers to the ultimate consumers. These types of activities need to be part of the Title II Awardee's marketing strategy. They also need to be strategically designed to include strengthening the capacity and opportunities for the most vulnerable in the community, specifically women and youth.

The majority of vulnerable households in Sierra Leone have not had the opportunity to build the skills necessary to farm as a business. Most specifically, farming households need to improve their basic literacy and numeracy levels and their analytical, planning and record keeping skills. The current Title II program has done some training in these areas and new Title II Awardees should continue to do so, expanding on the type of training provided and on the numbers that are reached. Farmers also require training to improve their knowledge and understanding of markets and of how group organization in purchase of inputs and marketing outputs can improve their food security over time. In addition, Title II Awardees should work closely with MAFFS extension staff, involving them in training, marketing and value chain activities to improve their skills and abilities in these areas and increase their capacity to provide technical assistance to farmers when the Title II MYAP exits.

Promoting increased village-level savings and investments

Lack of mechanisms for accumulation of savings and lack of credit are two important constraints faced by small farmers in Sierra Leone. The current Title II program has worked to improve farmer access to savings and credit through VS&L groups which have built upon traditional solidarity schemes such as *Osusu* (Sierra Leone's equivalent to ROSCAs). This methodology should be continued in the new MYAP. However, Title II Awardees should increase their efforts to ensure that all community members are aware of the opportunities to improve their food security by participating in VS&L

groups which could be formed for a number of purposes. For all VS&L groups, Title II Awardees should ensure that the principles of VS&Ls are understood and followed so that all group members are able to access the funds for loans if they want to, regardless of their age or sex, and that sufficient training is provided in the skills necessary to effectively run the group, including business, literacy and numeracy training necessary to strengthen business skills. Lessons learned about VS&Ls identified during the USAID-funded LINKS program (see **Section 5.2.5**) and in the final evaluation of the current Title II program should be applied in the new Title II program in order to strengthen groups and their effectiveness. Title II Awardees should also consider providing additional training in finance and business management for mature groups that may be ready to invest in promising business opportunities, including those generated under other Title II project activities. Business training should include content to increase VS&L capacity to identify and assess business opportunities and make wise investment decisions, as individual as well as group investors. VS&L members who have developed a practice of regular savings and who have had the opportunity to take loans from the group for micro-income-generating activities should be encouraged to expand their businesses by linking them with existing microfinance projects or community banks so that they can access more capital for investment.

Focusing FFA activities on the development of community assets to support improvements in income

FFA activities should be designed and implemented in ways that support the broader objectives of the Title II program, contributing to improvements in productivity and access and to reductions in vulnerability. This means giving priority to the development of productive assets at the community level. A variety of public works can meet these objectives, including, for example, maintaining roads or constructing assets such as storage facilities, that benefit the entire community. Specific activities need to be identified in dialogue with communities to obtain their support, recognizing that communities are more likely to contribute to and maintain assets they recognize as having an economic value to them. In addition, activities related to road maintenance should be planned closely with the Sierra Leone Roads Authority to ensure implementation of GOSL standards and use of recommended methods for effective maintenance.

The timing of the work can be important and may place practical limits on the size of a FFA program that can be implemented. Work should not be undertaken during the times when farmers need to be working in their fields, even when some of these activities could be undertaken during the so-called “hungry months.” The poor rural households in Sierra Leone – who are the target group – are heavily dependent on agriculture as their main (often only) source of income, and they need to have the time to invest in their own assets and livelihoods to ensure longer-term survival. Timing will also be very important given existing labor constraints to ensure FFA activities are planned when labor may be available during the year. One also needs to be careful in setting the ration, keeping its value below the prevailing wage rate to avoid having the program interfere with the functioning of local labor markets.

6.2.2.2 Reducing chronic malnutrition among children under 5

Given that 36 percent of children under 5 are stunted in Sierra Leone, reducing chronic malnutrition among children under 5 must be the overarching health and nutrition objective for the Title II program in Sierra Leone. To achieve this objective, activities should focus primarily on children from the fetal stage through age 2 and pregnant and lactating women. The strategy itself should be community-based with activities designed to: 1) improve IYCF practices for children under 2; 2) improve prevention and treatment of childhood illnesses; 3) improve detection and referral of children under 5 with severe acute malnutrition (SAM); 4) improve maternal nutrition and health; 5) improve nutritional status and nutrition awareness among single and newly-married adolescent girls and their families; 6) improve adoption of key practices through effective use of key behavior change communication (BCC) interventions; 7) improve access to safe drinking water and appropriate sanitation; and 8) improve hygiene and sanitation practices. These programs should also include activities that will help increase the demand for and availability of quality antenatal care; care for malaria, diarrhea, ARI and acute malnutrition among children under 5; immunization services; and water and sanitation services. To be able to implement this type of program successfully, Title II Awardees will need to have qualified staff with expertise in maternal and child nutrition. Where possible, these programs should also be linked with maternal and child health and nutrition (MCHN) services, such as GOSL services at the PHU level with its community health centers and posts, and services funded by USAID and other donors and/or implemented by other actors.

Preventing malnutrition among children under 2

It is strongly recommended that the Title II program in Sierra Leone implement the Prevention of Malnutrition in Children under 2 Approach (PM2A) given the food security situation in the country. This approach has been tested in a Title II setting as a randomized effectiveness trial in Haiti and yielded significant results by reducing the prevalence of malnutrition. It is a population-based approach that differs from many food security interventions, including those previously implemented in Sierra Leone. Most programs target malnourished children once they have become malnourished to help them recuperate from malnutrition; thus they target children *after* they have become malnourished (recuperative model). In the preventive approach, all children under age 2 and pregnant and lactating mothers are eligible to participate in the program and all receive food supplements to prevent malnutrition from occurring. This latter approach targets children *before* malnutrition sets in (preventive model). Mothers and children are targeted in a specific area regardless of their nutritional status or wealth. In the Haiti trial, the prevalence of malnutrition was significantly lower in the prevention group compared to the recuperative group.

Participants in the program receive a comprehensive set of services including:

- A food ration, both a family ration and an individual ration specific to the child/mother (conditional on participation in PM2A components)
- Preventive health services, including, for example, antenatal care, postpartum care, immunization, vitamin A supplementation, iron/folic acid supplementation during pregnancy, all per MOHS protocols

- BCC activities designed to improve child care, feeding and hygiene practices and women's nutrition and health
- Home visits by trained community volunteers to, for example, pregnant women, mothers of newborns, children with SAM or growth faltering, or those who need to but have stopped participating
- Community outreach to, for example create awareness, identify program beneficiaries
- Screening and referral for SAM

Each service may be offered in combination with others or at distinct venues. Technical reference materials for the design of programs using PM2A are forthcoming. A brief summary description of PM2A is provided in **Annex 5**.

PM2A targets pregnant women to protect the nutrition of the mother during gestation, promote the optimal growth of the child in the womb and ensure the child achieves an adequate birth weight. Targeting lactating women aims to protect the mother from nutritional depletion and ensure adequate quantity and quality of breast milk production. Children 6-23 months are targeted to prevent growth retardation during a critical period of both rapid growth and high risk of poor physical and cognitive development, infectious diseases and mortality. Children 6-59 months are screened for SAM and referred to the health system for treatment, and are also provided basic health services such as immunizations, deworming and micronutrient supplementation.

PM2A may cost more per beneficiary than other components of the Title II program in Sierra Leone. The increased cost per beneficiary will come not only from the amount of food but also from increased need for transportation, storage and inventory control. This may have implications on the numbers and locations of beneficiaries targeted and on the total MYAP budget, however PM2A targeting should be at the population level and include all communities and eligible beneficiaries in the proposed project area.

The family ration for all beneficiaries must address the estimated food gap in the project area, and the individual ration for pregnant and lactating women and children 6-23 months must be of sufficient size to address a substantial portion of their nutritional needs. The rationale for the family or household ration, in addition to the individual rations for pregnant and lactating mothers and children under 2, is to reduce sharing of the individual ration with other household members and ensure an adequate amount of food is available to the mother and/or child.

Title II Awardees implementing PM2A should conduct formative research to inform nutrition messaging to ensure good adoption of key nutrition behaviors. Title II Awardees should also conduct operations research as needed to assess program implementation, identify problems in program delivery and use of the program by beneficiaries, identify solutions to problems and implement them. Title II Awardees should also address ways to ensure that the provision of rations for PM2A does not inhibit participation in other program activities that do not provide rations and avoid creating dependency upon receiving rations. It will be important for the Title II program to build strong linkages across strategic objectives and program components to improve

participants' food and livelihood security and facilitate the eventual transition of households and communities as the program prepares for exit to maintain food security and nutrition outcomes.

The following program priorities outlined in subsequent sub-sections form an integral part of PM2A: improving IYCF practices for children under 2; improving prevention and treatment of childhood illnesses; improving detection and referral of children under 5 with SAM; improving maternal nutrition and health; improving nutritional status and nutrition awareness among single and newly-married adolescent girls and their families; improving adoption of key practices through effective use of BCC interventions; and improving hygiene practices.

BOX 2: PM2A LESSONS LEARNED

In the context of the Haiti study, implementation of PM2A has demonstrated the following:

- **Focusing on under-twos is both feasible and successful in a programmatic context.** There is renewed global attention around the critical age range of children under two, but few examples exist of feasible, successful and effective programs focusing on this age group. The evaluation of PM2A in Haiti provides an example of the feasibility and effectiveness of the approach in a programmatic context, as well as an example of how such programs can be developed, strengthened and monitored under real Title II programmatic conditions.
- **A well-designed and well-implemented behavior change strategy can improve infant feeding practices.** The evaluation of PM2A in Haiti provides an example of an approach and a specific set of tools that were used for developing and implementing a locally relevant, programmatically feasible BCC strategy for improving child feeding and care practices among children under two.
- **Investing in formative and operations research is important for program success.** The evaluation of PM2A in Haiti provides strong evidence that investing in formative research can help design effective BCC programs that are grounded in the socio-cultural context, locally relevant and programmatically appropriate. The study also provides evidence that operations research provides critical insights regarding the quality of implementation and service delivery for evaluators and program implementers.

Source: Menon and Ruel 2007, xxv.

Improving IYCF practices for children under 2

As seen in **Section 4.1.3**, one of the key factors that influence children's poor nutritional status in Sierra Leone is poor IYCF practices. The Title II program must address IYCF practices by including BCC on initiation of breastfeeding within one hour of birth; EBF for children 0-5 months; appropriate feeding for children 6-23 months including continued breastfeeding, feeding solid/semi-solid food at least the specified minimum number of times per day, feeding at least the specified minimum number of food groups per day, continued feeding during and after illness, feeding appropriate

quantity of food, providing food with appropriate consistency, feeding nutrient dense foods, and active, responsive feeding. It is of particular importance to ensure that children 6-24 months are provided sufficient amounts of protein and nutrient-dense complementary foods, including animal products and vitamin-A rich fruits and vegetables, in addition to the staple of rice or cassava, while also continuing to breastfeed until they are at least 2 years if not longer. Title II Awardees should refer to the guidelines established in WHO's Guiding Principles for Complementary Feeding of the Breastfed Child for a complete description of appropriate IYCF practices (similar guidelines exist for non-breastfed children).²²⁶

Activities to address IYCF practices should be community based and focus on behavior change interventions and accompanying information, education and communications materials that promote optimal feeding practices. Behavior change interventions should be based on formative research to develop a comprehensive behavior change strategy. Ideally, this should be combined with a gender analysis²²⁷ in this early research phase to ensure a comprehensive understanding of the current feeding practices. Formative research to understand child feeding practices should explore the volume, variety and consistency of food given to children of different ages in addition to how mothers and caregivers feed and care for their children (e.g., active or passive feeding, from a separate bowl or shared, frequency of feeding). Title II Awardees need to identify priority behaviors, understand current practices, determine which behaviors caregivers are willing and able to change, determine constraints that may prevent adoption, and decide how best to provide support to those adopting new behaviors. Importantly, Title II Awardees will need to understand women's roles and responsibilities within households and how competing priorities affect women's time and ability to follow through on optimal feeding practices. This will be especially important to understand with younger adolescent mothers, who will form a large sub-group of beneficiaries in the Title II program. It will also be important for Title II Awardees to ensure that the core BCC messages that are identified be communicated to mothers, husbands and mothers-in-law such that women derive support for child care, feeding and nutrition from this strategy, and husbands and mothers-in-law learn to support mothers by relieving some of her burdens and share responsibility for children's nutritional status.

Formative research should also help identify appropriate interventions and contact points to promote optimal feeding messages. Clear, simple and consistent messages that have been tested should be delivered at as many contact points as possible, including, for example, mother-to-mother support groups, key health contact points such as health outreach sessions, and agriculture, education and income generation programs. These interventions should target, for example, individuals such as mothers and

²²⁶ The "Guiding Principles for Complementary Feeding of the Breastfed Child" can be found at: www.who.int/nutrition/publications/guiding_principles_compfeeding_breastfed.pdf. The "Guiding Principles for Feeding Non-breastfed Children 6-24 months" can be found at: http://www.who.int/child-adolescent-health/New_Publications/NUTRITION/ISBN_92_4_159343_1.pdf.

²²⁷ Gender analysis is a tool that can be used to assess the differential impact a program has on women, men, boys and girls, and is useful for understanding social processes and for responding with informed and equitable options. Gender analysis challenges the assumption that everyone is affected by program interventions in the same way regardless of gender, and aims to achieve equity rather than equality.

caregivers, household decision-makers such as husbands and grandmothers, and key influential leaders and/or groups within communities. Activities and messages should be tailored to specific target audiences and made clear what they specifically can do to support optimal IYCF practices at the individual, household and community level. Given that a proportion of beneficiaries will be adolescent mothers, it will be important during the formative research to identify how to best target them, their husbands and families; this could include peer-to-peer activities or group activities for mothers within certain age ranges. With broader gender constraints affecting mothers' capabilities, it will be important to actively involve husbands and men more generally, to deepen their understanding of and responsibility for preventing malnutrition.

Title II programs can identify practical and innovative ways to improve feeding practices and implement the health and nutrition policies and guidance of the GOSL. Potential Title II activities include mother-to-mother support groups, a key initiative in UNICEF's draft IYCF action plan; home visits with mothers/caretakers and their family members; care groups; and child health weeks. The latter are summarized in **Annex 6**, along with additional options for community-based nutrition programming depending on the local context, while a summary of resources on community-based nutrition programming, formative research and development of behavior change strategies can be found in **Annex 7**. Other potential Title II activities include working with communities to identify specific, achievable ways for them to increase the quantity and variety of food consumed by young children, through, for example, production of an increased variety of foods for home use via kitchen gardens or BFFs such as those in the current Title II program; using village savings groups as a vehicle to save funds for purchase of food during the hungry season; training in household-level food preparation, preservation, processing and storage; and health fairs to share, learn and celebrate achievements. Several of these activities are currently being undertaken in Sierra Leone. Title II Awardees should also investigate the potential to use radio to relay BCC messages in innovative ways to various target audiences. Title II Awardees should identify the most promising approaches or adaptations to current approaches to make them even more effective in achieving the desired results.

Given the national prevalence of HIV (1.6 percent) is relatively low in Sierra Leone and is concentrated in urban areas, the rural-focused MYAP programs probably will not need to target the special needs of HIV-infected mothers and children beyond adequate referral mechanisms. However, if a Title II Awardee is working in a community with high HIV prevalence, all materials should be adapted based on WHO Guidelines, and the program should link with any prevention of mother-to-child transmission of HIV (PMTCT) and HIV treatment programs available.

Improving prevention and treatment of childhood illnesses

The Title II program in Sierra Leone should strengthen community-based maternal and child health programming to increase demand for and access to quality treatment for common child illnesses, especially malaria, diarrhea and ARI, and promote household practices to prevent, properly manage and seek appropriate care for these diseases. Title II programs should link with local DHMT PHUs to promote greater access to basic services such as immunization, vitamin A supplementation and growth monitoring and

promotion; treatment services for malaria, diarrhea, ARI and SAM; and referral of complicated cases so these services are geographically and financially accessible to all households in the project area. As a part of Title II community-level maternal and child programming, health volunteers should be trained to help mothers/caretakers and family members prevent illness and detect danger signs during illness, follow up with mothers whose children are ill or suffering from malnutrition during home visits and mother support groups, and help mothers and other family members follow-through with any needed referrals.

Title II Awardees should conduct BCC activities targeting mothers, husbands and mothers-in-law to ensure that they can recognize the danger signs of child illnesses and seek timely care for malaria, diarrhea and ARI. They should also link up with any MOHS efforts to implement community-based integrated management of neonatal and childhood illness (C-IMNCI) in their project areas. The MOHS has adopted IMNCI as a part of its package of child health services in the RCH program, however community-based IMNCI (C-IMNCI) has not been implemented as widely and the Title II program should work with the MOHS on this effort.²²⁸

To prevent and treat illness, Title II programs should also link with and support other GOSL and USG programs offered in the same district, such as programs implemented under the GOSL RCH Strategic Plan and the USAID-funded Neglected Tropical Disease (NTD) program. Leveraging support from or linking to the Global Fund for AIDS, Tuberculosis and Malaria is also important to strengthen support for vulnerable children in Title II communities, especially regarding ITN provision and use and prompt treatment for malaria. Also important is coordination with UNICEF and the GOSL to ensure that all children in Title II program areas receive deworming and micronutrient supplementation. The latter links and collaborations all help to enhance results of Title II program investments.

Many community-based health and nutrition interventions rely on community volunteers. Health volunteer retention is a problem in Sierra Leone as it is in many developing countries. Some communities in the current Title II program have come together to provide incentives to their volunteers, such as freeing them from participating in communal labor or helping them with their own fields. To promote these types of community-based incentives, Title II Awardees are encouraged to work with communities to help them develop a plan to retain volunteers over a specified period of time and work with communities to make adjustments as necessary if/when problems arise.

Improving detection and referral of children under 5 with SAM

The GOSL has scaled up CMAM to 91 outpatient care sites throughout the country and is in the process of establishing six inpatient care sites. CMAM is a community-based

²²⁸ Information regarding IMNCI and C-IMNCI obtained via personal communication with Dr. Thomas Samba, Sierra Leone MOHS, May 15, 2009.

approach for managing SAM,²²⁹ and includes outpatient care for SAM without medical complications, inpatient care for SAM with medical complications and infants under 6 months, and community outreach. CMAM allows for the treatment of uncomplicated cases of SAM at home with ready-to-use therapeutic food (RUTF) following medical evaluation and routine medication. About 10 percent of children under 5 in Sierra Leone suffer from SAM, but the percentage is as high as 16 percent in some districts. Children with SAM are at high risk of death and must be treated promptly and according to specific clinical protocols. Until recently, management of SAM cases in Sierra Leone took place in traditional therapeutic feeding centers located in some district hospitals. Title II programs, as a part of their implementation of PM2A which has a component for community-level screening and referral for SAM, should link with CMAM programs; assist with community-level outreach, screening and referral of children with SAM to the CMAM program; and providing support as needed to ensure follow-up and compliance. However, the Title II program should do this without losing its focus on reducing chronic malnutrition and preventing malnutrition among children under 2.

Improving maternal nutrition and health

Chronic malnutrition in young children can start as early as the fetal stage. Therefore, ensuring good health and nutritional status of the mother, especially before and during pregnancy, is vital to reducing malnutrition among young children. Promoting women's nutrition, including anemia prevention and the promotion of adequate birth spacing which includes delaying the first birth for married adolescent girls, should be a priority in food security programming in Sierra Leone.

Priority interventions to improve nutritional status in women include food supplementation for pregnant and lactating women, nutrition education and behavior change communication interventions targeting mothers, husbands and mothers-in-law on the need for increased food intake, dietary diversity and rest during pregnancy. To prevent anemia in pregnant women, iron/folic acid supplementation, deworming, IPT for malaria and counseling to promote sleeping under an ITN are recommended actions in routine prenatal care included in GOSL policy. Title II community-based nutrition programs should encourage attendance of pregnant women at antenatal and outreach clinics, and promote iron/folic acid supplements, helping women to take them for the minimum-recommended period of time as per GOSL protocol, IPT during pregnancy and postpartum vitamin A supplementation. Programs should also link women and couples of reproductive age who desire family planning to PHUs or providers such as Marie Stopes (which is expanding services in the country).²³⁰

²²⁹ SAM is indicated in a child whose weight is 3 standard deviations (SDs) or more below the median weight expected for his/her height, or whose MUAC is less than 115 mm, or who has pitting edema in both feet. A child with SAM is at high risk of death.

²³⁰ Title II Awardees considering including family planning messages or referral to family planning services as a part of Title II programming must abide by the USG Tiahrt Amendment that forbids requiring participation in a family planning program as a condition of receiving other benefits such as food support or health care. Awardees must be extremely cautious and ensure there is no perception that receipt of other benefits, such as a ration, is linked with family planning in any way.

Formative research that explores women's dietary practices, intra-household food distribution, food access, workload, and perceptions of antenatal care and health facilities and also identifies barriers, constraints and opportunities for promoting women's nutrition and anemia prevention can help programmers identify ways to encourage adequate maternal health and nutrition. An analysis of women's needs at different stages of the life cycle, particularly in polygamous households, will also assist Title II Awardees to design programs that are more sensitive to the needs of women. Given the low status of women and especially adolescent girls in the household and community, community-level initiatives will be important to influence the attitudes and behaviors of husbands, mothers-in-law, community leaders and others who are influential at both the household and community level. Current interventions that show promise, such as pregnant women's support groups, should be further investigated to determine what is working well and what modifications, if any, are necessary to ensure their effectiveness in encouraging sustained behavior change. Other interventions that focus on gaining more support from influential family and community members to improve women's food intake and decrease their work load should also be investigated.

Improving nutritional status and nutrition awareness among single and newly-married adolescent girls and their families

The Title II programs should work to mitigate the health and nutrition risks of adolescent marriage and childbearing at the same time that they contribute to efforts to reduce these practices. Formative research will be needed to identify relevant attitudes, practices and community norms as well as barriers and enablers to the adoption of good practices in the project area. Depending on the results of the formative research, activities may include nutrition education for adolescent girls and their parents, nutrition counseling for newlywed couples, linking with programs that provide iron/folic acid supplements and deworming for adolescent girls to reduce their risk of anemia, referral for newlywed couples who wish to learn more about family planning to high quality family planning counseling provided by PHUs or other agencies,²³¹ and educating mothers-in-law about the importance of delayed pregnancy and good nutrition for their daughters-in-law. Title II Awardees should seek to address community norms on child marriage and adolescent pregnancy by conducting education and advocacy activities with key influencers such as community leaders, imams and other religious leaders, teachers, women's groups, and local government officials and collaborate with other agencies working in this area, such as UNICEF, to advocate for the enforcement of the legal minimum marriage age of 18. Title II Awardees should also seek ways to link up with efforts to promote school retention and livelihood opportunities for adolescent girls as well as programs that provide reproductive health services and education to youth.

Improving adoption of key practices through effective use of BCC interventions

The adoption and reinforcement of key health-related behaviors at the level of the mother/caretaker, the household and the community are central to the reduction of chronic malnutrition among children under 5 and maternal malnutrition. While access to the necessary variety and amount of food, key maternal and child health services, and clean water and sanitation are essential, without ensuring sound IYCF practices, dietary

²³¹ See footnote 225.

practices and care-seeking, their impact on malnutrition will be limited. Behavior change through the use of interventions informed by best practices and formative research is essential to improving maternal and child nutrition. Choosing and carrying out an appropriate set of behavior change interventions can help to improve care-giving and care-seeking practices at the household level, contribute to a supportive environment at community, institutional and policy levels for improved household health practices and improve the treatment offered to community members by health service providers.²³² Title II Awardees will need to pay special attention to the targeting of key messages. In Sierra Leone, often a mother is not the primary decision-maker on issues of her own nutrition as well as that of her child. The husband or mother-in-law may be the one who decides what and how often the pregnant mother should eat, how much rest she may take, how and when to breastfeed the child, and when and how complementary foods will be provided. In such a context, targeting the mother for BCC activities is necessary but not sufficient to improve practices related to maternal and child nutrition if the mother-in-law and the husband are not also targeted. While awareness-raising activities may be helpful, Title II Awardees are strongly encouraged to use behavior change approaches that are both intensive and interactive as they ensure that the individuals targeted are exposed to the same key messages on several different occasions and in ways that engage them actively.

Improving access to safe drinking water and appropriate sanitation and improved hygiene practice

As seen in **Section 4.1.3**, another key factor that influences children's poor nutritional status in Sierra Leone is diarrheal disease. To prevent diarrheal disease and help reduce child malnutrition, the Title II program should also improve access to safe drinking water and sanitation facilities and improve household hygiene practices. Title II Awardees should conduct baseline and formative research at the community level to identify knowledge and beliefs about the causes of diarrhea, current high-risk behaviors, and any barriers or enabling factors to improving these behaviors.

Title II Awardees should prioritize simple improvements to achieve better access to safe drinking water, appropriate sanitation and improved hygiene practices. Interventions should include behavior change and education on hand washing with soap at critical times, proper disposal of feces (especially of young children), safe preparation and storage of food (especially foods for young children), point-of-use water treatment, safe storage of water and prevention of contamination in the household, protection of food and water from fecal contamination, and facilitating community access to clean water sources and appropriate sanitation structures, as needed. Specific activities may include promoting access to soap for hand washing, potties for small children for safe excreta disposal, and chlorine solution or filters for home disinfection of drinking water (point-of-use water purification). Opportunities for collaboration to improve hygiene and sanitation include UNICEF's work in community-led total sanitation (CLTS). Title II Awardees should also explore links with the private sector to access products such as

²³² Two good resources for the design and implementation of BCC strategies for private voluntary organizations and NGOs are the *Designing for Behavior Change* curriculum developed by the CORE Group and the *2005 Behavior Change Interventions: Technical Reference Materials* developed by the Child Survival Technical Support Plus Project. Both are available at www.coregroup.org/working_groups/behavior.cfm.

Water Guard or water filters to help treat water in the home. They should also investigate the potential for rainwater collection systems. Potential Title II Awardees should dialogue with the GOSL, UNICEF and DfID regarding their plans for water and sanitation activities in rural areas to ensure collaboration and resource integration and to avoid duplication of efforts. Useful resources for NGOs on program design for water and sanitation include the USAID Technical Resource Materials, *Control of Diarrheal Disease*, and *The Hygiene Improvement Framework: A comprehensive approach for preventing childhood diarrhea*.²³³

6.2.3 Key Design Considerations

To design and implement successful programs, Title II Awardees will need to have a good understanding of the environment in which their programs will operate. This will require Title II Awardees to invest in data gathering and analysis during the preparation of their projects, in the initial stages of project implementation and, in many cases, throughout the life of the project. In the agricultural production and productivity component of the project, this will require analyzing the most appropriate combination of crops, inputs and cultivation techniques given available land and labor resources; the income-generating component of the program will require assessing market and production potentials, value chains and activity profitability; the MCHN component will require formative research to understand key health and nutrition behaviors and barriers to change.

6.2.3.1 Targeting of the program geographically

The Title II program should be targeted to the areas of the country that are the most vulnerable to food insecurity and where interventions can be expected to have a significant impact on a relatively large number of people. That is, areas should be selected based not just on the severity of the problem (e.g., the percentage of the population that is poor) but also on the total numbers of people that are affected.

The USAID guidance that was provided prior to the development of the current Title II programs gave priority to six areas of the country – Koinadugu, Bombali and Tonkolili in the Northern Province and Kailahun, Kenema and Kono in the Eastern Province – based on the fact these areas had been very severely affected by the war and identified as food insecure according to the 2005 WFP VAM.²³⁴

The approach that this FSCF proposes is to give higher priority in the geographical targeting of the program to the chronic dimensions of food insecurity. This is done by using the two indicators of food insecurity that are the closest proxies available for lack of access to food and poor food utilization to identify priority areas: the percentage of the population in a given area that are in extreme poverty and the percentage of children under 5 that are chronically malnourished. Information on these two indicators is available at the district level from the GOSL PRSP 2005-2007, which derives its

²³³ The USAID Technical Resource Materials, *Control of Diarrheal Disease*, is available at: www.childsurvival.com/documents/trms/tech.cfm. *The Hygiene Improvement Framework: A comprehensive approach for preventing childhood diarrhea* is available at: www.ehproject.org/PDF/Joint_Publications/JP008-HIF.pdf.

²³⁴ WFP August 2005.

poverty figures from the Sierra Leone Integrated Household Survey 2003/2004 and the preliminary report of the 2008 Demographic and Health Survey (DHS) for Sierra Leone.²³⁵

Table 19 presents data at the national and district levels on food access (extreme poverty) and food utilization (chronic malnutrition). Districts that have both high levels of chronic malnutrition and high levels of extreme poverty are districts where the levels of malnutrition are more likely related to poor access to food as well as poor food utilization. Districts with high levels of chronic malnutrition but relatively low levels of poverty are districts where the high levels of chronic malnutrition may be more related to child feeding practices and child illness rather than to lack of access to food. Taking into consideration the objective of the Title II program to decrease food insecurity through influencing both low access to food and poor utilization of food, and that it is more likely that direct distribution of food is needed in areas where high levels of extreme poverty and stunting coincide, it is recommended that potential Title II Awardees consider implementation of the Title II program in areas where both extreme poverty and chronic malnutrition are both relatively high and affect a relatively large number of individuals. These areas are Kailahun and Kenema in the Eastern Province and Koinadugu, Bombali and Tonkolili in the Northern Province.

The GOSL plans to conduct a new integrated household survey in 2009 in order to develop poverty estimates for the new poverty reduction strategy. Potential Title II Awardees should use any new poverty data that may become available, as well as other relevant, updated food security data they may access, particularly regarding food gaps/food availability, to justify programs they may propose in areas other than those suggested above.

Title II Awardees should ideally plan to cover, whether individually or in a consortium, as much of the food-insecure area as possible in the district(s) they have identified, as appropriate, rather than small areas in a larger number of districts. This recommendation should result in greater efficiency in use of resources, decreased management burden on USAID/Sierra Leone and potentially greater impact not only in the project area but also reflected in district-level data. If areas of the district are covered by other food security projects, this should be clarified along with an explanation of how the Title II Awardee will complement the existing program and avoid duplication of efforts. Determination of food insecurity within areas in a district should be evidenced-based, using data collected through surveys and/or rapid assessments and indicators that are known to correlate with food insecurity and vulnerability.

²³⁵ GOSL February 2005; GOSL November 2007b; Statistics Sierra Leone and Macro International Inc. 2008.

TABLE 19: MALNUTRITION AND POVERTY INDICATORS FOR SIERRA LEONE

	HEIGHT-FOR-AGE Z-SCORE < -2 SD (MODERATE AND SEVERE STUNTING) DHS 2008	% EXTREME POVERTY, SIERRA LEONE INTEGRATED HOUSEHOLD SURVEY (SLIHS), 2003/2004	POPULATION IN 2003/2004	DISTRICT POPULATION AS PERCENTAGE OF TOTAL POPULATION
National	36	26	4,976,871	
Urban	30	15	ND	
Rural	39	33	ND	
Kailahun	+39	+45	358,190	7
Kenema	37	+38	497,948	10
Kono	27	22	335,401	7
Bombali	36	+63	408,390	8
Kambia	35	9	274,062	6
Koinadugu	+42	29	265,758	5
Port Loko	+44	20	453,746	9
Tonkolili	+40	32	347,197	7
Bo	+40	25	463,668	9
Bonthe	35	+35	129,947	3
Moyamba	+46	16	260,910	5
Pujehun	31	14	228,392	5
Western area rural	29	15	174,249	4
Western area urban	26	2	772,873	16

Note: Values above rural average marked with a “+”

6.2.3.2 Targeting vulnerable households and individuals in the community

Considering the social hierarchies that exist in rural communities in Sierra Leone, it will be important for the Title II program to ensure all vulnerable households within the community have the ability to participate in the various program activities and that the activities will not be monopolized by community elites. Participatory community problem analyses and prioritization exercises that include a targeting mechanism, such as a modified wealth ranking, may be useful to identify the most vulnerable and food-insecure households in the community, and through this obtain buy-in among all community members including elites regarding program targeting and participation. Given that poverty is so pervasive in rural Sierra Leone, certain community “elites,” though relatively better off, are most likely still poor and will benefit from and add value to, for example, agricultural technology transfer and marketing programs, but through activities such as the community participatory exercise mentioned above, their participation would not be at the expense of the participation of the most vulnerable in the community.

All households in targeted program areas with children under 2 and pregnant and lactating women need to be given priority for nutrition activities aimed at improving food utilization. This is necessary to appropriately address the high prevalence of chronic malnutrition among children and the long-term, negative effects on the children, their families, communities and the country as a whole. To prevent chronic malnutrition, all households with children under 2 should be targeted by the health and nutrition programs described in **Section 6.2.2** and not just the poor or extremely poor households or households with children who are already malnourished.²³⁶

Programs that involve FFA, on the other hand, need to be directly targeted to the poorer, more food-insecure households and individuals. FFV should be self-targeted to the poor and food insecure by setting the value of the ration below the prevailing wage rate in rural areas.

6.2.3.3 Finding the right balance between Title II food and cash resources

To enhance program effectiveness, the Title II programs in Sierra Leone will need to find the right balance between food and cash. The Title II program is the largest source of USG resources available to focus on food security problems and its main resource is food. FFP indicated in its current Strategic Plan, developed in 2005, that it expected the direct distribution of food to play an important role in development as well as in emergency programs, and the emphasis that FFP places on the use of food, if anything, has grown since the Strategic Plan was approved.

The current Title II program in Sierra Leone has a relatively low percentage of total resources being used in the form of food. With implementation of PM2A in addition to FFA, the level and proportion of direct distribution of food will significantly increase. Prospective Title II Awardees must also take into consideration the cash that will be needed to pay for the expertise, technical assistance and training necessary to implement PM2A, including the formative and operations research that form part of the approach as well as other technical aspects of the Title II program related to improving access and availability, including supplies and expertise for FFA projects. Therefore, Title II Awardees will need to carefully consider both the food resources and cash for technical aspects of running the program and balance the two appropriately, based on the local situation, to ensure the program is designed and implemented effectively to achieve measurable and sustainable impact and truly influence the underlying causes of poverty and malnutrition in the target areas over the longer term. Title II Awardees will also need to consider cash resources from cost-sharing and resource integration in addition to Title II resources.

6.2.3.4 Integrating programs at the community level

In order for Title II Awardees to accomplish the food security objectives of their program, they should institute a holistic integrated programming approach designed to ensure that the most vulnerable in the target areas have access to activities in each of its

²³⁶ According to WHO 1995, in areas with high prevalence of stunting (≥ 30 percent) a population approach targeting all children in the most vulnerable age range (under 2 years of age) is preferred given the likelihood that most children are failing to achieve their potential for growth.

major program areas, including activities relating to agriculture, livelihoods, health and nutrition, and link the actual activities in functional ways to strengthen household capability to close the food security gap over the long term. The design of the coordinated programming approach would prioritize the reduction of household and community exposure to risks from shocks as well as increase the ability to manage such risks. It would create synergies across program outputs and activities around realistic targeting criteria aimed at reducing food insecurity and achieving objectives in reduction of child malnutrition in the community as a whole. This livelihoods approach recognizes that poor households, who are not static in their ability to make a living, require a range of intervention options to cope with potential shocks and mitigate their vulnerability.

Such a process begins through well-facilitated enquiry with communities into community-led problem analysis and program needs. In order to realize impact and sustainability, program practitioners must link agricultural activities and approaches with nutrition and health activities, feeding into the economic and social base of the community. The process is holistic in the realization of a program approach in contrast to a sector-specific approach. Program partner field staff must become proficient in the techniques of facilitating participatory methods for such an approach to succeed. They must also embrace the overall impact objective of the project and the reduction of chronic malnutrition among children, and understand how their work, in coordination with that of colleagues, functions together to achieve this objective. Core program activities themselves must meet real needs and be technically sound and well functioning for program integration to succeed.

6.2.3.5 Using a community participatory approach to avoid community-level dependency

Despite Sierra Leone's progress in moving from relief to development, dependency and a sense of entitlement still exist in some communities. In order to avoid a dependency syndrome, all Title II Awardees will need to adopt a facilitating role in order to promote active community ownership of nutrition, health and agricultural production solutions and self-reliance. This can be accomplished using a community participatory approach to engage community ownership and responsibility for the activities being implemented and foster sustainability through group formation. For example, a participatory community approach would include village health and agriculture teams, community leaders, and marginalized groups to establish program objectives and work plans and take responsibility for essential programming modalities. This approach reflects the widely accepted notion that community participation and empowerment are keys to successful, sustainable projects. To be meaningful, this participatory approach must take into consideration location-specific conditions that affect identified problems and the resources needed by the community to address these problems. Extensive staff training in participatory methods and approaches will therefore be an essential input. The program should avoid providing unconditional resource transfers, instead finding ways to reach agreement with the community on each party's contribution to the community's development.

The process begins with cross-sector teams of field staff trained in participatory methods engaging residents of targeted communities in facilitated exercises in order to identify problems and solutions, considering the very location-specific conditions existing in each community. The health/nutrition and agriculture/marketing teams work closely together to promote a coordinated programming approach. Only after this would respective agriculture and health and nutrition extension teams begin to undertake the negotiated process of activity implementation and promotion as presented under each of the specific strategic objectives, intermediate results and outputs. This way it will be possible for the Title MYAP to cultivate a sense of independence among communities, motivation to pursue their own development and pride in their accomplishments.

6.2.3.6 Integrating strengthening of civil society into MYAP programming activities

Throughout the past several decades, Sierra Leone's development progress has been stifled by a combination of poor governance, corruption, conflict and marginalization of groups in society, particularly youth and women, which has eroded people's trust in government, leadership and each other. It is extremely difficult for programs to implement integrated community-level initiatives aimed at improving the lives of vulnerable populations in this environment. However, the Title II MYAP can work to strengthen accountability and transparency among the local government, community leaders and various groups targeted by the program. This can be achieved through programming activities that foster open, community-level dialogue around community problems and solutions, program implementation and its improvement, and community participation and ownership of the implementation process, and by doing so in a way that fosters social integration of excluded groups such as women, youth and the extreme poor. The MYAP program itself should take advantage of the new voice given to women's and youth groups as a result of the reconciliation process following the war and use opportunities created by group formation in the project to provide a forum for these voices to be heard. It will be extremely important to facilitate these types of open dialogues in an atmosphere of respect for traditional leadership. Various approaches exist that have proven effective in Sierra Leone, including the incorporation of music, drama, theatre and storytelling into these types of dialogues.

It will also be necessary for the Title II program to integrate capacity-strengthening activities around democratic processes, accountability and transparency into all the groups with which it works, given that marginalization of the vulnerable can occur even within groups of men, women or youth. This will contribute to strengthening community management skills and social capital, promote inclusiveness, and help reduce tensions created by socioeconomic class, age or sex. Title II Awardees should consider collaborating with existing NGOs or other organizations in Sierra Leone that specialize in civil society strengthening and the fostering of accountable and transparent systems among local government, community leadership and community members. The USAID-funded PAGE project would be one source of information about such organizations given its work on democratic governance, participation, and transparency and accountability.

6.2.3.7 Integrating gender equity into program design and implementation

Key GOSL strategies recognize that there are large disparities between men and women, with women being marginalized both socially and economically. The PRSP 2005-2007²³⁷ has mainstreamed gender into each of the PRSP pillars in order to implement actions to improve gender equality and empowerment, but more radical progress is required. Women in Sierra Leone face problems in accessing productive resources such as land, inputs, microcredit, and household resources such as food; few opportunities to receive education or participate in wage labor or development opportunities; and social conditions that diminish women's decision-making power, such as early marriage, adolescent motherhood, domestic violence, and control of resources and knowledge by the men in women's lives. The latter has adverse consequences on the health and wellbeing of Sierra Leone's women, families and communities, and on the economic growth and development of the country.

Title II programs should seek to ensure a gender sensitive program design, supporting relevant PRSP actions around women's empowerment in relevant policy areas such as food security, job creation, and health and human rights; facilitating women entrepreneurs' access to financial services; encouraging women's and girls' involvement in decision-making at the community level; improving access and control over health care; and involving women and women's groups in community-level dialogue regarding problems and their resolution in accountable and transparent ways. The principles of gender equity need to be integrated more explicitly and proactively into all food security programs. The design and implementation of the Title II program should be informed by a better understanding of the existing gender dimensions and how gender issues affect the various aspects of the program and the ability of Title II Awardees to achieve food security objectives. Men's and women's needs and constraints will differ, and they will not always be affected in the same way by project interventions. Adding a gender lens to these programs means understanding and taking these differences into account in the design and implementation of the Title II programs. As such, integrating gender equity into programming is context-specific. Mainstreaming gender into a program does not mean that a program has to become exclusively or even primarily focused on women; it is about understanding the social context in the program area sufficiently to transform the enabling environment at the community level so that men and women can dialogue, participate and gain equitably from program efforts in food security and nutrition. Integrating gender equity in this way will facilitate and deepen program impact, and along the way will likely promote gender equity as well. It is up to each program to undertake some initial assessment of the social context and gender constraints and then determine how they will integrate ways to address these constraints as an integral part of programming, choosing how much to address depending on feasibility and with the explicit aim that this is an important means to improve program outcomes in nutrition and food security. While a strong emphasis on engaging women in development is essential in the Sierra Leone context, male involvement is also critical because of how

²³⁷ GOSL February 2005.

the social fabric has been transformed as a result of the war. The high prevalence of domestic violence attests to the importance of integrating gender considerations as a part of Title II programming.

Title II Awardees are well positioned to facilitate a process to empower women by actively promoting their participation in proposed activities and eventual ownership of the group formation process. Although women are fundamentally involved in the economic and social development of their communities and households, they lack economic independence and are usually minimally involved in the decision-making and resource-allocation processes in rural households and communities in Sierra Leone. Assessments and feasibility studies of all community activities would include gendered analysis. Effect and output indicators should be gender-sensitive in order to measure the differential effects of activities on women and men.

6.2.3.8 Applying formative research to identify and develop an effective approach to behavior change

Title II Awardees will need to conduct formative research to develop a comprehensive behavior change strategy that can be tailored to the communities where they will work and targeted to key individuals and decision-makers in order to achieve program outcomes and impact. Focused research will need to be applied to better understand barriers, constraints and facilitators to adoption of improved agricultural technologies and practices, both production and post-harvest; increased market access and use; increased village savings and investments; improved IYCF and care practices; and improved nutrition and health practices for pregnant and lactating women, including adolescent girls. In tandem with focused research in these areas, it will be important for Title II Awardees to undertake a gender analysis and gendered vulnerability assessment to understand the current socio-cultural context in which they will operate. Little is known about current gender relations between men and women; stressors constraining community members, family structures and hierarchy; and whether and how traditional values and practices surrounding marriage have changed following the war. These shifts in norms and practices can have significant influence on program design, implementation and impact. Title II Awardees need to identify priority behaviors, understand current practices, determine which behaviors people are willing and able to change, determine constraints that may prevent adoption, and decide how best to provide support to those adopting new behaviors.

6.2.3.9 Incorporating operations research to strengthen program design

In order to reduce food insecurity, MYAPs must effectively implement well-designed food security program interventions that successfully reach their target groups. However, program implementation is challenging, especially in countries with limited infrastructure and human resources. Operations research enables problem identification in service delivery and problem-solving by testing programmatic solutions. An important objective of operations research is to provide program managers and policy decision-makers with the information they need to improve existing services. The sequence of activities in an operations research process includes five basic steps: 1) identifying the problem in service delivery or implementation; 2) identifying a solution or strategy to address the problem; 3) testing the solution to improve the quality of service delivery or implementation; 4) evaluating and modifying the solution as needed; and 5) integrating

the solution at scale into the program. By incorporating well-designed operations research at the core of field activities, programs can continuously examine the quality of their implementation and identify constraints to delivery, access and utilization of planned services, adjusting the program as necessary. Operations research is an iterative process which should be conducted early on in and repeated at various time points during the life of a project to ensure continued quality in service delivery and program implementation. If done well, and provided the program design is sound, it can increase the likelihood that the project will attain its stated objectives.

6.2.3.10 Anticipating the need for emergency response

Although Sierra Leone is making good progress in its transition from relief and rehabilitation to longer-term development, Title II Awardees should understand and appreciate the impact that shocks – whether slow or rapid onset, national or localized – can have on community- and household-level food security and nutrition outcomes, and that the potential for such shocks and emergencies warrant the need for early warning systems and thoroughly assessed contingency planning to be in place. Title II Awardees will need to identify major potential shocks that will have to be monitored, considering those outlined in **Section 4.2.4** on risks and vulnerabilities, and others specific to their area of intervention. Early warning systems need to communicate accurate and timely information on the threat of shocks and prepare communities to decrease their vulnerability to them. They should include trigger indicators and thresholds for action for early detection of possible food security problems throughout the year, for example, erratic or diminished rainfall trends, crop pest/disease infestations, food price trends, outbreaks of illnesses or disease such as cholera, and/or refugee movements into an area. Trigger indicators should also indicate when participants are using negative coping mechanisms, such as selling household assets or removing children from school. These trigger indicators can come from primary or secondary data sources and should be triangulated with other available data, either quantitative or qualitative, when thresholds are reached.

In addition, Awardee early warning systems should also include response plans. These plans outline actions that the community will take to prevent and/or mitigate the effects of shocks with support from the Awardee and in collaboration with district and ward councils and other key actors. Programs should work with community members to consider potential shocks; anticipate needs in terms of support in, for example, food assistance, agriculture, health or provision of shelter; determine how needs could be met, including identifying potential sources of funding and support; and identify measures that could be taken to prevent or lessen the impact of the shocks. Response plans also need to consider how shocks may affect women and men differently. This information can be ascertained through formative work on household response to shocks and any changes in decision making and/or gender roles when households are suffering the effects of a shock. Title II Awardees must ensure response plans adequately address these issues, including any specific vulnerability of women, their needs and how their coping capacity with regard to shocks can be improved. More detailed guidelines on trigger indicators and EWR systems for MYAPs can be found in FFP Occasional Paper 5: *Trigger Indicators and Early Warning and Response Systems for Multi-Year Title II Assistance Programs*.

Title II Awardees are also encouraged to participate in national early warning system networks, although these networks are still weak in Sierra Leone. The GOSL, in collaboration with UNDP, is in the initial stages of developing an EWR system at both national and district levels, but no official system is in place as of this publication. Title II Awardees should coordinate with district-level officials and UNDP staff regarding how Awardee efforts can best support district-level plans and district development of an EWR system. For example, potential Title II Awardees should consider working with GOSL and UNDP early warning focal point persons when Title II Awardees develop their Title II MYAP trigger indicators and trigger levels. Title II Awardees can also contribute to GOSL efforts to develop vulnerability profiles and contingency plans and share early warning data (trigger indicators). The USAID-funded PAGE project has been in discussions with MAFFS regarding support for systems to track variables such as weather patterns and market prices, and potential Title II Awardees should also consult with PAGE.

6.2.3.11 Monitoring and reporting on program performance

Developing an effective monitoring and reporting system that is responsive to internal management needs as well as the various reporting requirements of FFP, the Mission and the US State Department can potentially be a real challenge. To help clarify its requirements, FFP issued two information bulletins in August 2007. The first bulletin (FFPIB 07-01) describes the four sets of reporting requirements that are applicable to all MYAPs. These include: 1) Awardee program indicators; 2) FFP/ Washington's PMP indicators; 3) USAID Mission indicators; and 4) "F" indicators, i.e., indicators required by the Director of US Foreign Assistance under the new US Strategic Framework for Foreign Assistance. The second bulletin (FFPIB 07-02) lays out new reporting requirements designed to enable FFP to better track progress toward the objective and intermediate results identified in its 2006-2010 Strategic Plan. In addition, in July 2009 FFP released a third bulletin (FFPIB 09-07), which builds on the second bulletin and describes the majority of reporting requirements.²³⁸ All Title II Awardees will need to follow this new guidance in developing and implementing their new MYAPs. The guidance documents can be found on the FFP website.²³⁹

6.2.3.12 Establishing a strong commodity management system

Title II Awardees must take steps to incorporate a strong commodity management system into their programs. Potential Title II Awardees will need to clearly indicate in their proposals their capacity and experience in designing commodity management and logistics systems and will need to demonstrate that they possess high-quality staff able to run the commodity management system and adequately supervise it. This system needs to be developed with attention to precise record keeping; adhering to all stipulated FFP rules and regulations regarding commodity procurement, shipping, transport, warehousing and distribution; and extensive checks and balances to prevent loss, theft and fraud, especially in Sierra Leone where levels of corruption and mismanagement can

²³⁸ FFP Award documents can also include award-specific reporting requirements. Awardees should thoroughly review their Award to ensure they are fulfilling their reporting obligations.

²³⁹ www.usaid.gov/our_work/humanitarian_assistance/ffp/ffpib.html.

be extremely high. Frequent supervision is also necessary to ensure the system runs efficiently and effectively and to correct problems and errors early. Significant losses of food commodities are very serious and can greatly undermine program impact.

6.2.3.13 Developing sustainability and exit strategies

Title II programs need to give priority to sustainability issues, including developing criteria to determine when their programs can exit specific communities, clearly laying out and implementing strategies toward program sustainability, and monitoring progress towards exit. Title II Awardees should consider integrating a range of approaches into their programming strategy to promote sustainability and avoid creating disincentives to community, local government or private sector productive initiatives and investment that may occur through activities that stifle innovation and enterprise and promote dependency. It will therefore be important to include strategic approaches with clear timelines, such as:

- **Participatory approaches and techniques** in order to engage community participants' sense of ownership and responsibility for the activities that they will be implementing, expand stakeholder participation, foster ownership, and promote long-term maintenance and sustainability of structural and extension activities; it should be clear to communities from the beginning that the Title II programs are temporary and will eventually be phased out
- **Capacity strengthening** of community groups, local government and NGO partners in order to increase program implementation efficiency and effectiveness, scale and coverage, sustainability of service delivery, and programming scope
- **Strengthening and advocating for good governance and specific targeted policies**, including the promotion of small business activity, access to land, access to credit, transparent and competitive processes, and job creation for women and youth in part by building strategic alliances at the local and national levels to advocate for changes in policy interpretation and implementation in support of currently-powerless poor and extreme poor households and communities
- **Enhanced empowerment of women and youth** through their active participation in the proposed activities and eventual ownership of the group formation process, with subsequent on-going support from local NGOs/partners

Title II Awardees need to pay special attention to low literacy levels in Sierra Leone among men, women and youth, and consider the impact of low literacy on sustainability of Title II program achievements. Program design and implementation must take low literacy into consideration during all phases of the program: when mobilizing communities, developing BCC and training materials, developing program activities, analyzing operations research, monitoring and evaluating program outcomes and impact, and developing and implementing the sustainability/exit strategy. Title II Awardees should both tailor materials and methods for a low literacy audience and include activities, as noted above in program priorities, to strengthen capacities in literacy and numeracy.

6.2.3.14 Strategic partnerships

There are a number of key groups that potential Title II Awardees should partner with to effectively achieve the food security objectives of their MYAP. For the program as a whole, it is important that Title II Awardees partner with the district councils, paramount chiefs, section chiefs and ward committees. District councils are key partners because it is through working with them that the MYAP will be able to design a program that supports the district-level development plans around decreasing food insecurity, helps district councils develop ownership of the MYAP activities and results, and improves the support and collaboration from the district councils necessary for the success of the MYAP. In addition, working closely with district councils helps Title II Awardees to identify in partnership with them how best to ensure that outcomes and impacts are sustained once the program exits. Paramount chiefs and section chiefs are also strategic partners given their authority in issues of justice and land use in the project area and the important leadership and advocacy role they can play to promote positive, sustainable change among the people in their administrative areas. Ward committees are also important as they represent the views and needs of the people in their locality, and are responsible for revenue mobilization and linking various projects with line ministries.

In the area of improving availability and access, four strategic partners will be particularly important: the USAID-funded PAGE and UPoCA projects, SLARI and Njala University. Title II Awardees are encouraged to establish regular meetings with PAGE and UPoCA at all levels – from the senior level down to the field level – so that information can be regularly shared and opportunities for synergies identified, even if Title II Awardees are not operating in the same area as PAGE and UPoCA. Opportunities for cross-visits should be identified so that project staff are familiar with each other's projects and are able to network easily to share experiences. In particular, Title II Awardees choosing to operate in food-insecure areas indicated in this strategy that overlap with PAGE should clearly articulate in their proposals how they will work with PAGE to leverage resources and maximize impact, including coordinating work plans with PAGE to graduate Title II FFSs to the PAGE project and, when feasible, harmonizing indicators. **Annex 8** provides a map indicating the proposed food-insecure districts for the new MYAP and the chiefdoms where PAGE is currently operating, including the implementation time frame for each. More information on the PAGE project can be found at <http://www.acdivoca.org/acdivoca/PortalHub.nsf/ID/sierraleoneTSL>. Potential Title II Awardees should contact PAGE and USAID/Sierra Leone directly to obtain more information regarding indicators.

Title II Awardees should also work closely with SLARI – the primary agricultural research and technology generating institute of Sierra Leone – to work together with farmers groups to ensure technologies and innovations truly meet farmer needs, and also to ensure that proven technologies are reaching farmers who need them most. Title II Awardees should also establish mechanisms by which farmers can continue to access upcoming technologies and advice from SLARI once the project has ended. Njala University has demonstrated a strong capacity in manpower development and has also established relationships with SLARI in the area of agricultural technology development.

Title II Awardees should also explore options for leveraging resources, improving their impact and encouraging sustainability by working with appropriate staff from Njala University.

Key strategic partners to improve utilization of food include the DHMTs, UNICEF and the MOHS. Title II Awardees should work very closely with the DHMTs, who are responsible for all health care delivery at and below the district level, including planning, organizing, managing, implementing, monitoring and supervising health programs. DHMTs access their funds through the district councils, a key partner noted above. The program should be designed in collaboration with the DHMTs and district councils to help achieve objectives around food utilization, promote ownership by the DHMTs and identify how best to sustain necessary activities, outcomes and impact once the program exits. UNICEF is a strategic partner given its role in supporting nutrition and health in the country, especially new initiatives in IYCF, as is the MOHS, which directs nutrition and health initiatives in-country. The MOHS nutrition department also directs the TWG that works to ensure harmonization of nutrition activities. MYAP participation in the TWG will be very important both to support the TWG's activities and to learn from various participants, share lessons and work to continually improve on programming.

Key partners in the area of EWR include GOSL and UNDP point persons working on the development of EWR systems, as well as FEWS NET given its plans for working in the country. As mentioned, development of EWR systems is relatively new in Sierra Leone and efforts are in the initial stages. Potential Title II Awardees should, however, make the necessary contacts with key partners, keep abreast of developments and collaborate as feasible.

6.2.4 Cross-Cutting Issues

6.2.4.1 Environment

The quality of natural resources and people's equitable access to them are issues critical to the success of poverty reduction and food security interventions in Sierra Leone. The links between poverty and food insecurity and the quality and conservation of natural resources are many and mutually reinforcing. The people of Sierra Leone, in the rural areas in particular, are dependent on natural resources for their livelihoods. In order to survive, the poor use natural resources beyond their sustainable limits, leading to depletion and degradation of the resource base. Overexploitation of natural resources leads to declines in the quantity and quality of the resources, which aggravates poverty and leads to a decline in the quality of life. Deforestation and environmental degradation especially affect the lives of poor women and their families when women have to travel farther to collect scarce fuel wood and water or to cultivate upland farm areas, or when they use shorter fallow periods on land that is more accessible, leading to poorer yields. The Title II food security programs must integrate the sustainable use of natural resources into their interventions to support agricultural-based livelihoods, rural income strategies, mitigation and preparedness for shocks, and resilience building.

6.2.4.2 Strengthening local capacity

Capacity strengthening of communities, local partners and local government is a high priority to help ensure that the food security objectives of the Title II program are

achieved. Capacity strengthening initiatives should be designed to ensure the sustainability of food security initiatives through strengthening the analytical and managerial capacities of these stakeholders, including, for example, MAFFS extension staff and DHMT and PHU staff. Capacity strengthening also includes activities designed to strengthen communities capacities to organize, plan and represent their interests in broader fora, and the capacities of their FFS, community groups and community volunteers to effectively implement activities during the program and, as appropriate, after the Title II MYAP exits. The Title II Awardees also need to focus on strengthening the capacities of their own staff, providing them with ongoing training and frequent, supportive supervision involving constructive feedback to improve performance and learning. This also includes valuing staff who, as a part of their day to day activities, address gender issues to enhance program impact on food security and nutrition outcomes. Capacity strengthening should be integrated into the design of all food security program activities rather than existing as a standalone objective of the program. The Title Awardees also have a role to play as important stakeholders in assisting and supporting the GOSL with the development and implementation of its food security-related policies and programs, including its agriculture policy, nutrition policy and emergency response and early warning systems, adding their own unique field-based knowledge and experience.

7. COLLABORATION AND RESOURCE INTEGRATION

Organizations that desire to partner with USAID/Sierra Leone in food security programming will need to explore mechanisms for collaboration and joint programming to ensure efficient use of resources. Prospective Title II Awardees are also encouraged to demonstrate how their Title II programs build on the comparative advantage of Title II and maximize synergies and complementarities with other programs, including Mission and USAID regional and centrally-funded projects.²⁴⁰

Prospective Title II Awardees should also indicate how their programs align with and support GOSL strategies and programs. This includes the new Sierra PRS, Policy for the Agricultural Sector of Sierra Leone, and Sierra Leone Food and Nutrition Policy when they become available, and the RCH Strategic Plan, among others.

Prospective Title II Awardees are also encouraged to demonstrate, when feasible, how their programs coordinate with, complement and/or build upon programs related to food security funded by other donors such as the EC, DfID, the World Bank, the UN, IFAD and AfDB. If programs funded by other donors are operating in the same areas as those proposed by a prospective Awardee, the Awardee should also show how they will avoid duplication of efforts.

²⁴⁰ The FFP “Title II Program Policies and Proposal Guidelines for Fiscal Year 2010,” provide more detailed guidance on the types of coordination and synergies that it expects with respect to a number of programs and technical areas, including the GDA, HIV/AIDS, CAADP and the Millennium Challenge Corporation.

MYAPs are encouraged to involve and collaborate with the private sector, particularly in income generating programs, and, if applicable, to give some indication in their proposals which business they are considering working with, where and how. This is a challenge in Sierra Leone given the weakness of the private sector, but the private sector is important in developing markets, the potential for providing agricultural services and credit, and the role in creating agricultural-based jobs in rural areas. ABCs that provide services to farmers' organizations and community banks that allow small, collateral-free loans for clients with a minimum balance – the latter a relatively new initiative – are just two examples of potential private sector collaborators with the new Title II program. It will also be important for the Title II program to learn from and take advantage of the activities of other programs to stimulate the private sector, both USAID-funded projects such as PAGE and those funded by other donors, such as the EC-funded programs supporting FAO's work with ABCs and the World Bank Rural and Private Sector Development project described in **Section 5**.

Title II Awardees should also collaborate, when appropriate, with WFP, FAO, Research into Use (RIU) and partners such as private voluntary organizations or NGOs working to support GOSL plans in agricultural development, nutrition, health, and water and sanitation. RIU – a DfID-funded program operating through MAFFS – works to ensure agricultural research reaches the poor in a way that it can be used to help decrease poverty and improve incomes. Title II Awardees should also consider participation in the Livelihood and Food Security Coordination Forum, a NGO forum established in 2008 to offer a platform for information and experience sharing in livelihoods and food security among international and national NGOs to identify program-related challenges, develop sustainable solutions, capture innovations, share good practices and strengthen relations with donors. Title II Awardees will also need to follow the CAADP process in Sierra Leone and stay informed about developments so they can take advantage of new opportunities as the process moves to more advanced stages.

In the area of EWR, potential Title II Awardees should develop strong working relationships with GOSL and UNDP programs initiating the development of EWR systems as well as FEWS NET, given its new initiative planned in Sierra Leone.

Given the potential for increased incidence of HIV infection and the negative impact this could have on poor, vulnerable rural families, potential Title II Awardees should link with programs that provide HIV prevention messages via the various contact points in the project (e.g., FFS, VS&Ls, women and youth groups receiving capital grants, health groups, community leaders, community development committees).

Potential Title II Awardees are also strongly encouraged to consider working together in consortia to maximize complementarities and efficiencies of scale.

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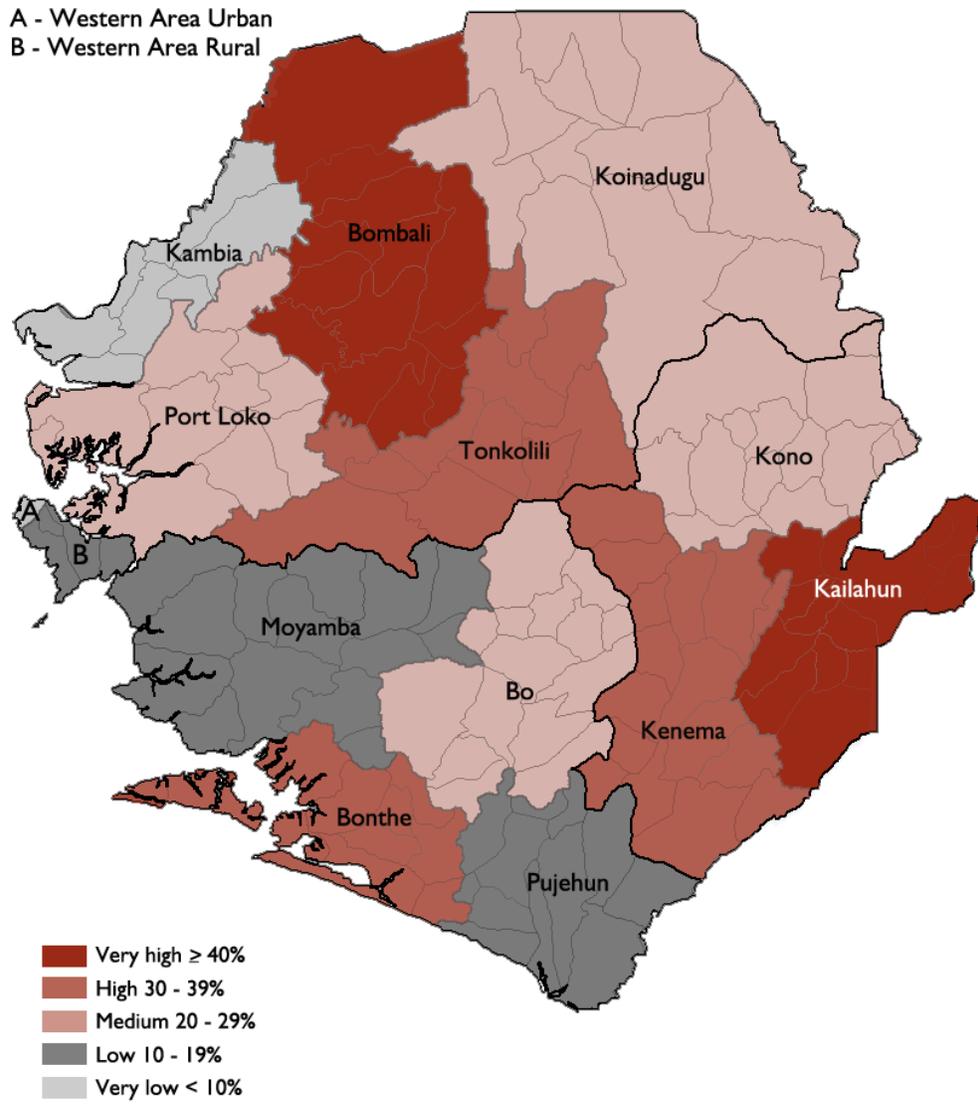
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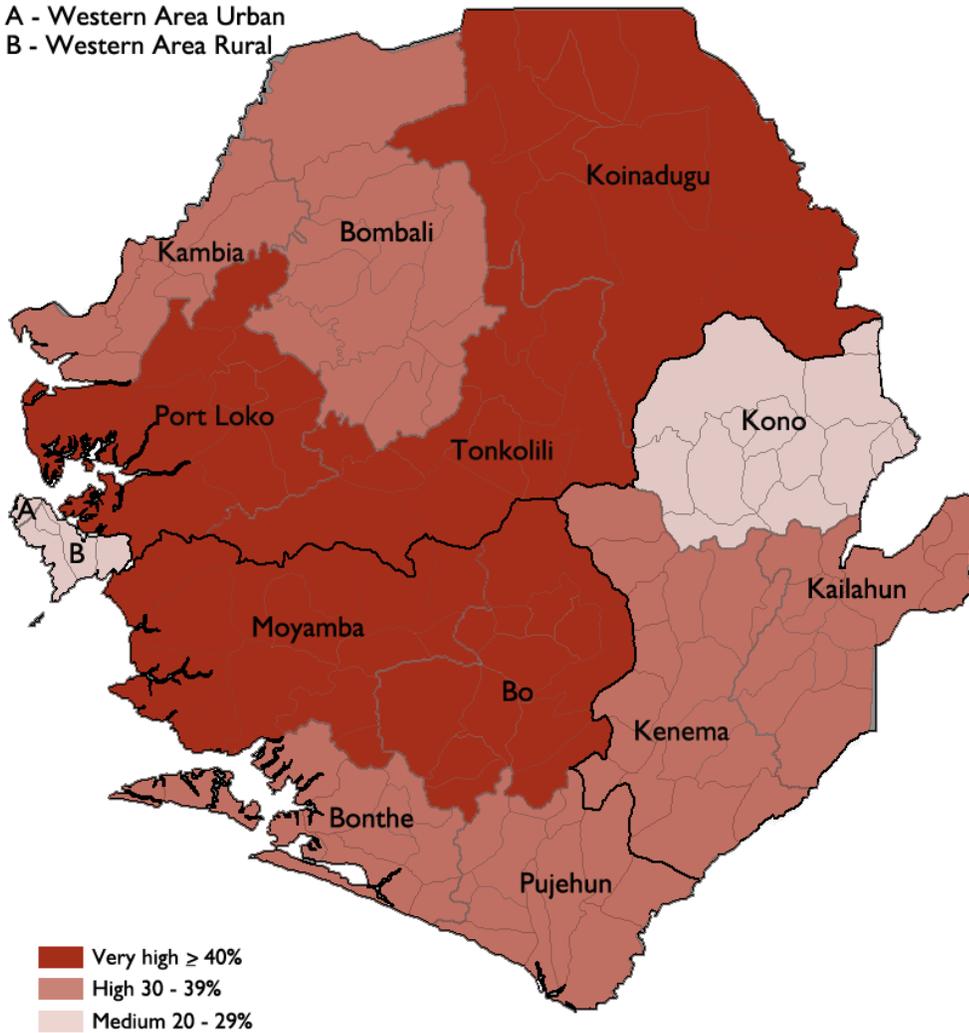
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MAP 2: LEVELS OF EXTREME POVERTY BY DISTRICT IN SIERRA LEONE (2003/04)

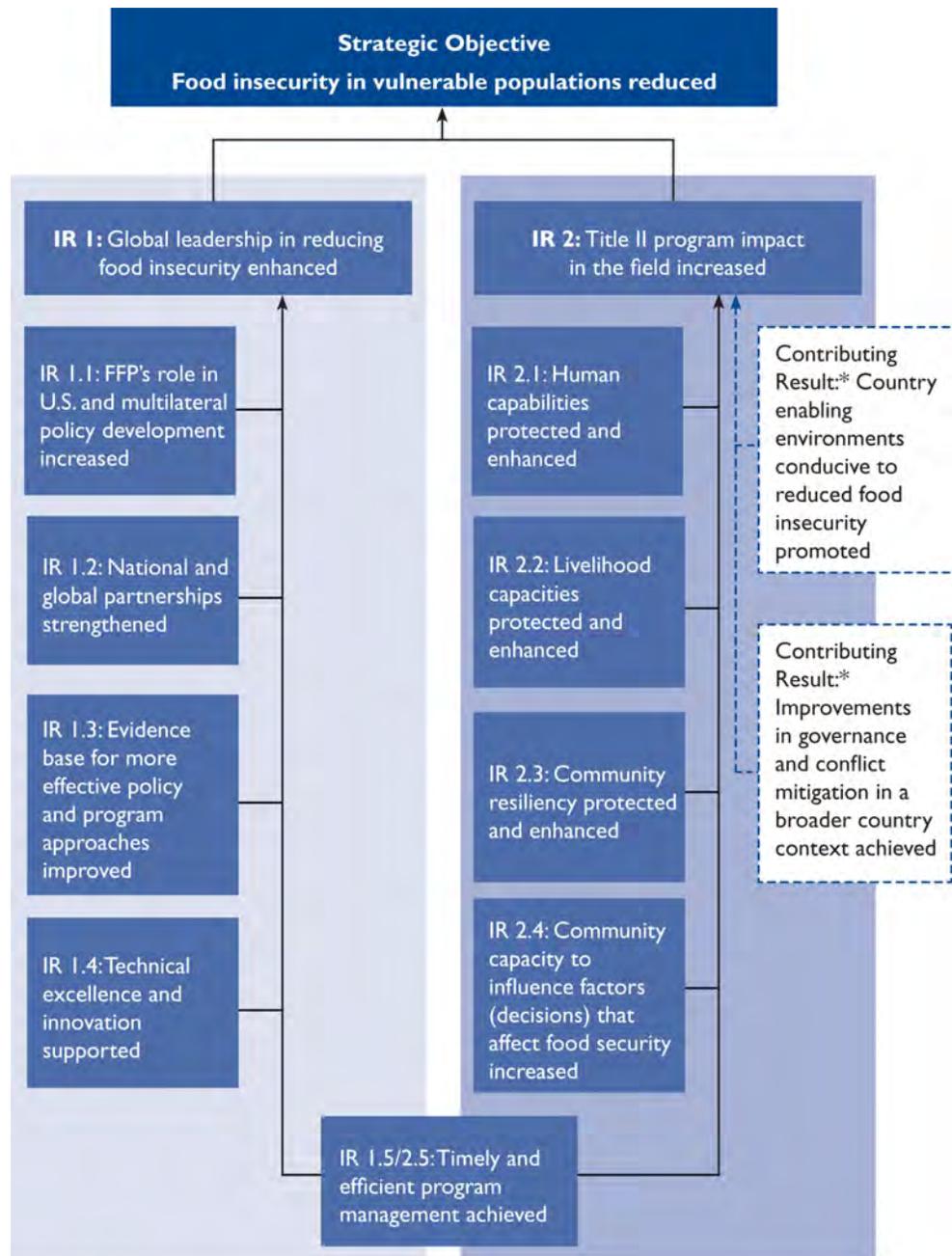


MAP 3: LEVELS OF STUNTING BY DISTRICT IN SIERRA LEONE (2008)

A - Western Area Urban
B - Western Area Rural



ANNEX 2. FFP STRATEGIC FRAMEWORK FOR 2006 - 2010

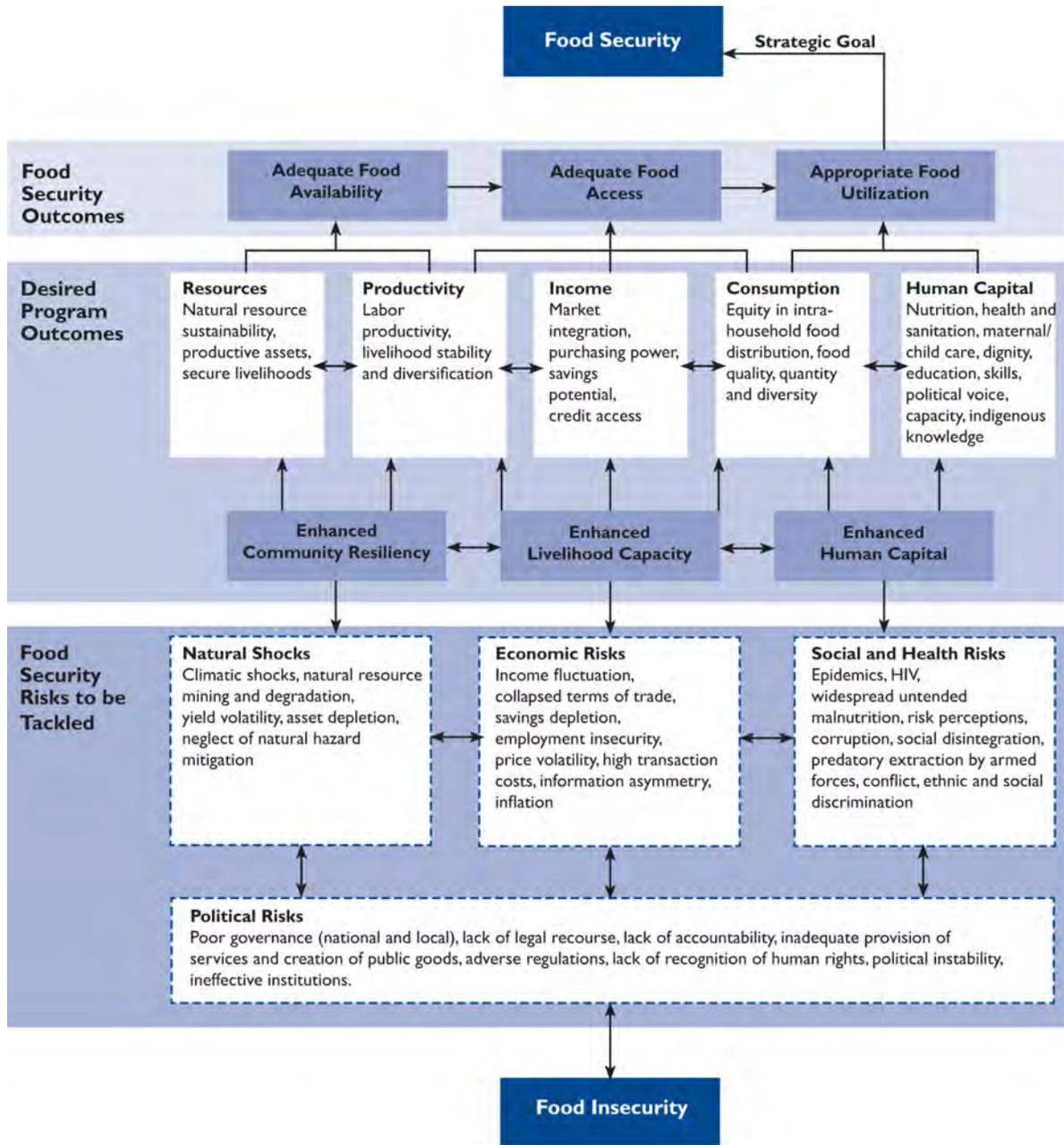


KEY

FFP responsible

*Other USAID offices or partners responsible

ANNEX 3. FFP EXPANDED CONCEPTUAL FRAMEWORK FOR UNDERSTANDING FOOD INSECURITY



Source: Webb and Rogers, *Addressing the "In" in Food Insecurity*, 2003.

ANNEX 4. ILLUSTRATIVE LIST OF NGOS WORKING IN SIERRA LEONE²⁴¹

Organization

- 1 Action Aid
- 2 Action Contre La Faim (ACF)
- 3 Adventist Development and Relief Agency (ADRA)
- 4 Africare
- 5 Association of Volunteers in International Service (AVSI)
- 6 Catholic Agency for Overseas Development (CAFOD)
- 7 CARITAS Germany
- 8 Cause Canada
- 9 Center For Victim of Torture
- 10 Christian Aid
- 11 Christian Children's Fund
- 12 Concern Worldwide
- 13 Conciliation Resources
- 14 Cooperative Assistance for Relief Everywhere (CARE)
- 15 Cooperazione Internazionale (COOPI)
- 16 Cordaid
- 17 Catholic Relief Services
- 18 Emergency Sierra Leone
- 19 Farmamundi-Sierra Leone
- 20 Aberdeen West African Fistula Centre
- 21 Forut SL
- 22 Finnish Refugee Council (FRC)
- 23 German Agro Action - Welthungerhilfe
- 24 German Leprosy and TB Relief Association (GLRA)
- 25 German Technical Cooperation (GTZ)
- 26 Goal
- 27 Handicap International
- 28 Health Unlimited
- 29 Heifer International Sierra Leone
- 30 Helen Keller International (HKI)
- 31 Ibis
- 32 Journalists for Human Rights
- 33 International Medical Corps (IMC)
- 34 Inter Aide - Sierra Leone

²⁴¹ Source: USAID March, 2009.

- 35 International Rescue Committee (IRC)
- 36 LemonAid Fund
- 37 Life for Relief and Development
- 38 Lutheran World Federation/Department for World Service
- 39 Malaria Control Program, MOHS
- 40 Merlin Sierra Leone
- 41 Marie Stopes Sierra Leone
- 42 Medicos del Mundo (MDM)
- 43 Mercy Ships - New Steps Centre
- 44 MSF- Belgium
- 45 National Democratic Institute (NDI)
- 46 Oxfam Great Britain
- 47 Plan
- 48 Real Aid
- 49 Right To Play
- 50 Save The Children - UK
- 51 Search for Common Ground (SfCG)
- 52 Sierra Leone Association of Nongovernment Organizations
- 53 Sierra Leones Venner
- 54 Sightsavers International
- 55 Spanish Red Cross in Sierra Leone
- 56 SOS Children's Villages Trust Sierra Leone
- 57 Students Partnership Worldwide
- 58 Tearfund
- 59 Trócaire
- 60 Voluntary Services Overseas (VSO)
- 61 War Child Holland
- 62 World Children's Relief
- 63 World Hope International
- 64 World Vision (WV)
- 65 Young Women Christian Association of Sierra Leone

ANNEX 5. PREVENTION OF MALNUTRITION IN CHILDREN UNDER 2 APPROACH (PM2A)

What is PM2A?

PM2A is a food-assisted approach to reducing the prevalence of child malnutrition by targeting a package of preventive health and nutrition interventions to all pregnant and lactating women and children under 2 regardless of nutritional status. The PM2A approach was rigorously studied in a Title II program in Haiti and found to be more effective in reducing child malnutrition than a recuperative approach that provided similar services but targeted only malnourished children.

Who is targeted by PM2A?

- Pregnant women
- Lactating women with children under 6 months
- Children under 2

What are the core program components of PM2A?

PM2A is a comprehensive approach that includes several essential and complementary interventions:

- **Conditional food ration for individual and household.** PM2A provides a dry individual ration to all pregnant women, lactating women until their children are 6 months, and children 6-23 months. PM2A also provides a dry household ration to families for the entire duration of receipt of the individual ration. All members of the target group are eligible to receive the ration if they participate in the other essential PM2A components, including preventive health services and BCC sessions. Guidance on calculating the ration is available in the USAID Commodities Reference Guide: http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/.
- **Preventive health services.** The PM2A approach requires that mothers/caregivers access essential health services including antenatal care, postpartum care, immunization, vitamin A supplementation, iron/folic acid supplementation during pregnancy and regular health visits. The PM2A approach aims to create demand and improve quality and access of the services provided by the Ministry of Health or other agency (e.g., UNICEF).
- **BCC.** BCC is focused on improving care and feeding practices. Messages should be targeted according to pregnancy status and age group of the child. The BCC program, messages and materials should be based on sound formative research and delivered through multiple contact points.
- **Community outreach.** Community outreach is needed to create awareness, identify program beneficiaries; educate the community about the program, its goals and requirements; and maximize program coverage.
- **Home visits.** Trained community volunteers conduct home visits to provide counseling, support and referral (as necessary) to women in late stages of

pregnancy, newborns, children with growth faltering, ill children, or those who have stopped attending required services.

- **Screening and referral for SAM.** Children who suffer from SAM urgently require treatment. PM2A programs should screen children 6-59 month with MUAC to identify SAM cases and refer them to appropriate treatment.
- **Quality assurance.** The program design must be guided by sound *formative research* and the program implementation consistently improved through *operations research*.

Key Considerations for PM2A

- PM2A is most appropriate when there is widespread chronic malnutrition in the target population.
- PM2A should be implemented in a location where the essential preventive health services are assured for the duration of the project.
- The catchment area must be able to absorb the quantity of food needed (BEST analysis).
- The logistics, cost or accessibility of the geographic location may affect geographic targeting.
- PM2A should be coordinated with services provided by the host country governments, donor agencies and other programs operating in the same catchment area.
- A stable political and social environment with limited in- and out-migration is necessary for optimal implementation.

ANNEX 6. DESCRIPTIONS OF COMMUNITY-BASED NUTRITION PROGRAMS

POSITIVE DEVIANCE (PD)/HEARTH, COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)²⁴² AND COMMUNITY-BASED GROWTH PROMOTION (CBGP)

COMMUNITY-BASED PROGRAM	POSITIVE DEVIANCE (PD)/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)	COMMUNITY-BASED GROWTH PROMOTION (CBGP)
Brief Summary Description	Program to rehabilitate underweight children. PDI identifies successful practices and strategies of poor local families that have healthy children. In the two-week intensive behavior change program (Hearth sessions), volunteers and caregivers prepare and feed a recuperative meal of locally available foods and learn and practice affordable, acceptable, effective and sustainable PD care practices identified in families of healthy children. The Hearth ingredients are provided by participating families so that they learn that they can afford the foods, where to acquire them and how to use them. Families are followed up with home visits after graduating from the Hearth session to ensure continued growth.	A community-based approach for managing cases of SAM, which includes outpatient care for SAM without medical complications, inpatient care for SAM with medical complications and community outreach. Community workers are trained to use MUAC and assess edema to actively seek and refer SAM and moderate acute malnutrition (MAM) cases to the CMAM program. Based on a medical evaluation and using routine medication and RUTF, CMAM treats the majority of cases at home. Children with SAM with medical complications are referred to inpatient care for stabilization before being released to outpatient care for full recovery. CMAM programs may also include a component to manage MAM with routine medications and supplementary feeding.	Strategy implemented at the community level to prevent malnutrition and improve child growth through monthly monitoring of child weight gain, one-on-one counseling and negotiation for behavior change, home visits, and integration with other health services. Action is taken based on whether a child has gained adequate weight, not their nutritional status, identifying and dealing with growth problems before the child becomes malnourished. A study of the Community-Based Integrated Child Care (AIN-C) Program in Honduras found that it had a long-term average cost per child of 6.82 USD (5.91 USD for just children under 2), and cost about 11 percent of a traditional, facility-based program.
Objectives	<ul style="list-style-type: none"> • Rehabilitate malnourished children • Enable families to maintain child's improved nutritional status • Prevent malnutrition among other children born in the community • Improve care and feeding practices 	<ul style="list-style-type: none"> • Treat SAM in the community • Reduce morbidity and mortality of children with SAM 	<ul style="list-style-type: none"> • Improve child growth • Prevent malnutrition
Target Group	Children 6-36 months with moderate and severe malnutrition, (weight-for-age < -2 Z-	<ul style="list-style-type: none"> • Children 6-59 months with SAM (MUAC < 110, weight-for-height < -3 Z-scores or 	Children 0-24 months

²⁴² CMAM originated as an emergency care model known as "Community Therapeutic Care" or CTC.

COMMUNITY-BASED PROGRAM	POSITIVE DEVIANCE (PD)/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)	COMMUNITY-BASED GROWTH PROMOTION (CBGP)
	scores)	<p>< 70 percent, and/or bilateral pitting edema)</p> <ul style="list-style-type: none"> • Children with MAM (weight-for-height < -2 Z-scores) may be included if there is a supplementary feeding program • Children under 6 months receive inpatient care 	
Criteria	<p>Consider PD/Hearth if you can answer yes to the following questions:</p> <ul style="list-style-type: none"> • Are at least 30 percent of children 6-36 months moderately or severely underweight (weight-for-age < -2 Z-scores)? • Is nutrient-rich food available and affordable? • Are homes located within a short distance of each other? • Is there is a community commitment to overcome malnutrition? • Is there access to basic complementary health services such as deworming, immunizations, malaria treatment, micronutrient supplementation and referrals? • Is there a system (or can a system be created) for identifying and tracking malnourished children? • Is there organizational commitment from the implementing agency? 	<ul style="list-style-type: none"> • Availability of national protocols for the management of acute malnutrition • Availability of RUTF and therapeutic milk (F75/F100) • Availability of trained staff • Caseload of children with SAM exceeds 2 percent of the population of children 6-59 months • Communities with greater than 10 percent global acute malnutrition among children 6-59 months • May be considered for use in communities post-emergency or with frequent periodic emergencies 	<ul style="list-style-type: none"> • Best used where underweight prevalence is high • Community motivation to reduce underweight • A large cadre of committed community volunteers • A central location within a reasonable walk for most community members
Unique Aspects	<ul style="list-style-type: none"> • Caregivers contribute local foods • Community-level rehabilitation • Uses locally-available foods and feasible practices • Engages community in addressing 	<ul style="list-style-type: none"> • Community-based approach for treating acute malnutrition on an outpatient basis • Use of RUTF instead of milk-based formulas • Community outreach for active case 	<ul style="list-style-type: none"> • Uses trained community-selected volunteers • Closely tied to evidence-based interventions • Uses “adequate weight gain” as early

COMMUNITY-BASED PROGRAM	POSITIVE DEVIANCE (PD)/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)	COMMUNITY-BASED GROWTH PROMOTION (CBGP)
	malnutrition <ul style="list-style-type: none"> • Prevention and recuperation • Follow-up home visits • Intensive behavior change 	finding and referral to catch children with SAM or MAM as early as possible	indicator of malnutrition <ul style="list-style-type: none"> • Referral and counter-referral system with health posts/centers • Counseling, negotiation • Supervision, home visits • Active community involvement in problem-solving and planning • Potential contact for MUAC screening and SAM referral • Addresses the causes of poor growth, not just the symptoms • Cost analysis conducted of AIN-C in Honduras: long-term average cost of 6.82 USD per child participant (5.91 USD for just children under 2) and 0.44 USD per capita; this is 11 percent of the cost of a traditional, facility-based program
Needed Elements for Quality Programming	<ul style="list-style-type: none"> • PDI done in every community • Growth monitoring to identify malnourished children • BCC strategies for larger community • Health services to address common childhood diseases • Community mobilization • Qualitative skill sets to engage community in conducting and analyzing PDI • Skills in anthropometric measurement • Ability to identify children with SAM for referral • Technical assistance from someone skilled in the PD/Hearth approach • Good supervision skills • Access to basic complementary health services (e.g., immunization, deworming, 	<ul style="list-style-type: none"> • Active community case finding using MUAC and assessment of edema • BCC strategies for sustainable prevention • Health services to address common childhood diseases • Skills in anthropometric measurement • Trained community members who can identify cases of severe or complicated acute malnutrition for referral • Technical assistance from someone skilled in the CMAM approach • Sufficient budget for a supply of RUTF • Trained clinical staff to conduct medical evaluation, identify medical complications, refer and treat cases 	<ul style="list-style-type: none"> • Linked health and nutrition interventions • Needs large network of community-based workers or volunteers (2-3 community workers per 20 children) • Supportive and quality monitoring and supervision essential • Quality of counseling important • Community participation in planning • Caretaker involvement in monitoring the child's weight gain • Analysis of causes of inadequate growth, with guidelines for taking actions

COMMUNITY-BASED PROGRAM	POSITIVE DEVIANCE (PD)/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)	COMMUNITY-BASED GROWTH PROMOTION (CBGP)
	micronutrients)		
Information Resources	<p><i>Positive Deviance/Hearth: A Resource Guide for Sustainably Rehabilitating Malnourished Children.</i> www.coregroup.org/working_groups/pd_hearth.cfm</p>	<p><i>Training Guide for Community-based Management of Acute Malnutrition.</i> www.fanta-2.org</p> <p><i>Community-based Therapeutic Care: A Field Manual.</i> www.fanta-2.org</p>	<p>Griffiths, et al. <i>Promoting the Growth of Children: What Works. Tool #4.</i> The World Bank Nutrition Toolkit. www.worldbank.org (Search for “Nutrition Toolkit”)</p> <p>Fiedler. May 2003. <i>A cost analysis of the Honduras Community-based Integrated Child Care Program.</i> World Bank HNP Discussion Paper. http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/Fiedler-ACostAnalysis-whole.pdf</p>

COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI), COUNSELING AT KEY CONTACT POINTS, HOME VISITS

NUTRITION PROGRAM	COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI)	COUNSELING AT KEY CONTACT POINTS	HOME VISITS (E.G., AUXILIARY NURSE, COMMUNITY HEALTH WORKERS, CARE GROUPS)
Brief Summary Description	<p>Community program to address malnutrition, measles, malaria, pneumonia and diarrhea. Four key elements are: facility/community linkages; care and information at the community level; promotion of 16 key family practices; coordination with other sectors.</p>	<p>Counseling from a health care provider to a caregiver during the delivery of health services. Counseling messages can be personalized to the needs of the mother/caregiver or child. Contact points include:</p> <ul style="list-style-type: none"> • IMCI or sick child visits • Well child visits • Immunizations • PMTCT clinics • Antenatal care visits • Delivery • Postpartum care 	<p>Home visits, conducted by community health worker/volunteer or nutrition volunteer provide outreach, follow up and support to pregnant women, lactating women, caregivers of children and their families. Visits may include checking on the health of a baby, counseling caregivers or following up with a child who has experienced growth faltering or illness.</p>

NUTRITION PROGRAM	COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI)	COUNSELING AT KEY CONTACT POINTS	HOME VISITS (E.G., AUXILIARY NURSE, COMMUNITY HEALTH WORKERS, CARE GROUPS)
		<ul style="list-style-type: none"> • Growth monitoring and promotion • Child health days • Recuperative feeding sessions 	
Objectives	<ul style="list-style-type: none"> • Reduce morbidity and mortality of children under • Address malnutrition, malaria, pneumonia, diarrhea, measles 	To improve care and feeding practices for pregnant and lactating women and children under 5 years	<ul style="list-style-type: none"> • Ensure child's health or growth is improving • Improve care and feeding practices • Support family
Target Group	Children 0-59 months	<ul style="list-style-type: none"> • Pregnant and lactating women • Mothers/caregivers of children under 5 • Influencers of children under 5 	Pregnant and lactating women, mothers/caregivers of children 0-23 months or up to 59 months
Criteria	<ul style="list-style-type: none"> • National IMCI policies and protocols • Collaborating health facility for patient referral • A cadre of available community health workers or volunteers • High prevalence of common childhood illnesses 	<ul style="list-style-type: none"> • Time available for counseling • Adequate coverage: community where women access services at the health facility 	<ul style="list-style-type: none"> • Willing and available volunteers • Walkable community
Unique Aspects	<ul style="list-style-type: none"> • Integrated approach focuses on whole child, not disease • Community level prevention and treatment • Linked with health facilities • Evidence-based protocols for prevention and treatment • Addresses relationship among illnesses • All Essential Nutrition Actions (ENA) messages are part of IMCI key family practices • Mostly applied to children who present with illness • Nutrition component often needs strengthening 	<ul style="list-style-type: none"> • Messages targeted to stage of life cycle at which the mother/caregiver seeks the service • Individually tailored guidance 	<ul style="list-style-type: none"> • Opportunity to tailor messages to individual needs and to engage in dialogue to negotiate change • Community members provide the support and counseling • Individually tailored guidance and support

NUTRITION PROGRAM	COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI)	COUNSELING AT KEY CONTACT POINTS	HOME VISITS (E.G., AUXILIARY NURSE, COMMUNITY HEALTH WORKERS, CARE GROUPS)
Needed Elements for Quality Programming	Involvement and commitment of the health sector needed	<ul style="list-style-type: none"> • Sound training on counseling and negotiation skills • Counseling materials developed with sound formative research • Time and space available for counseling • Supportive supervision 	<ul style="list-style-type: none"> • Formative research to inform design of a BCC strategy and materials • Training in counseling and negotiation • Ongoing supportive supervision • Materials for a low literacy population, if necessary
Information Resources	C-IMCI Program Guidance www.coregroup.org/working_groups/C-IMCI_Policy_Guidance_Jan%202009.pdf		

SUPPORT GROUPS, CARE GROUPS AND CHILD HEALTH WEEKS/DAYS

NUTRITION PROGRAM	SUPPORT GROUPS (E.G., MOTHERS/GRANDMOTHERS)	CARE GROUPS	CHILD HEALTH WEEKS/DAYS
Brief Summary Description	A way in which mothers can learn from each other, health care providers or members of the community about optimal child care and feeding practices. This is a comfortable, supportive and respectful environment. May be mother-to-mother or facilitated by a health care provider or other community member.	Community-based strategy for improving coverage and behavior change through building teams of women who individually represent, serve and promote health among women in 10-15 households in their community. The leaders form a Care Group that meets weekly or bi-weekly and is trained by a paid facilitator. These Care Group members visit the women for whom they are responsible, offering support, guidance and education to promote behavior change.	Occurs every six months to deliver vitamin A supplements and other preventive health services to children at the community level. In addition to vitamin A supplementation, services have included catch-up immunization, providing iron/folic acid to pregnant women, deworming, iodized salt testing, re-dipping ITNs, and promotion of infant and young child nutrition.
Objectives	Promote optimal child care and feeding behaviors	<ul style="list-style-type: none"> • Improve coverage of health programs • Sustainable behavior change 	<ul style="list-style-type: none"> • Increase coverage of vitamin A supplementation • Increase coverage of other nutrition interventions • Provide deworming

NUTRITION PROGRAM	SUPPORT GROUPS (E.G., MOTHERS/GRANDMOTHERS)	CARE GROUPS	CHILD HEALTH WEEKS/DAYS
Target Group	Mothers of young children (<2, <3 or < 5 years)	Mothers of children 0-59 months	Children 0-59 months
Criteria	<ul style="list-style-type: none"> Mothers willing and able to meet and share with each other A community in which IYCF practices need to be improved 	<ul style="list-style-type: none"> Community with houses close enough together so that volunteers can walk between them and to meetings Need a sufficient volunteer pool 	Vitamin A program in-country
Unique Aspects	<ul style="list-style-type: none"> Groups are composed of peers Safe environment for mothers to learn and share Research shows the level of influence of peers on behavior change in strong²⁴³ Requires minimal outside resources 	<ul style="list-style-type: none"> Trained “leader mother” volunteers provide support to other mothers Small number of paid staff reach large population (through leader mothers) Peers support Can support multiple health initiatives 	<ul style="list-style-type: none"> High coverage rates Feasible in diverse settings Community census and social mobilization
Needed Elements for Quality Programming	<ul style="list-style-type: none"> Group leader must have strong facilitation skills Training may be necessary Variation in methodology from very interactive to lecture driven Can link to the non-health sector 	<ul style="list-style-type: none"> Time available: leader mothers must have 5 hours per week to volunteer Comprehensive and ongoing training of leader mothers Long start-up time (due to training): project should be of a 4-5 year duration Supervisor to promoter ratio should be 1:5 	<ul style="list-style-type: none"> Best suited for areas with high prevalence of vitamin A deficiency Require coordination with district health plan Assure adequate supply of materials Volunteers and supervisors need to be trained Substantial social mobilization Follow-up/record-keeping important Part of a larger nutrition strategy
Information Resources	Linkages. <i>Training of Trainers for Mother to Mother Support Groups</i> . www.linkagesproject.org/media/publications/Training%20Modules/MTMSG.pdf .	World Relief and CORE. <i>The Care Group Difference</i> . www.coregroup.org/diffusion/Care_Manual.pdf .	

²⁴³ WHO and LINKAGES 2003.

ANNEX 7. RESOURCES ON COMMUNITY-BASED PROGRAMS AND BEHAVIOR CHANGE PROGRAMMING

COMMUNITY-BASED NUTRITION PROGRAMS

PVO Child Survival and Health Grants Program. *Nutrition Technical Reference Materials*. www.childsurvival.com/documents/trms/tech.cfm

Community-Based Growth Promotion

Griffiths, Marcia, Kate Dickin, and Michael Favin. 1996. *Promoting the Growth of Children: What Works*. Tool #4. The World Bank Nutrition Toolkit. The World Bank. <http://siteresources.worldbank.org/NUTRITION/Resources/Tool4-Frontmat.pdf>

C-IMCI

CORE. 2001. *Reaching Communities for Child Health and Nutrition: A Framework for Household and Community IMCI*. www.coregroup.org/working_groups/c_imci_full_english.pdf

PD/Hearth

Core. 2005. *Positive Deviance/Hearth: Essential Elements*. A resource guide for sustainably rehabilitating malnourished children (addendum) www.coregroup.org/working_groups/PD_Hearth_Addendum_Aug_2005.pdf

Core. 2003. *Positive Deviance/Hearth: A resource guide for sustainably rehabilitating malnourished children*. www.coregroup.org/working_groups/pd_hearth.cfm

Care Groups

World Relief and Core (2005). *The Care Group Difference: A guide to mobilizing community-based volunteer health educators*. www.coregroup.org/diffusion/Care_Manual.pdf

Community-Based Management of Acute Malnutrition (CMAM)

Food and Nutrition Technical Assistance Project. 2008. *Training Guide for Community-Based Management of Acute Malnutrition (CMAM)*. www.fanta-2.org

Support Groups

Linkages. 2003. *Mother-to-Mother Support Group Methodology and Infant Feeding: Training of Trainers* www.linkagesproject.org/publications/index.php?detail=51

BEHAVIOR CHANGE

Child Survival and Health Grants Program. 2005. *Behavior Change Interventions Technical Reference Materials*. www.childsurvival.com/documents/trms/xcut.cfm

Core and AED. *Applying the BEHAVE Framework. Workshop Guide.*
www.coregroup.org/working%5Fgroups/behave_guide.cfm

The Core Group. Social and Behavior Change Working Group.
www.coregroup.org/working%5Fgroups/behavior.cfm

Emory University; Nutrition Research Institute, Peru; National Institute of Public Health, Mexico; PAHO, 2003. *ProPAN: Process for the Promotion of Child Feeding.*
www.paho.org/English/AD/FCH/NU/ProPAN-index.htm

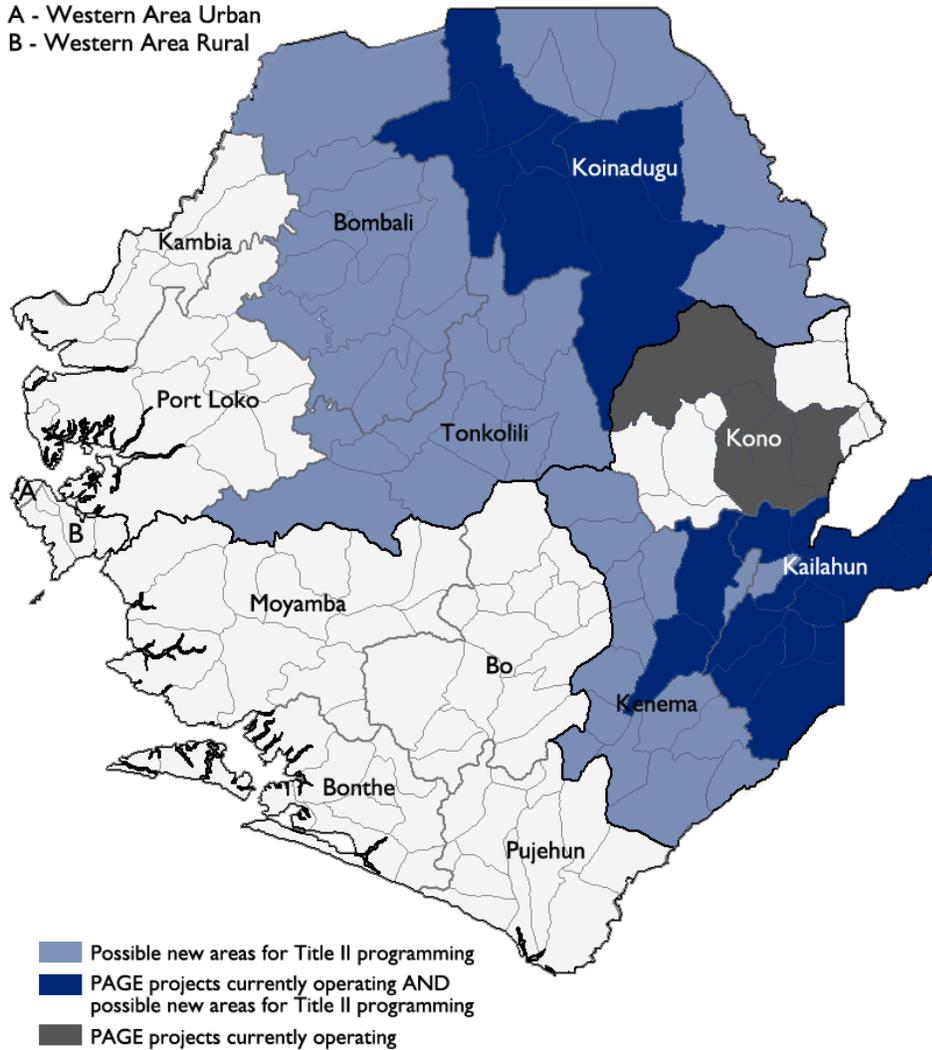
FORMATIVE RESEARCH

Dicken, K, and M Griffiths. *Designing by Dialogue: A Program Planners' Guide to Consultative Research for Improving Young Child Feeding.*
www.eldis.org/go/display/?id=27958&type=Document

Food for the Hungry International. *How to Conduct Barrier Analysis.*
http://barrieranalysis.fhi.net/how_to/how_to_conduct_barrier_analysis.htm

ANNEX 8. MAP OF PROPOSED FOOD-INSECURE DISTRICTS FOR CONSIDERATION IN NEW TITLE II PROGRAM (2010-2014) AND CURRENT PAGE OPERATIONAL AREA (2008-2012)

A - Western Area Urban
B - Western Area Rural



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