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

OCTOBER 2009



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Food and Nutrition Technical Assistance II Project
Academy for Educational Development
1825 Connecticut Ave., NW
Washington, D.C. 20009-5721
Tel: 202-884-8000
Fax: 202-884-8432
E-mail: fanta2@aed.org
<http://www.fanta-2.org>

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ACRONYMS & ABBREVIATIONS

ADB	African Development Bank
ACT	Artemisinin-based combination therapy
AED	Academy for Educational Development
AEI	Africa Education Initiative
AIDS	Acquired immune deficiency syndrome
ALP	Accelerated Learning Program
BCC	Behavior change communication
BMI	Body mass index
BPHS	Basic Package of Health Services
CAADP	Comprehensive Africa Agriculture Development Programme
CAAS	Comprehensive Assessment of the Agriculture Sector in Liberia
CAES	Central Agricultural Experiment Station
CARI	Central Agricultural Research Institute
CED	Chronic energy deficiency
CFSNS	Comprehensive Food Security and Nutrition Survey
C-IMCI	Community integrated management of childhood illness
CILSS	Committee to fight Drought in the Sahel
CMAM	Community-based management of acute malnutrition
CRS	Catholic Relief Services
CSH	Child Survival and Health Programs Fund
CSI	Coping Strategies Index
DA	Development Assistance
DAP	Development Assistance Program
DfID	Department for International Development (UK)
DHS	Demographic and Health Surveys
DRC	Domestic Resource Costs
EC	European Commission
ENA	Essential Nutrition Actions
EPI	Expanded program of immunization
FANTA	Food and Nutrition Technical Assistance Project
FAO	Food and Agriculture Organization of the United Nations
FEWS NET	Famine Early Warning Systems Network
FFA	Food for Assets
FFE	Food for Education
FFP	USAID Office of Food for Peace
FFPIB	USAID Office of Food for Peace Information Bulletin
FFS	Farmer field schools
FFW	Food for Work
FSCF	Food Security Country Framework
FY	Fiscal year(s)
GAM	Global acute malnutrition
GDP	Gross domestic product
GEMAP	Governance and Economic Management Assistance Program
GOL	Government of Liberia
GTZ	German Agency for International Development

ha	Hectacre(s)
HIV	Human immunodeficiency virus
IC	Inventory credit
IDP	Internally displaced person
IEC	Information, education and communication
IEHA	United States President's Initiative to End Hunger in Africa
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IMCI	Integrated management of childhood illness
IMF	International Monetary Fund
ITN	Insecticide treated bednet
ITSH	Internal Transportation, Storage and Handling
IYCF	Infant and young child feeding
km	Kilometer(s)
LCADP	Lofa County Agricultural Development Program
LDHS	Liberia Demographic and Health Survey
LFSNS	Liberia Food Security and Nutrition Survey
LIAP	Liberia Integrated Assistance Program
LISGIS	Liberia Institute for Statistics and GeoInformation Services
LRTF	Liberia Reconstruction Trust Fund
LU	Livestock Units
MCC	Millennium Challenge Corporation
MCH	Maternal and child health
MCHN	Maternal and child health and nutrition
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MMR	Maternal mortality ratio
MOA	Ministry of Agriculture
MOE	Ministry of Education
MOGD	Ministry of Gender and Development
MOHSW	Ministry of Health and Social Welfare
MT	Metric ton(s)
MYAP	Multi-year assistance program
NACP	National AIDS Control Programme
NAPW	National Action Plan for Women
NCHS	National Center for Health Statistics
NEPAD	New Partnership for Africa's Development
NERICA	New Rice for Africa
NGO	Nongovernmental organization
PD	Positive Deviance
PLA	Participatory Learning and Action
PM2A	Preventing Malnutrition in Children under Two Approach
PMI	United States President's Malaria Initiative
PMP	Performance Management Plan
PMTCT	Prevention of mother-to-child transmission of HIV
PPP	Gross domestic product per capita
PRRO	Protracted Relief and Recovery Operation (WFP)

PRS	Liberia Poverty Reduction
RBHS	Rebuilding Basic Health Services
SAM	Severe acute malnutrition
SF	School feeding
STI	Sexually transmitted infection
TI	Trigger indicator
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNMIL	United Nations Mission in Liberia
UNOPS	United Nations Office for Project Services
US	United States
USAID	United States Agency for International Development
USD	United States dollar
USG	United States Government
VAM	Vulnerability Assessment Monitoring
WFP	World Food Programme
WHO	World Health Organization

EXECUTIVE SUMMARY

The United States Agency for International Development (USAID) Food Security Country Framework (FSCF) for Liberia seeks to provide prospective USAID/Liberia Office of Food for Peace (FFP) Title II partners with guidance in designing an effective food security program for the period fiscal years (FY) 2010-2014.

Following more than two decades of political instability including fourteen years of civil war, Liberia's economy, social services and infrastructure were left in a state of devastation. The war, which ended in 2003, destroyed most of Liberia's basic infrastructure and has also precluded farmers from growing many crops. As a result of the long war, as well as economic mismanagement, corruption and distortions, Liberia now ranks near the bottom of the international Human Development Index. After years of civil conflict, Liberia's public health sector requires rebuilding. Contributing to and exacerbating poor health is Liberians' limited access to water and sanitation services. The longstanding nature of food insecurity in Liberia manifests itself as chronic malnutrition; 39 percent of children under 5 are stunted. Liberia is now emerging from years of a serious food crisis of multi-factorial causation.

Smallholder agricultural producers in Liberia have experienced tremendous shocks as a result of the war and a process of livelihood erosion induced by several key factors impinging on food availability:

- Low agricultural productivity
- Declining terms of trade
- Labor constraints
- Increasing soil infertility in the uplands
- Insufficient swampland production
- Post-harvest losses
- Scarcity of livestock
- Institutional and policy weaknesses

Rural households also face constraints to accessing sufficient food, including:

- Poor access of smallholder farmers to markets
- Failures at several links of the agriculture value chain
- Limited income-earning opportunities
- Lack of access to credit and working capital

Food utilization among rural households suffers from:

- Poor access to water and sanitation
- High rates of childhood illness
- Low access to adequate health care services
- Poor care and feeding practices

The Title II program can contribute to addressing the daunting set of constraints outlined above by striving **to improve the food security of vulnerable rural households and communities in Liberia**. Desired outcomes would therefore include:

- Improved crop production and productivity, including the reduction of post-harvest losses, increased market linkages and improved small-scale infrastructure
- Increased incomes through enhanced access to income generating opportunities
- Enhanced health and nutrition status, particularly in children under 2 and pregnant and lactating women

Box I outlines some of the priority outcomes and activities, which are described in more detail in **Section 6**.

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

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

- Increase agricultural production and productivity by:
 - Transforming agriculture from shifting production to integrated food and cash crop production
 - Promoting crop diversification
 - Improving agricultural practice through farmer-to-farmer extension
 - Strengthening market linkages for vulnerable farmer households
 - Applying a value chain approach to farmer planning and management
 - Improving basic infrastructure such as farmer-to-farmer roads, road structures including bridges, and markets
- Promote increased income-earning opportunities by:
 - Facilitating savings, credit and investment opportunities
 - Expanding access to informal financial institutions
 - Increasing women's access to income-generating activities
- Improve nutritional status by:
 - Preventing malnutrition of children under 2
 - Improving infant and young child feeding (IYCF) practices
 - Preventing and treating childhood illness in children under 5
 - Improving maternal nutrition
 - Enhancing access to water and sanitation and improving hygiene practices
 - Introducing effective referral systems
 - Implementing community-based programming

To effectively design and implement such an approach, the FSCF recommends incorporating key design considerations, which are described in detail in **Section 6**, including:

- Geographic targeting of activities in relatively food-insecure and vulnerable regions of the country, focusing on the Northern swath of the four contiguous counties of Bong, Nimba, Grand Geddeh and River Gee
- Instituting a coordinated, holistic, integrated programming approach that targets critical needs to maximize impact and reduce food insecurity
- Adopting a community participatory approach
- Applying formative research to promote behavior change
- Anticipating the need for an emergency response around potential scenarios, including:
 - Conflict, war and displacement, which could have devastating effects on community and household transitory food security
 - Unforeseen pest attacks, which could severely affect crop and livestock production
 - Unpredictable rainfall patterns, providing farmers with difficult decisions about appropriate land preparation and planting times
 - Food price increases, which could trigger transitory food insecurity on a large scale
- Developing effective monitoring and reporting systems
- Developing effective sustainability and exit strategies
- Integrating gender equity¹ in programming approaches
- Strengthening human resource capacity
- Balancing food and cash resources as program inputs, which may include:
 - Food rations for children under 2 when accompanied by participation in maternal child health and nutrition (MCHN) activities
 - Food rations for pregnant and lactating women
 - Food for Work (FFW) activities to support the clearing and preparation of swamplands for cultivation
 - FFW to support *Kuu* labor activities at critical phases of the cultivation cycle
 - Monetization of appropriate commodities

¹ *Gender equity* considers the difference in women's and men's lives and recognizes that different approaches may be needed to produce outcomes that are equitable. (*Gender equality* refers to women and men being treated the same way. However, equal treatment may not produce equitable results, because men and women have different life experiences).

I. OBJECTIVES OF THE COUNTRY FRAMEWORK

The purpose of the United States Agency for International Development (USAID) Food Security Country Framework (FSCF) for Liberia is to provide programming guidance to current and potential USAID/Liberia Mission food security partners on the development of Title II-funded multi-year assistance programs (MYAPs) for the period fiscal years (FY) 2010-2014, and to improve program and resource integration. The FSCF identifies the key factors contributing to poverty, malnutrition, food insecurity and vulnerabilities in Liberia, drawing on the USAID definition of food security as a basis for describing the current food security situation in the country and identifying food-insecure geographic regions and types of households, why they are food insecure and what actions can most effectively reduce their food insecurity. The FSCF also describes the institutional context in which the USAID Liberia FSCF will be implemented, outlining existing United States Government (USG), United Nations (UN) agency and Government of Liberia (GOL) strategies and programs.

The audience for this strategy includes Title II Awardees, nongovernmental organizations (NGOs), institutions, donors, GOL entities working in food security in Liberia, and USAID offices in Liberia and Washington, DC. In post-conflict Liberia, many Title II Awardees are engaged in food security and nutrition activities. However, challenging circumstances remain to effectively reducing food insecurity. This FSCF will present current ground realities that could promote or constrain food security programming in the next few years, focusing on challenges particular to the Liberian context, and will present broad programming parameters from which Title II Awardees can develop their proposals. The Liberia FSCF is based on a review of the literature and current data on food insecurity in Liberia, field visits to USAID/Liberia food security partner projects, and key informant interviews with staff from USAID/Liberia, USAID/Washington, the GOL, UN agencies, NGOs and other institutions that are stakeholders in food security programming in the country.

2. DEFINITION OF FOOD SECURITY

USAID defines food security as follows: “*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.*”² The definition focuses on three distinct but interrelated elements, which acting together are essential to achieving food security:

- **Food availability** includes sufficient quantities of food from household production, other domestic output, commercial imports or food assistance.
- **Food access** includes adequate resources to obtain appropriate foods for a nutritious diet, which depends on available income, distribution of income in the household and food prices.

² USAID. April 1992. *Policy Determination 19, Definition of Food Security*. p 1.

- **Food utilization** includes proper biological use of food, requiring a diet with sufficient energy and essential nutrients, potable water and adequate sanitation, and knowledge of food storage, processing, basic nutrition, and child care and illness management.

The analysis of food security and food insecurity in Liberia and the recommended programming strategy for Liberia partners described in this document assumes the above definition of food security and adds the concepts of risk and vulnerability,³ which provides an expanded framework used in the USAID Office of Food for Peace (FFP) FY 2006-2010 Strategic Plan to focus Title II resources toward reducing food insecurity.

3. OVERVIEW OF THE LIBERIAN FOOD SECURITY CONTEXT

3.1 SOME BASIC LIBERIAN STATISTICS

Recovering from fourteen years of war and several decades of mismanagement and poor governance, Liberia's basic indicators of human and poverty development leave Liberians ranked close to last across several key indices.

Compiled in 2006, some of the basic statistics presented in **Table I** may actually underestimate the degree of poverty and underdevelopment in Liberia. Liberian incomes are amongst the lowest in the world. Maternal mortality rates (MMRs) for Liberia are currently far higher than in virtually any other country of the world.

TABLE I: SELECTED BASIC ECONOMIC AND SOCIAL INDICATORS

BASIC INDICATOR	VALUE	LIBERIA RANK/ # OF COUNTRIES
Population		
Total population (in millions) ⁴	3.5	
Percent of total population under 18 (%)	51.4	
Percent of population rural (%)		
Gross domestic product per capita (PPP) (USD)⁵		
Gross domestic product per capita (PPP) (USD) ⁵	335 USD	176 / 178
Contribution of agriculture to GDP (%) ⁶	52	
Human Poverty Index⁷		
Human Poverty Index ⁷	40.5	118 / 135
Population living below national poverty line ⁸ (%)	64	

³ The concept of risk, which is implicit in the USAID definition of food security, was added to the conceptual framework that underlies the 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. USAID/FFP. May 2005. *Strategic Plan for 2006-2010*. p 20.

⁴ GOL and LISGIS. 2008. *National Population and Housing Census*.

⁵ UNDP. 2008. *2008 Statistical Update: Liberia*. Note: data from 2006.

⁶ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia*, vol. 1, p 9.

⁷ USAID. April 1992. *Policy Determination 19, Definition of Food Security*.

⁸ LISGIS. 2007. *Core Welfare Indicator Questionnaire Survey*.

BASIC INDICATOR	VALUE	LIBERIA RANK/ # OF COUNTRIES
Population living in extreme poverty ⁹ (%)	48	
Vulnerable employment rate ¹⁰ (%)	80	
Human development		
Human Development Index	0.364	176 / 179
Gender Development Index	N/A	
Education		
Adult literacy rate (% 15 years and above) ¹¹	54.4	130 / 147
School enrolment ratio (female as % of male) ¹²	73.1	147 / 157
Net primary school enrolment (%)	40	
Percent children attending primary school (female as % of male) ¹³	88	
Net secondary school enrolment (%)	19.6	
Percent attending secondary school (female as % of male) ¹⁴	69	
Age at marriage and first birth		
Median age of woman at first marriage (years) ¹⁵	18.4	
Median age of women at first birth (years) ¹⁶	19.1	
Percent of women 20-24 years married by age 18 (%) ¹⁷	46	
Percent of adolescent girls (15-19 years) who are pregnant or have given birth (%) ¹⁸	32	
Life expectancy, fertility, & mortality		
Life expectancy at birth (in years) ¹⁹	45.1	172 / 179
Total fertility rate (births per woman) ²⁰	5.2	
Maternal mortality rate (per 100,000 births) ²¹	994	
Under 5 mortality rate (per 1,000 live births) ²²	110	
Infant mortality rate (per 1,000 live births) ²³	71	
Malnutrition		
Prevalence of underweight in children under 5 (%) ²⁴	19.2	
Prevalence of stunting in children under 5 (%) ²⁵	39.4	
Prevalence of wasting in children under 5 (%) ²⁶	7.5	
Percent of population undernourished (%) ²⁷	40	

⁹ GOL and LISGIS. 2008. *National Population and Housing Census*.

¹⁰ LISGIS. 2007. *Core Welfare Indicator Questionnaire Survey*.

¹¹ USAID. April 1992. *Policy Determination 19, Definition of Food Security*.

¹² Ibid.

¹³ MOE. nd. *A System in Transition: The 2007/08 National School Census Report*. p 20.

¹⁴ Ibid, 49

¹⁵ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 80.

¹⁶ Ibid, 53.

¹⁷ LISGIS. 2007. *Core Welfare Indicator Questionnaire Survey*.

¹⁸ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 54.

¹⁹ USAID. April 1992. *Policy Determination 19, Definition of Food Security*.

²⁰ Ibid. 47.

²¹ Ibid. 247.

²² LISGIS. 2007. *Core Welfare Indicator Questionnaire Survey*.

²³ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 101.

²⁴ Ibid. p 137.

²⁵ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, vol. 1*. p 9.

²⁶ Ibid.

BASIC INDICATOR	VALUE	LIBERIA RANK/ # OF COUNTRIES
HIV prevalence		
Adult HIV prevalence rate (%)	1.5	
Water and sanitation		
Households with access to improved water source (%) ²⁸	57	
Access to sanitary facilities (% of total population) ²⁹	20	

3.2 POLITICAL LANDSCAPE: THE EFFECTS OF WAR ON FOOD INSECURITY AND VULNERABILITY

Following more than two decades of political instability culminating in fourteen years of civil war, Liberia's economy, social services and infrastructure were left in a state of devastation. The 2003 signing of the landmark comprehensive peace agreement, the demobilization of the warring forces, the establishment of a UN Mission including peacekeeping forces and, most significantly, legislative and presidential elections resulting in the election of Africa's first democratically elected female president have brought a striking sense of relief and hopefulness to the people of Liberia. However, the task of rebuilding the country and revamping the economy after so much has been destroyed and so many have been displaced is daunting indeed. Approximately 270,000 people lost their lives as a direct result of the war.³⁰ The immediate aftermath of the war left Liberia with one of the highest proportions of internally displaced persons (IDPs) in the world: the war displaced one-quarter of the 3.5 million people in the country, mostly women and children. During the war, Liberians also fled to neighboring countries, such as Sierra Leone, Guinea and Cote d'Ivoire, whose conflicts also brought refugees into Liberia.

The challenge of corruption. Political and economic growth and stability are severely threatened by ongoing corruption. Although Liberia's rank on Transparency International's corruption perception index improved to 42nd worst in the world in 2008 from 29th worst in 2007,³¹ the World Bank in 2008 ranked Liberia in the 33rd percentile of the "control of corruption" indicator of corruption, a decline from the 44th percentile in 2007. The World Bank also ranks Liberia in the 33rd percentile on a "voice and accountability" indicator and has noted no improvements in the "rule of law" and "government effectiveness" indicators.³² Several government officials within and outside of Ministries from the highest levels of the government remain under suspicion of corrupt practices, but corruption also permeates government practices at the middle-

²⁷ FAOSTAT. June 2008. "Prevalence of Undernutrition in Total Population, Liberia, 2003-2005." <http://www.fao.org/economic/ess/food-security-statistics/en/>. 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 body-weight for attained-height.

²⁸ MOA. 2008. *Liberia Food Security and Nutrition Survey*. PowerPoint presentation.

²⁹ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. p 28.

³⁰ UNDP. 2006. *Liberia Human Development Report*.

³¹ Transparency International. nd. "Corruption Perceptions Index, 2008." http://www.transparency.org/policy_research/surveys_indices/cpi/2008 (Accessed September 14, 2009);

Transparency International. nd. "Corruption Perceptions Index, 2007." http://www.transparency.org/policy_research/surveys_indices/cpi/2007 (Accessed September 14, 2009).

³² World Bank Institute's Corruption Ranking 2008.

management level in Monrovia and throughout the counties and more localized levels of government. Corruption severely threatens Liberia's ability to qualify for Millennium Challenge Corporation (MCC) funding or donor support in general.

The new government is attempting to strengthen good governance provisions, including instituting an anti-corruption strategy to tackle the all-too prevalent malaise of corruption and cronyism, which is endemic within the public sector realm, especially at all levels of government and semi-government bodies, such as parastatals, the police, the judiciary and the financial sector. The Anti-corruption Commission was established in 2008 to lead the fight against corrupt practices and commenced its activities by deleting thousands of "ghost workers" from civil service wage lists. One prevalent attitude is that officials are expected to use their positions to increase their personal wealth; those failing to do so are apparently considered foolish.³³

Corruption and poor management practices are not only government phenomena; corruption affects civil society and private enterprise efficiency and effectiveness as well. The NGO World Vision has been forced to leave the country after members of its staff were found to have participated in extensive food commodity diversion amounting to more than one million United States dollars (USD). Several large natural-resource-based corporations have been found to engage in corrupt practices. Liberia remains dependent on natural resource use and extraction – "the resource curse" or "Dutch Disease" – which is rife with corruption opportunities as well as potential loss of incentives and competitiveness. Corrupt resource extraction basically financed and prolonged years of conflict. The government commitment to change corrupt attitudes by promoting transparency and other anti-corruption measures will be severely tested in the upcoming years; corruption could continue to hinder political as well as economic growth.

3.3 SOCIO-ECONOMIC LANDSCAPE

The war has destroyed most of Liberia's basic infrastructure. The war has also precluded farmers from growing many crops, including the important food crops of rice and cassava and the major cash crops of rubber, palm oil, coffee and cocoa, which once provided farmers, communities, regional marketing centers and the country of Liberia with essential income and revenues. Farmers cultivate rice as their major food crop and rarely as a source of income, although incomes from rice production have slightly increased since the war.³⁴ Incomes from palm oil production and vegetables have stagnated or declined.³⁵

Women are involved in virtually all phases of agriculture production, producing approximately 60 percent of all agricultural produce and undertaking approximately 80 percent of all trading activities in rural Liberia.³⁶ Women and men work for wage labor

³³ IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*. p 37, 46, and 87; MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia*. p 16.

³⁴ GOL et al. July 2008. *The Impact of High Prices on Food Security in Liberia – a Joint Assessment*. p 32.

³⁵ Ibid. p 32.

³⁶ GOL and UN. June 2008. "Government and UN Joint Programme on Food Security and Nutrition." Project Description. p 5.

on farms for cash as well as in kind; payment in rice is common. Petty trade involves both women and men, who typically sell agricultural products and cash crops such as palm oil, generating capital to purchase goods to then resell to the community. In addition to rubber tapping, fishing and hunting, other income earning activities including firewood, mining, palm wine preparation and production, and semi-skilled trades such as carpentry and masonry are the purview of men; women are involved in making baskets, fish traps, weaving and some food products. Women's access to resources including land, capital, technologies, skills and information, however, lags behind those of men. Although women are important income earners, household income usually remains under the control of men.

Many of Liberia's displaced people have remained in urban areas, where access to health care, education and employment opportunities are better than in rural areas. Many rural health clinics and hospitals are no longer standing and the health system is served by only one doctor for every 70,000 Liberians. Children have stopped going to schools that were destroyed: an estimated 70 percent of schools were partially or completely destroyed, largely explaining why half of Liberian children did not attend school in 2008.³⁷ Over 56 percent of females and 39 percent of males have never attended school, and a very small portion of those who attended school have actually completed their education. Although the education sector is rebuilding, capacity is low. Nationally, only 40 percent of teachers are trained and one teacher will often teach at multiple levels.³⁸ Of those attending school, very few students are in the class level that would be expected based on their age. For example, 63 percent of primary school students are over 11 years of age and some are even over 20.³⁹ The result is a generation that is less educated than the previous and a workforce that is under-educated and under-qualified for employment, presenting serious challenges for a country attempting to rebuild.⁴⁰

As a result of the long war, combined with economic mismanagement, corruption and distortions, Liberia now ranks near the bottom of the international Human Development Index, at 176 out of 179 countries.⁴¹ The government operates at approximately one-third of its pre-war level; GDP in 2007 was 40 percent that of pre-war levels. Per capita income declined precipitously from 1,269 USD in 1980 to approximately 135 USD in 2007.⁴² Nearly two-thirds (64 percent) of all Liberians live below the poverty line and approximately half of all households live in "extreme poverty."⁴³ The overwhelming majority of the poor and very poor – over seven out of every 10 people – lives in rural areas.⁴⁴

³⁷ IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*. p 16.

³⁸ MOE. nd. *A System in Transition: the 2007/08 National School Census Report*. p 22.

³⁹ Ibid, 22.

⁴⁰ Walker, Gary, et al. April 2009. *Liberia Youth Fragility Assessment*. USAID/Liberia. p 10.

⁴¹ UNDP. 2008. *Human Development Report: Statistical Update*.

http://hdrstats.undp.org/2008/countries/country_fact_sheets/cty_fs_LBR.html

⁴² World Bank. 2007. *African Development Indicators*.

⁴³ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*.
Monrovia, Liberia: LISGIS and Macro International Inc.; IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*.

⁴⁴ GOL and LISGIS. 2008. *National Population and Housing Census*.

Liberia's children and their mothers face extremely difficult prospects as measured by child and maternal mortality rates: 194 children under 5 die for every one thousand live births and 994 women die for every 100,000 live births.⁴⁵ Liberians today can only expect to live an average of 45 years.

3.4 HEALTH SECTOR

Access to health care and services. After years of civil conflict, Liberia's public health sector needs to be rebuilt. Health indicators are bleak, with average life expectancy at birth just 45 years, high rates of illness and malnutrition among children under 5, high rates of fertility and teenage pregnancy, and an exceedingly high MMR. Except for the infant and under 5 mortality rates which, though still high, have improved considerably since the end of the war, most other key health and nutrition indicators have remained stagnant or worsened in the past decade. Contributing to and exacerbating poor health is Liberians' limited access to water and sanitation services; approximately three-quarters of Liberians lack access to clean water and 90 percent cannot access proper sanitation.⁴⁶ Liberians report their biggest health sector concerns to be lack of financial and physical access to health services and low quality of healthcare. The infrastructure and human resources needed to combat these challenges were greatly compromised during the war and consistent and intensive investment is needed to establish a functional health system.

It is a time of great potential and opportunity for improving health and health service delivery in Liberia. The Ministry of Health and Social Welfare (MOHSW) has developed a National Health Policy (2007) and a National Health Plan (2007-2011) with clear-cut goals to strengthen the health sector. The current MOHSW budget is insufficient to implement the plan and provide adequate services to the entire population; public health expenditures in 2007 were just 5 USD per capita, in contrast to the 34 USD per capita needed to meet the Millennium Development Goals (MDGs). However, the MOHSW has formed partnerships with donors and NGOs to implement the plan and expects to need external support from donors and private providers to fund the health sector until at least 2018.

Key health indicators. Infant and under 5 mortality rates are high, 71 and 110 per 1,000 live births, respectively. However, both of these figures have improved dramatically since 1992-1996, when infant mortality was 139 per 1,000 and under 5 mortality was 219 per 1,000.⁴⁷ The major causes of morbidity and mortality for children under 5 are malaria (causes 36 percent of under 5 mortality), diarrhea (causes 19 percent of under 5 mortality)⁴⁸ and acute respiratory infection. Additionally, malnutrition is associated with about 44 percent of deaths of children under 5.⁴⁹ About 40 percent of children under 5 are stunted while 7.5 are wasted and 19.2 percent are

⁴⁵ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc.

⁴⁶ IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*.

⁴⁷ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 102.

⁴⁸ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. p 66.

⁴⁹ PROFILES Analysis. 2007. "Liberia: Investing in Nutrition to Reduce Poverty."

underweight. Fertility rates are high in Liberia at 5.2 children per woman, and the median age of a woman at first birth is 19.2 years. Thirty-two percent of girls 15-19 have either had a child or are pregnant. The MMR is shockingly high at 994 per 100,000 live births, and girls 15-19 have twice the risk of their adult peers. Up to 58 percent of women have undergone female genital cutting which has been linked with increased maternal health risks for women, although it appears to be much less common among younger women than among older women.⁵⁰ HIV prevalence is estimated to be 1.5 percent among adults 15-49 years of age.⁵¹ Only 30 percent of urban households and 15 percent of rural Liberians have access to potable water and only one out of ten households have access to sanitary facilities.⁵²

Healthcare access. Three-quarters of all women 15-49 years reported serious problems accessing health care in 2007. The most common constraints to health care access were financial, transportation, distance and concern about drug and health care provider availability.⁵³ Nationally, 90 percent of communities in 2006 did not have a functioning health facility⁵⁴ and 95 percent of the country's 325 health facilities were damaged or destroyed in the war.⁵⁵ Liberians, however, have experienced a few dramatic improvements in recent years: the MOHSW now reports that 41-45 percent of the population has access to the Basic Package of Health Services (BPHS) and 390 clinics, centers or hospitals are now operational, with only 90 remaining non-functional. Communities with no health facility must walk an average of three hours to the nearest facility. The health sector gravely lacks capacity: Liberia boasts just 3,966 trained Liberian health personnel, that is, 0.03 physicians, 0.18 nurses and 0.12 midwives per 1,000, and international NGOs operate more than 80 percent of the existing health facilities.⁵⁶ Health care is still somewhat more accessible and of higher quality in urban areas than in rural areas.⁵⁷

National Health Policy and Plan. From 2006-2008, Liberia's health sector was operating under an emergency plan to stave off crisis as humanitarian agencies began to withdraw from the country. The health sector is now transitioning from emergency to development and is beginning to rebuild based on the National Health Policy and National Health Plan. The MOHSW plans to decentralize health services and focus on strengthening the health sector to expand the BPHS to reach 70 percent of health facilities by December 2010; build human resource capacity, including making training more financially accessible; rehabilitate infrastructure, including establishing a quality health facility within 10 km of every community and reconstructing or renovating 205

⁵⁰ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 242.

⁵¹ Ibid, 194.

⁵² GOL. 2009. "National White Paper on Water and Sanitation." p 6.; LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc.

⁵³ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 122.

⁵⁴ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. p 27.

⁵⁵ IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*. p 30.

⁵⁶ Ibid. p 109.

⁵⁷ Ibid. p 109.

health facilities; strengthen social welfare programs; and develop support systems, such as health management information systems and logistics management systems. Additionally, the MOHSW seeks to strengthen health financing, with the aim of achieving the target of 15 percent of the national budget directed to public health. The MOHSW has established partnerships with USAID for a Rebuilding Basic Health Services project, as well as the United Nations Children's Fund (UNICEF), the World Food Programme (WFP) and others to help implement the National Health Policy and National Health Plan.

3.5 SOCIO-CULTURAL FACTORS

Land. Access to and ownership of land has been a contentious issue in rural Liberia for decades, providing rationale for various parties to participate in the long war, especially in the most productive breadbasket of the country, Lofa and Nimba Counties. The lack of coherent policy foments confusion about access to land related to concession holdings. Few agricultural producers possess any form of land tenure security. Smallholder farming households can access land according to five different types of land holding or land tenure arrangements:⁵⁸

- Land deed holdings, providing farming households with relatively secure land tenure
- Customary occupation, providing farmers with relative land security within the traditional community decision-making process
- Land rental, leasing and even sharecropping arrangements, providing farming households with little security and knowledge that conditions of access to land and production from the land could change
- Land borrowing arrangements by non-local farmers who provide a portion of their harvest to the land owner in a type of sharecropping arrangement
- Land squatting, the least secure form of access to land

Rural households acknowledge that access to land is growing more problematic in an era of transition from customary occupation to land as private property. The phenomenon of landlessness, which was unheard of in past decades, is increasing in Liberian rural communities. During discussions with communities on the subject of land tenure, the FSCF assessment team encountered rancorous conversation about land trends. In one community, all of the communal land had been transferred to an absentee individual, who demanded payment in kind for the use of the land. Other communities registered displeasure that individuals were settling and purchasing communal land, resulting in conflict over land and uncertainty about land access by community members. The GOL is apparently currently working on producing land reform legislation, but until effective implementation, land tenure appears to be an intractable problem.

Access to land is a gendered issue as well. Liberian law grants women the same rights as men to inheritance and legal access to land is supposed to apply within customary as well as statutory law. The reality, however, is that women currently lack equal access to customary law. Only 56 percent of female-headed households have access to land for

⁵⁸ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, volume 1: Synthesis Report*. pp 23-26; FSCF assessment team discussions with farmers.

cultivation; national land access is now 88 percent. Women heading households are unable to contribute labor within the communal *kuu* system (discussed in **Section 4.3**), restricting their access to the communal land disbursement system, which is controlled by a patriarchal community social-political structure.

Gender.⁵⁹ Although the GOL is taking steps to improve gender equity,⁶⁰ it remains widely prevalent in Liberia. Only four out of 10 women are literate while the male literacy rate is 70 percent. Poverty and food insecurity is most insidious amongst female-headed households, smallholder farmers with insufficient and poor quality land, and rural laborers. In particular, women lack access to employment opportunities; resources such as land, capital, technologies, skills and information; and basic services, including health, education and infrastructure. As women constitute most of the smallholder producers (60 percent), are invariably solely responsible for household production and reproduction, and conduct 80 percent of the rural trading activities, they have heavy work obligations that preclude other livelihood opportunities.⁶¹

Unequal access to services, resources and assets is the norm across all sectors throughout Liberia. Girls are less likely to attend school than boys, a disparity that increases in secondary school, and twice as many women as men are illiterate. Except for the very top, women are underrepresented at all levels of government. Fewer women than men are employed and women are paid less and are less likely than men to be paid for their work. Of the married women who earn income, 76 percent either control their own income or jointly control it with their husband; 23 percent have no control over their own income. Urban women (28 percent) are more likely than rural women (19 percent) to control their own income and 35 percent of women in the poorest quintile do not control their own income.⁶²

In terms of household decision-making, less than half (47 percent) of married women participate in three key household decisions: borrowing money, making major household purchases and visiting family. Younger and rural women are least likely to participate in these key decisions.⁶³

Gender-based violence is a serious problem in Liberia amongst all socioeconomic and cultural groups. More than half (59 percent) of women believe that there are circumstances that justify a husband beating his wife; women who are married, less educated, poor and rural-dwelling are more likely to agree. Interestingly, only 30 percent of men think that they are justified in beating their wives.⁶⁴ Men normally

⁵⁹ *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.

⁶⁰ *Gender equity* considers the difference in women's and men's lives and recognizes that different approaches may be needed to produce outcomes that are equitable. (*Gender equality* refers to women and men being treated the same way. However, equal treatment may not produce equitable results, because men and women have different life experiences).

⁶¹ IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*.

⁶² LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 206-208.

⁶³ *Ibid.* p 209-213.

⁶⁴ *Ibid.* p 213-215.

maintain control of the marital relationship; over half of women reported that their husband displays at least three controlling behaviors.⁶⁵

Nearly half (45 percent) of women over the age of 15 have experienced violence, most often falling victim to a current or former spouse or partner, but also to parents and step-parents. Of married women, almost half have experienced spousal violence and over 60 percent come from a family where their father beat their mother. Almost 10 percent of women report that their first sexual experience was against their will and 18 percent of women have experienced sexual violence, most often by a current or former intimate partner. Eight percent reported falling victim to soldiers or police.⁶⁶ With sexual and gender-based violence so pervasive, it is important to understand how it affects food security, yet data on this relationship is lacking.

The limited role of women in different aspects of Liberian society undermines their ability to achieve adequate household food security and nutrition. The National Food Security and Nutrition Strategy notes that women have limited access to household resources but are central to providing household food security as caregivers, food preparers, food producers and marketers. Limited access to household resources and limited participation in household decision-making exacerbate food insecurity and undernutrition.

The National Women's Conference in May 2008 outlined a National Action Plan for Women 2008-2011 that covers activities under each of the four pillars of the Liberia Poverty Reduction Strategy (PRS) – National Security, Economic Revitalization, Governance and the Rule of Law, and Infrastructure and Basic Services – as well as the cross-cutting PRS areas of environment, peace-building, and children and youth. This action plan seeks to improve the status of women in Liberia by building capacity at the Ministry of Gender and Development (MOGD); increasing women's participation in the security sector and creating more gender-sensitive security services; providing women entrepreneurs and farmers with access to financial services, business management and new technologies and increase women's role in the formal sector; encouraging women's advancement in leadership and decision-making positions in government; conducting constitutional and legal reforms to promote gender equality and women's rights; promoting women's equality and access to education and improved literacy; improving women's control over health care and health care access through information dissemination, availability of options, decision-making over traditional practices and creating gender-sensitive health care; increasing the involvement of women in household decision making and environmental management; actively involving women in conflict resolution and peace-building activities; and engaging young women and girls in civic responsibilities.

3.6 KEY STAKEHOLDERS AND PARTNERSHIPS

A great deal of food security and related development programming has commenced in Liberia in recent years, especially since the end of the conflict. The Ministries of

⁶⁵ Ibid. p 232.

⁶⁶ Ibid. p 228-230.

Agriculture, Health and Social Welfare, Planning and Economic Affairs, and Gender, among others are all engaged in developing strategies that include activities to improve food security in the country. Liberia, however, does not have sufficient funds to support all of the necessary activities, although the government receives a great deal of support from outside agencies. Multilateral donors including UN Agencies such as UNICEF, WFP, Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP), the International Fund for Agriculture Development (IFAD) and the World Bank as well as the African Development Bank (ADB) and the European Commission (EC) are all actively involved in Liberia. The largest donor is the USG, which invested almost 100 million USD in Liberia in 2007. Other bilateral donors include Irish Aid, the German Agency for International Development (GTZ) and the Department for International Development (DfID). The government is actively involved in coordinating donor activity and has established a Joint Commission on Food Security and Nutrition in collaboration with UN Agencies. Ideally, any food security activities undertaken would be in coordination with these agencies and programs, particularly with the Food Security and Nutrition national program.

4. FOOD SECURITY AND FOOD INSECURITY IN LIBERIA

This section begins with an overview of food security at the national level in Liberia, describing the major constraints to food availability, access and utilization, and the risks and vulnerabilities that affect food security. An attempt has been made to discuss food security differences across Liberia, although few recent studies have disaggregated food security, poverty or nutrition data by county or other geographic vicinities.

4.1 FOOD INSECURITY IN LIBERIA

Liberia is now emerging from years of a serious food crisis of multi-factorial causation. The longstanding nature of food insecurity in Liberia manifests itself as high prevalence of chronic malnutrition, as 39 percent of children under 5 are stunted according to the 2007 Liberia Demographic and Health Survey (LDHS). Underweight and wasting rates in 2007 were 19 percent and 7.5 percent, respectively, with 2.8 percent severely wasted.⁶⁷ However, global acute malnutrition (GAM) and severe acute malnutrition (SAM), which are responsive to short-term changes, have likely improved in recent years. Preliminary data from the 2008 Food Security and Nutrition Survey, conducted by the GOL and UN partners, indicated that 4.9 percent of children suffered from GAM and 1.1 percent suffered from SAM.⁶⁸ Approximately 40 percent of the population (1.3 million people) has food consumption levels that fall below the threshold to meet minimum energy requirements.⁶⁹ Data from various surveys and assessments do not point to an ongoing acute food crisis; rather malnutrition trends in Liberia indicate continued chronic food insecurity.

⁶⁷ Ibid. p 137.

⁶⁸ GOL and WFP. 2009. "Liberia Food Security and Nutrition Survey, 2008." PowerPoint presentation. slide 16.

⁶⁹ FAOSTAT. June 2008. "Prevalence of Undernourishment in Total Population, Liberia, 2003-2005." <http://www.fao.org/economic/ess/food-security-statistics/en/>.

With the collapse of the mining and timber sectors, the agriculture sector is of prominent importance to Liberia's economy and to most of Liberia's households, contributing 44 percent of the gross domestic product (GDP) and more than 90 percent of export earnings. Rubber dominates the export sector, contributing more than 90 percent of Liberian exports.⁷⁰ Relying overwhelmingly on one resource-based export crop, the Liberian economy is highly vulnerable to international price fluctuations. Also, rubber plantations are acknowledged to be in decline, which will negatively impact export earnings in the future. Approximately seven out of 10 Liberian households rely on agriculture as their major livelihood strategy; nearly half (49 percent) of all Liberian households actually produced crops in 2005.⁷¹ More than two-thirds of cultivating households planted rice and cassava. Only one-fifth of farming households planted any vegetables, and other crops, such as corn (or maize), plantains or sweet potatoes featured on only approximately 10 percent of farms. Nevertheless, domestic rice production, Liberia's most important food crop, declined to approximately one-third the level of production experienced prior to the war in the mid-1980s. Tangentially, cassava production, Liberia's second-most important crop and an essential "less preferred" staple that also provides households with a green vegetable in the form of the leaves, has increased over the past two decades.⁷² The most recent food production trends are illustrated in **Table 2**, which indicates that Liberia continues to heavily depend on imports, which provide approximately 40 percent of the aggregate cereal requirement for Liberia. National rice production currently meets only one-quarter of food consumption needs.

TABLE 2: RECENT RICE/CASSAVA PRODUCTION TRENDS AND CEREAL BALANCE SHEET⁷³

	US FY	2004	2005	2006	2007	2008 (EST)
Production in metric tons (MT) (milled cereal equivalent)	Rice	66,000	96,000	84,649	96,000	96,000
	Cassava	226,650	226,650	226,650	226,650	226,650
	Taro	6,360	6,360	6,360	3,741	6,235
	Other	37,001	37,001	37,001	37,001	37,001
	Total	366,011	366,011	354,660	363,392	365,886
Commercial imports in MT (milled cereal equivalent)	Rice	192,304	225,000	164,966	179,250	200,000
	Wheat	13,000	26,000	32,000	36,000	36,000
	subtotal	205,304	251,000	196,966	215,250	236,000
Food aid imports in MT (cereals)	Subtotal	61,322	46,856	39,016	26,318	21,428
Total cereal imports in MT	Total	266,626	297,856	235,982	231,568	257,428

⁷⁰ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume I: Synthesis Report*. p 10.

⁷¹ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006.

⁷² MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume I: Synthesis Report*. p 34.

⁷³ CRS. 2008. *Liberia Food Commodity Market Analysis*. p 22; GOL et al. July 2008. *The Impact of High Prices on Food Security in Liberia: A Joint Assessment*. p 14.

4.2 GEOGRAPHIC DISTRIBUTION OF FOOD INSECURITY IN LIBERIA

The GOL, FAO, WFP, UNICEF and a few NGOs conducted two food security surveys in part to identify the geographic distribution of food security, food insecurity and vulnerability throughout Liberia. The first, the Joint Comprehensive Food Security and Nutrition Survey (CFSNS), was conducted in 2006. The second was followed up in 2008, entitled the Liberia Food Security and Nutrition Survey (LFSNS).

The CFSNS created a food security profile consisting of food consumption and food access scores.⁷⁴ Approximately half of all households were classified as having poor or borderline food consumption, with the worst food consumption scores found in River Gee, Grand Gedeh and Lofa Counties. The CFSNS classified nearly half of all Liberian households as having very weak food access – 21 percent of the sample exhibited low production and low purchasing power – or weak access to food – 26 percent of the sample were characterized by medium production levels combined with low purchasing power. Only 9 percent of the total rural population was food secure in 2006 and 11 percent was food insecure. The other 80 percent of the population was classified as highly vulnerable or moderately vulnerable, defined as insufficient food access and/or food consumption. Households residing in Lofa, Bomi and Grand Kru exhibited the worst food access profiles. The aggregate food consumption and food access scores indicated the highest degree of food insecurity and vulnerability in Lofa County, followed by the Southeastern counties of River Gee and Grand Kru. Gbarpolu and Bomi were also relatively food-insecure. Nimba and Sinoe households were vulnerable to food insecurity.

Preliminary findings from the LFSNS indicate that food insecurity did not decline in rural Liberia between 2006 and 2008 despite improvements in agricultural production and livelihoods opportunities since the end of the war, but did improve in specific regions of the country, notably Lofa, Gbarpolu and Bomi. Approximately half of all rural households remain food insecure or highly vulnerable to food insecurity (comparisons to the earlier survey are presented in **Table 3**). Taken together, both surveys indicate fairly unambiguously that rural food insecurity is most profound in the relatively isolated Southeast corner of the country, characterized by low market integration. Households in Lofa, which was heavily affected by the war including a large displacement of the population, were recovering by 2008, largely through agricultural rehabilitation efforts, resulting in a higher food security status than two years earlier. Households in Bong and Nimba, where agricultural recovery has been slower, however, remain highly vulnerable to food insecurity.⁷⁵

⁷⁴ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. pp 37-44.

⁷⁵ GOL and WFP. February 2009. *Preliminary Findings: Liberia Food Security and Nutrition Survey*, August/December 2008. Draft. pp 2-3.

TABLE 3: HOUSEHOLD FOOD INSECURITY BY GEOGRAPHIC REGION – 2006⁷⁶ AND 2008⁷⁷

TYPE OF HOUSEHOLD	HIGHLY CHRONIC FOOD INSECURE HOUSEHOLDS		HIGHLY VULNERABLE AND TRANSITORY FOOD INSECURE		MODERATELY VULNERABLE AND TRANSITORY FOOD INSECURE		FOOD SECURE HOUSEHOLDS	
	CFSNS (2006)	LFSNS (2008)	CFSNS (2006)	LFSNS (2008)	CFSNS (2006)	LFSNS (2008)	CFSNS (2006)	LFSNS (2008)
National	11%	13%	40%	36%	41%	40%	9%	12%
Region/County								
North Central Interior Region	8%	23%	45%	50%	42%	20%	5%	7%
Bong	8%		42%		42%		8%	
Nimba	9%		47%		41%		3%	
Northwest Interior Region	18%	8%	48%	48%	29%	39%	5%	5%
Bomi	13%		54%		31%		3%	
Gbarpolu	18%		42%		34%		7%	
Lofa	28%		48%		21%		3%	
Central Coast	4%	40%	35%	30%	53%	20%	8%	10%
Grand Bassa	2%		35%		57%		6%	
River Cess	6%		35%		50%		9%	
Northwest Coastal	5%	7%	26%	27%	50%	46%	19%	20%
Cape Mount	2%		16%		57%		26%	
Margibi	5%		28%		49%		19%	
Montserrado	10%		35%		43%		13%	
Greater Monrovia	3%	8%	10%	15%	20%	29%	66%	48%
Southeast A Interior Region	15%	23%	46%	50%	35%	22%	4%	5%
Grand Gedeh	10%		39%		44%		7%	
River Gee	20%		52%		26%		1%	
Southeast B Coastal Region	9%	11%	48%	45%	36%	36%	7%	8%
Grand Kru	14%		58%		26%		2%	
Maryland	6%		41%		44%		9%	
Sinoe	8%		44%		39%		10%	

⁷⁶ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006.

⁷⁷ GOL and WFP. February 2009. *Preliminary Findings: Liberia Food Security and Nutrition Survey, August/December 2008*. Draft.

4.3 FOOD AVAILABILITY

In the years following the cessation of conflict, farming households in rural Liberia have substantially increased their access to land. In 2005, 66 percent of farming households were able to access land for cultivation, but by 2008 nearly nine in 10 farming households (88 percent) were able to access land for cultivation, contributing to improved agricultural production.⁷⁸

TABLE 4: LAND HOLDINGS FOR CULTIVATION BY COUNTY⁷⁹

	MEAN FARM SIZE (ACRES)	% OF HOUSEHOLDS WITH:				
		ACCESS TO LAND	INCREASED HOLDINGS SINCE THE WAR	PLOT WITH DEEDS	PLOT/ COMMUNITY LAND - NO DEEDS	SQUATTER AGREEMENT
Bomi	1.8	68%	24%	33%	55%	11%
Bong	3.5	66%	15%	22%	62%	10%
Gbarplou	2.3	67%	34%	17%	70%	13%
Grand Bassa	3.8	81%	24%	6%	78%	14%
Grand Cape Mount	2.8	52%	32%	60%	24%	14%
Grand Gedeh	2.8	88%	22%	10%	78%	9%
Grand Kru	1.9	76%	63%	0%	99%	0%
Lofa	5.4	88%	36%	0%	97%	2%
Margibi	3.0	46%	22%	52%	24%	17%
Maryland	2.8	70%	33%	5%	73%	9%
Montserrado	3.8	39%	47%	26%	43%	25%
Nimba	2.6	72%	27%	48%	46%	5%
River Cess	4.2	76%	21%	6%	79%	15%
River Gee	1.9	90%	23%	1%	89%	9%
Sinoe	2.7	83%	59%	3%	91%	5%
National Average	3.3	66%	31%	20%	67%	10%

The most dramatic improvement occurred in Lofa, one of the major Liberian breadbaskets, where 95 percent of rural households cultivated food crops in 2008, as compared to only one-third of rural households three years earlier. Lofa farmers cultivate their crops on substantially more land – 5.4 acres on average – than other regions of the country. However, such improvements should be understood in relative terms. Less than three-quarters of farmers cultivate food crops. Liberia remains dependent on food imports because farming households remain constrained from producing anywhere near their potential, as is explained further below. The next MYAP should promote interventions to increase agricultural productivity, production and market linkages.

⁷⁸ GOL, Liberia Food Security and Nutrition Survey, 2008, p.3

⁷⁹ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume 1: Synthesis Report*. p 24; GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*.

Most Liberian farmers cultivate tree crops (typically rubber) combined with food crops (typically rice) and vegetables, relying on rainfall as their only source of irrigation and in uplands within a forest-based system. Farmers in the Northwest (Lofa) also grow root crops, typically cassava, with rice and other cereals. The war substantially disrupted agricultural production in Lofa, where the vast majority of households were displaced and only returned in 2005-06. Lofa is considered one of the most important Liberian breadbaskets. A third farming system along the coast is characterized by fishing as the major activity supported by some mixed cropping.⁸⁰ The major crops include rice, rubber, palm oil and cassava. Upland rice production is complemented by maize, cassava, bananas or plantains, vegetables and sometimes groundnuts in a mixed farming system. Much of the analysis below includes discussion of the first two farming systems, which should be the emphasis of the next MYAP.

FIGURE 1: MAJOR FARMING SYSTEMS IN LIBERIA



Adapted from FAO Country Profiles and Mapping Information Services (2006)

Women produce approximately 60 percent of all agricultural products⁸¹ but are essentially involved in food crop production, including the major staple foods of rice and cassava as well as other crops such as beans, peanuts and vegetables. Men remain primarily responsible for producing cash crops, such as rubber and sugar cane, and also participate in major phases of the rice and cassava production cycle. Men take charge of

⁸⁰ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume 1: Synthesis Report*. pp 31-35; FSCF assessment findings.

⁸¹ IMF and GOL. July 2008. *Liberia Poverty Reduction Strategy*. p 165.

clearing, felling trees, brushing and fencing the land in preparation for rice and cassava production, while women provide most of the labor inputs involved in planting, scratching, weeding and harvesting. Women generally do the marketing of the agricultural products, both buying and selling. Eighty percent of rural trade is conducted by women.⁸² Women as well as men engage in fishing in areas of the country where fishing represents a major source of income; women tend to take responsibility for inland fishing while it is predominantly men who engage in ocean fishing.

Smallholder agricultural producers in Liberia have experienced tremendous shocks as a result of the war, the recent food crisis and a process of livelihood erosion induced by several key factors:

Low Agricultural Productivity. Cultural agricultural production systems are not dynamic and lack innovation. Yields for all types of crops are invariably low, a result of several interrelated factors, including poor access to inputs, poor agricultural techniques including low use of improved varieties, and frequent pest attacks. Once harvested, farming households suffer high post-harvest losses and few marketing opportunities. In most years, Liberian farmers apparently produce approximately one metric ton (MT) of rice per hectare (ha), which is one-quarter of typical yields elsewhere in the region,⁸³ although some years are far worse than that. WFP and FAO estimated the 2005-06 rice harvest and cassava harvest to be 0.4 MT/ha and 6 MT/ha respectively.⁸⁴ Despite the lush rainfall patterns, few farmers produce more than one crop per year; most farmers should be able to undertake annual double-cropping.

Low crop productivity in Liberia has several causes. Farmers access poor quality seeds and rarely access other agricultural inputs, such as fertilizer. Fertilizer – usually compound fertilizers, urea and super-phosphate – is imported from neighboring countries at high distribution cost, severely limiting its accessibility by Liberian farmers. Few farmers can access mechanized equipment such as chainsaws for clearing the land, tractors for cultivation or even power tillers. Farmers told the FSCF assessment team that non-mechanized tools are difficult to access for many rural households. Farmers are not organized to effectively access vital agricultural inputs (or their outputs for that matter). Virtually no smallholder producer can access financial capital to invest in the key agricultural inputs of high quality seeds, tools, fertilizers and irrigation (in the lowlands).

Agricultural crops are beset by frequent pest attacks, including grass cutters (or ground hogs) and various types of birds. WFP and FAO estimate that farmers lost half of their 2005-06 harvest to pests.⁸⁵ Farmers told the FSCF assessment team that incidences of pest attacks have increased since the war, probably because the land-use patterns have dramatically changed and the use of pest control measures has declined. Farmers are unclear about techniques to prevent pest attacks. Many farming households keep their

⁸² Ibid. p 165.

⁸³ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume I: Synthesis Report*. p 42.

⁸⁴ FAO and WFP. February 2006. *Crop and Food Security Assessment for Liberia*. p 23.

⁸⁵ Ibid. p 18.

children out of school during crucial times in the production cycle so that they can guard the crops against pests. The forest zone is forbidding for oxen or cows and farmers have no experience using draft oxen for cultivation anyway. The FSCF assessment team encountered virtually no cows or oxen during visits to the breadbasket of Lofa, Bong and Nimba. Most smallholder farmers, who rarely interact with government extension agents, engage in inadequate crop management practices.

Declining terms of trade. Agricultural producers were spending more on their livelihood needs relative to income garnered from their production over time. Poor rural households spend approximately two-thirds of their incomes on food, a good indicator of food insecurity; in comparison urban households spend approximately half of their expenditures on food.⁸⁶ School fees constitute another 16 percent of household expenditures.⁸⁷ As a result, the rural poor cannot afford to invest in productive inputs or assets for agriculture or other rural enterprises. Fertilizer prices are beyond the reach of most farming households. Although most smallholder farmers cultivate rice as the most important crop, few farmers sell rice for income. Because prices are low, storage is poor and marketing is inefficient, agricultural production is characterized by subsistence production. Cash crop production provides some farmers with income-earning opportunities, as do contract or day labor opportunities which can preclude farming on one's own land. Labor is often a constraint to production.

Labor constraints. Poor rural households, who are highly dependent on agriculture or agricultural labor, including contract labor related to agriculture, are beginning to face severe land and labor constraints which can depress food crop production. The age dependency ratio, which is highly unfavorable, combined with endemic health problems prevent households – particularly female-headed households – from fully engaging their labor for all phases of the production cycle. This is one of the reasons that farms are relatively small. Another is that the *kuu* system, a traditional community-based cooperative work arrangement supporting key phases of the cultivation cycle such as brushing and clearing activities, is gradually declining.⁸⁸ The *kuu* system, which has been very common practice in the Central and North-west regions of the country including the principal agricultural belts of the country, requires farmers to provide food for community labor in support of farming activities. Poor farming households who cannot afford to provide sufficient quantities of food have reduced their area cultivated. Farming households lacking sufficient labor also resort to working as rural laborers on large farms thereby neglecting their own production. The *kuu* system effectively discriminates against female-headed households because women do not participate in clearing land through communal arrangements at the onset of the agricultural cycle; their inability to contribute labor restricts their access to communal land for cultivation. Women complain that men do not participate sufficiently in food crop production cycles. Men are more fully engaged in cash crop production, particularly in palm oil and, where applicable, cocoa, coffee and rubber.

⁸⁶ GOL and WFP. February 2009. *Preliminary Findings: Liberia Food Security and Nutrition Survey, August/December 2008*. Draft. p 4.

⁸⁷ GOL et al. July 2008. *The Impact of High Prices on Food Security in Liberia: A Joint Assessment*. p 32

⁸⁸ FAO and WFP. February 2006. *Crop and Food Security Assessment for Liberia*. p 17; farmer discussions with FSCF team, March 2009.

Increasing soil infertility in the uplands. Most Liberian communities do not describe land as being a constraint to production. Although half the land area is suitable for agricultural cultivation, only approximately 5 percent is actually cultivated annually.⁸⁹ The pressure on land, however, has intensified as a result of increasing population growth and density, which has also produced increasing environmental degradation in the form of soil erosion and deforestation. The Ministry of Agriculture (MOA) told the FSCF assessment team that only 6 percent of available lowlands (or swamplands) are currently used for agricultural production. Some communities complained to the FSCF assessment team that population growth and returning households have limited access to the uplands as well. Almost all agriculture is rain-fed; except for swamplands, few households are able to irrigate even a small portion of their land. Soil erosion has in turn affected soil and agricultural productivity, negatively impacting rural household food security. The increasing scarcity of arable land points to the need for intensified agricultural productivity.

Global climate change and overexploitation of the land have combined to increasingly deplete soil fertility, severely affecting productivity over time. Farmers who cultivate small parcels in the uplands or hilly areas increasingly feel compelled to cultivate smaller and less fertile areas of land more intensively, exacerbating soil infertility. The upland non-swamp farming system is dominated by a form of shifting cultivation – ‘slash and burn’ agriculture – which to be successful requires farming households to rotate production on a seasonal and annual basis and maintain fallow lands for up to nine-to-12 years. Farmers, however, are not keeping the land fallow for sufficient periods of time. Farmers in Liberia’s “breadbasket” region of Nimba, Lofa and Bong told the FSCF assessment team that land is typically fallow for only three-to-four years in the current context. Slashing vegetation on the ground and burning the ground on a regular basis will severely affect the future fertility of the soil and cause soil erosion. Frequent vegetation removal on the hillsides intensifies soil erosion. Fertilizer use is invariably absent. In addition, Liberian cultivators have little access to other potentially useful inputs, such as appropriate seeds, institutional credit, training or other extension services.

Climate change also manifests itself in changing rainfall patterns. Farmers reported to the FSCF assessment team that the onset of rains has become unpredictable. The rains are commencing earlier in recent years than in the past, before many farmers have undertaken land burning, clearing or planting. Many farmers are uncertain about when best to plant their crops.

Insufficient swampland production. Upland rice production continues to dominate the Liberian farming system. Nearly two-thirds of all Liberian farmers completely rely on upland rice techniques; only 17 percent of Liberian farmers cultivate their rice production on swamplands; the other 21 percent cultivate on both uplands and swamplands, although even amongst this group upland rice production predominates.⁹⁰

⁸⁹ USAID and CRS. June 2008. *Liberia Food Commodity Market Analysis (Bellmon Determination)*. p 14.

⁹⁰ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006; MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume 1: Synthesis Report*. pp 32-33.

Farmers managing to cultivate land in the lowland swamps where land is more fertile and shifting cultivation is not necessary, invariably plant their crops in undeveloped swamps. WFP estimates that only 5 percent of lowland cultivation is on developed swamplands.⁹¹ Lofa is distinguished by swampland production; Nimba farmers continue to rely nearly exclusively on upland cultivation techniques.

Low crop diversity, which contributes to food insecurity. Households living in areas of the country dependent on rice and cassava production as the only crops are more food insecure than households living in areas with more diversified food sources. The poor road conditions affect agricultural diversification because perishable crops such as vegetables and fruits are riskier to transport and market. Farmers also lack access to quality seed, particularly crops other than rice such as peanuts and local soybean varieties. Rice production accounts for 37 percent of the value of food consumption and fully half of all daily caloric intake throughout Liberia. The high proportion of rice cultivation and consumption has led to a diet that has historically been low in protein and micronutrients. Most households that run short of rice lack alternative sources of food from their own production. The recent global price crisis severely affected Liberian rice consumers, who experienced a 22 percent price increase in the food basket in the one-year period of 2007-08.⁹²

Post-harvest losses. Food storage is poor. Lacking food storage systems, farming households store their crop harvests in sacks at home where rain leakage, termites, other insects and especially rats can fairly quickly deplete stocks. For that reason, harvests are never stored very long and must either be sold early at unfavorable prices or consumed. Farmers told the FSCF assessment team that they incur losses of 25-50 percent of their harvest resulting from poor food handling and drying techniques, transporting the harvest to the household store (normally just on a platform above the living area in a house), food processing, food storage (subject to rat infestation), packaging and transport to local markets. Farmers lost 19 percent of their harvest from processing and storage alone during the 2007 cultivation season.⁹³ Cassava production in particular suffers from high pest losses and plant diseases, particularly the mosaic virus. Poor handling, storage, packaging and transportation plague vegetable farming; vegetables are highly perishable.

Scarcity of livestock. Livestock production has declined dramatically in recent years, a result of the conflict. Many livestock were stolen by both sides of the conflict; others perished. Traditionally, women look after poultry (although they do not necessarily control poultry production decisions). Cattle and small ruminant rearing is the domain of men throughout much of the country, although women look after sheep and goats in the central and northwest regions. Today a majority of rural Liberian households own no livestock. The MOA believes that livestock production could be increased substantially, given the current low animal density and availability of existing

⁹¹ FAO and WFP. February 2006. *Crop and Food Security Assessment for Liberia*. p 17.

⁹² GOL and UN. June 2008. "Government and Joint Programme on Food Security and Nutrition." Program Description. pp 6-7.

⁹³ Action Against Hunger. May 2008. *Surge in Basic Commodity Prices: Liberia Case Study*. p 14; GOL. June 2008. *Response of Liberia to Global Food Price Increases*.

pastureland.⁹⁴ Veterinary services, however, are non-existent; virtually no trained technical veterinary officers serve rural Liberia. Like the crop production wing of the MOA, the livestock service lacks competent trained extension officers to serve rural communities. None of the communities visited by the FSCF assessment team could mention any livestock extension service. Fodder for animal feed is invariably in short supply. Draft oxen, which could be useful for draught animal cultivation, apparently cannot survive in the forest regions. Livestock provide households with critical hedge against shocks or emergencies. Households sell their livestock in response to crises, disasters or to finance other livelihood needs, such as payments for doctor visits or school fees. However, community groups complained about the lack of fodder availability and the absence of veterinary services, hampering their ability to retain livestock.

TABLE 5: LIVESTOCK PRODUCTION ESTIMATES⁹⁵

	1980	1990	2000	2002	2005	ANNUAL GROWTH RATES		
						1980-90	1990-00	2002-05
Cattle	39	38	36	36	25	-0.3	-0.5	-1.2
Sheep/goats	400	450	430	430	435	1.2	0.5	0.4
Pigs	103	120	130	130	131	1.5	0.8	0.5
Poultry	2,620	4,030	4,200	5,200	5,428	4.4	0.4	1.4
Total (LUs)*	106	128	129	139	136	1.9	0.1	-0.5

LU = Livestock Units – cattle=0.5, sheep/goats=0.1, chickens=0.01

Institutional and policy weaknesses. The New Partnership for Africa's Development (NEPAD) set forth a goal in 2003 for all African governments to devote 10 percent of their total expenditures to implement the Comprehensive African Agricultural Development Programme (CAADP), which seeks to eliminate hunger and reduce poverty through agriculture and increase agricultural production in all participating countries by 6 percent annually through 2015.⁹⁶ Although the MOA has increased its budget to more than six million USD, the MOA has substantially fallen short of its goal to increase expenditures sufficiently to join CAADP. USAID considers Liberia to be one of its seven priority countries in Africa and would like to see Liberia become a strong, active CAADP country. It is perhaps telling that the MOA neglects to mention the CAADP goals in its Food and Agriculture Policy and Strategy.⁹⁷

MOA investment in the smallholder sector has been limited. Prior to the war, the MOA apparently had a functional extension service throughout much of the country. Agricultural development projects augmented the MOA extension service in Bong, Lofa and Nimba counties. Although it is expending some effort to support farmers, the MOA's capacity and resources are currently limited. As a result, agricultural extension services are ineffective, inefficient and increasingly nonexistent in most rural areas of the country. Communities visited by the FSCF assessment team unanimously agreed that

⁹⁴ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume 1: Synthesis Report*. p 53-54.

⁹⁵ Ibid, p 53.

⁹⁶ NEPAD/CAADP web site: <http://www.nepad.org/2005/files/caadp.php>.

⁹⁷ MOA. April 2008. *Food and Agriculture Policy and Strategy*.

extension services bypass their villages. The MOA readily admits that they lack the ability to serve rural communities with extension services and until recently has lacked the resources or commitment to provide training, materials or equipment to support extension services. All of these factors have combined to disable the few extension officers purportedly serving rural communities from ever visiting villages or communities.

4.4 FOOD ACCESS

Liberian households access their food through market purchases, income earned from other sources off their own farm and food assistance, as well as from their own production. As of 2006, 87 percent of Liberian households purchased some or all of their rice for consumption; only 17 percent relied on their own production for their household rice consumption.⁹⁸ Although that figure has undoubtedly improved in the last three years, Liberian households rely on purchases for their staples and other food access.

Poor access of smallholder farmers to markets. Liberian producers and traders face an array of factors constraining smallholder access to output as well as input markets. Only a small portion of most farming households harvest is marketed and then only typically in local markets. Because most Liberian traders operate on a very limited scale, experience high transport costs, have limited working capital and prefer to operate in a small territory on a day-by-day basis, they are unable to achieve greater returns to scale or take advantage of market opportunities to generate profits. The rural Liberian communication network is atrocious. Poor road conditions and the lack of feeder roads and telecommunications infrastructure substantially increase transaction costs in many rural areas. Rural Liberia is characterized by low population densities. Most rural feeder roads are impassable during the long rainy seasons. Transportation costs are high for producers and transporters. As a result, markets are difficult to access and do not favor producers, acting as a disincentive to agricultural production. Time to market averages nearly three hours and can require twice that time in geographically isolated communities of the southeastern counties. The economic exchange between urban and rural areas declined precipitously during the conflict and has not returned even close to its pre-war position.

Liberian agriculture value chains. The next MYAP must implement a value chain approach to enable rural households to effectively tackle the several interconnected constraints to production, marketing and ultimately food availability cited above as well as food access. Unfortunately, with the exception of some large-holder agricultural production, value chains for smallholders are currently extremely limited and short for all crop commodities. Many farmers have lost confidence in buyers and traders who are not reliable in the context of serving isolated areas of the country and are confused by government policy. Farmers frequently rely on informal traders to sell their produce, thereby increasing their vulnerability to the vagaries of the market. The lack of economies of scale reduces their bargaining power, increases their transaction costs and

⁹⁸ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006.

enhances their production and marketing vulnerability. Farmers lack reliable market information when making resource – particularly land – allocation decisions and at the marketing stage, when information asymmetries have a significant impact in revenue generation. In addition, one of the challenges in linking poor households to markets derives from farmers’ lack of familiarity with the market economy. Farming communities reported to the FSCF assessment team that producer prices for several products, including rice, were so poor that they prefer to take their chances on storage, despite the predilection for post-harvest losses. Farmers believe that they are at the mercy of traders: after travelling hours with their produce to the market, they feel compelled to sell their produce at whatever price they are offered.

Smallholder farmers are typically primarily subsistence farmers, produce little surplus and face tremendous difficulties in marketing such surplus. Most domestic production is consumed or sold in local markets for low prices. To effectively connect the value chain linkages, the next MYAP Awardees will have to build capacity, facilitate farmer linkages with information sources and input and marketing institutions (including the private sector), and promote improved production and post-production methods and techniques.

Limited income earning opportunities. Rural Liberian households continue to face limited income generating opportunities following the protracted conflict. Unemployment was estimated at 85 percent in 2007 in the formal sector.⁹⁹ **Table 6** indicates a limited economic base with few income earning opportunities in the formal sector. Most households are engaged in food crop production, supplemented by petty trade, irrespective of the major income source. Farming, fishing and natural resource extraction, particularly palm oil, bring in low incomes for rural households. Most women earn less income and face more restricted income earning opportunities than men do, dampening the purchasing power and food access for female-headed households.

A combination of the aftermath of the war, a limited economic base, poor marketing systems, extensive asset losses and a breakdown in social capital has depressed rural income earning options. Communities told the FSCF assessment team that theft incidences had increased. Liberia has also experienced a brain drain, affecting skills and capacities. Social networks have collapsed in communities throughout Liberia, largely a result of the civil war and extensive population displacements. Social customs have restricted women’s access to social capital as well as their mobility. Women rarely participate in the community or household decision-making process, further dampening their access to assets, resources, labor and productive activities, which together impact food security. Extension services for agriculture, livestock, forestry and other productive activities bypass most communities as has been discussed elsewhere, but those that do exist invariably bypass women.

⁹⁹ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume 1: Synthesis Report*. p 13.

TABLE 6: LIVELIHOOD PROFILES AND INCOME EARNING SOURCES¹⁰⁰

PER CAPITA EXPENDITURE USD PER MONTH	LIVELIHOOD PROFILE		SOURCE OF INCOME					
		% OF HH*	MAIN INCOME	%	SECOND INCOME	%	THIRD INCOME	%
17.75	petty trader	12%	petty trade	81%	food crop production	5%	contract work	4%
17.52	employee	5%	Salary from employer	75%	petty trade	12%	food crop production	8%
14.68	contract laborer	10%	contract work	79%	petty trade	6%	food crop production	5%
14.66	charcoal producer	7%	charcoal/ firewood production	72%	food crop production	8%	petty trade	5%
14.42	fisheries worker	4%	fishing	79%	petty trade	6%	food crop production	8%
13.75	rubber tapper	7%	Rubber tapping	75%	petty trade	6%	food crop production	5%
13.64	skilled laborer	3%	Skilled labor	74%	petty trade	8%	food crop production	7%
13.11	hunter	5%	hunting/ trapping	73%	food crop production	8%	processing palm oil	4%
11.84	food crop farmer	15%	food crop production	74%	petty trade	6%	fishing	4%
11.80	cash and food crop producer	6%	cash crop production	62%	food crop production	22%	processing palm oil	5%
11.20	palm oil sellers/ producer	14%	processing palm oil	84%	contract work	5%	petty trade	3%
11.00	palm oil and food crop processors	8%	processing palm oil	49%	food crop production	26%	cash crop production	5%
	other	3%	other activity	82%	petty trade	6%	food crop production	2%

* HH = households

Lack of access to credit and working capital. Few rural households – only those relatively well placed and with sufficient collateral – can access institutionalized credit. The Agricultural Cooperative Development Bank, which provided farmers with loans for investment prior to the war, collapsed with the war.¹⁰¹ The CFSNS found that although half of all rural households had obtained credit in the month prior to the survey, virtually nobody had accessed credit from formal institutions or NGOs; all of the credit derived from friends, relatives or *Susu* clubs, which are rotating savings and credit associations that collect monthly dues from members involved in small businesses.¹⁰² Petty traders lack working capital. The food price increase during the

¹⁰⁰ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. pp 18-20.

¹⁰¹ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume I: Synthesis Report*. p 65.

¹⁰² GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006.

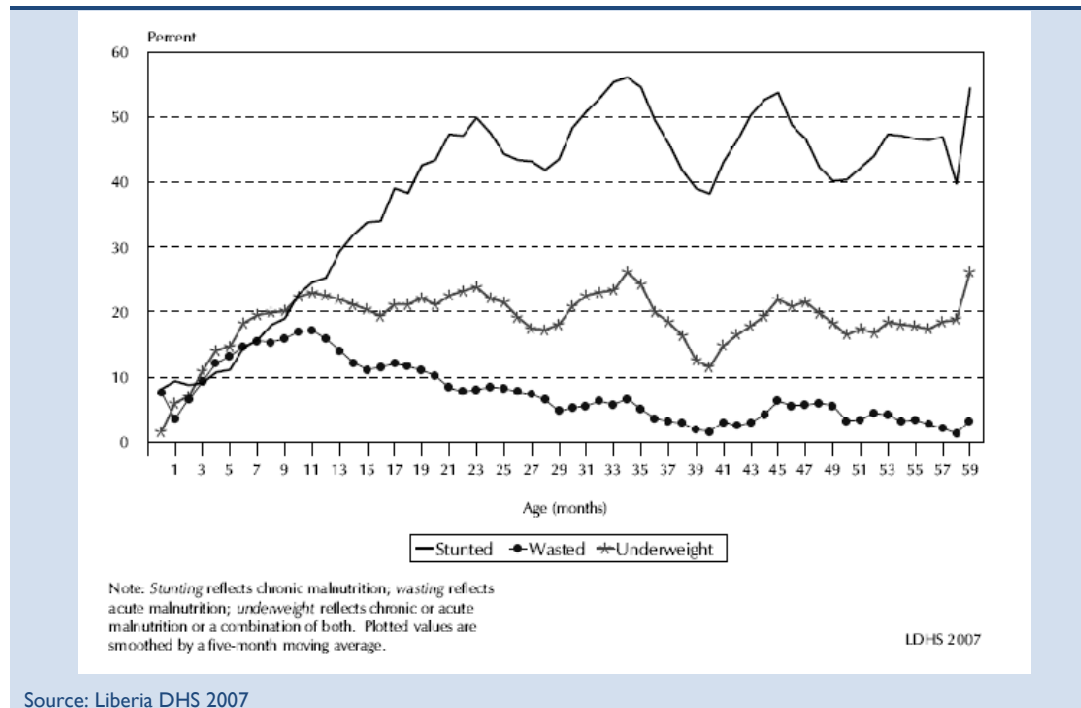
previous two years contributed to difficulties in investing in potential business enterprises.

4.5 FOOD UTILIZATION

4.5.1 Recent Trends in Nutrition of Children and Women

According to the most recent LDHS, over 39 percent of Liberian children are stunted, varying regionally from 30 percent to 45 percent. Approximately half of these children are severely stunted. The LDHS data show that stunting is present at birth among part of the population and prevalence increases dramatically and continually worsens until two years of age at which point it increases gradually before leveling off.¹⁰³ These data are similar to the 2006 CFSNS and 1999/2000 National Nutrition Survey, and are slightly higher than a 1995 UNICEF Multiple Indicator Cluster Survey (MICS) conducted in secure areas during the war, meaning that stunting rates have not improved and may have worsened over the last 10-15 years.

FIGURE 2: NUTRITIONAL STATUS OF CHILDREN IN LIBERIA



Source: Liberia DHS 2007

The 2007 LDHS reported an underweight prevalence of over 19 percent of children under 5 and the March 2006 CFSNS reported 26 percent of children 6-59 months to be underweight, indicating borderline high/serious prevalence of underweight in Liberia. Underweight has been a problem since at least 1999/2000, when the National Nutrition Survey measured 26 percent underweight in children under 5. In Liberia, underweight prevalence steadily increases for about the first year of life, after which prevalence levels off, holding steady through 5 years of age.

¹⁰³ LISGIS, MOHSW, NACP, and Macro International Inc. 2008.. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 137.

Additionally, almost 8 percent of children under 5 were identified as wasted in the LDHS, and almost 3 percent as severely wasted. Regionally, the prevalence varies from 4 percent to almost 10 percent. The prevalence of wasting increases sharply and steadily through about 12 months of age and then begins steadily decreasing through five years. Surveys during the past decade have consistently placed national prevalence of wasting at the “medium” or “alert” level and the rate of severe wasting reported in the 2007 LDHS is alarming. However, recent experiences, including reduced caseloads at therapeutic feeding centers, indicate that prevalence of wasting, which is highly responsive to short-term events, has improved since the 2007 LDHS.

In addition to poor anthropometric indicators, micronutrient malnutrition is problematic in Liberia. The most recent prevalence indicators from the 1999/2000 National Nutrition Survey found that 53 percent of children 6-35 months were vitamin A deficient, compromising their immune systems and putting them at risk of blindness. According to the 2007 LDHS, almost 80 percent of children 6-23 months consumed foods rich in vitamin A in the day or night preceding the survey, including fruits and vegetables, meat and red palm products, with little geographic variation. However, only 43 percent received vitamin A supplementation, a key intervention to reducing vitamin A deficiency, in the six months preceding the survey. Additionally, an extremely high percentage (87 percent) of children 6-35 months had iron deficiency anemia. Only 65 percent of children in the 2007 LDHS had consumed foods rich in iron (varying from 53 percent in North Western to 74 percent in South Eastern B); just 17 percent had received iron supplementation in the previous week and only 45 percent had been dewormed in the previous six months.

Malnutrition is a cross-generational problem affecting many Liberian women of reproductive age as well. Ten percent of women of reproductive age suffer from chronic energy deficiency, indicated by a body mass index (BMI) below 18.5, a prevalence rate considered “medium” by World Health Organization (WHO) standards. In addition, the 1999 National Micronutrient Survey found that 58 percent of women 15-49 years of age and 62 percent of pregnant women in Liberia are anemic. Almost one-third of Liberian girls 15-19 years of age, 42 percent in rural areas, have given birth or are pregnant. Additionally, adolescents have a higher rate of malnutrition (18 percent) than older women. The LDHS indicates that Liberian women eat a fairly diverse diet, with over 94 percent consuming vitamin A-rich foods and almost 80 percent consuming iron-rich foods. There is little variation in consumption among regions. However, only 13 percent of pregnant women take iron/folic acid tablets for 90 days or more (recommendation is 180 days), only 62 percent receive vitamin A post-partum and just 29 percent took deworming medication during pregnancy.

4.5.2 Factors that Influence Child Malnutrition

The continually high, bordering on critical, prevalence of malnutrition among women and children reflects long-term national challenges, including the need for improved water and sanitation, high rates of childhood illness, low access to health care, sub-

optimal care and feeding practices, and poverty.¹⁰⁴ Diarrhea is the number-two killer of children in Liberia, is a major cause of malnutrition and has a high prevalence among children 6-23 months. This is unsurprising considering that water and sanitation access is extremely poor, especially in rural areas, putting entire communities at risk of disease and malnutrition. While few households have access to improved water and sanitation, those with access to latrines often do not use them or only use them in certain seasons. The CFSNS found access to sanitation to be correlated with stunting. Those with functioning wells often do not have a year-round supply of water from the well and will use unsafe sources during the dry season. Despite limited information on hygiene practices, including hand-washing and safe preparation and storage of food, it is clear that limited access to water and the spike in diarrhea rates in children beginning around the time of complementary feeding render hygiene practices to be problematic.

Although malaria is the number-one direct cause of child death in Liberia and an important contributor to the high rates of malnutrition, the 2006 CFSNS found that just 12 percent of children slept under a bednet in the previous 24 hours and only 14 percent of households owned bednets.¹⁰⁵ Meanwhile, less than 60 percent of children with fever were taken to any form of health provider and less than 60 percent of those children receive anti-malarial medication.¹⁰⁶

Sub-optimal care and feeding practices feed into the high malnutrition rates. The LDHS reports that although 95 percent of children in Liberia are breastfed, less than 20 percent are exclusively breastfed through 6 months of age. In fact, less than 40 percent of children under 2 months are exclusively breastfed. In addition, 24 percent received a pre-lacteal feed. A composite infant and young child feeding (IYCF) practices indicator that takes into account the diversity of a child's diet, frequency of feeding and continuation of breastfeeding determined that just 25 percent of children 6-24 months were fed according to a minimum standard of feeding practices.¹⁰⁷

4.5.3 Gender and Nutrition

Women in Liberia 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) determined that in sub-Saharan Africa, higher status of women – defined as “women's power relative to men” – 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.¹⁰⁸

¹⁰⁴ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. p xv.

¹⁰⁵ Ibid. p 51.

¹⁰⁶ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 129.

¹⁰⁷ Ibid. pp 139-148.

¹⁰⁸ Smith et al. 2003. *The Importance of Women's Status for Child Nutrition in Developing Countries*. p xii.

Studies conducted in Uganda, India and Latin America have also linked domestic violence with poor health and nutrition outcomes in children and their mothers suffering the abuse, and domestic violence is often linked to depression and low self-esteem in women. As discussed earlier, Liberia falls very low on the international gender development index. Women in Liberia, especially young mothers, have limited participation in household decision-making and low community and household status as compared to men. And, gender-based violence is endemic. Therefore, it is plausible that the high prevalence of domestic violence in Liberia 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 Liberia is the high rate of adolescent pregnancy. 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 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.

4.5.4 Consequences of Malnutrition in Liberia

Liberia's high prevalence of malnutrition holds serious consequences for its youth. Children suffering from acute malnutrition are at immediate risk of illness and death. Meanwhile, stunting, underweight and micronutrient deficiencies affect children's ability to learn and be economically-productive adults and increase their long-term risk of illness and death. Maternal malnutrition increases mortality risk for mothers and children, may result in pre-term births and/or low birth weight, impairs the cognitive development of the child and reduces work productivity. According the 2007 PROFILES analysis,¹⁰⁹ over 44 percent of deaths of children under 5 in Liberia are attributable to malnutrition; 45,000 children are at risk of death due to malnutrition by 2015 if the situation does not improve. Additionally, because over half of children are vitamin A deficient and 62 percent of pregnant women are anemic, PROFILES predicts that 14,000 children and 4,100 mothers will die between 2007 and 2015 if the situation is not improved.¹¹⁰

The alarming poor nutrition context carries profound consequences for the future of Liberia. Reduced mental and motor skill development in the younger generation will result in compromised ability to learn and lower school performance and completion among the next generation. This, combined with an increased vulnerability to illness and death, will not only affect the well-being of individuals but undermine Liberia's ability to achieve economic development and poverty reduction goals. PROFILES 2007 estimated

¹⁰⁹ PROFILES is an analytical tool that uses scientific evidence and data to quantify the human and economic consequences of malnutrition. The Liberia PROFILES analysis estimated the consequences from 2007-2015, the target years for the MDGs. The PROFILES analysis was informed by the 1999/2000 National Micronutrient Survey, the 2006 CFSNS, the 2007 Greater Monrovia Food Security and Nutrition Survey, and the 2007 preliminary results of the LDHS.

¹¹⁰ PROFILES Analysis. 2007. "Liberia: Investing in Nutrition to Reduce Poverty."

that malnutrition will cause 431 million USD in productivity losses from 2007-2015 if steps are not taken to improve the situation.¹¹¹

4.5.5 Geographic Distribution of Food Utilization in Liberia

As demonstrated in **Table 7**, although food utilization is challenging throughout rural Liberia, the challenges are not equally spread among regions and counties. Overall child malnutrition rates are highest in the North Central region, specifically Bong and Nimba, and in the Southeastern counties of River Cess, River Gee and Grand Kru. Grand Bassa in the South Central region also has particularly high overall child malnutrition rates. The highest rates of stunting are found in Grand Kru, River Gee, Nimba, Bomi, Grand Bassa and Bong. The highest rates of wasting, however, are found in Monrovia.

According to the 2007 LDHS, 10 percent of Liberian women of reproductive age suffer from chronic energy deficiency (CED), and the rates are highest in the North Central and South Central Regions. The 2006 CFSNS, which has the most recent data provided at the county level, indicated CED to be highest among women in Montserrado Grand Bassa, River Cess and Grand Kru counties. Of those counties with the highest rates of malnourished women, all but Montserrado are also included among the counties with the highest rates of child malnutrition.

TABLE 7: NUTRITIONAL STATUS OF CHILDREN

GEOGRAPHIC LOCATION	% CHILDREN UNDER 5 STUNTED (HEIGHT-FOR-AGE < -2 Z-SCORE)		% CHILDREN UNDER 5 UNDERWEIGHT (WEIGHT-FOR-AGE < -2 Z-SCORE)		% CHILDREN UNDER 5 WASTED (WEIGHT-FOR-HEIGHT < -2 Z-SCORE)		% WOMEN 15-49 YEARS WITH CED BMI < 18.5	
	LDHS ¹¹² 2007 (0-59 mo) WHO	CFSNS ¹¹³ 2006 (6-59 mo) NCHS	LDHS 2007 (0-59 mo) WHO	CFSNS 2006 (6-59 mo) NCHS	LDHS 2007 (0-59 mo) WHO	CFSNS 2006 (6-59 mo) NCHS	LDHS 2007 (0-59 mo) WHO	CFSNS 2006 (6-59 mo) NCHS
National	39.4		19.2		7.5		10.0	
Region/County								
North Central Region	44.5		20.0		8.9		11.1	
Bong		42.9		24.3		7.7		7.7
Lofa		31.3		22.1		4.6		7.5
Nimba		45.4		31.4		6.6		11.6
North Western Region	38		15		3.7			9.3
Bomi		43.9		25.7		5.3		11.5

¹¹¹ Ibid.

¹¹² LISGIS, MOHSW, NACP, and Macro International, Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International, Inc. Note: this survey gathered data from children 0-59 months and used the WHO 2006 Growth Standards.

¹¹³ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. Note: This survey gathered data from children 6-59 months and compared them to the National Center for Health Statistics (NCHS) Growth References. This provides the most recent county-level data and is used to indicate trends. However, because it uses different age groups and reference standards, it is not comparable to the 2007 DHS data, which is the most recent nutrition data available.

GEOGRAPHIC LOCATION	% CHILDREN UNDER 5 STUNTED (HEIGHT-FOR-AGE < -2 Z-SCORE)		% CHILDREN UNDER 5 UNDERWEIGHT (WEIGHT-FOR-AGE < -2 Z-SCORE)		% CHILDREN UNDER 5 WASTED (WEIGHT-FOR-HEIGHT < -2 Z-SCORE)		% WOMEN 15-49 YEARS WITH CED BMI < 18.5	
	LDHS ¹¹⁴ 2007 (0-59 mo) WHO	CFSNS ¹¹⁵ 2006 (6-59 mo) NCHS	LDHS 2007 (0-59 mo) WHO	CFSNS 2006 (6-59 mo) NCHS	LDHS 2007 (0-59 mo) WHO	CFSNS 2006 (6-59 mo) NCHS	LDHS 2007 (0-59 mo) WHO	CFSNS 2006 (6-59 mo) NCHS
Gbarpolu		29.6		21.5		2.9		12.6
Cape Mount		32.4		21.2		5.5		7.7
South Central Region	37.7		18.8		8.1		13.1	
Grand Bassa		43.8		32.6		10.3		17.5
Margibi		36.6		25.5		6.9		10.4
Montserrado		31.9		25.3		6.6		28.5
Monrovia	30.1		17.8		9.8		8.0	
South Eastern A Region	39.4		22.6		8.3		9.5	
Grand Gedeh		38.7		30.7		10.5		8.9
River Cess		41.2		33.9		11.3		18.5
Sinoe		42.1		24.0		8.8		10.5
South Eastern B Region	45.2		21.7		8.9		9.8	
Grand Kru		47.3		28.2		5.3		15.7
Maryland		41.3		25.9		5.8		9.5
River Gee		45.8		32.6		8.7		7.1

Bold= Prevalence Above National Prevalence

High rates of malnutrition are often associated with illness, poor access to clean water and sanitation, and poor care and feeding practices. As indicated in **Table 8**, the 2007 LDHS, which reported 20 percent of children under 5 to have had diarrhea in the two weeks preceding the survey, indicates the highest rates of diarrhea to be in the Southeastern B, North Central and South Central regions of the country; the 2006 CFSNS found the specific counties of Grand Kru, Sinoe, Lofa, River Gee and Grand Gedeh to be particularly hard-hit. The LDHS found 31 percent of children under 5 to have experienced fever in the two weeks preceding the survey, with Southeastern B, South Central and North Western regions having the highest prevalence. The specific counties with highest rates of fever were Sinoe in South Eastern A region; Cape Mount in the North Western region; Margibi, Montserrado and Grand Bassa in the South Central; and Grand Kru and River Gee in South Eastern B region.

¹¹⁴ LISGIS, MOHSW, NACP, and Macro International, Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International, Inc. Note: this survey gathered data from children 0-59 months and used the WHO 2006 Growth Standards.

¹¹⁵ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. Note: This survey gathered data from children 6-59 months and compared them to the National Center for Health Statistics (NCHS) Growth References. This provides the most recent county-level data and is used to indicate trends. However, because it uses different age groups and reference standards, it is not comparable to the 2007 DHS data, which is the most recent nutrition data available.

Poor access to water and sanitation increases the risk of illness and is a problem nationwide, especially in rural areas where 76 percent of households have no access to sanitary facilities.¹¹⁶ Households living in the South Central counties of Grand Bassa and Margibi, the South Eastern A counties of Grand Gedeh and Sinoe, and South Eastern B counties of Grand Kru and River Gee have the worst access to sanitation in the country.¹¹⁷ Additionally, 66-68 percent of the country has unsafe water, particularly in Sinoe, Grand Kru, Grand Bassa, River Gee and Gbarpolu.¹¹⁸

TABLE 8: KEY HEALTH INDICATORS BY GEOGRAPHIC REGION

GEOGRAPHIC LOCATION	DIARRHEA PREVALENCE (%) (2 WEEKS PRECEDING SURVEY)		FEVER PREVALENCE (%) (2 WEEKS PRECEDING SURVEY)		HOUSEHOLDS WITH ACCESS TO IMPROVED WATER SOURCES (RAINY/DRY SEASONS)
	LDHS ¹¹⁹ 2007 (0-59 mo)	CFSNS ¹²⁰ 2006 (6-59 mo)	LDHS 2007 (0-59 mo)	CFSNS 2006 (6-59 mo)	CFSNS 2006
National	20	28	31	55	34/32
Region/County					
North Central Region	23		30		
Bong		25		39	45/41
Lofa		42		61	33/25
Nimba		27		47	33/34
North Western Region	10		32		
Bomi		16		52	35/24
Gbarpolu		12		52	16/15
Cape Mount		28		74	42/43
South Central Region	21		36		
Grand Bassa		7		58	10/10
Margibi		35		70	25/25
Montserrado ¹²¹		31		65	47/45
Monrovia	16		26		

¹¹⁶ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. p xv.

¹¹⁷ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. p 28.

¹¹⁸ Ibid. p 28.

¹¹⁹ LISGIS, MOHSW, NACP, and Macro International, Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International, Inc. Note: this survey gathered data from children 6-59 months and used the WHO 2006 Growth Standards.

¹²⁰ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. Note: This survey gathered data from children 6-59 months and compared them to the NCHS Growth References.

¹²¹ Includes Monrovia.

GEOGRAPHIC LOCATION	DIARRHEA PREVALENCE (%) (2 WEEKS PRECEDING SURVEY)		FEVER PREVALENCE (%) (2 WEEKS PRECEDING SURVEY)		HOUSEHOLDS WITH ACCESS TO IMPROVED WATER SOURCES (RAINY/DRY SEASONS)
	LDHS ¹²² 2007 (0-59 mo)	CFSNS ¹²³ 2006 (6-59 mo)	LDHS 2007 (0-59 mo)	CFSNS 2006 (6-59 mo)	CFSNS 2006
South Eastern A Region	18		27		
Grand Gedeh		35		48	43/41
River Cess		22		46	26/22
Sinoe		43		79	9/7
South Eastern B Region	28		42		
Grand Kru		52		65	18/7
Maryland		19		22	65/66
River Gee		36		58	16/15

Access to health care is problematic country-wide, but the regions with the highest percentages of people having at least one problem accessing health care are the North Western (94 percent), South Eastern A (89 percent), South Eastern B (83 percent) and North Central (83 percent) regions.¹²⁴

Care and feeding practices are problematic throughout Liberia, with limited regional variation. Children are exclusively breastfed for a median duration of 0.6 months and this only varies regionally from 0.4-0.7 months. Initiation of breastfeeding varies slightly more with a national average of 67 percent of children fed within one hour of birth and a range of 43-78 percent. Early initiation is least prevalent in South Eastern A (43 percent) and South Eastern B (50 percent) and most prevalent in North Central Liberia (78 percent). The percentage of children 6-23 months fed according to a minimum set of three practices (continued breastfeeding, frequency of feeding and dietary diversity) is quite low nationally at just 25 percent, varying only slightly by region.

4.6 RISKS AND VULNERABILITIES

The discussion in the sections above outlining some major constraints to food security, food availability, access and utilization reveals several powerful indicators of vulnerability that may be useful as community vulnerability indicators. The following seven indicators, which could be considered when devising community and household targeting mechanisms, may be the most salient:

¹²² LISGIS, MOHSW, NACP,, and Macro International, Inc. 2008. *Liberia Demographic and Health Survey 2007*. Monrovia, Liberia: LISGIS and Macro International, Inc. Note: this survey gathered data from children 6-59 months and used the WHO 2006 Growth Standards.

¹²³ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. Note: This survey gathered data from children 6-59 months and compared them to the NCHS Growth References.

¹²⁴ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 122.

- **Sex of household head.** Female-headed households are predominant amongst the most vulnerable rural households.
- **Residence patterns.** A higher proportion of recently-returning and internally displaced households are amongst the most vulnerable households.
- **Household dependency ratio.** Households with poor age dependency ratios have fewer income-earning or agriculture-producing opportunities relative to non-producing members of the household and are consistently amongst the most vulnerable to food insecurity.
- **Access to land.** Landless rural households, a growing phenomenon, are highly vulnerable to food insecurity; access to lowland is a tangential indicator of vulnerability.
- **Access to other assets.** This includes livestock.
- **Number of meals per day.** The most vulnerable households usually only eat one or two meals, particularly during “hungry seasons,” such as prior to the harvest.
- **Dietary diversity.** Food consumption scores indicate that nutrient content is highly problematic for vulnerable households.

In addition, rural communities face other risks and vulnerabilities that will require monitoring systems as an integral component of a potential MYAP. The major risks, which proportionally affect the most vulnerable groups of households, communities and counties, include:

- **Conflict and displacement.** Although hope is high that Liberia will remain conflict-free under a stable government, the population consists of 15 ethnic groups and outbreaks of ethnic conflict are possible in upcoming years. Conflict in neighboring countries could affect vulnerability and food security within Liberia.
- **Pest attacks.** Farmers have reported more varied and more intense types of pest attacks on their crops since the culmination of the civil war. Pest attacks can destroy large portions of agricultural production.
- **Conflict over land.** Farmers are clearly growing worried over changing land tenure patterns, which could affect access to land for cultivation, especially lowlands or swamplands. Land conflict has a potential ethnic component as well in many localities.
- **Rainfall unpredictability.** Unlike many other African contexts where drought and desertification threaten the livelihoods of people living off the land, most of Liberia is blessed by an abundance of rainfall. However, rainfall patterns are becoming more unpredictable, providing farmers with difficult decisions about appropriate land preparation and planting times.
- **Food price crisis.** The international food price crisis of 2007-08 severely impacted many Liberian households and communities, especially because Liberians purchase such a large amount of their staple requirements. Another food inflation crisis in future years could trigger transitory food insecurity on a large scale.
- **Unforeseen disease epidemic.** HIV/AIDS prevalence rates are currently relatively low in Liberia (1.5 percent of the population), but prevalence rates

could potentially explode in future years if preventive measures are not promoted on a wide scale.

Based on the risks cited above and vulnerability to chronic food insecurity, the rural Liberian households most vulnerable to food insecurity and therefore the most likely to be targeted in the next MYAP include:

- Households headed by women
- All children under 2, given the high rates of chronic malnutrition in Liberia
- All pregnant and lactating women, given the malnutrition rates as well as extremely high MMRs
- Households characterized by high age-dependency ratios
- Households with aged or disabled household heads
- Landless households
- Households lacking access to assets, including livestock

5. CURRENT LIBERIA FOOD SECURITY STRATEGIES AND PROGRAMS

A great deal of food security program activities and strategic thinking has commenced in Liberia since the ending of the war. Ministries, donors, UN agencies and NGOs are collaboratively developing policies, setting up systems, rebuilding badly damaged infrastructure and investing in the human resource capacity of the country. Much work needs to be done but many policies and strategies to guide this work have recently been developed or are being developed. **Table 9** provides a summary of current programs and strategies currently being undertaken in Liberia.

The GOL development strategy for the next few years revolves around the Liberia PRS, which centers on fulfilling four pillars: Peace and Security Consolidation, Economic Revitalization, Good Governance, and Infrastructure and Basic Services Rehabilitation. UN agencies have committed to working with the GOL on this strategy and through the Joint Program on Food Security and Nutrition. USAID's newly-formulated Strategic Plan (currently under development) closely parallels the GOL PRS, focusing on the broad program areas of peace and security, rule of law and democratic processes, economic opportunities and equity, and health and education services. The USG has a large presence in Liberia and continues to be the most important donor and contributing foreign institution to Liberia's development.

5.1 GOVERNMENT OF LIBERIA STRATEGIES, POLICIES AND PROGRAMS

Since peace was declared in 2003 and free and fair elections were held in 2005, Liberia has refocused its national efforts from stabilization to creating long-term, sustainable economic growth and development. The GOL has developed several new strategies and policies related to improving food security and reducing poverty which are based on the four pillars of the PRS. The PRS, building on the work of a 150-day action plan and an interim PRS, aims to create opportunities for all Liberian citizens with rapid and

equitable economic growth in order to maintain peace and stability. It will do this by establishing mutually-reinforcing policies in different sectors. The GOL has encouraged all donor and partner agencies to align their activities with the PRS and has developed several policies and programs in the agriculture, health and financial sectors based on the PRS.

Newly-instituted policies have led to the rebuilding of security forces, the return of displaced people, demobilization and reintegration of ex-combatants, strengthening of public finance systems, government accountability reforms, the creation of debt-resolution strategies, and anti-corruption activities. In coordination with major donors – notably USAID – and UN agencies, the GOL has initiated the rehabilitation of roads and bridges, power supply and schools; restored services to health facilities; and increased immunization. Expanded descriptions of these strategies and policies are in **Table 9**.

TABLE 9: GOL, USAID, UN AND OTHER PROGRAMS AND POLICIES IN LIBERIA

STRATEGY/ PROGRAM	DATES	OBJECTIVES AND INTERVENTIONS	RESPONSIBLE
Government of Liberia			
National Food Security and Nutrition Strategy	June 2007	<p>Key Objectives:</p> <ul style="list-style-type: none"> • Enough food is available at all times in all communities. • Households can access available foods through own production or the market. Safety net programs will be available in case of production or market failure. • Food can be properly utilized to enhance and maintain nutritional status. <p>The strategy recognizes food security as a right of all Liberians and prioritizes vulnerable groups. Key target groups are infants and children under 5 years and pregnant and lactating women. It is to be coordinated by a Food Security and Nutrition Coordination Council.</p>	GOL (MOA is the lead, but it is cross-sectoral)
Poverty Reduction Strategy (PRS)	July 2008	<p>Four Pillars:</p> <ul style="list-style-type: none"> • Consolidating peace and security • Revitalizing the economy • Strengthening governance and the rule of law • Rehabilitating infrastructure and delivering basic services <p>This and the 2006 interim PRS provide the framework on which all other GOL food security and nutrition policies are based.</p>	GOL
National Health Policy	2007	<p>Mission: reform the health sector to effectively deliver quality health and social welfare services</p> <p>Vision: a nation with improved health and social welfare status and equity in health</p> <p>The policy seeks to implement a primary health care approach and provide a BPHS, preventive and curative, at each level of the health system in a decentralized approach. Services are to be provided collaboratively with public, private and NGO health sector partners. The goal is of a progressive increase in health spending to meet the Abuja target of 15 percent of the national budget.</p>	GOL/MOHSW
National Health Plan	2007-2011	<p>Goal: to implement the national health policy</p> <p>Four strategic orientations:</p> <ul style="list-style-type: none"> • Primary health care • Decentralization • Community empowerment • Partnerships for health <p>Four key components:</p> <ul style="list-style-type: none"> • BPHS • Human Resources for Health • Infrastructure Development • Support Systems 	GOL/MOHSW

STRATEGY/ PROGRAM	DATES	OBJECTIVES AND INTERVENTIONS	RESPONSIBLE
National Nutrition Policy	October 2008	<p>Goal: to ensure adequate nutrition intake and utilization for all people living in Liberia, especially the most vulnerable, to ensure health and well-being for sustainable economic growth and development</p> <p>Specific nutrition objectives:</p> <ul style="list-style-type: none"> • Reduce the levels of morbidity and mortality due to malnutrition • Reduce the prevalence of malnutrition in all its forms, including micronutrient deficiencies • Improve IYCF and caring practices for women and children <p>Twelve priority policy areas include:</p> <ul style="list-style-type: none"> • Mainstreaming nutrition into development • Improving food security • Improving food quality and safety • Preventing and managing disease • Promoting optimal IYCF practices • Preventing and managing micronutrient disorders • Preventing, treating and managing acute malnutrition • Caring for the nutritionally vulnerable • Promoting appropriate diets and lifestyles • Assessing, analyzing and monitoring nutrition situations • Communication to improve nutrition • Enabling institutional arrangement for the planning, coordination, implementation, monitoring and evaluation of effective nutrition interventions 	GOL
Governance and Economic Management Assistance Program (GEMAP)		Program in which international experts support government financial agencies	GOL
Extractive Industries Transparency Initiative		Initiative to strengthen transparency and accountability in managing funds generated through natural resource-based activities	GOL
Agriculture Sector Policy and Strategy	Awaiting publication	<p>Vision: Self-sufficient in staples, and self-reliant and sustainable agricultural sector by 2015</p> <p>Mission: Create an enabling environment for a more dynamic and vibrant agricultural sector that is inclusive</p> <p>Key policy issues:</p> <ul style="list-style-type: none"> • Pro poor agriculture and agricultural business development • Food and nutrition security • Human and institutional capacity <p>Note: According to the 2008-2011 PRS, the GOL will have three key strategic objectives to achieve 3.6 percent annual agricultural production growth: 1) develop more competitive, efficient and sustainable food</p>	GOL/MOA

STRATEGY/ PROGRAM	DATES	OBJECTIVES AND INTERVENTIONS	RESPONSIBLE
		and agricultural value chains and market linkages; 2) improve food security and nutrition, especially for vulnerable groups, including pregnant and lactating women and children under 5; 3) strengthen human and institutional capacity.	
National Action Plan for Women (NAPW)	2008-2011	<p>Based on the resolution of the National Women’s Conference on “Advancing Women’s Human Rights” in Peacebuilding, Recovery, and Development in Liberia”</p> <p>Objectives include:</p> <ul style="list-style-type: none"> • Develop policies and programs • Establish gender justice and equality as core values of institutions and services delivered through the Security Sector • Enhance access to financial services, business management and new technologies for women entrepreneurs and farmers • Strengthen capacities and opportunities of women to participate in the formal economy • Ensure gender equality and justice as core to institutional reform • Promote gender equality through constitutional and legal reform • Promote better quality and access to education for and retention of girls and young women • Establish innovative programs to promote literacy and address problems of youth • Improve quality access to health care services for women • Increased awareness and participation of women in housing and environmental management • Actively involve women in conflict resolution and peace-building processes at all levels • Promote opportunities for young women to participate in leadership positions 	GOL/MOGD/ partners
Employment Policies (based on PRS)	2008-2011	PRS asserts that rapid creation of jobs will reduce poverty, ensure peace and stability and enhance well-being of the Liberian population. To do so, it will focus on: 1) strengthening labor policy; 2) labor-intensive public works projects to increase employment; and 3) targeted programs to improve skills, increase opportunities for women and youth, and increase prevention and treatment of HIV/AIDS.	Ministry of Labour

GOL/International Partnerships

Liberia Reconstruction Trust Fund (LRTF)	2007-	A multi-donor pooled fund administered by the World Bank with a focus on rebuilding infrastructure while also creating jobs and developing capacity among Liberian workers	Ministry of Public Works, Ministry of Finance
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USG Policies and Programs

Joint Programme on Food Security and Nutrition	2008-2011	<p>Collaborative effort between the GOL and the UN system to coordinate efforts to improve food security and malnutrition and maximize impact of interventions. Offers emergency preparedness and response to address short-term food price crisis and medium-term support to national Food Security and Nutrition Strategy. The Joint Programme supports policy, strategy and legislation development that promote food security and nutrition.</p> <p>Three strategic priorities:</p> <ul style="list-style-type: none"> • Mitigate the impact of domestic food price increases and ensure consistent supplies • Maintain access to food and improved nutritional wellbeing for vulnerable households through safety nets • Promote increases in domestic food production <p>Target technical areas</p> <ul style="list-style-type: none"> • Support for access to markets and factors of production in order to increase local and national food supply • Access to basic services and strengthening of safety nets • Nutrition priority interventions including training of community works for promotion of improved practices <p>Led by the MOA but has participation from the Ministries of Health and Social Welfare, Planning and Economic Affairs, Gender and Development, Education and Public Works, as well as the following multi-lateral agencies: FAO, UNDP, UNICEF, United Nations Development Fund for Women (UNIFEM), United Nations Office for Project Services (UNOPS), WFP, WHO, United Nations Mission in Liberia (UNMIL) and the World Bank.</p>	GOL/MOA With other ministries and multilateral institutions as partners
USAID/Liberia Country Strategic Plan	2009-2013; Under Development	<p>USAID/Liberia goal: “firmly establish peace and stability, significantly reduce corruption, achieve economic viability, and provide essential basic health and education services”</p> <p>Program focus areas:</p> <ul style="list-style-type: none"> • Peace and security • Rule of law and democratic processes • Economic opportunities and equity • Health and education services 	USAID/Liberia and partner institutions
United States President’s Malaria Initiative (PMI)	2008-2012	Five year, 37.4 million USD program to fight malaria through distribution of insecticide treated bednets (ITNs), indoor residual spraying, and purchase and distribution of artemisinin-based combination therapy (ACT) for malaria treatment.	USAID

Title II MYAP: Liberia Integrated Assistance Program (LIAP)	FY 2007-2009	<p>Three year program that focuses on reducing food insecurity of rural households in six counties of Liberia</p> <p>Components:</p> <ul style="list-style-type: none"> • Agriculture/livelihood capacities • Community resilience: infrastructure and emergency preparedness • Maternal and child health (MCH): integrated management of childhood illness (IMCI), rehabilitating underweight children, HIV/AIDS education for children and adolescents <p>Food distributed as FFW</p>	Catholic Relief Services (CRS), Africare, Samaritans Purse, local partners
Rebuilding Basic Health Services (RBHS) in Liberia	2008-2013	<p>Supporting MOHSW to implement the National Health Policy and Plan in 106 health facilities in seven proposed catchment areas</p> <p>Objectives:</p> <ul style="list-style-type: none"> • Increase use of basic health services in target areas • Improve infrastructure, human resources and systems performance • Inform youth on reproductive health <p>Proposed catchment areas: Bong, Lofa, Nimba, River Gee, Grand Cape Mount, Bomi and Montserrado (as of March 2009)</p> <p>RBHS is in start-up phase as of March 2009</p>	John Snow, Inc/ MOHSW/USAID
Child Survival and Health Grants Programs	2008-2013	<p>a) Nimba County: focus on obstetric complications, neonatal conditions, malaria, pneumonia, diarrheal disease and HIV</p> <p>Delivery strategy:</p> <ul style="list-style-type: none"> • Community empowerment and health education • Train and deploy mobile primary health care teams • Communication network and emergency response system • Behavior change communication (BCC) • Collaboration with county health team 	Curamericas (NGO)
	2006-2010	<p>b) Grand Cape Mount County: Nutrition, pneumonia case management; control of diarrheal disease; malaria; immunizations</p> <p>Strategy</p> <ul style="list-style-type: none"> • Behavior change • Community mobilization and capacity building • Improve access and quality of care at clinics • Institutional capacity building 	Medical Teams International (NGO)
USAID/Liberia Education Initiatives		<p>Accelerated Learning Program: targets youth 10-35 years who do not have a primary school education, providing a three-year program to complete primary 1 through primary 6 schooling</p> <p>Teacher Training Program: provides training and certification of teachers to improve the quality of education, and increase teacher pay; also encourages school enrollment</p>	USAID partner agencies

Multilateral Agencies			
WFP: Protracted Relief and Recovery Operation (PRRO)	2009-2011; Still in draft	<p>Four major program components</p> <ul style="list-style-type: none"> • Livelihood asset rehabilitation and education in northwest and central counties (includes support to smallholder rice farmers and safety net rations) • Food for Education (FFE) in primary schools (school feeding [SF] constitutes about 80 percent of total WFP-Liberia resources) • Nutrition intervention: prevention of chronic malnutrition, supplementary feeding for moderately malnourished children, HIV/Tuberculosis program support • Capacity building through Purchase for Progress program 	WFP
World Bank, ADB: Joint Country Assistance Strategy	2009-2011	<p>Activities include:</p> <ul style="list-style-type: none"> • Public financial management and institutional reform, financial sector development, access to finance • Infrastructure programs, including agriculture, roads, water and sanitation, and energy • Natural resource led, pro-poor growth in agriculture, mining, forestry and natural resource management 	World Bank/ADB/GOL
UNICEF Country Programme	2008-2012	<p>Overall Goal: Contribute to the reduction of child mortality and vulnerability and the development of a safe and peaceful environment for children in Liberia. Three strategies: support to GOL delivery of basic services; capacity development of government partners; support to national policy formulation.</p>	UNICEF
FAO		<p>Contributes to the Joint Program Food Security and Nutrition Supports MOA in their formulation of agricultural policy Provides technical assistance to the National Programme for Food Security Provides support for:</p> <ul style="list-style-type: none"> • Initiatives to conserve forest resources • Reintegrating ex-combatants “from guns to roses;” • Introducing improved rice variety (New Rice for Africa [NERICA]) • Purchase for Progress project; cassava multiplication • Urban/peri-urban vegetable project 	

5.2 USG STRATEGIES, POLICIES AND PROGRAMS

The USG continues to be the most important donor and contributing foreign institution supporting development efforts in Liberia. USAID/Liberia is currently formulating and developing its Strategic Plan to guide its development approach for the period FY 2009-2013. The Mission strategy closely parallels the GOL strategy, focusing on the broad program areas of peace and security, rule of law and democratic processes, economic opportunities and equity, and health and education services.

5.2.1 Alignment with Foreign Assistance Framework

Under the Foreign Assistance Framework, all USG foreign assistance spending must be aligned with five key objectives and their program areas, program elements and program sub-elements. All Liberia Mission-funded programs as well as the current and upcoming Title II MYAPS are designed, developed and implemented under this premise. **Table 10** outlines the current USAID/Liberia strategy. USAID programs funded by other accounts focus on the Peace and Security, Governing Justly and Democratically, Investing in People, and Economic Growth objectives; the current Title II MYAP – the Liberia Integrated Assistance Program (LIAP) – focuses on the Investing in People, Economic Growth and Humanitarian Assistance objectives, a focus that is anticipated in the framework itself.

TABLE 10: ALIGNMENT OF THE CURRENT USAID/LIBERIA DEVELOPMENT ASSISTANCE (DA)- AND CHILD SURVIVAL AND HEALTH PROGRAMS FUND(CSH)-FUNDED AND TITLE II PROGRAMS WITH THE UNITED STATES (US) FOREIGN ASSISTANCE FRAMEWORK

OBJECTIVES	PROGRAM AREAS AND PROGRAM ELEMENTS	
	PROGRAMS FUNDED BY OTHER ACCOUNTS (DA, CSH, ETC.)	TITLE II PROGRAM (LIAP)
Peace and Security	Stabilization operations and security sector reform	
Governing Justly and Democratically	Good governance Rule of law and human rights	
Investing in People	Health HIV/AIDS Malaria MCH Family planning and reproductive health Education Basic education Social and economic services and protection for vulnerable populations Social assistance	Health HIV/AIDS MCH Nutrition Social services and protection Social assistance

OBJECTIVES	PROGRAM AREAS AND PROGRAM ELEMENTS	
	PROGRAMS FUNDED BY OTHER ACCOUNTS (DA, CSH, ETC.)	TITLE II PROGRAM (LIAP)
Economic Growth	Infrastructure Modern energy services Transport services Agriculture Agricultural sector capacity Private sector competitiveness Business enabling environment Private sector capacity Workforce development Economic opportunity Strengthen microenterprise productivity Environment Natural resources and biodiversity	Infrastructure Agriculture Agricultural sector productivity Agricultural sector capacity
Humanitarian Assistance		Disaster readiness Capacity building, preparedness and planning

5.2.2 USAID/Liberia Mission Strategies and Programs

USAID/Liberia’s forthcoming new strategy, which will be in effect FY 2009-2013, has been designed to promote a holistic and integrated approach to:

- Maintain peace and security throughout the country
- Establish respect for rule of law and democratic processes
- Promote economic growth through increased opportunities and equity
- Increase access to quality health and education services

The Mission’s goals are to “firmly establish peace and stability, significantly reduce corruption, achieve economic viability, and provide essential basic health and education services.”

The USAID/Liberia Economic Growth approach seeks to reduce poverty and revitalize communities by:

- Establishing full value chains in the agriculture and forest product sectors
- Promoting land-use planning
- Improving the business enabling environment and investment opportunities
- Providing access to credit
- Training the workforce in business and technical skills
- Addressing the land tenure complexities
- Reforming the MOA and building institutional and human resource capacity

The USAID/Liberia Health approach seeks to:

- Reduce the prevalence of malaria
- Reduce the prevalence of HIV/AIDS

- Improve maternal and child health (MCH)
- Expand family planning
- Improve reproductive health
- Expand safe water and sanitation availability

5.2.3 USAID Food for Peace 2006-2010 Strategic Plan

The 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/Liberia FSCF. Some of the new directions in the FFP Strategic Plan are also reflected in the USAID/Liberia Food Security Programming Strategy, 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 transitorily food insecure, who have a temporary inability to meet food needs or smooth consumption levels.¹²⁵ 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.

In addition to enhancing the capabilities of vulnerable individuals, households and communities, the FFP Strategic Plan focuses on building the capacity of partners in the field to increase the impact and sustainability of food security programming. The Plan includes activities to improve the measurement of Title II impact, particularly the impact of the program on achievement of the MDGs to reduce the prevalence of underweight children under 5, and to improve food access and community coping capacity. The FFP Strategic Plan also aims to expand knowledge and sharing of what works and why and use this knowledge to influence policy and improve program impact.

5.2.4 The FY 2005-2009 Title II Development Assistance Program (DAP)

A consortium of three Awardees – Catholic Relief Services (CRS), the lead Awardee, in collaboration with Africare and Samaritan’s Purse – implement the current Title II MYAP (LIAP) in 24 districts in six counties of Liberia. The total program cost is approximately 20 million USD, including 12,500 MT of monetized commodities and

¹²⁵ “Smoothing” refers to any actions to even out or stabilize fluctuations in food consumption.

5,250 commodities for distribution. Originally scheduled to end by September 2009, LIAP partners have requested a no-cost extension through May 2010 to enable the program, which was delayed from the start, to implement activities through one additional dry season.

LIAP aimed to “reduce food insecurity of rural households” through achieving three objectives:

- Protecting and enhancing the capacities of targeted households by focusing on agricultural production
- Protecting and enhancing community reliance by focusing on infrastructure and emergency preparedness
- Protecting and enhancing human capacities by improving maternal and child health and nutrition (MCHN), focused on management of childhood illnesses, rehabilitating malnourished children and providing life skills education specifically associated with HIV/AIDS to children and adolescents

6. COUNTRY FRAMEWORK TO REDUCE FOOD INSECURITY IN LIBERIA

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

USAID Mission programs in Liberia support rapid economic growth of incomes in rural areas through increased opportunities and equity and increased access to quality health and education services for the Liberian population, which together seek to help increase food security at the household, community and national levels, contributing to improving food availability, access and utilization. Mission programs funded by accounts other than Title II cover a greater number of program areas and elements, and which have been outlined above in **Table 10**. Many of these programs also have a national-level focus, a comparative advantage for the USAID Mission as compared to the implementing Title II Awardees which are most effective at a more local level. The Mission also assumes an important role in promoting and supporting the enabling environment in the country, which is one of the key contributing results recognized in the FFP Strategic Plan. USAID/Liberia is closely aligned with the PRS, which seeks to rebuild Liberia and move the nation from the status of a rebuilding country to a developing country in addition to helping address the sources of the conflict. The Mission assists in strengthening institutions across several sectors, notably health, education and electricity. The Mission supports several US Presidential initiatives and strategic issues, including the Africa Education Initiative (AEI), the US President’s Malaria Initiative (PMI) and the US President’s International Education Initiative.

6.2 ROLE OF THE TITLE II MYAP IN ADDRESSING FOOD SECURITY

6.2.1 Projected MYAP Objectives, Desired Outcomes and Indicators

The next MYAP should strive **to improve the food security of vulnerable rural households and communities in Liberia**. Title II program Awardees should design their MYAPs to achieve improved food availability, access and utilization, and reduced vulnerability of individuals, households and communities targeted by the program. These four elements, as identified in USAID's definition of food security, are all essential to improving food security of vulnerable households and communities in the Liberian context.

6.2.2 Program Priorities

The FSCF team considered input from several sources before prioritizing potential program approaches for the next Title II MYAPs. Analysis of program priorities was derived from:

- Government, bilateral, multilateral and donor documents, including the PRS, the Comprehensive Assessment of the Agriculture Sector in Liberia (CAAS), the Liberian National Food Security and Nutrition Strategy, the Joint Programme on Food Security and Nutrition, the National Health Policy and National Agriculture Policy
- USAID's draft Country Strategic Plan 2009-2013
- Midterm evaluation findings and recommendations of LIAP
- Experience gleaned by current Title II MYAP partners
- Discussions with government, UN, donor, USAID and NGO officials involved in food security in Monrovia
- (Perhaps most significantly) Focus group discussions with several communities in three counties of rural Liberia

Program priorities aimed at decreasing household and community food insecurity in the rural Liberian context should include:

- Improved agricultural production and productivity
- Increased income generating opportunities
- Improved nutritional status of children under 5 and women of reproductive age

Implementation of the three program priorities in a coordinated and holistic program approach will help to achieve the desired outcomes of improved availability, access and utilization as well as contribute to reducing household and community vulnerability to food insecurity. Some of the strategic approaches identified and outlined below reflect recommendations for reorienting key components of the current program. Many other activities and approaches reflect the need to address problem areas that are emerging as serious constraints to further progress toward the overall objective of increasing food security in rural Liberia.

6.2.2.1 Increasing Agricultural Production and Productivity

A large proportion of rural Liberian households are poor, chronically food insecure or vulnerable to transitory or chronic food insecurity. A strategy aimed at increasing agricultural production and productivity must be integrated into a poverty reduction strategy for rural Liberia that targets poor smallholder farming households as well as the most vulnerable households, including landless and female-headed households. For MYAP implementing agencies, such a strategy implies the adoption of:

- Integrated holistic programming
- Coordinated activities with partners, government counterparts and the private sector
- Behavior change promotion
- Community participatory approach and community dialogue
- Increased capacity for sustainability

These five approaches constitute an operational strategy that will be discussed more thoroughly under key design considerations in **Section 6.2.3**.

Promoting increased agricultural production and productivity for vulnerable poor rural households will also necessitate a transformation of agriculture from the current non-sustainable shifting (slash-and-burn) cultivation, using few ineffective inputs resulting in low yields, to an integrated high productive approach, diversifying production in a cash and food crop system. The next MYAPs would seek to effectively and more comprehensively link smallholder farmers to markets within an agricultural commodity value chain approach. Liberian farmers need to improve agricultural practices, including farm management (input and land use, agricultural techniques and planning) and post-harvest techniques and systems. The next MYAPs should target women to increase their access to land, inputs, extension services, credit and other income-generating opportunities. Also, to be successful in promoting the agricultural productivity of smallholder farmers, the Awardees will need to support MOA extension services and build their capacity and that of local partners to sustain this shift in production.

The bulk of this section will therefore concentrate on discussions of the following components of an agricultural production and productivity strategy:

- Transitioning from an emphasis on shifting agriculture to integrated food and cash crop production with more intensified cultivation of lowland agriculture
- Promoting crop diversification
- Improving agricultural practices through farmer-to-farmer extension
- Improving basic infrastructure such as farmer-to-market roads and markets
- Implementing an agricultural value chain approach, including sustained market linkages

Transitioning from an emphasis on shifting agriculture to integrated food and cash crop production with more intensified cultivation of lowland agriculture

Unlike other African contexts, Liberia does not face water resource shortages for agricultural production. However, land use patterns must change in the near future in Liberia. Most farmers cultivate on upland slopes characterized by low fertility on acidic

soils with poor capacity to retain water and prone to soil erosion. Without adequate fallow periods on upland plots, current cultivation practices are non-sustainable for individual farmers as well as for the natural resources, which will experience gradual deforestation, soil infertility and declining water resources.

If farmers could manage the uplands to allow sufficient fallow time and combine that with the use of fertility management measures, including appropriate fertilizer use, expansion of upland agriculture is possible. Improved upland crop production and increased yields will require farming communities to utilize the land more efficiently and increase the fallow period to avoid further depletion of the soil. MYAP Awardees will also be in a favorable position to link farming communities with applied research – the proper application of the farmer field school (FFS) approach supports this strategy – to introduce and promote the use of improved varieties of rice and other crops applicable to changing agro-ecological conditions as well as facilitate the application of appropriate inputs. The Minister of Agriculture told the FSCF assessment team that many of the seeds distributed to farming communities during the emergency period are not appropriate to improved production in the uplands.

Farming communities will also need to learn how to efficiently use available swamplands, which are currently underused but have great potential. Lowland production is currently undertaken in a large way only in Lofa County. Farmers in Bong and Nimba Counties continue to cultivate their crops almost exclusively on the uplands. The MOA and CAAS note an abundance of available land for lowland production across the agriculture heartlands of Liberia.¹²⁶ Estimates range from 2-6 percent of lowland swamplands currently under cultivation. Where available and applicable, farming communities could be encouraged and assisted in bringing swamplands under cultivation. MYAP awardees can apply food for work (FFW) – the needed preparation time will be substantial – toward clearing and preparing swamplands for production. Farmers in Lofa County told the FSCF assessment team that although swampland production has always been underdeveloped, some initiatives – most notably the Lofa County Agriculture Development Program (LCADP) – had developed water control structures and taught some farmers how to undertake swampland farming practices years ago before the war. The structures were destroyed years ago and younger farmers no longer know how to cultivate in the lowlands. MYAP Awardee extension agents could help to facilitate such an agricultural rehabilitation process.

The strategy outlined in the previous two paragraphs implies an improvement in the quality of MYAP technical assistance in the realm of agricultural extension. The midterm evaluation also recommends that LIAP partners should identify or form appropriate functional community-based groups, such as a swamp farmers' group, which would initially analyze assets, problems and opportunities to then develop an action plan complete with a resource mobilization strategy.

¹²⁶ MOA, FAO, IFAD, and World Bank. 2007. *Comprehensive Assessment of the Agriculture Sector in Liberia, Volume 1: Synthesis Report*. pp 22-23, 32-33.

The CAAS estimated domestic resource costs (DRCs), which refer to the ratio of domestic factors used to produce one unit of rice (inputs and capital production investments) to the added value generated by the unit of rice (value of production minus the investment or input costs), in order to compare three food crops (rice, cassava and vegetables) cultivated in different scenarios, including upland versus lowland cultivation. Comparing six production scenarios, the least advantageous production system was upland rice cultivation, which indicated no comparative advantage. With few perceived alternative cultivation options, farmers continue to cultivate upland rice basically as a subsistence crop because rice is the favored staple and can derive a small private profit, although the social profit is negative. In contrast, lowland rice production, a labor-intensive activity, produces a much more favorable DRC ratio, and offers substantially higher yields and better returns to labor capital, and input investments.¹²⁷

TABLE 11: DRC ESTIMATES FOR RICE, ROOT CROP AND VEGETABLE PRODUCTION

PRODUCTION SYSTEM	SIZE OF SMALLHOLDING AND PERCENTAGE USED FOR COMMERCIAL PRODUCTION	PRIVATE PROFIT (USD)	SOCIAL PROFIT (USD)	DRC (RATIO)	COMPARATIVE ADVANTAGE
<i>Model 1:</i> Upland rice (Bong)	1.4 ha (of which 21% produce is sold)	7.27	-16.63	1.43	None
<i>Model 2:</i> Lowland rice (Nimba)	1.6 ha (of which 89% produce is sold)	17.29	340.89	0.30	High
<i>Model 3:</i> Root crop – Cassava (Nimba)	0.6 ha (of which 55% produce is sold)	99.90	168.36	0.16	Very High
<i>Model 4:</i> Vegetable production (Grand Cape Mount)	0.8 ha (of which 80% produce is sold)	465.48	1,160.40	0.04	Very High
<i>Model 5:</i> Bitterball – Plantain – Other vegetable (Maryland)	0.8 ha (of which 40% produce is sold)	25.79	43.93	0.19	Very High
<i>Model 6:</i> Bitterball – Plantain (Maryland)	0.4 ha (of which 50% produce is sold)	3.43	10.07	0.47	High

This as well as the next recommended activity would, by necessity, require farming communities to link up with research centers such as the Central Agricultural Research Institute (CARI) and the Central Agricultural Experiment Station (CAES). Improved technologies include the use of improved planting materials, including improved appropriate high-yield varieties of rice and other crops. For example, one relatively new rice variety, known as New Rice for Africa (NERICA), has been tested in contexts similar to Liberian agro-ecological contexts to have substantially higher yields, improved weed suppression, resistance to local pest and disease stresses, and a shorter duration of development (90-100 days as compared to 120-150 days for typical upland varieties), allowing farmers to cultivate a second crop during the relatively extensive Liberian rainy season.¹²⁸

¹²⁷ Ibid. pp 42-45.

¹²⁸ Ibid. p 89.

Promoting crop diversification

Cassava, vegetable and bitterball/plantain production offer very high DRC productivity quotients as well in the CAAS calculations. Per-capita rice production has declined in recent years, primarily a result of the years of conflict combined with low productivity, declining soil fertility, poor terms of trade, poor use of inputs, the inefficient shifting agriculture production system and poor market access, among other causes. Most farmers, however, have failed to diversify their production to viable or appropriate crops. Vulnerable smallholder farming households do not grow sufficient quantities of rice or other crops to last through the year. Vegetable crop expansion is particularly promising if farmers can learn to and be assisted in reducing post-harvest losses and increasing production and productivity.

Efforts to integrate new crops into their farming production systems should depend on the applicability of specific crops in each agro-ecological zone, determined by an agricultural assessment. The assessment process would incorporate training needs, required labor input and marketing feasibility to determine crop suitability, select appropriate crops to improve the diet, supplement rice and market as an additional source of income generation. This would encourage, in particular, the cultivation of lower labor, high-value and higher protein-content crops for households.

The current MYAP, LIAP, has successfully promoted seed voucher fairs – markets through which farmers use vouchers to purchase seed on specific days in specific localities announced and well advertised in advance – to effectively restore seed stocks. This activity was successful as Liberian farming systems transitioned from relief and provisioning needs to rehabilitation activities, targeting farming households to receive seed vouchers to be used to purchase seeds from vendors registered by the program. Title II Program Awardees should now consider designing and implementing a new more sustainable approach to agricultural input procurement. Commodity-based seed systems can be developed in collaboration with research and microfinance institutions.

One potential approach would facilitate linkages between research centers and small-scale local traders operating small shops in participating communities to establish market nodes as seed sellers for specific varieties, depending on the farming system or livelihood zone. The objective would be to increase production capacities by building community seed systems, putting into place mechanisms to allow farmers to successfully multiply their seeds and produce quality seeds of improved varieties to capitalize smallholder farming and initiate establishment of seed-embedded technology. A second potential approach could pilot seed associations, including women-led groups, to manage seed distribution networks in participating communities. After receiving training, members of the seed associations would oversee community seed conservation and seed storage for future sustainability as well as handle seed distribution.

Vegetable and fruit tree production can be further encouraged by targeting women, including female-headed households, to produce vegetable gardens of diverse indigenous vegetables, fruits and herbs to address micronutrient needs, provide a supplementary food source, improve household nutrition quality and provide a source of income. Home gardens can represent a valuable coping strategy during the lean seasons and in

case of food shortages and staple crop failures. Increased horticultural production stimulates the economic independence of female-headed households who would sell a proportion of their vegetable products. While applicable for all households, home gardens are of particular importance to labor-constrained households, such as female-headed households who may be forced to let their fields lie fallow because they live too far away to access them regularly in light of the time required for other tasks. Home gardens offer a particularly appropriate opportunity for labor-constrained rural women, who could have relative flexibility in managing a small farm area of intense food production adjacent to home where water resources could be most efficiently managed.

The point is to promote the means and techniques for poor farmers to diversify into a mix of cash-crops and food-crop production activities. Cash crops allow more farmers to access credit and inputs on a larger scale, generate higher incomes, provide productive reinvestment opportunities and result over time in greater capitalization. At the same time, food production must be encouraged to reduce the proportion of income devoted to food purchases and reduce the real cost of food at the community, regional and national levels, if market linkages can be strengthened (discussed below).

Improving agricultural practices through farmer-to-farmer extension

The MOA extension services are currently woefully inadequate and underfunded. Extension agents, who are few in number anyway, lack technical expertise and the ability to move out to the field, and therefore do not serve farmers in the field. Lessons learned from the current MYAP similarly point to poorly trained, insufficiently technical extension for farmers within the rubric of two types of approaches – the “Lead Farmer” approach and the “Farmer Field School” (FFS) approach. The recently conducted LIAP midterm evaluation charitably gave mixed marks to the MYAP in implementing these approaches.¹²⁹

MYAP Awardees and partners should be in a good position to work closely with the MOA and communities in developing and effectively implementing a community-based extension service. The farmer-to-farmer extension process does not necessarily mean the creation of a parallel extension service to rival the MOA extension system. All extension staff should work closely with government extension staff to ensure a partnership and effective coordinated effort, and to seek effective linkages with private sector activities. The extension service will necessarily include appropriate technical expertise in such areas as:

- Improved food crop production techniques
- Diversification to appropriate vegetable and fruit crops
- Improved land and water management practices
- Enhanced agricultural planning, including improved input planning and use
- Pest control
- Post harvest facilities

¹²⁹ TANGO International. 2009. *Mid-term Evaluation of the Liberia Integrated Assistance Program (LIAP)*. pp 13-15.

- Veterinary and livestock services
- Marketing (discussed below)

To be successful, such a service should employ participatory methods in identifying needs, applying new techniques during the production cycle and sustaining such efforts. Two alternative approaches are described in the following two paragraphs.

MYAP partner field extension staff operating in rural communities can take advantage of their grassroots base to improve agricultural practices of smallholder farmers, including women farmers who invariably assume essential roles in the crop production cycle and young farmers who may have never received farmer skill transfers because of displacement and the war, by strengthening the capabilities of community farmers to learn from each other in FFSs. The FFS approach mobilizes communities by utilizing Participatory Learning and Action (PLA) tools and methods under the assumption that farmers are natural scientists interested in learning from each other, from experience and from the application of new techniques in the pursuit of means to realize increased agricultural production. Extension agents and program staff partner with women and men farmers who learn to identify critical constraints in order to develop and fashion technically logical solutions within farmer group settings. This approach promotes farmer experimentation, sharing practical experience and skills, and a limited number of extension messages and builds on best practices to facilitate the process of agricultural innovation and foster farmer empowerment.

The farmer-to-farmer approach commences with PLA exercises designed to form functional farmer groups revolving around relevant functional agriculture themes related to local practice and constraints. Agricultural field or extension staff members guide the proactive engagement of farmers in agricultural training and extension activities, which normally include the establishment of demonstration plots. Extension staff personnel work closely with government extension staff where they exist to promote an effective coordinated effort and sustainability. Farmer group events may include group cross-visits to observe and participate in new techniques, farmers' field days, new technology promotions and agricultural promoter trainings. The farmer groups can be transformed into market groups at a later stage. The agricultural extension service, which would be partially determined from participatory assessment exercises, would not necessarily prescribe a generic agricultural extension package.

Improving basic infrastructure, including farmer-to-farmer roads, markets and small-scale infrastructure

Improved market linkages, discussed below, cannot lead to poverty alleviation in rural Liberia without complementary supporting interventions, notably improvements in rural infrastructure. MYAP awardees are encouraged therefore to adopt labor-intensive approaches aimed at rehabilitating rural feeder or market roads and improve market structures by providing food for work to community participants to increase accessibility of agricultural producers to marketing and commerce, another contribution to agricultural production.

The LIAP midterm evaluation notes that although road rehabilitation activities engage large numbers of FFW participants, the quality of road reconstruction and maintenance

activities is currently invariably not sustainable. Too many rehabilitated roads wash away following two rainy seasons. One lesson learned is to improve the quality of road rehabilitation. Another is to concentrate efforts at rehabilitating bridges, which can improve market and basic service accessibility substantially. It will be necessary to establish a partnership with the Ministry of Public Works to discuss appropriate but relatively inexpensive structures able to serve the purpose of making roads accessible to traffic.

Implementing an agricultural value chain approach, including sustained strengthened market linkages for vulnerable farmer households

Rural markets are currently very inefficient and do not serve rural households, thereby depressing agricultural production and creating few income-earning opportunities. Liberian farmers are rarely organized with accurate information about market opportunities to adequately access markets, factors that have significantly affected their decisions about what they produce as well as what, when, where and how to market their produce. Smallholder farmers are therefore experiencing the harsh side of globalization, often exacerbated by inefficient input and output marketing channels, further reducing their opportunities for success.

To penetrate national and international markets, MYAP Awardees should seek to facilitate functional linkages between community farmer production and marketing groups and established marketing associations, including the private sector. The next program should promote functional linkages with the private sector operating in input markets as well as output markets, production and trade market activities.

The establishment, organization, strengthening and expansion of farmer associations should be an integral part of the next MYAP.

One approach would commence by facilitating a process of organizing farmers into farmer groups to enable them to eventually join or merge into functional market associations, which currently rarely exist in rural Liberia, in order to improve marketing opportunities, increase sales of specified agricultural production, increase the bargaining power of targeted smallholder farmers and find effective linkages to markets for a wide variety of products. Establishing linkages with domestic and regional traders would be based on the most efficient and effective price terms and payment arrangements for farmers. The strategy would necessarily commence on a small scale, perhaps by sharing information on market prices, and be facilitated through MYAP agriculture field staff working closely with newly-formed or strengthened farmer groups. Improved market information is an essential component of this strategy. The strategy should also benefit from economies of scale in production and marketing – including input procurement – in a way that economizes on transaction costs and increases farmer bargaining power. The major purpose of the community farmer groups would be to organize crop production and marketing and constitute channels for training, technical assistance and the dissemination of market information. This strategic approach would identify and take advantage of available and improved market opportunities through strengthened collective action, link producers to markets, facilitate access to market information and improve the marketing extension system.

Potential pilot activity: Food-based crop insurance and community food reserves

Farmers everywhere face weather-, pest- and market-related risks. Poor Liberian farmers must cope with low prices for their agricultural produce, poor storage, inefficient markets and subsistence agricultural production. Farmers often manage their production and market risks by choosing crops and practices that provide stable but sub-optimal economic returns. Many smallholders therefore forego technological changes that could enhance potential longer-term productivity gains and eventually income growth. Further, because smallholders face risks and generate lower-than-optimal returns, lenders are discouraged from offering them credit, creating further obstacles to productivity growth.

Innovative models recently proposed to reduce the uncertainty of farm income involving simple *area-based crop insurance schemes* normally involve cash payment to compensate for yield losses in the case of unexpected hazards. USAID is proposing to attempt to use “food as food” in the form of crop insurance, which appears to present distinct opportunities, especially when paired with other forms of local initiatives such as community food reserves in the form of inventory credit (IC). The use of food rather than cash may be particularly appropriate when (i) the threat of widespread malnutrition is high, (ii) markets function poorly, (iii) inflationary risks are high, (iv) cash transfers are not practical and/or (v) effective targeting is sought. Food-based risk insurance and ICs can be used – preferably jointly – to improve local access to food while giving farmers greater liberty to devote land, labor and capital towards riskier but potentially more rewarding investments.

Crop insurance would be used to compensate farmers for catastrophic income losses and protect their consumption and debt repayment capacity. By reducing the perceived risk of production losses, the insurance may encourage farmers to adopt more lucrative, albeit riskier, enterprises. Combined with a strong agricultural extension program, a food-based crop insurance program could invite farmers to dedicate a portion of their resources to a new enterprise based on the expectation that, should the expected returns to the new enterprise fail to materialize due to exogenous events, including poor market conditions, natural calamities or pest attacks, their minimum livelihoods would be protected by the insurance program. To ensure rapid response in paying indemnities to farmers, the program should be coupled with an IC program which would act as a local, pre-positioned food reserve.

Combined with crop insurance, ICs could improve storage at the community level, allow farmers to sell their produce during favorable “seller” market times when prices are not too low and stimulate surplus production through price incentives. ICs operate upon the principles of the temporal price differentials of the normal market cycle. The IC receives grains from local farmers for storage, usually immediately post harvest, and holds the inventory as prices increase. With his/her stored inventory as collateral, a farmer can request a loan from the IC to settle the most pressing cash needs yet maintain ownership over grain until prices rise again. Once prices have strengthened, the farmer can sell grain at a greater profit, reimburse the loan and avoid a costly repurchase of grain when prices are higher. ICs also facilitate good practices at the farm and community level, such as proper storage and post-handling processing; minimize

transaction costs for commodity traders, thus lowering consumer prices; and may help open credit lines with the formal banking system. Most importantly, however, ICs create a de facto pre-positioned food reserve at the local level that gets called upon by the crop insurance scheme when the area-based insurance index reaches critical levels.

This is a potential pilot activity that requires substantial caution and should be approached as an experimental pilot only. Crop insurance/ICs could only accompany a strong agricultural production and productivity program package in a specific location and would involve close monitoring. USAID is currently attempting to ascertain the viability and feasibility of this approach; a small pilot activity might contribute to this effort.

6.2.2.2 Promoting Increased Income Generating Opportunities

Lacking basic economic security, vulnerable households, including female-headed households susceptible to economic shocks, are unable to take advantage of potentially risky production-enhancing technology. Most rural Liberian households cannot access credit or capital to purchase farm inputs, generate income-earning opportunities and meet other livelihood needs. Few poor households take loans from formal or microcredit institutions and instead rely on informal loans from friends and relatives when needed. Credit elevates risk, but vulnerable households are rarely able to access formal credit and seldom save.

One way to begin to address these constraints is to draw on community structures already in place to provide rural households with savings, credit, and investment opportunities and expand access to informal financial institutions. For example, MYAP Awardees and partners could use their community base to modify traditional *Susu* clubs. Self-selected group members can pool their money into a fund from which members can borrow. The money would be paid back with interest (actually a service charge), thereby increasing the fund. Allowing each member to contribute and borrow at a level according to individual managed ability, a *Susu*-type arrangement, facilitated by MYAP partners, would maintain transparency, flexibility and responsiveness to pressing social and solidarity needs of the group.

A modified *Susu* club arrangement could target poor and vulnerable women in the community to increase women's access to income generating activities, allowing women to become more financially independent, protect and create assets, and to a limited degree at the beginning access markets, which would all in-turn diversify income generating activities. One ultimate aim would be to substantially increase women's access to formal credit sources; another would be to realize the sustainability and profitability of income generating opportunities. Women's saving groups can be linked with farm rehabilitation activities by providing opportunities to effectively market produce from agricultural production activities. The USAID Mission has developed microfinance approaches that may aid in such efforts.

Experience with the group formation process is that it can increase their social capital, allowing women to share ideas and views relating to social development and issues such as family planning, and can be a springboard to increased access to basic services. In

time, modified *Susu* clubs could be federated into sustainable community-based organizations to increase the financial capital available to women and poor households to invest in expanded household livelihood options and strengthen inclusive social capital, a key factor contributing to political and social development as well as economic gains.

In addition, few Liberian rural poor households have any experience in managing financial and other resources to generate income. Although some households supplement their income with earnings from small-scale activities, few have experience saving and borrowing money for investment in an NGO or government office-supported income generating activity, which are usually larger and more complex than participants' previous activities, exposing them to the risk of financial losses if the activity fails. This risk of failure can be reduced by providing participants with training that enables them to systematically assess the appropriateness of various potential income generating activities in relation to their specific skills and resources. Such an analysis would allow participating households to choose a suitable income generating activity. Participatory techniques would allow communities to identify and analyze opportunities to expand or introduce livelihood activities through training, technology and market development.

6.2.2.3 Reducing Chronic Malnutrition among Children Under 5

Because almost 40 percent of preschool children in Liberia are stunted, Liberia's future and the health and development of its children are at risk. To improve food security, Title II programs must address this high prevalence of chronic malnutrition through preventive nutrition programming that is focused primarily on children from the fetal stage through 2 years of age. This is the period of most rapid growth, a critical time in child development and the age range of greatest vulnerability during which most stunting occurs. Losses to growth and development during this age range are very difficult to recuperate, especially after 2 years of age when the pace of growth slows. This pattern holds true in Liberia, where the prevalence of malnutrition increases dramatically until 2 years of age and remains high through 5 years of age.

However, the rapid growth taking place from conception through 2 years of age also creates a period of opportunity because children in this age range are most responsive to interventions that improve their nutritional status, growth and development. Programs should incorporate activities to ensure that children and their mothers are healthy and well-nourished through access to adequate health care, safe water and improved sanitation, and by promoting optimal hygiene, care and feeding practices. Focusing these health and nutrition activities on children under 2 and pregnant and lactating women, especially attending to the needs of adolescent mothers, will promote healthy growth and is the strategy most likely to reduce chronic malnutrition among preschool-aged children in Liberia.

According to the PRS, the government plans to expand the BPHS to 70 percent of health facilities by 2010, although a recent National Health Review suggests that it is likely to achieve only 50 percent. Community-level access to health and nutrition services remains limited. Title II programs can work to fill that gap, implementing

community-based programs to improve access to health, nutrition, and water and sanitation services while also implementing activities to promote optimal care, hygiene, feeding and healthcare seeking behaviors. To sustainably reduce chronic malnutrition, these community-based health and nutrition programs should specifically focus on improving IYCF practices; improving water, hygiene and sanitation access and practices; preventing and treating common illnesses in young children; and improving maternal nutritional status. The high fertility rates among teenagers indicate that programs should include activities targeting the unique needs of adolescent mothers as well as older mothers. Additionally, appropriate referral systems should be incorporated to ensure adequate care for children who suffer from SAM or complicated illnesses.

All health and nutrition activities should be in line with GOL policies and programs, linking with and supporting any USG or GOL activities in health, nutrition or gender that are taking place at the facility or county level, and in collaboration with village and county health teams. The GOL's National Health Policy, National Health Plan, National Nutrition Policy and Food Security and Nutrition Strategy emphasize the need for community-level activities with community ownership and participation, while also noting the GOL's current lack of funding and human resource capacity and desire to collaborate with NGOs. Title II Awardees are in a perfect position to assist the government in increasing access to their programs by offering community-level services to address the following:

- Preventing malnutrition among children under 2
- Improving IYCF practices
- Introducing effective referral systems for illness and SAM
- Improving maternal health and nutrition with a focus on adolescent girls
- Enhancing access to water and sanitation and improving hygiene practices

Preventing malnutrition among children under 2

As mentioned above, the fetal stage through 2 years of age is the period of most rapid growth in the life cycle and is a critical time in child development. To achieve optimal growth and mental development, children and their mothers need to be healthy and well-nourished and have access to adequate health care, hygiene and sanitation. Illness, infection and suboptimal care and feeding of women and children in this age range may lead to growth faltering and possibly malnutrition. Losses to growth and development during this time span are very difficult to recuperate, especially after age 2, when the pace of growth slows.

Prevention of malnutrition among children under 2 years of age is the overarching priority of the maternal and child nutrition component of the Liberia FSCF. To achieve a reduction in malnutrition in this age group, Title II Awardees are strongly encouraged to use the Prevention of Malnutrition Among Children under Two Approach (PM2A). This approach was tested in a randomized effectiveness trial in Haiti and yielded significant results by reducing the prevalence of malnutrition.¹³⁰ It is a population-based approach

¹³⁰ Ruel, Marie, et al. February 2008. "Age based preventive targeting of food assistance and behavior change and communication for reduction of childhood undernutrition in Haiti: a cluster randomized trial." *The Lancet* 371: 9612.

and differs from many food security interventions, including those implemented in Liberia previously, because all pregnant and lactating women and children 6-23 months within the program area are eligible to participate. All participants receive preventive food supplements and complementary health and behavior change communication (BCC) services regardless of nutritional or economic status. In contrast, most programs have used a recuperative model, targeting children once they have become malnourished to help them recuperate from malnutrition. In the Haiti trial, the prevalence of malnutrition was significantly lower in the prevention group compared to the recuperative group.

BOX 2: LIBERIA BASIC PACKAGE OF HEALTH SERVICES

1. Maternal and Newborn Health: Antenatal Care

- a) Labor and delivery care
- b) Newborn care
- c) Postpartum care
- d) Emergency obstetric care
- e) Family planning

2. Child Health

- a) IYCF
- b) Integrated management of childhood illness (IMCI)
- c) Expanded program on immunization (EPI)

3. Adolescent, Sexual and Reproductive Health

- a) Sexual and reproductive health
- b) Pregnancy prevention/care
- c) Sexually-transmitted infection (STI)/HIV/AIDS prevention
- d) Family planning
- e) Prevention of substance abuse

4. Disease Prevention, Control and Management

- a) STI/HIV/AIDS
- b) Malaria
- c) Tuberculosis
- d) Other communicable diseases
- e) Non-communicable diseases

5. Essential Emergency Treatment

Participants in the program receive a comprehensive set of services which should be harmonized with MOHSW guidelines, 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 per MOHSW protocols, including, for example, antenatal care, postpartum care, immunization, vitamin A supplementation, iron/folic acid supplementation during pregnancy

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

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 Liberia. 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. 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, and 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 should 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.

Services may be offered simultaneously or at distinct venues and times. The technical reference materials (TRM) for the design of programs using PM2A is forthcoming. A brief summary description of PM2A is provided in **Annex 5**. WFP will be implementing a food assistance program with similar targeting from 2009-2011 in Liberia. MYAPs should coordinate with WFP to prevent overlap and ensure complementarity.

The following program priorities discussed in the subsections below form an integral part of PM2A:

- Improving IYCF practices for children under 2
- Preventing and treating childhood illnesses
- Introducing effective referral systems for illness and SAM
- Improving maternal nutrition and health, with a focus on adolescent girls

Improving IYCF practices

Programs seeking to reduce malnutrition in Liberian preschool children must address child feeding practices, including promoting exclusive breastfeeding and optimal IYCF through 2 years of age. To accomplish this, the GOL has adopted the Essential Nutrition Actions (ENA) approach, a set of seven evidence-based and cost-effective actions to promote child nutrition. IYCF practices figure prominently in three of the actions and should guide the technical aspects of the Title II program approach. Community-based behavior change interventions and accompanying information, education and communications (IEC) materials that promote the ENA by targeting caregivers, household decision-makers and people of influence in the community should be designed based on formative research that identifies constraints and opportunities for behavior change within the communities. Ideally, this formative research on BCC should be combined with a gender analysis¹³¹ in this early phase to ensure a comprehensive understanding of the current feeding practices, with special attention to the unique needs of the many adolescent mothers in Liberia.

With a relatively low national prevalence of HIV (1.5 percent) that is concentrated in urban areas,¹³² 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.

Promotion of optimal breastfeeding practices is a high priority in Liberia. Although it is recommended that infants be exclusively breastfed for the first 6 months, the median duration is less than one month, with most caregivers providing water or other animal

¹³¹ *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 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.* Gender analysis aims to achieve equity rather than equality.

¹³² LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. p 194.

milk far too early. Fewer than 20 percent of children are exclusively breastfed for 6 months, meaning that the majority of children are at high risk of illness and malnutrition. In addition, breastfeeding is not initiated within an hour of birth for many children.¹³³

WHO recommends that children 6-23 months continue to breastfeed while also consuming nutritionally adequate complementary foods, which increase in thickness, quantity, density and diversity as the child gets older. However, in Liberia, less than half of mothers introduce solid foods even by eight months and only about one quarter of children are fed according to a minimum set of practices defined by frequency, diversity of diet and continued breastfeeding.¹³⁴ Clearly, there is need to improve complementary feeding practices, including the quantity and quality of food and the timeliness of introduction. Demographic and Health Surveys (DHS) data indicate that as children age, a higher percentage consume vitamin A- and iron-rich foods. These foods are available, but it may be necessary to work with caregivers to find ways to also give these foods to younger children. For example, the Positive Deviance (PD)/Hearth component of the current Title II program was able to introduce beans and dry fish, two good sources of protein and micronutrients, into children's diets. It is of particular importance to ensure that children are being fed sufficient amounts of protein and nutrient-dense complementary foods, including animal products and vitamin A- and iron-rich fruits and vegetables in addition to the staple food of rice while also continuing to breastfeed until they are at least two years old.

BOX 3: ESSENTIAL NUTRITION ACTIONS

- Promoting **optimal breastfeeding** during the first 6 months (e.g., timely initiation within one hour of birth and exclusive breastfeeding for six months)
- Promoting **optimal complementary feeding** starting at 6 months with continued breastfeeding through 2 years and beyond;
- Promoting optimal **nutrition care of sick and severely malnourished children**
- Preventing **vitamin A** deficiency for women and children
- Promoting adequate intake of iron and folic acid **and preventing and controlling anemia** for women and children
- Adequate **iodine** intake by all members of the household
- Promoting **optimal nutrition for women**

Preventing and treating childhood illness

Title II programming in Liberia should strengthen community-based MCH programming to increase access to treatment for common child illnesses – especially malaria, pneumonia, diarrhea and malnutrition – and to promote behavior change to prevent these illnesses. One key component of the BPHS program being rolled out by the GOL is child health, including integrated management of childhood illness (IMCI) and the

¹³³ Ibid. p 141.

¹³⁴ Ibid. p 145.

expanded program of immunizations (EPI). It is essential that Title II programs link with any facilities offering the BPHS and set up referral systems for complicated cases while managing common illnesses at the community level.

High rates of common childhood illnesses in Liberia, including pneumonia, diarrhea and malaria, likely contribute to the high rates of malnutrition seen in preschool children. According to LDHS 2007 data, prevalence of all three of these illnesses peaks in the 6-23 or 36 month age range, the same age range in which malnutrition rates are climbing. To prevent death, increased severity of illness, risk of complications, disability and associated malnutrition, it is important that actions to prevent these illnesses are in place and that ill children receive prompt and appropriate treatment. However, due to the destruction of health facilities in the civil war and limited human resources, access to health services is limited, with 76 percent of women claiming they face challenges accessing health care because of distance, cost of care and cost of transport, among other constraints.¹³⁵ Community-based health programs will help increase access to healthcare, with community health workers, community mobilizers or trained volunteers providing treatment for common illnesses and referral for complicated cases. This will also be a contact point to provide support for promoting ENA practices at the community level and educating caregivers to recognize when a child needs medical care.

Additionally, vaccination rates are low in Liberia, with only 34 percent of children 12 months of age fully vaccinated.¹³⁶ A Title II community-based MCH program that is linked with government programs could educate communities and mobilize them for vaccination campaigns to ensure that as many children as possible are protected from vaccine-preventable disease.

To prevent and treat illness, Title II programs should link with and support other GOL and USG programs offered in the counties. USAID, through John Snow Inc., will be rolling out the Rebuilding Basic Health Services Project (RBHS) in 2009, with intentions of bringing the BPHS to 106 facilities in seven catchment areas in Bong, Lofa, Nimba, River Gee, Bomi, Grand Cape Mount and Montserrado. Also, a USAID-funded Child Survival Project operates in Nimba. Additionally, USAID/Liberia efforts to strengthen the health sector in Liberia, especially in counties where they can link with community-based Title II programming, will enhance results of Title II program investments. Leveraging support from or linking to programs that focus on reducing childhood illness, such as those supported by PMI will be essential to strengthening support for vulnerable children in Title II communities.

Introducing effective referral systems for illness and SAM

Title II MYAPs are best placed to address the high levels of stunting through preventive programming. Therefore, it will be essential that any community-based program include a sound referral system to curative services so that cases of SAM or complicated illness receive adequate treatment. The GOL and UNICEF plan to roll out community-based management of acute malnutrition (CMAM) in several Liberian counties with high rates of SAM, and the GOL has targeted December 2010 for implementing the BPHS in 70

¹³⁵ Ibid. p 122.

¹³⁶ Ibid. pp 124-125.

percent of health facilities. Title II programs, while maintaining their focus on reducing chronic malnutrition, preventing illness and providing supportive treatment of common illnesses, should link their package of activities with CMAM programs, RBHS and other care and treatment programs, such as mental health services for victims of sexual and gender-based violence, and be prepared to refer cases to them and provide follow-up as needed.

Improving maternal health and nutrition, with a focus on adolescent girls

The National Nutrition Policy has identified pregnant and lactating women and adolescent girls to be among the nutritionally vulnerable, as evidenced by high rates of maternal mortality, maternal anemia, low birth weight and stunting among children under 5. Recent surveys have found that 10-14 percent of women of reproductive age have a low BMI (<18.5),¹³⁷ with rates as high as 18.5 percent in certain counties. Data from the 1999 National Micronutrient Survey indicate that 59 percent of women of reproductive age and 62 percent of pregnant and lactating women are anemic.¹³⁸ Low BMI may be caused by insufficient food intake, illness or hard labor and increases women's risk of illness and delivering low birth weight babies. Anemia is often caused by insufficient intake of iron, poor absorption of iron, malaria, worm infestation or infectious disease. It increases the risk of premature delivery, low birth weight, death for both the mother and her baby during delivery, and impaired cognitive development in the fetus. In addition, babies of anemic mothers are more likely to be anemic themselves and face challenges to growth and development. Promoting optimal women's nutrition, including an adequate diet of sufficient quantity and quality and anemia prevention through dietary diversity and promotion of iron/folic acid supplementation, should be a priority in food security programming in Liberia.

Interventions to improve women's nutritional status include increased food consumption and dietary diversity through supplementation, improved food access, increased food production, nutrition education and behavior change. To prevent anemia in pregnant women, iron/folic acid supplementation, deworming and intermittent preventive treatment for malaria are recommended actions as part of routine antenatal care, in addition to counseling to promote sleeping under insecticide treated bednets (ITNs) and to improve the quality and quantity of food consumed. About 70 percent of women received iron supplementation in their previous pregnancy, but just 14 percent took supplements for 90 days or more, whereas the international recommendation is 180 days.¹³⁹ Over three-quarters of pregnant women were given at least one dose of malaria medication, but only 12 percent received the government preferred Fansidar.¹⁴⁰ Just 30 percent of households own mosquito nets; whether they are insecticide treated is unknown.¹⁴¹ Less than 30 percent of women took deworming medication in their previous pregnancy.¹⁴²

¹³⁷ Ibid. p 149.

¹³⁸ GOL, WFP, FAO, UNICEF, UNMIL, and WHO. 2006. *Comprehensive Food Security and Nutrition Survey*. March-April 2006. p. 59

¹³⁹ LISGIS, MOHSW, NACP, and Macro International Inc. 2008. *Liberia Demographic and Health Survey, 2007*. Monrovia, Liberia: LISGIS and Macro International Inc. pp 151-152.

¹⁴⁰ Ibid. p 155.

¹⁴¹ Ibid. pp 153-154.

¹⁴² Ibid. p 114.

In an effort to reduce the shockingly-high MMR, the GOL has been training traditional birth attendants on a wide scale. The National Health Policy designates maternal health, including antenatal care, among the key services to be provided in the BPHS, which is currently being rolled out. The National Nutrition Policy includes plans to develop targeted micronutrient supplementation programs. PMI is funding ITNs and intermittent preventive treatment for malaria during pregnancy. These activities present an opportunity for Title II community-based programs to collaborate to promote attendance at antenatal care, compliance with iron/folic acid supplements for the minimum recommended 180 days, ITN use and improved diets. Formative research that explores women's dietary practices, intra-household food distribution, food access, 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 design and implement BCC programs to improve maternal health and nutrition.

In reaching all pregnant and lactating women with nutrition services, it will be essential to specifically target adolescents and their unique needs. Almost one-third of Liberian girls 15-19 years – 42 percent in rural areas – have given birth or are pregnant.¹⁴³ Additionally, adolescents have a higher rate of undernutrition (18 percent) than older women.¹⁴⁴ These young mothers and their babies are at increased risk of morbidity, mortality and malnutrition. They also are often in a more vulnerable position than older women and have less control over decision-making about self-care, diet, accessing health care and household decision-making than older women.¹⁴⁵ Programming that specifically targets their needs is essential to improving maternal nutritional status.

Enhancing access to water and sanitation, and improved hygiene practice

Any program working to reduce child malnutrition in Liberia will need to increase access to safe water and sanitation and improve hygiene practices. Specific activities should include behavior change and hygiene education for hand washing with soap, proper disposal of waste, maintenance of sanitary facilities, safe preparation and storage of food (especially foods for young children), point-of-use water treatment, safe storage of water, and helping communities access clean water sources and construct sanitation structures. USAID/Liberia has a 9 million USD water earmark that is mostly focused on rehabilitating infrastructure and also has a small health component. MYAPs working in water and sanitation should initiate discussions with USAID/Liberia to collaborate wherever possible on water and sanitation activities. Title II Awardees could also explore links with the private sector to access products, such as Water Guard, or water filters to help treat water at home.

Implementing community-based programming

The GOL has identified the need to improve access to health and nutrition services at the community level to improve the health and nutrition of Liberia's children and women. Title II Awardees can help to bridge this gap through community-based health and nutrition programming. The variety of approaches to bring health and nutrition

¹⁴³ Ibid. p 54.

¹⁴⁴ Ibid. p 149.

¹⁴⁵ Ibid. p 211.

services to the community level include the “branded” approaches, such as PD/Hearth and community integrated management of childhood illness (C-IMCI), as well as other approaches promoting the use of community health workers to reach the community. Regardless of the approach favored by MYAP Awardees, the program should call on community members to take responsibility for malnutrition prevention by training and building the capacity of community health workers and providing supportive supervision of program staff and volunteers. PM2A programming requires the integration of other community approaches. **Annex 4** contains a matrix of several popular programs that the Title II program may wish to consider incorporating into the program design.

6.2.3 Key Design Considerations

6.2.3.1 Geographic Targeting

FFP requires participating MYAP Awardees to target resources for food security programming in the most food insecure regions of the 19 countries – all highly vulnerable to food insecurity – where FFP focuses Title II multi-year programs. It is clear from the most recent data, which was presented in **Section 4.2**, that households living in the isolated Southeastern corner of the country, particularly in River Gee and Grand Gedeh, are more vulnerable to chronic poverty, food insecurity and malnutrition than are households elsewhere in Liberia. Southeastern counties suffer from communication failures and extremely low market integration. Southeastern communities are under-capacitated in each of the three realms of food availability, access and utilization. Households in Bong and Nimba, where agricultural recovery has been slow, also remain highly vulnerable to food insecurity. Bong and Nimba are located in the central corridor of Liberia and are known as perhaps two of the three most prominent breadbasket counties of the country, after Lofa. Lofa, in the far Northwest of the country, was highly food insecure in the immediate aftermath of the war, largely because the proportion of displaced population was so high there. It appears that Lofa communities are rebounding, however, and food security and nutrition indicators no longer place Lofa amongst the most vulnerable counties in the country.

It would perhaps be logical to concentrate MYAP activities in the Northern swath of the country of the four contiguous counties of Bong, Nimba, Grand Geddeh and River Gee. Bong and Nimba figure prominently in USAID/Liberia Country Strategic planning. They are relatively accessible counties and offer significant agricultural production and income-earning potential. Efforts at increasing food security in Bong and Nimba can be promising, given the appropriate set of interventions. Given their relative isolation, River Gee and Grand Geddeh would be more challenging, but data analyses by different agencies confirm that households and communities in these two counties are highly food insecure and therefore cannot be ignored. The GOL, specifically MOA and MOHSW, indicated to the FSCF team their preference that outside resources and programming initiatives should begin to penetrate the southeastern region of the country.

6.2.3.2 Targeting Vulnerable Groups

As noted earlier, vulnerable households in the rural Liberian context who are food insecure or vulnerable to food insecurity include:

- Female-headed households
- Households characterized by high age dependency ratios
- Households with aged or disabled household heads
- Landless households
- Households lacking access to assets, including livestock

The prioritization of vulnerable groups does not necessarily translate, however, into narrowly proscribed targeting mechanisms for all program activities. Liberian culture and community dynamics will require that to be effective, agricultural technology transfer and marketing programs should be open to all community members who wish to participate. The community participatory problem analysis and prioritization process would include a targeting mechanism, which may be a modified version of a wealth ranking exercise, to identify the most vulnerable and food insecure households in the community that should have every opportunity to participate in program activities aimed at improving food availability and utilization.

All households with children under 2 and pregnant and lactating women would be prioritized for nutrition activities aimed at improving food utilization to address the long-term negative effects of chronic child malnutrition and the high prevalence rate of chronically malnutrition. In contrast, all program activities involving food transfers need to directly target the most vulnerable food insecure households and individuals outlined in the list above. FFW programs could be self-targeting 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 Balancing Food and Cash Resources as Program Inputs

The next MYAP in Liberia must balance food and cash input resources to maximize program effectiveness. Although some proportion of the food assistance will be monetized, as in the past, MYAP Awardees must also devise effective use of food resources directly supporting program activities. The balance between monetization and food assistance in some form of distribution to households within communities will be based on conditions and assessed needs as the program is designed. In addition to direct distribution of food commodities, the monetization requirements, modalities and recommended commodities will of course be based on the Bellmon analysis and determination.

In the context of rural Liberia, the most promising use of food assistance directly supporting programming initiatives in MYAP communities include:

- Food rations for children under 2 – PM2A food transfers are appropriate only when accompanied by participation in MCHN activities, including preventive health services and BCC
- Food rations for pregnant and lactating women, who also must be involved in MCHN activities at the community level
- FFW activities to support the clearing and preparation of swamplands for cultivation to offset the household labor that would otherwise be used toward other farm or off-farm income earning endeavors
- FFW to support *Kuu* labor activities at critical phases of the cultivation cycle: this approach may not be necessary or desirable in all contexts and requires

appropriate pre-activity assessment to ensure that food assistance in no way acts as a deterrent to production and potential income generating activities

- FFW and Food for Assets (FFA) creation to support infrastructure development activities, including farm-to-market roads, bridge construction and reconstruction, and small-scale infrastructure
- Food-based crop insurance and community food reserves, using food to raise rural incomes, stimulate agricultural productivity growth and reduce vulnerability to food insecurity (potential pilot activity)
- Monetization of appropriate commodities, as determined by the Bellmon determination and analysis

6.2.3.4 Instituting an Integrated Programming Approach in Participating Communities

In **Section 6.2.2**, this FSCF recommends strategic approaches for Liberia that include agricultural production and productivity, marketing, income generating, MCHN, and water and sanitation activities designed to improve food security and reduce vulnerability of food insecure households and communities. To accomplish this, MYAP Awardees should institute a holistic integrated programming approach, developing a coordinated program approach that targets critical needs to maximize impact and reduce food insecurity. Programs should seek to ensure that the most vulnerable in its target areas have access to activities in each of its major program areas, including activities relating to agriculture, livelihoods, health and nutrition, and link the actual activities in functional ways. The design of the coordinated programming approach would prioritize the reduction of household and community exposure to risks from shocks as well as increasing the ability to manage such risks. Such an integrated programming approach would create synergies across program outputs and activities around realistic targeting criteria aimed at reducing food insecurity among vulnerable groups. 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 commences through well-facilitated enquiry with communities into community-led problem analysis and program needs. 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, not a sector-led approach that involves the entire community in integrated programming. Program partner field staff must become proficient in the techniques of facilitating participatory methods for such an approach to succeed. For program integration to actually succeed, however, the core program activities themselves need to be meeting real needs, be technically sound and function well.

6.2.3.5 Adopting a Community Participatory Approach, Avoiding Dependency Syndrome

Because a “dependency syndrome,” fueled by years of emergency-based unconditional resource transfers, is endemic in Liberia, all MYAP implementing partners will need to learn to adopt a facilitating role to promote active community ownership of nutrition, health and agricultural production solutions. The next MYAPs should promote and apply a community participatory approach to engage community ownership and responsibility

for the activities to be 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 incorporate 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 to identify and incorporate location-specific conditions into problem identification. The health/nutrition and agriculture/marketing teams work closely together to promote a coordinated programming approach. Only then 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.

6.3.2.6 Gender Equity

The GOL is promoting strong gendered activities in its action plan. Title II MYAPs should likewise seek to ensure a gender-sensitive program design, incorporating much of the government action plan into its programming, including providing women entrepreneurs with 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 in any conflict resolution and peace-building activities. The principles of gender equity need to be integrated more explicitly and proactively into all food security programs. A better understanding of the gender dimensions, particularly the ways that gender issues will affect the various dimensions of programming and their ability to achieve their food security objectives, should inform the design and implementation of the Title II programs. Men's and women's needs and constraints differ and are not always affected in the same way by project interventions. Adding a gender lens to these programs requires understanding and taking these differences into account in the design and implementation of the Title II programs. As such, integrating gender equity in 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.

Although engaging women in development is essential, male involvement is also critical in the Liberian context because of how 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.

MYAP 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 Liberian households and communities. It is essential therefore to try to tackle traditional prohibitions, such as land access, division of labor and engagement in agricultural market forces. Activities should also include approaches aimed at reducing the labor time required for water collection and cooking fuels. Assessments and feasibility studies of all community activities would include gendered analysis. Effect and output indicators should be gender sensitive to measure the differential effects of activities on women and men.

6.2.3.7 Employing Effective 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 reducing malnutrition among children under 5 and women of reproductive age. While access to the necessary variety and amount of food, key MCH services, and clean water and sanitation are essential, their impact on malnutrition will be limited unless sound care-seeking, IYCF practices and dietary practices are adopted. 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 and contribute to a supportive environment at community, institutional and policy levels.¹⁴⁶

Title II programs will need to carefully target their key behavior change messages. In Liberia, a mother often is not the primary decision-maker regarding her own and her child's health and nutrition. In such circumstances, targeting the mother is necessary but not sufficient to improve practices related to maternal and child nutrition. Other people to target may include husbands, mothers-in-law, community leaders and others who influence community and household behaviors.

While awareness-raising activities may be helpful, Title II programs are strongly encouraged to use intensive and interactive behavior change approaches. These

¹⁴⁶ 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 (CSTS+) Project. Both are available at: http://www.coregroup.org/working_groups/behavior.cfm.

interventions will ensure that targeted individuals are exposed to the same key messages on several different occasions in ways that engage them actively.

6.2.3.8 Applying Formative Research to Promote Behavior Change

Improving care, feeding, hygiene and sanitation practices will require Title II Awardees to conduct formative research to develop a comprehensive behavior change strategy that can be tailored to each community and targeted to caregivers and key decision-makers at all appropriate contact points. Similarly, focused research will need to be applied toward increased agricultural productivity and improved agricultural practices, including improved farm management (i.e., input and land use, agricultural techniques, planning), improved post-harvest techniques and systems, and increased market access and use. In tandem with these two components of focused research, it will be important for MYAP awardees to undertake a gender analysis and gendered vulnerability assessment to understand the current sociocultural context. Although several surveys have been undertaken in the recent past, much less is known about how 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 bearings on program design, implementation and impact. MYAP 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. When conducting behavior change programs, Title II Awardees should ensure that any services promoted by the program are available to program participants. If products such as ITNs or services such as micronutrient supplementation are unavailable in the community, Awardees should coordinate with the MOH, UNICEF, other donors and stakeholders to make these complementary services available.

Key aspects of formative research for IYCF practices

In addition to identifying behaviors surrounding recommended health, nutrition, care and feeding practices, the formative research will need to identify barriers and motivators affecting caregivers' abilities to achieve optimal practices, as well as a gender analysis exploring the relationships between men and women in the household and community. 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. Awardees will also need to identify stresses caregivers face that may inhibit their ability to adequately care for their families, including domestic violence, loss of a partner or spouse, family relations, and/or community challenges. Formative research should help to identify key decision-makers and influencers to ensure that core BCC messages are targeted appropriately and communicated to mothers, husbands, mothers-in-law/grandmothers and any other essential person such that mothers receive adequate support from family members for child care, feeding and nutrition. Given that a proportion of beneficiaries will be adolescent mothers, formative research should identify how to best target them, their partners and families; this could include peer-to-peer activities or group activities for mothers within certain age ranges.

6.2.3.9 Operations Research

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 programs to identify problems in service delivery and to test programmatic solutions to solve those problems. It also provides program managers and policy decision-makers with the information they need to improve existing services. There are five basic steps in the operations research process: 1) identifying the problem in service delivery or implementation; 2) identifying a solution or strategy to address the problem; 3) testing the solution; 4) evaluating and modifying the solution as needed; and 5) integrating the solution at scale in the program. By incorporating well-designed operations research as a core part of the MYAP field activities, programs can continuously examine the quality of their implementation and identify constraints to delivery, access and utilization of program activities, adjusting the program as necessary. Operations research is an iterative process that should be conducted at the beginning of the project and repeated during the life of the project to ensure continued quality in service delivery and program implementation. If done well and is supporting a well-designed project, it can increase the likelihood that the project will attain its stated objectives.

6.2.3.10 Anticipating the Need for an Emergency Response

One of the major themes of this FSCF is the transition from the emergency and rehabilitation programming scenario currently defining the Liberian context toward longer-term development. MYAP Awardees understand that shocks and new emergency situations may require temporary repositioning of food resources as well as thoroughly assessed contingency planning for emergency response programming. MYAP implementing agencies will need to identify major potential shocks that will have to be monitored, possibly including the following (also outlined under Risks and Vulnerabilities in **Section 4.6**):

- Conflict, war and displacement could have devastating effects on community and household transitory food security depending on the intensity of the conflict. Liberia consists of 15 ethnic groups, and conflict in neighboring countries could affect vulnerability and food security within Liberia. Conflict over land given changing land tenure patterns, which could affect access to land for cultivation, is another scenario.
- Unforeseen pest attacks have high likelihood and could severely affect crop and livestock production, although the severity varies by region and cultivating season.
- Rainfall patterns are becoming more unpredictable, providing farmers with difficult decisions about appropriate land preparation and planting times. Unlike other African countries, drought is less likely in Liberia, except in small pockets of the country.
- Rising food prices, associated with the international food price crisis of 2007-08, could severely impact Liberian households and communities, especially because Liberians purchase such a large amount of their staple requirements; another

food inflation crisis in future years could trigger transitory food insecurity on a large scale.

Some potential shocks can be anticipated by monitoring trigger indicators (TIs). Frequent and severe shocks have compelled households on occasion to resort to coping mechanisms of increasingly destructive consequences, including distress livestock sales, fuel wood and charcoal sales, and distress migration, depleting household and community physical, natural, human and financial assets. Asset losses over time deprive households of traditional coping strategies, including informal mutual assistance associations and decreased agricultural productivity. Household asset depletion, however, also results from inadequate national and international response to shocks and emergencies. Communities are rarely involved in analyzing risks and shocks and making decisions about responses to emergency scenarios. The next MYAP should develop mechanisms to effectively and efficiently monitor TIs to inform Awardees, partners, the GOL and USAID of a potential crisis; to involve the community in this process; and to develop mechanisms to prepare communities so that appropriate mitigation and response involves all relevant stakeholders.

MYAP Awardees should establish mechanisms to monitor TIs related to slow-onset disaster scenarios. One indicator by itself cannot inform the potential onset of a slow-onset disaster. Any form of early warning system would therefore consist of two or more indicators to be monitored through a triangulation or convergence of evidence, which together serve to confirm the condition of transitory food insecurity in a particular geographic locality. Rural Liberian communities have developed their own sets of early warning indicators within the context of a chronically food insecure environment. The indicators inform stakeholders of events or processes that influence or contribute to the outcome of transitory food insecurity. Communities apply the indicators to undertake a series of coping strategies in response, the severity of which become more difficult to reverse as the disaster becomes more entrenched or pronounced. An early warning system includes leading or early TIs, which could be market prices of staple foods in local and regional markets and/or rainfall patterns; concurrent or stress indicators, such as an index of coping strategies (the Coping Strategies Index [CSI] is an easily administered but potentially effective tool; as well as agricultural production indicators. An early warning system would not, however, monitor trailing indicators such as acute malnutrition rates, which appear too late in the process.

Early warning partners would include the Famine and Early Warning Systems Network (FEWS NET) and the Committee to fight Drought in the Sahel (CILSS). Although Liberia is not a drought-prone country as are other Sahel countries like Mali, Niger, Chad, Sudan or East Africa, CILSS plans to place a staff expert in the Liberia MOA to support early warning efforts. FEWS NET will include Liberia in its first tier list of countries for remote food security monitoring.

Potential response mechanisms include:

1. Adjusting program activities
2. Diverting up to 10 percent of in-country Title II commodities from their MYAPs for emergency use¹⁴⁷
3. Partnering with WFP to address emergency caseload need: Regardless of conditions, MYAP Awardees should consider coordinating their emergency preparedness and management activities – including logistics activities, geographic targeting and modalities of food assistance programming – very closely with WFP as an integral part of the program. Close liaison with the WFP Vulnerability Assessment Monitoring (VAM) Unit will help to closely track the emergency monitoring process. Program implementation modalities, including ration sizes and FFW norms, should be the same across MYAPs and WFP-implemented programs.
4. Requesting FFP to supplement their programs with additional emergency Title II resources: Given the high likelihood that Title II program communities will suffer shocks during the life of a MYAP, this fourth option should be achieved by including an emergency response component in new MYAPs which could be implemented if and when specific emergency indicators also identified in their MYAPs are triggered.¹⁴⁸

6.2.3.1 | Integrating Conflict Management and Mitigation into MYAP Programming Activities

Throughout the past three decades, Liberia's development progress has been stifled by a combination of conflict, poor governance and corruption. MYAP programming activities could foster sustainability through the promotion of conflict resolution and the social integration of excluded social groups. A conflict management and mitigation approach would reinforce community social structures by facilitating discussion within village development groups associated with other program activities to find solutions to sources of conflicts in the village as well as between the village and local authorities or between different communities or different groups of people based on ethnicity or other types of social differentiation.

Conflict management and mitigation activities would promote increased implementing power and effectiveness of community groups, particularly in the realms of conflict resolution and increased inclusion and participation of women. Capacity building activities may contribute to building community management skills and social capital, promoting inclusiveness, reducing ethnic tensions, and adopting participatory approaches to enhance community skills in program implementation by:

¹⁴⁷ MYAP Awardees require USAID Mission or Diplomatic Post approval to divert 10 percent of in-country commodities for emergency uses. A MYAP implementing agency planning on using more than 10 percent for emergency needs and/or would like FFP to replace the commodities that have been diverted for that purpose requires FFP authorization prior to the transfer of any additional commodities and funding. USAID Missions cannot authorize the transfer of monetized proceeds, Internal Transportation, Storage and Handling (ITSH) funding or Section 202(e) for emergency uses, unless this step has been approved by the FFP Director in an amendment to the approved program.

¹⁴⁸ This option is spelled out in more detail in: USAID/FFP, August 2007. *Title II Program Policies and Proposal Guidelines for Fiscal Year 2008*. Draft.

- Strengthening the capacity of communities to analyze vulnerability and risk
- Developing risk management capacity of communities
- Strengthening the linkage between MYAP Awardees, communities and the public sector

6.2.3.12 Monitoring and Reporting on Program Performance

MYAP Awardees may find it challenging or daunting to develop 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 Department of State. To help clarify its requirements, FFP issued two information bulletins in August 2007 and one information bulletin July 2009.¹⁴⁹ The first (FFPIB 07-01 [updated]) describes the five sets of reporting requirements that are applicable to all MYAPs:

1. Awardee program indicators
2. FFP/Washington's Performance Management Plan (PMP) indicators
3. USAID Mission indicators
4. "F" indicators, which are required by the Director of US Foreign Assistance under the new US Strategic Framework for Foreign Assistance
5. The US President's Initiative to End Hunger in Africa (IEHA) indicators¹⁵⁰

The second and third bulletins (FFPIB 07-02 and FFPIB 09-07) 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. All Title II Awardees will need to follow this new guidance in developing and implementing their new MYAPs.

6.2.3.13 Commodity Management

Corruption is pervasive in Liberia, which has affected commodity management in various programs, including the current MYAP. The next MYAP must take steps to incorporate very strong commodity management systems that warehouse and inventory food appropriately and minimize commodity loss; significant losses could greatly undermine program impact. While this is essential within any FFP program, commodity management is a particular challenge to all programs operating in Liberia.

6.2.3.14 Developing Sustainability and Exit Strategies

FFP has increasingly given prominence to developing Title II programs that clearly lay out a strategy toward program sustainability. MYAP Awardees should consider integrating a range of approaches into their programming strategy to promote sustainability, including indicators to identify measurable definitions of food security graduation. It is clear in talking to communities as well as other stakeholders in the government, bilateral institutions and NGOs that several years of relief programming have also brought a type of dependency syndrome to the process of incipient development following the longstanding conflict. MYAP Awardees must be aware of the dangers of creating disincentive effects to productive enterprises by implementing

¹⁴⁹ All FFP information bulletins can be found at:

http://www.usaid.gov/our_work/humanitarian_assistance/ffp/ffpib.html.

¹⁵⁰ Note: FFPIB 07-01 (updated) was released on October 5, 2007 as an update to FFPIB 07-01 (August 8, 2007). The updated version includes IEHA indicators in addition to the other reporting requirements.

activities that may stifle innovation and initiative. It will therefore be incumbent to include strategic approaches with clear timelines, such as:

- **Participatory approaches and techniques** to engage community participants' sense of ownership and responsibility for the activities they will be implementing, expand stakeholder participation, foster ownership, and promote long-term maintenance and sustainability of structural and extension activities
- **Capacity building** of community groups, local government and NGO partners 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 the underemployed in part by building strategic alliances at the national and local levels to advocate for changes in policy interpretation and implementation in support of currently-powerless poor and extreme poor households and communities
- **Enhanced women's empowerment** 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

6.2.4 Cross-Cutting Themes and Issues

6.2.4.1 Education

Education is linked with increased income and agricultural productivity, improved health and nutrition, delayed marriage, and lower fertility rates.¹⁵¹ Additionally, an educated population is more qualified to work in the formal sector and better poised to contribute to the overall development of a country. Because the Liberian educational system was devastated during the war and the current generation of youth is less educated than their parents, improved access to quality education is essential to the development of the country and the long-term food security of its population. Because of education's central importance, USAID/Liberia has invested significant resources in educational programs. MYAPs operating in Liberia may choose to support USAID/Liberia educational initiatives through a FFE program, which involves providing a meal to children attending school, has been shown to increase attendance and has been used as an incentive to encourage enrollment of girls. Meals provided in the morning to children who have not yet eaten may improve concentration.

A Food for Education (FFE) program will be most successful if it supports other USAID/Liberia activities to improve educational quality and is integrated into other food security initiatives at the community level. Current activities that a FFE program might support include the Accelerated Learning Program (ALP), which provides the equivalent of a primary school education in three years to learners 10-35 years of age. The current enrollment is 53 percent male and 47 percent female, and Bong, Nimba and Grand

¹⁵¹ Bergeron, Gilles, and Joy Miller Del Rosso. 2001. *Food for Education Indicator Guide*. Washington, DC: FANTA at AED. pp 7, 11.

Gedeh counties have high participation levels.¹⁵² The unique age range of participants presents an opportunity to link the FFE program with other MYAP activities, including health and nutrition activities targeting young mothers (who may feel more comfortable in ALP than in traditional education programs) as well as activities to strengthen livelihoods and agricultural production. Another potential FFE opportunity would link with the USAID/Liberia-funded teacher training program targeting schools that are benefiting from newly-trained teachers and encouraging enrollment, especially among girls in areas where the gender parity index demonstrates gender disparities. Any FFE activity proposed should be discussed with the USAID/Liberia education team to promote program synergy.

6.2.4.2 Strengthening Human Resource Capacity

Effective partnering and capacity building can increase program implementation efficiency and effectiveness, scale and coverage, sustainability of service delivery, and programming scope. It is a strategy for community empowerment, sustainability and impact promotion. The process promotes cross-fertilization, transparency and enhanced potential for a coordinated programming approach. Capacity strengthening of local partners and local governments as well as the MOHSW, MOA and County teams is a high priority need for ensuring 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 technical, analytical and managerial capacities of these stakeholders, as well as that of community and household leaders. Capacity strengthening also includes activities designed to strengthen communities' capacities to organize, plan and represent their interests in broader fora.

Title II Awardees also need to focus on strengthening the capacities of their own staff and volunteers, providing them with on-going training and frequent, supportive supervision in which the supervisor provides constructive feedback to improve staff performance and enhance learning. This also includes valuing staff for addressing gender issues as a part of their day-to-day activities to enhance program impact on food security and nutrition outcomes. Capacity-building should be integrated into the design of all food security program activities. In Liberia's time of transition, the Title II Awardees can also assist and support the GOL with the development and implementation of its food security-related policies and programs, offering insight from their own unique field-based knowledge and experience.

7. COLLABORATION AND RESOURCE INTEGRATION

The GOL National Health Policy and Plan, National Nutrition Policy, National Food Security and Nutrition Strategy, and PRS all acknowledge that the GOL needs the support of donors, NGOs and private providers to accomplish the daunting task of rebuilding agriculture and health sectors. This next iteration of Title II MYAPs comes at a critical and promising time, as the new government of Liberia rebuilds from the war

¹⁵² MOE. nd. *A System in Transition: 2007/08 National School Census Report*. p 60-61.

with great hopefulness. MYAP Awardees involved in designing and implementing integrated agriculture, health and livelihoods programs have the unique opportunity to link with and support several government strategies as they are being rolled out, creating synergies that will maximize programming impact. The program, as designed, should help to bring government services to the community level, collaborating with RBHS, other USAID and county initiatives, and achieving successes in poverty reduction, health and nutrition.

USAID is also currently developing its country strategy, presenting MYAP partners for opportunities to share in dynamic new approaches. It is incumbent that MYAP designs clearly demonstrate functional mechanisms, modalities and overall strategy for efficient and effective collaboration and integrated programming.

Finally, MYAP designs may be strengthened by seeking collaboration in the form of a consortium. The comparative advantage of a consortium-partnered approach are numerous: many potential consortium partners have several decades of work experience in rural Liberia; many have developed different types networks of national partners that reach out to the most needy; consortium partners frequently possess institutional knowledge, strict accountability standards, and well-developed technical, administrative, logistical and program management practices; and different consortium members have relative strengths that can be shared by partners. Experienced and highly-motivated MYAP Awardees collaborating closely to implement a holistic program in different counties of the country would be able to achieve substantial scope and scale to realize a positive impact on food security.

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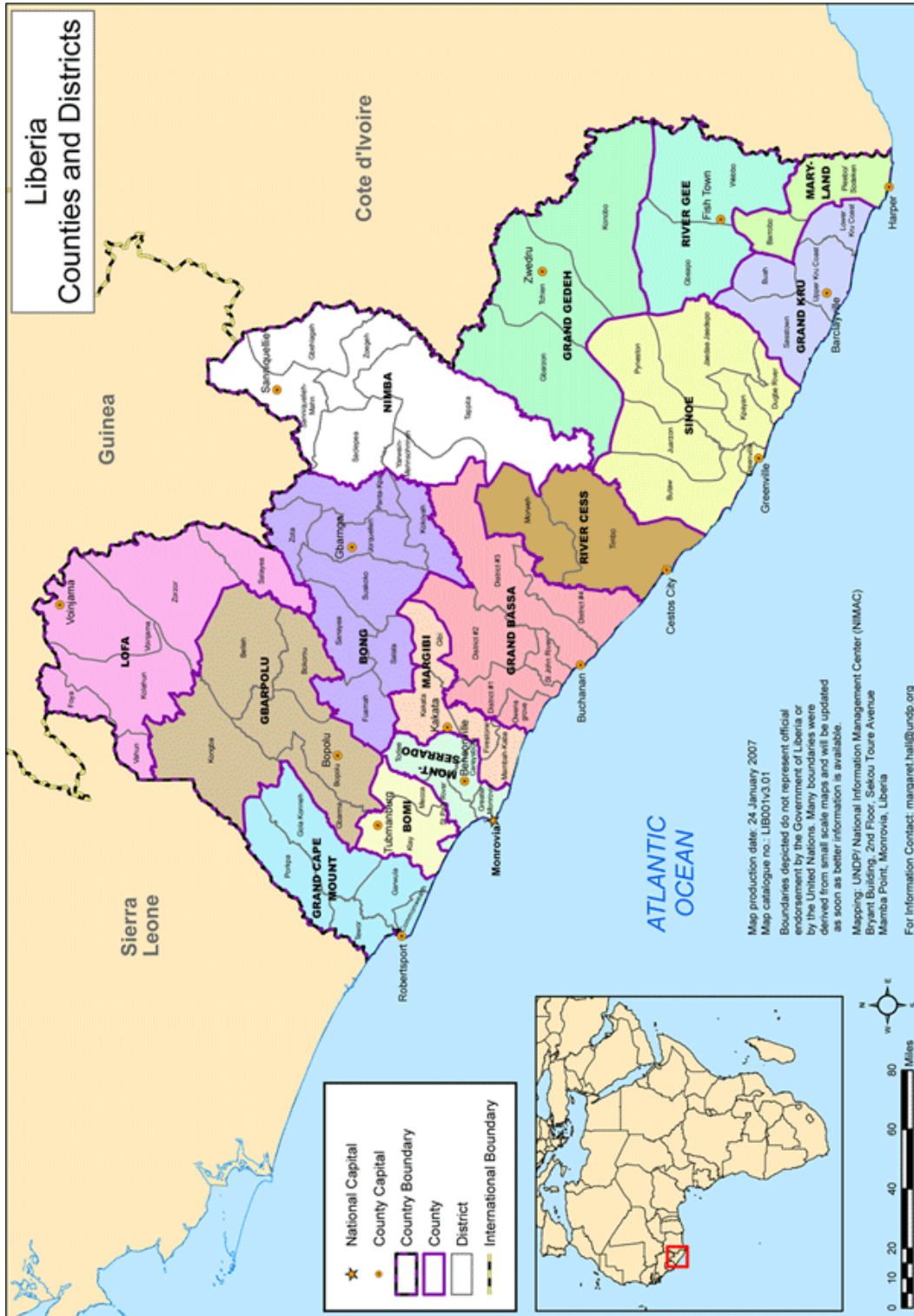
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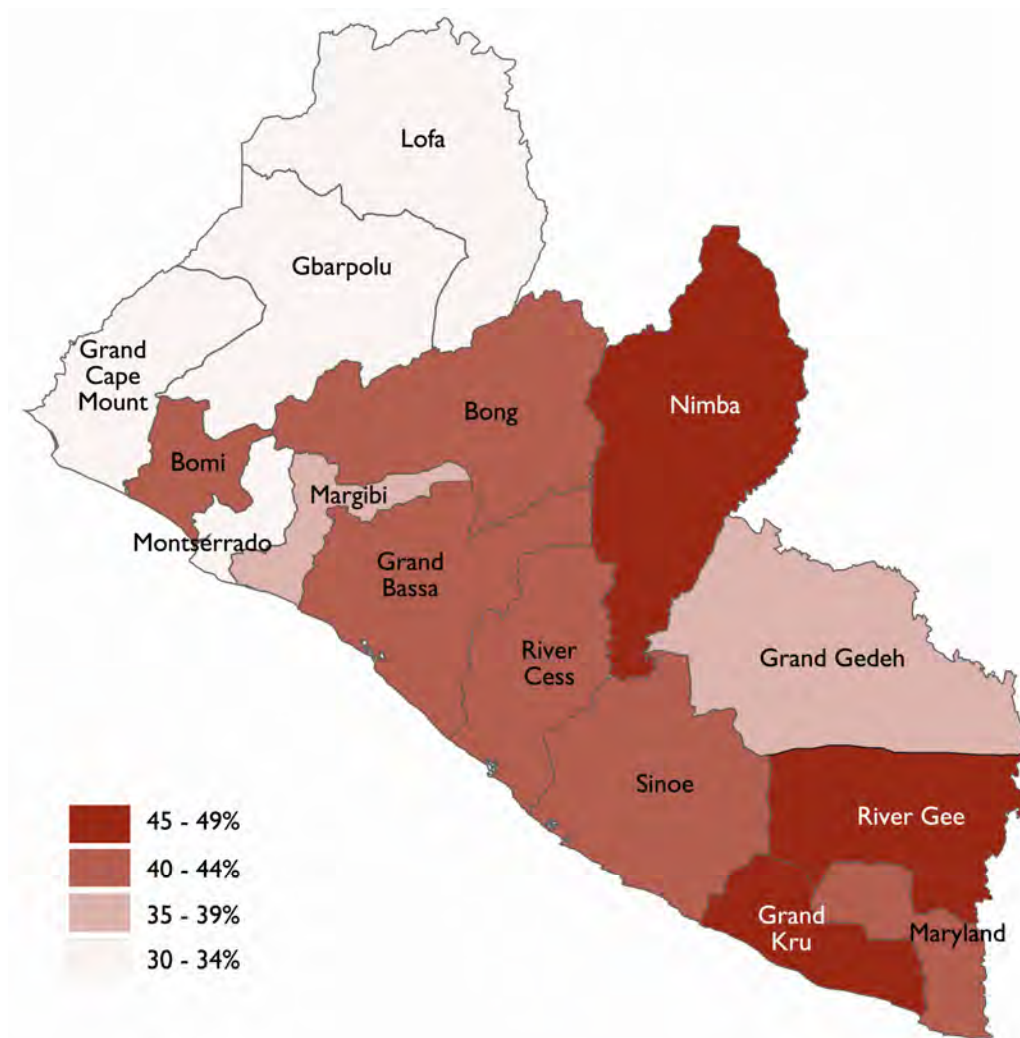
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ANNEX I. MAPS

ADMINSTRATIVE MAP OF LIBERIA

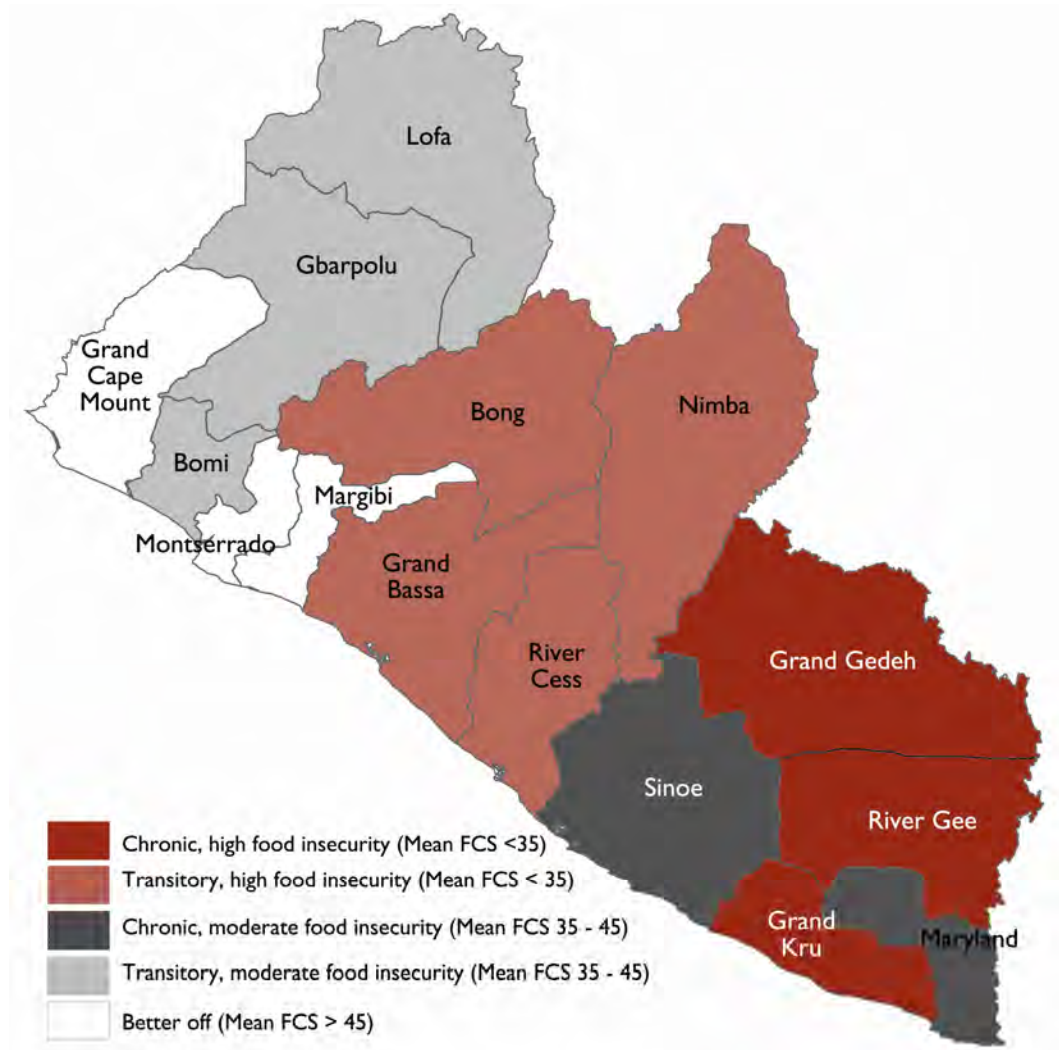


MAP OF PREVALENCE OF STUNTING (HEIGHT-FOR-AGE < -2 Z-SCORES)



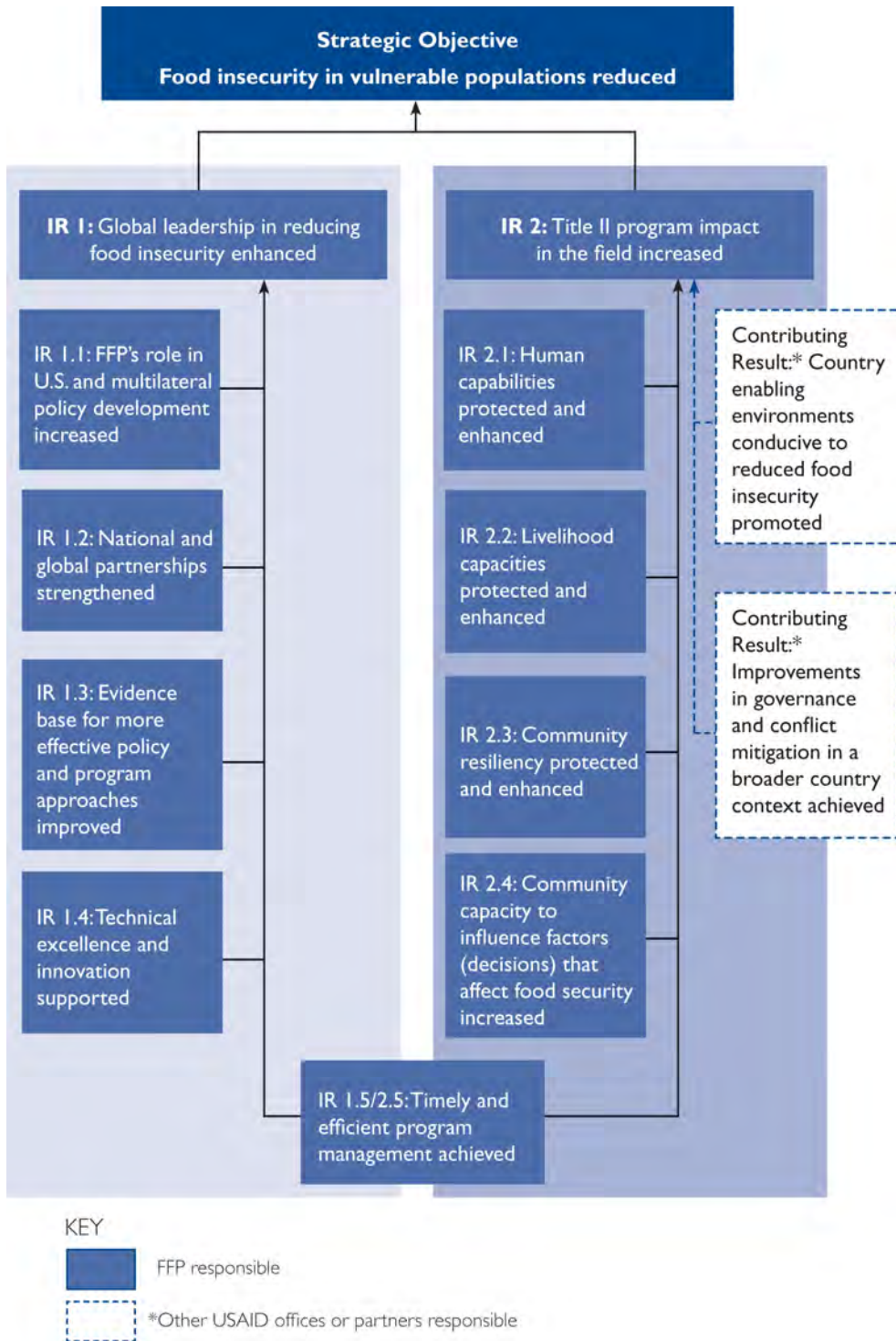
Adapted from PROFILES Presentation 2007; CFSNS 2006

MAP OF FOOD SECURITY STATUS IN DECEMBER 2008

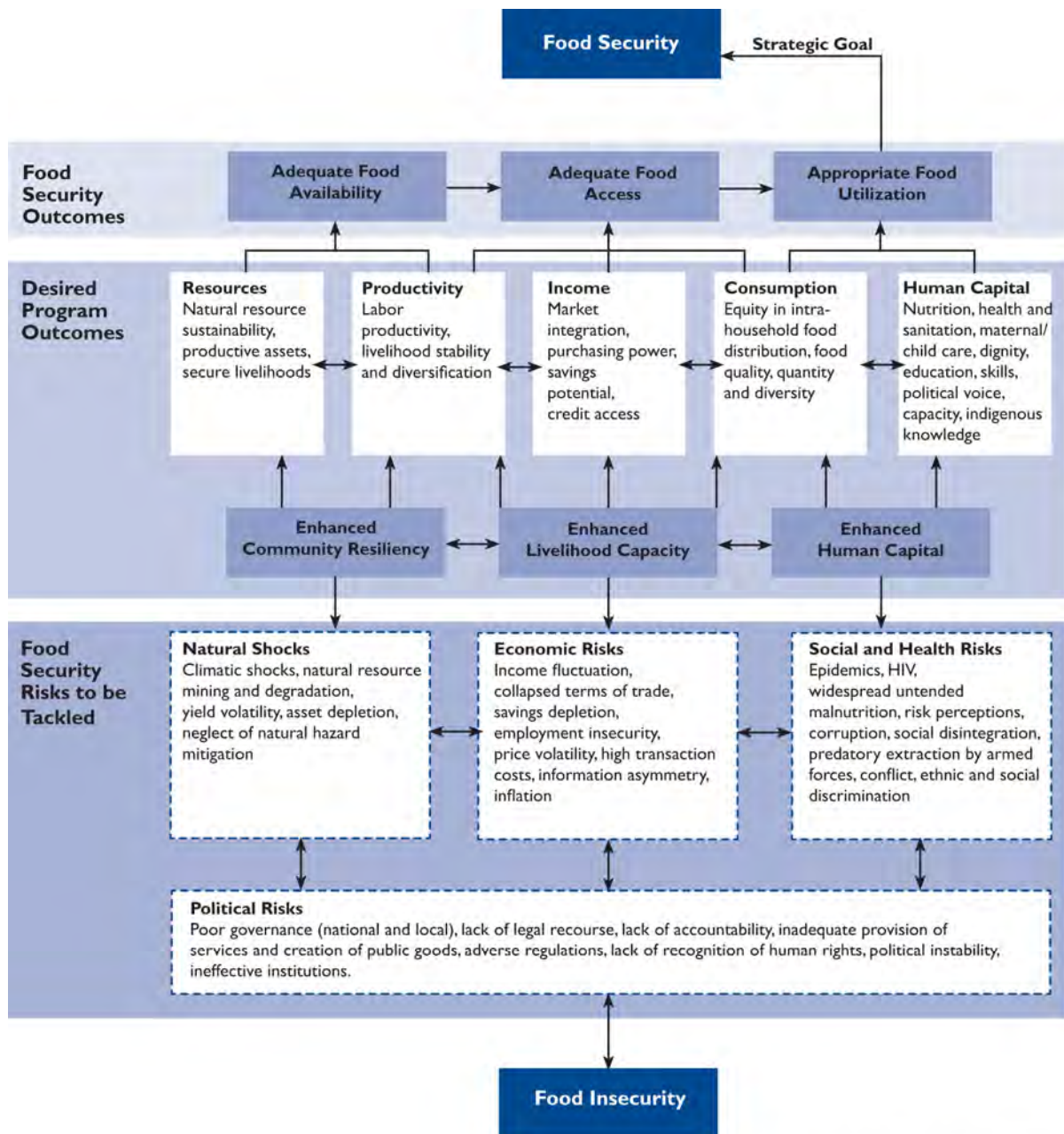


Source: World Food Programme, Liberia Food Security and Nutrition Survey, map produced March 2009

ANNEX 2. FFP STRATEGIC FRAMEWORK FOR 2006 - 2010



ANNEX 3. FFP EXPANDED CONCEPTUAL FRAMEWORK FOR UNDERSTANDING FOOD INSECURITY



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

ANNEX 4. DESCRIPTIONS OF COMMUNITY-BASED NUTRITION PROGRAMS

POSITIVE DEVIANCE (PD)/HEARTH, COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)¹⁵³ 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	<p>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.</p>	<p>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.</p>	<p>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 two), and cost about 11 percent of a traditional, facility-based program.</p>
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

¹⁵³ 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)
Target Group	Children 6-36 months with moderate and severe malnutrition, (weight-for-age < -2 Z-scores)	<ul style="list-style-type: none"> Children 6-59 months with SAM (MUAC < 110, weight-for-height < -3 Z-scores or < 70 percent, and/or bilateral pitting edema) 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 	Children 0-24 months
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 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 two) 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, micronutrients) 	<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)
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 • Growth monitoring and promotion • Child health days • Recuperative feeding sessions 	<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)
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 five 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 five • Influencers of children under five 	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 strong¹⁵⁴ 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 Volunteers and supervisors need to be trained Substantial social mobilization Follow-up/record-keeping important Part of a larger nutrition strategy
Information Resources	<p>Linkages. <i>Training of Trainers for Mother to Mother Support Groups</i>. www.linkagesproject.org/media/publications/Training%20Modules/MTMSG.pdf.</p>	<p>World Relief and CORE. <i>The Care Group Difference</i>. www.coregroup.org/diffusion/Care_Manual.pdf.</p>	

¹⁵⁴ WHO and LINKAGES 2003.

ANNEX 5. PREVENTING OF MALNUTRITION IN CHILDREN UNDER TWO 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. 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

CBGP

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

U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
Tel: (202) 712-0000
Fax: (202) 216-3524
www.usaid.gov