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# LIBERIA

## FY 2011–2015 Multi-Year Strategy

### U.S. Government Document

The Feed the Future (FTF) Multi-Year Strategies outline the five-year strategic planning for the U.S. Government's global hunger and food security initiative. These documents represent coordinated, whole-of-government approaches to address food security that align in support of partner country priorities. The strategies reflect analysis and strategic choices made at the time of writing and while interagency teams have formally approved these documents, they may be modified as appropriate.

*Document approved June 29, 2011*

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## ABBREVIATIONS AND ACRONYMS

|                 |  |
|-----------------|--|
| <b>ADWG</b>     | Agriculture Donor Working Group  |
| <b>AfDB</b>     | African Development Bank   |
| <b>AIDP</b>     | Agriculture and Infrastructure Development Project (World Bank)            |
| <b>ASRP</b>     | Agriculture Sector Rehabilitation Project                                  |
| <b>BDS</b>      | Business Development Services  |
| <b>EPHS</b>     | Extended Package of Health Services  |
| <b>CAADP</b>    | Comprehensive Africa Agriculture Development Program                       |
| <b>CAAS-Lib</b> | Comprehensive Assessment of the Agriculture Sector in Liberia              |
| <b>CARD</b>     | Coalition for African Rice Development                                     |
| <b>CARI</b>     | Central Agricultural Research Institute                                    |
| <b>CBO</b>      | Community-Based Organization   |
| <b>CDCS</b>     | Country Development Cooperation Strategy                                   |
| <b>CFSNS</b>    | Comprehensive Food Security and Nutrition Survey                           |
| <b>CORAF</b>    | West and Central African Council for Agricultural Research and Development |
| <b>DO</b>       | Development Objective  |
| <b>DOD</b>      | Department of Defense  |
| <b>DRC</b>      | Direct Resource Cost   |
| <b>ECOWAP</b>   | Regional Agricultural Policy for West Africa                               |
| <b>ECOWAS</b>   | Economic Community of West African States                                  |
| <b>EHELD</b>    | Excellence in Higher Education for Liberian Development                    |
| <b>ENA</b>      | Essential Nutrition Actions  |
| <b>EU</b>       | European Union   |
| <b>FAO</b>      | Food and Agriculture Organization  |
| <b>FED</b>      | Food and Enterprise Development  |
| <b>FEWSNET</b>  | Famine Early Warning System Network  |
| <b>FFP</b>      | Food for Peace   |
| <b>FSN</b>      | Foreign Service National   |
| <b>FSNMS</b>    | Food Security and Nutrition Monitoring System                              |
| <b>FSNS</b>     | Food Security and Nutrition Strategy                                       |
| <b>FTF</b>      | Feed the Future Initiative   |
| <b>GASFP</b>    | Global Agriculture and Food Security Program                               |
| <b>GCC</b>      | Global Climate Change  |
| <b>GDP</b>      | Gross Domestic Product   |
| <b>GFSR</b>     | Global Food Security Response  |
| <b>GHFSI</b>    | Global Hunger and Food Security Initiative                                 |
| <b>GOL</b>      | Government of Liberia  |
| <b>GIZ</b>      | Deutsche Gesellschaft für Internationale Zusammenarbeit                    |
| <b>IEHA</b>     | Initiative to End Hunger in Africa   |
| <b>IFAD</b>     | International Fund for Agriculture Development                             |
| <b>IFPRI</b>    | International Food Policy Research Institute                               |
| <b>IMNCI</b>    | Integrated Management of Newborn and Childhood Illnesses                   |
| <b>INAWE</b>    | Integrated Agriculture for Women's Empowerment                             |
| <b>IP</b>       | Implementing Partner   |
| <b>IR</b>       | Intermediate Result  |
| <b>ITCZ</b>     | Inter-Tropical Convergence Zone  |
| <b>JICA</b>     | Japan International Cooperation Agency                                     |
| <b>LASIP</b>    | Liberia Agriculture Sector Investment Program                              |
| <b>LAUNCH</b>   | Liberian Agricultural Upgrading, Nutrition and Child Health Program        |

|                 |   |
|-----------------|---|
| <b>LISGIS</b>   | Liberian Institute of Statistics and Geo-Information Services |
| <b>M&amp;E</b>  | Monitoring and Evaluation                                     |
| <b>MCC</b>      | Millennium Challenge Corporation                              |
| <b>MOA</b>      | Ministry of Agriculture                                       |
| <b>MOHSW</b>    | Ministry of Health and Social Welfare                         |
| <b>MYAP</b>     | Multi-Year Assistance Program                                 |
| <b>MYS</b>      | Multi-Year Strategy   |
| <b>NGO</b>      | Nongovernmental Organization                                  |
| <b>NRM</b>      | Natural Resource Management                                   |
| <b>PMI</b>      | President's Malaria Initiative                                |
| <b>PMU</b>      | Program Management Unit                                       |
| <b>PRC</b>      | People's Republic of China                                    |
| <b>PRS</b>      | Poverty Reduction Strategy                                    |
| <b>PSC</b>      | Personal Services Contractor                                  |
| <b>PTA</b>      | Parent-Teacher Association                                    |
| <b>ReSAKSS</b>  | Regional Strategic Analysis and Knowledge Support System      |
| <b>RF</b>       | Results Framework   |
| <b>SIDA</b>     | Swedish International Development Agency                      |
| <b>TBD</b>      | To be determined  |
| <b>UNDP</b>     | United Nations Development Program                            |
| <b>USDA</b>     | United States Department of Agriculture                       |
| <b>USDH/DLI</b> | United States Direct Hire/Development Leadership Initiative   |
| <b>USFS</b>     | United States Forestry Service                                |
| <b>USG</b>      | United States Government                                      |
| <b>WAAPP IC</b> | West Africa Agricultural Productivity Program IC              |
| <b>WASH</b>     | Water, Sanitation and Hygiene                                 |
| <b>WOG</b>      | Whole of (US) Government                                      |

# I. DEVELOPMENT CHALLENGES AND OPPORTUNITIES

## I.1 CONTEXT AND CHALLENGES

Decades of mismanagement and fourteen years of civil war virtually destroyed Liberia's economy. The years of war devastated Liberia's human and institutional capacity, demolished the country's physical infrastructure, and fundamentally damaged productive agriculture.

Real Gross Domestic Product (GDP) declined by almost 66 percent between 1987 and 2005.<sup>1</sup> Liberia continues to be one of the world's poorest countries, ranked 162 out of 169 countries in the 2010 United Nations Development Program (UNDP) Human Development Index. Depending on source and definition, between 64 and 84 percent of the population live below the national poverty line or on less than \$1.25 day.<sup>2</sup>

Food insecurity is widespread with 42 percent of the population considered food insecure, children being especially hard-hit.<sup>3</sup> Recent findings indicate 41.8 percent of children under five are stunted, while 15 percent of the under-five population is identified as underweight.<sup>4</sup> Poor nutritional options in terms of available foodstuffs and a lack of positive nutritional behaviors to enhance dietary diversity are among the factors underlying food insecurity. This is further exacerbated by diarrheal disease from unsafe water supplies and lack of sanitation and hygiene.

Formal sector employment opportunities are limited, and youth unemployment is pervasive. The educational level of the population is low, with the median years of education at 1.6 years for women and 5.8 years for men.<sup>5</sup> Government of Liberia (GOL) capacity is weak and its presence in rural areas and districts inadequate, one consequence of which is limited availability of public services. The country is highly aid dependent with foreign aid accounting for significantly more than GOL spending; U.S. bilateral assistance in 2010 alone was equivalent to two-thirds of the GOL budget.

In 2007 there were only 700 km of paved roads in Liberia, almost all of which were damaged.<sup>6</sup> The vast majority of roads are unpaved, and many are impassable during the six-month rainy season -- severely constraining access to inputs, services, and markets.

In 1974 Liberia produced 87 percent of its grain consumption requirements, but rice production fell 76 percent between 1987 and 2005.<sup>7</sup> While production of rice, the staple crop, improved since 2006, Liberia still relies heavily on food imports to meet domestic requirements of staples, vegetables, pulses, chicken, meat, and condiments. In 2009, the value of food and live animal imports was \$162.1 million (18.5 percent of GDP; 28.8 percent of total imports), nearly 40 percent of which were accounted for by

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<sup>1</sup> International Monetary Fund. (2008). *Liberia: Poverty reduction strategy paper*. Washington, D.C.: IMF Publication Services.

<sup>2</sup> World Bank, *Liberia - poverty headcount ratio*. See <http://data.worldbank.org/Country/Liberia>. Liberia Institute for Statistics and Geo-Information Services (LISGIS). (2007). *Core welfare indicators questionnaire survey 2007*. Monrovia: LISGIS.

<sup>3</sup> Republic of Liberia. (2010). *Comprehensive food security and nutrition survey 2010 Draft*. Monrovia: Government of Liberia.

<sup>4</sup> Republic of Liberia. (2010). *Comprehensive food security and nutrition survey 2010*. Monrovia. Government of Liberia.

<sup>5</sup> LISGIS (2008). *Liberia Demographic and Health Survey 2007*. Monrovia: LISGIS.

<sup>6</sup> Republic of Liberia. (2010). *Comprehensive food security and nutrition survey 2010 Draft*. Monrovia: Government of Liberia.

<sup>7</sup> IMF. (2008). *Liberia: Poverty reduction strategy paper*. Washington, D.C.: IMF Publication Services.

commercial rice imports, at \$63.9 million.<sup>8</sup> Agriculture productivity is very low, with upland rice yields averaging just over 1 metric ton per hectare. Additionally, post-harvest losses are exceptionally high, reaching up to 45 percent in some areas, and value chains are severely underdeveloped.<sup>9</sup>

Notwithstanding these significant constraints, agriculture remains the mainstay of Liberian economic activity. Agriculture accounted for one half of GDP in the post-war period, and more than two-thirds of Liberians depend on agriculture for their livelihood; women and children are particularly dependent on the sector.<sup>10</sup>

Liberia has significant productive potential. However, the country's forests, soils, and water resources require more effective sustainable management practices and actions to increase agricultural productivity and must adopt best practices that can build resiliency in agricultural systems in the face of possible climate change, such as integrated pest management and conservation agriculture approaches to boost intensification.

Peace in Liberia remains fragile. Ensuring land tenure stability and establishing clarity of land rights, notably for women, continues to be a source of potential instability. Regional conflict, the proposed drawdown of the United Nations mission, and national elections scheduled for November 2011 are all potential instability triggers.

## **1.2 OPPORTUNITIES**

Even in the face of these substantial challenges, Liberia is moving forward towards recovery. At the core of the GOL's 2008 Poverty Reduction Strategy (PRS) is rapid, inclusive, and sustainable economic growth and development. The economy achieved economic growth of over 9 percent in 2007 and, despite the global financial crisis of 2008, maintained a growth rate of 7 percent in 2008, 5 percent in 2009, and recovered to an estimated 6.3 percent in 2010.<sup>11</sup> The country's agricultural endowment is conducive for growth. This natural endowment is underscored by the GOL's view of agriculture as the central driver of economic development. The GOL's commitment to agriculture sector development and particularly the important role of the private sector is clearly articulated in various GOL policy documents, including the 2008 PRS, the 2008 Food and Agriculture Policy and Strategy, and the 2010 Liberia Agriculture Sector Investment Program (LASIP).<sup>12</sup>

Liberia has important, if yet underdeveloped, tradable natural resources such as oil, iron ore, gold, diamonds, and timber from which it could increasingly earn foreign revenues to support development. The GOL introduced a number of pro-poor laws and regulations, and its management practices are highly regarded for increasing transparency and reducing red tape in its dealings with both private citizens and businesses. Liberia's standing on Transparency International's Corruption Perception Index

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<sup>8</sup> Republic of Liberia. (2010). *Comprehensive food security and nutrition survey 2010*. p. 26. Monrovia. Government of Liberia.

<sup>9</sup> For example, Liberia's rice yields are one of the lowest in the West Africa region, being 1.2 mt/ha compared to Senegal's 3.6 mt/ha and MOA/FAO estimate post-harvest losses between 34-45%. Reference: *The state of food and nutrition security in Liberia*, 2010.

<sup>10</sup> Ministry of Agriculture (MOA). (2009). *Liberia agriculture sector investment program*. Monrovia: MOA.

<sup>11</sup> USAID. (2010). Liberia: Interagency conflict assessment framework report. Monrovia: USAID. IMF (2010). Liberia: 2010 Article IV Consultation and Fifth Review Under the Three-Year Arrangement Under the Extended Credit Facility-Staff Report. IMF Country Report No. 10/373, December 2010.

<sup>12</sup> MOA. (2008). Food and agriculture policy and strategy: From subsistence to sufficiency. Monrovia: MOA. PRS, note 7, above. MOA (2010). Liberia Agriculture Sector Investment Program (LASIP), Monrovia. September 2010.



improved from 137 (out of 158 countries ranked) in 2005 to 87 (out of 178 countries ranked) in 2010.<sup>13</sup> According to the World Bank's *Doing Business* report, in 2009 business start-up in Liberia was faster and easier through simpler registration processes, time limits, and business licensing reforms.<sup>14</sup> The cell phone and banking sectors are in the process of expanding and providing related private sector development services.

The Feed the Future (FTF) Initiative in Liberia is well positioned to capitalize on these agricultural and nascent private sector investment opportunities. FTF can, and will, build on the momentum the GOL has generated.

### **1.3 STRATEGIC CHOICES**

The choices for focusing the 2011-2015 FTF core programs, as detailed below, are informed by and closely aligned with GOL priorities and strategies. Choices are made in consideration of location for greatest positive impact on the greatest number of people. Finally, a value chain approach provides the framework for these choices.

#### **1.3.1 Core Programs**

The three core programs in the U.S. Government Liberia FTF multi-year strategy (MYS) include the following:

**1. Transforming Staples' Value Chains.** This program focuses on rice and cassava, Liberia's primary staple foods.<sup>15</sup> It utilizes a change agent model, in which lead farmers, lead processors, farmer groups, associations, and traders transform constraints in the value chain to deliver positive benefits through increased productivity and income. The model proposes providing women and men change agents with capacity building, access to finance, market linkages, and connections to input supplier networks. These agents will subsequently provide men and women farmers with technical assistance to improve their product quality and yields, as well as provide them with processing and marketing services to reduce post-harvest losses. FTF support emphasizes: 1) seed/plant material production and dissemination; 2) technical assistance through public and private extension; 3) start-up finance for processing equipment, storage facilities, and transport; and 4) contracting support and market linkages. FTF Multi-Year Strategy (MYS) activities will examine both men's and women's roles in the value chains as a point of departure for strengthening their capacity to carry-out their existing roles and expanding into other roles (e.g., women's role in processing).

**2. Developing Income and Diet Diversification Value Chains.** This program focuses on vegetable horticulture and goat husbandry and adopts a similar change agent model to the one presented above. FTF support in vegetable horticulture includes: 1) development of private sector extension services (e.g., men and women input providers); 2) start-up finance of lead traders/lead farmers (many of whom will be women) for transport, storage, and other equipment; and 3) capacity building of women and men lead traders/farmers in production, processing, contracting support, and market linkages. Support for the goat value chain is in concert with the recently awarded United States

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<sup>13</sup> Transparency International (TI). (2010 and 2005). *Corruption perceptions index (CPI)*. TI. See [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi) The CPI measures perceived level of public-sector corruption in countries around the world and ranks countries on a scale between 10 (highly clean) and 0 (highly corrupt).

<sup>14</sup> See <http://www.doingbusiness.org/reforms/overview/topic/starting-a-business>

<sup>15</sup> As discussed in Section 3.2, specific value chain investments in rice will explicitly take account of the differences in economic resource cost between lowland (swamp) and upland cultivation in working to ensure and balance both economic sustainability and nutrition impacts.

Department of Agriculture (USDA) livestock development project and FTF MYS activities will examine and support both women's and men's roles in the goat value chain. In order to serve producers and processors, the program includes: 1) training for public and private animal health care workers; 2) development of the animal health care system; 3) establishment of breeding programs; and 4) creation of business opportunities for privately operated slaughterhouses.

**3. Advancing the Enabling Environment.** The focus of this program includes: 1) agriculture policy advocacy, support, and research; 2) development and coordination of public and private extension interventions; and 3) private sector market structure development. The latter considers creating opportunities to establish market information systems and investing in identifying and experimenting with different profit sharing and contracting models between change agents and smallholders to ensure equitable power dynamics. Within the enabling environment context, FTF MYS activities will pay explicit attention to support women's full engagement in research; as providers and consumers of extension services; in marketing systems; and in contracting activities.

Integrated into these three core programs, the Liberia FTF MYS nutrition intervention strategy proposes a coordinated set of focused interventions directed at addressing each element of availability, access, and utilization of more and better quality food for women, men, and their families. The core program investments directly address availability by working to strengthen the production of key staples and expanding production of a more diversified set of nutrition options. In order to increase access to food, the value chain investments - supported by the strengthened enabling environment and capacity - will increase incomes and contribute to expanded ability of smallholder farm households to purchase food. Improved processing, transport, and marketing in targeted value chains will lead, over time, to lower prices and increased ability of the entire population to purchase these foods. As described in detail below, the change agent approach to transforming staples production and promoting diet diversification value chains to produce more nutritious varieties of crops will involve explicit investment in both marketing and behavior change approaches to nutrition behaviors that will promote improved food utilization. Leveraging resources and expertise from across the entire Mission portfolio, in particular health programs, the FTF MYS creates synergies to address food utilization issues through support for Essential Nutrition Actions (ENA), Integrated Management of Newborn and Childhood Illnesses (IMNCI), and Water, Sanitation, and Hygiene (WASH) activities. These aligned programs will contribute to ensuring FTF nutrition outcomes are integral to the overall success of the FTF MYS.

### **I.3.2 Rationale for Value Chain Selection**

The rice, cassava, vegetable horticulture, and goat value chains are best positioned to address Liberia's nutrition and poverty challenges, while facilitating growth of private sector activity. USAID evaluated these value chains -- along with 35 others -- and organized them into seven categories.<sup>16</sup> The selected four emerged as the best candidates when screened in a four-stage process: 1) relevance in focus counties; 2) income potential and competitiveness; 3) nutritional value and dietary role; and 4) impact on women. These criteria formed the basis for selection, further strengthened by the following factors:

- Rice: FTF Liberia selected the rice value chain because it is the critical staple food for Liberians providing the primary source of dietary calories. Given its dominant role in Liberian diet and cultural identity, rice availability is also highly politically sensitive, an important dynamic for the

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<sup>16</sup> Cereals (rice, wheat, corn); Legumes (ground nut, bean, cow pea, soybean); Tubers (cassava, sweet potato, yam, eddo); Vegetables (pepper, bitter ball, eggplant, chilies, tomato, sesame, cucumber, greens, onion); Fruit (orange, banana, pineapple, mango, coconut, papaya); Livestock, including fisheries (dairy, beef, goat, sheep, chicken, duck, swine, fish); and Tree crops (palm oil, rubber, cocoa, coffee, sugar cane).



GOL. Eighty percent of Liberia's rural agriculture households grow rice;<sup>17</sup> however, imports are currently more than double the amount of local rice production. This leaves ample opportunities for smallholders to increase their income by producing and selling locally produced rice, provided that it can compete with imported rice.

- Cassava: FTF Liberia identified the cassava value chain as a priority due to its importance as a food crop for the poor. FTF Liberia also considered women's involvement in its production and processing. As both its tubers and greens are consumed, cassava is an essential source of calories and critical to food security. As the second most important crop in Liberia, it is widely grown and consumed. Women are heavily involved in cassava production, which needs to increase by at least one-third to satisfy local demand, thus offering considerable income-generating potential to smallholders, especially if it is processed. There are also opportunities to fortify cassava during processing to increase its nutritional value and to disseminate more nutritious cassava varieties.
- Vegetables and Goats: FTF Liberia selected the vegetable and goat value chains for their contributions to dietary diversity, a key component of food security. Additionally, vegetables are among Liberia's most profitable crops, and poor women and men producers can earn a high profit margin, nearly tripling profits compared to cassava and rice. Goats are a core household asset, providing food and income for the family and gifts or food for celebrations. Because the war decimated goat herds, there are abundant opportunities to increase production, processing, and income -- especially for women and the poorest households. Increased goat production will also reduce dependence on wild game and fish, helping to decrease pressures on biodiversity. Goat value chain pilot investments will also leverage the resources of the USDA livestock project, thereby increasing impacts.

### 1.3.3 Geographic Focus

The FTF strategy can best support the GOL to address its most pressing food security and poverty challenges by focusing on counties with the highest population, the most farmers, the largest numbers living in poverty, and the greatest potential for agriculture development. As detailed in Table I, FTF will target Bong, Lofa, Nimba, Grand Bassa, Montserrado, and Margibi counties. These counties are located along Liberia's main economic development corridors and collectively include around 75 percent of all Liberian households; more than two-thirds of all farming households; and nearly 70 percent of the country's population living below the poverty line, defined as those unable to afford a food consumption level of 2,400 kilocalories per day. Focusing on these counties helps to ensure production from value chain interventions will be close to the main infrastructure and markets of the country.

All six counties are priority counties in the Mission's draft Country Development Coordination Strategy (CDCS) and they are the counties comprising the priority development corridors designated by the GOL. These corridors will be the GOL's focus for its medium-term development strategy (and implementation) over the next five years in the *Phase II PRS*, currently under development. The GOL's development corridor approach mirrors the development hypothesis USAID/Liberia intends to apply and test:

*Development corridors provide a focus for public and private investments in infrastructure and agriculture production, processing, and marketing that results in broader, more balanced, more diversified, and more equitable growth.*

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<sup>17</sup> Republic of Liberia MOA/LISGIS. (2010). *Production estimates of major crops and animals – 2009*. Monrovia: LISGIS

This hypothesis embodies and reflects the FTF ‘crowding in’ approach, articulated as “. . . if we concentrate our resources and attract those of the host government, other United States Government (USG) agencies, other donors and civil society, we will have greater, deeper, and more sustainable impact on poverty and nutritional deficiencies rather than spreading our resources more broadly across a country and its population.”<sup>18</sup> Additionally, Bong, Lofa and Nimba counties, known as Liberia’s “breadbasket” counties, are the three target counties for USAID/Liberia’s Health Portfolio, ensuring harmonized, synergistic nutrition interventions.

**Table 1. Liberia Population Estimates by Counties, 2008**

| County                      | Total Population | Farming Population | Poor Population  |
|-----------------------------|------------------|--------------------|------------------|
| Bong                        | 333,481          | 237,928            | 227,101          |
| Grand Bassa                 | 221,693          | 142,798            | 130,577          |
| Nimba                       | 462,026          | 360,246            | 314,640          |
| Lofa                        | 276,863          | 227,625            | 188,544          |
| Montserrado                 | 1,118,241        | 117,796            | 542,347          |
| Margibi                     | 209,923          | 82,510             | 123,645          |
| <b>Six focus counties</b>   | <b>2,622,227</b> | <b>1,168,902</b>   | <b>1,526,853</b> |
| Liberia Total               | 3,476,608        | 1,711,165          | 2,225,029        |
| <b>Focus counties share</b> | <b>75%</b>       | <b>68%</b>         | <b>69%</b>       |

Source: Republic of Liberia: 2008 Population and Housing Census Final Results. Population, T. 5, p 10; Households, T. 10.1, pp. A-10-315-317. Poverty Rate, Liberia Poverty Reduction Strategy Paper, July 2008, T. 3.1, 2007 Poverty Headcount, p.25; T 3.2: Liberia, 2007 Poverty Profile, p.26.

### 1.3.4 Alignment with Government of Liberia Priorities

As part of the wider reconstruction efforts and in response to the Comprehensive African Agriculture Development Program (CAADP), the GOL developed its cross-sector national Food Security and Nutrition Strategy (FSNS) and Country Investment Plan, LASIP. The FSNS key objective is to ensure that all Liberians have reliable access to the food they need and are able to utilize that food to live active and healthy lives.<sup>19</sup>

In the LASIP, the GOL prioritizes four investment programs and two cross cutting themes (Gender and Youth; Environmental Protection) for 2011-2015. These programs are:

- **Food and Nutrition Security:** Increasing yields, access to food, and smallholder participation in crop production; building the livestock sector.
- **Competitive Value Chains and Market Linkages:** Upgrading roads and agricultural infrastructure; commercializing value chains; increasing credit access.
- **Institutional Development:** Decentralizing Ministry of Agriculture (MOA) activities; expanding MOA extension services; building farmer-based organizations; reviving agricultural research and education.

<sup>18</sup> See Feed the Future: Monitoring and Evaluation Frequently Asked Questions, p. 8 at <http://www.feedthefuture.gov/monitoringevaluationfaq.html>

<sup>19</sup> Ministry of Agriculture. (2008). National food security and nutrition strategy: A cross-sectoral strategy for the Government of Liberia. Monrovia: Government of Liberia.

- **Land and Water Development:** Promoting property rights laws; increasing irrigation; improving land husbandry; increasing use of wet and degraded land.

Table 2 illustrates the alignment of LASIP and FTF programs.

**Table 2. Government of Liberia Agriculture Sector Investment Program (LASIP) and the U.S. Government/Liberia Feed the Future Program Alignment**

| LASIP Programs and Themes                    | FTF Activities  |
|--|---|
| Food and Nutrition Security                  | <ul style="list-style-type: none"> <li>• Increasing food availability through strengthening value chains leading to increased production, better processing, and greater availability of these foods</li> <li>• Improving access to food by increasing purchasing power</li> <li>• Supporting better food utilization through diet diversification (vegetables and meat protein), improved water sanitation and hygiene practices, and investing in marketing and behavior change in food purchasing and eating habits</li> </ul> |
| Competitive Value chains and Market Linkages | <ul style="list-style-type: none"> <li>• Commercializing value chains</li> <li>• Increasing access to and use of agriculture credit</li> <li>• Increased access to information</li> <li>• Facilitating market linkages</li> </ul>   |
| Institutional Development                    | <ul style="list-style-type: none"> <li>• Supporting private and public sector agriculture extension</li> <li>• Building capacity of farmer organizations</li> <li>• Investing in actionable research</li> </ul>   |
| Land and Water Development                   | <ul style="list-style-type: none"> <li>• Improving land husbandry</li> <li>• Engaging producers in lowland rice development (swamp rice, irrigated rice)</li> </ul>   |
| Gender and Youth                             | <ul style="list-style-type: none"> <li>• Mainstreaming gender</li> <li>• Encouraging youth involvement in agriculture</li> </ul>  |
| Environmental Protection                     | <ul style="list-style-type: none"> <li>• Using environmentally sound agricultural practices to maintain soil fertility, manage water resources, and retain greenhouse gases in soils, including carbon</li> <li>• Promoting activities to protect mature forests rather than encouraging their conversion to slash-and-burn agriculture</li> </ul>  |

### 1.3.5 Cross-Cutting Issues

**Gender.** Support for women is integral to FTF investments in Liberia. Women - as wholesalers, producers, traders, caregivers, and entrepreneurs - are central in all interventions. FTF will build on and expand women's role in the four value chains, in particular by increasing women's knowledge and use of improved agricultural technologies and practices. Women are heavily involved in rice seedling transplanting, in rice harvesting, and in threshing/drying rice. Facilitating women's access to improved practices in these areas, including improved processing equipment, will enable women to increase rice production and improve rice processing and will result in positive impacts on family income and nutrition. While men typically engage in land clearing and land preparation for cassava, men and women work together in planting and production; however, women primarily engage in cassava processing. By investing in improved processing equipment, and by ensuring women have access to equipment, women will earn income, resulting in positive impacts on family income. Additionally, FTF Liberia expects positive impacts on family nutrition as cassava flour is processed and fortified. In regard to vegetables, women are at the center of marketing, as both buyers and sellers, so improving production, processing, and marketing of vegetables will impact positively on family income. Women's role in goat husbandry is

critical and supporting women to raise goats for home consumption and market sale offers opportunities for them to improve family nutrition and to increase income. Building the capacity of men and women extension agents to engage women in learning about healthy food purchases and consumption will positively affect family nutrition and both extension and health interventions will strengthen men and women's abilities to engage positively in household and community nutrition behavior change.

**Youth.** FTF investments in Liberia will encourage the engagement, training, and employment of youth in its programs, particularly in peri-urban vegetable horticulture. FTF MYS activities will seek to create productive employment opportunities in agriculture that can attract youth and provide future livelihoods and will align capacity building for youth, especially those older youth who missed formal education opportunities during the civil war years, with other workforce development programs. Aligned USAID Food for Peace (FFP) and USDA programs will work with school gardens with the dual aim to teach youth basic skills that will draw them to farming as a career as well as to produce supplemental food for school feeding programs and community households.

**Environmental Protection.** Liberia contains two of the remaining three large rainforests in West Africa, which cover approximately 36 percent of the country. They are a global priority for biodiversity conservation, harboring over 2,900 different vascular plants (including 225 tree species), 600 bird species, 150 mammal species, and 75 reptile species. Currently, these forests are at risk of overexploitation, unsustainable use and mismanagement, particularly through traditional slash and burn agriculture practices. Historically, slash and burn practices were more sustainable when population densities were lower and more rudimentary technologies were used to clear land. The GOL, USG, and other development partners are collaborating to increase adaptation and mitigation interventions to protect Liberia's forests while also promoting economic development. In the introduction of better land use methods to support the key value chains, FTF interventions will promote alternatives to further protect those forests in line with GOL priorities and international norms.

**Global Climate Change (GCC).** USAID/Liberia recently received the draft Liberia Climate Assessment, which it commissioned from the United States Forest Service (USFS) Southern Research Station, positing that the climate of West Africa is subject to considerable variability in both space and time.<sup>20</sup> The assessment linked this to variations in the movement and intensity of the Inter-Tropical Convergence Zone (ITCZ), as well as variations in timing and intensity of the West African Monsoon. As the assessment notes, the primary sources of variability at both the inter-annual and decadal time scales relate to variations in sea surface temperatures in either the tropical Atlantic or the global sea surface temperature distribution.<sup>21</sup> Presently, GCC models have difficulty correctly reproducing a number of key features of atmospheric circulation patterns over West Africa, which makes prediction of changes in rainfall patterns extremely difficult. Given projected overall warming, an increase in rainfall is likely to occur, and the pattern of rainfall during the wet season suggests that the expected increase in rainfall will likely be focused along the coast with inland regions experiencing normal to slightly reduced rainfall. The key implications of this analysis indicate a need for Liberia's FTF MYS to: 1) actively monitor temperature and rainfall patterns to inform planning and implementation of FTF investments, with particular attention to the potential for localized changes that would affect disease vectors or growing conditions or both; and 2) identify and include production techniques (e.g., integrated pest management,

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<sup>20</sup> USAID/Liberia (May 2010), draft available on request.

<sup>21</sup> In the case of warmer tropical Atlantic sea surface temperatures, the warmer water weakens the land-sea temperature contract that drives the southwesterly monsoonal flow and as a result, the monsoon does not penetrate as far inland, increasing rainfall closer to the coast while decreasing rainfall in the Sahel. Cooler Atlantic sea surface temperatures strengthen the West African Monsoon, driving the moist air mass further inland, increasing rainfall in the Sahel at the expense of coastal areas.

better use of fish/livestock in production systems, agro-forestry/inter-cropping to increase and maintain soil fertility, conservation agriculture approaches to boost intensification, etc.) that buffer agricultural systems in the face of possible climate change impacts while helping to reduce pressures to convert forests to other uses.

**Land Tenure.** Security of land tenure and clarity of land rights remain contentious issues in Liberia and potential sources of instability. To be effective, FTF investments require a degree of certainty in tenure and rights on the part of stakeholders, both men and women, and successful performance could potentially exacerbate conflicts over land as its value increases. The Mission recognizes these risks and aligned three programs that specifically target strengthening of land rights. The Liberia Land Conflict Resolution Project, funded under Section 1207 of the National Defense Authorization Act, works in Lofa and Nimba counties—two of Liberia’s most populous, heterogeneous, and conflict-prone counties—to develop and test methodologies for resolving land disputes. The project is designing and implementing community-oriented security training on alternative dispute mechanisms and de-escalation of potentially hostile situations, as well as developing and implementing a public information campaign to reinforce these pilot alternative dispute resolution mechanisms. Additionally, the Millennium Challenge Corporation (MCC) Threshold program is implementing a project to: 1) increase clarity and public understanding of property rights issues, in order to allow the National Land Commission to develop a comprehensive reform strategy for land policy and law; 2) rebuild and restore public confidence in the system of land administration through reforms of management, improved procedures, and rebuilding of public and private surveying capacity; and 3) improve management of land records and increase efficiency in registration of land transfers and land market operations by the Center for National Documents, Records and Archives, restoring confidence in the deed registry system. Current and planned Natural Resource Management programs within the framework of the Community Forestry Law work to ensure community-based forest management bodies have the capacity to improve overall land use planning at the community level. FTF MYS core investments will use selection criteria to minimize the exposure to land rights risks where possible and suitable (e.g., requiring registered title deeds) and will also draw on these aligned programs to address potential conflict situations.

#### Donor Coordination and Collaboration

A number of donors work in Liberia’s agriculture sector to facilitate the transition from post-war emergency relief programs to economic development assistance. Along with other stakeholders, these donors commonly cite USAID’s comparative advantage in capacity and willingness to contribute a strong private sector development and market linkage orientation to the sector. Moreover, USAID is known for an effective and trusted relationship with the GOL. It is within these comparative advantages that USAID rooted its programmatic choices. USAID has the opportunity of not only of investing FTF resources in the sector, but also of leveraging resources of other donors. Through its collaborative role in the Agriculture Donor Working Group (ADWG), USAID will target geographic and programmatic gaps among current donor operations. Key donors that participate on the ADWG include World Bank, European Union (EU), Japan International Cooperation Agency (JICA), African Development Bank (AfDB), and Swedish International Development Cooperation Agency (SIDA). Other donors, including China, are currently minimally engaged with the ADWG.

**World Bank.** USAID Liberia works with the World Bank to support a certified rice seed development program under the World Bank’s Agriculture and Infrastructure Development Project (AIDP). AIDP supports GOL efforts to re-establish basic infrastructure and revive the agriculture economy for rural growth and poverty alleviation, through policy reform, institutional support, infrastructure investment, and project management capacity building. The project is funded over the period 2007-2011.

**European Union.** USAID collaborates most closely with the EU in MOA capacity development activities, as both donors invest in this area. Coordination also occurs with the EU in its other projects focused on promoting food security, developing sustainable agriculture, and improving livelihoods.

**JICA.** In Liberia, JICA focuses on rice research, and USAID leverages its rice value chain investments in light of this focus. JICA contributes to the West Africa Agricultural Productivity Program IC (WAAPP IC) and to the Coalition for African Rice Development (CARD) process. The objective of WAAPP IC is to generate and accelerate the adoption of improved technologies (rice) for the major commodities in Liberia that are aligned with the sub-region's top agricultural commodity priorities. CARD's goal is to support the efforts of African countries to double rice production on the continent.

**AfDB.** USAID and AfDB partnered with the MOA to develop the GOL's proposal to the Global Agriculture and Food Security Program Fund, and USAID envisions this type of close collaboration continuing. AfDB is committed to the co-funded Agriculture Sector Rehabilitation Project (ASRP), to whom the International Fund for Agriculture Development (IFAD) has also contributed monetary resources. The project aims to increase the income of smallholder farmers and rural entrepreneurs, including women, on a sustainable basis. USAID does not operate in most of the counties, in which the ASRP operates; however, in those counties where both have activities, coordination will focus activities to avoid duplication and increase leverage -particularly in the rice sub-sector.

**SIDA.** SIDA plans to support the cassava and vegetable value chains in several of the counties in which USAID also operates, adopting a value chain approach that is highly consistent with that of the FTF MYS. USAID and SIDA will closely coordinate their value chain work to leverage outcomes and develop complementary activities such as collaborating to test business practices in the value chains, processing techniques, and in specific cassava varieties.

**People's Republic of China (PRC).** USAID is exploring the possibility of collaborating with the Chinese by supporting demonstration and training at its new Chinese-Liberia Agricultural Technology Demonstration Center, located at the Central Agricultural Research Institute (CARI). The PRC recently finished construction of the Center, and it currently provides technical staff to support Center activities.

### Sustainability

The sustainability of Feed the Future efforts is contingent on the success of targeting and developing a network of change agents that have a viable financial or economic stake in building on, or otherwise taking advantage of, USAID's FTF value chain initiatives. The programs will prioritize change agents such as lead farmers, producer organizations, and processors at different points in the value chain. In addition to their role in production, women are expected to constitute a large proportion of processors and traders.

Through public and private sector extension, USAID will provide men and women lead farmers and producer organizations identified as change agents with specialized skills. Change agents of both genders will also receive support acquiring planting material and inputs through public and private sector channels. Availability of improved planting materials is facilitated through investments in CARI and private sector players. Through the West and Central African Council for Agricultural Research and Development (CORAF), the West Africa Regional Program also will play a role in access to improved planting materials. USAID will promote suppliers of seeds, fertilizers, insecticides, herbicides, tools, and livestock by developing their technical knowledge and skills and supporting increased agricultural credit. These entrepreneurs will provide services to others in their respective value chains and USAID will



promote women's involvement in these supply-side enterprises. Over the FTF program's five years, both the public and private provision of extension services will reinforce and expand the skill sets of both men and women change agents to increase productivity and to diversify into higher value goods including horticulture and goats.

Small-scale rice and cassava processors will be a central focus of FTF interventions. Again this offers opportunities to ensure both women and men benefit from FTF interventions, and USAID will make the most of these opportunities. Interventions will help processors build a supplier base, acquire equipment, access finance, and implement appropriate business practices. FTF expects that these lead processors will provide farmers with technical assistance to ensure sufficient supplies of quality produce to process. The program will work with and support both processors and traders to invest in processing equipment, storage facilities, and transport. It will assist farmers to improve post-harvest handling practices and produce a consistent and predictable flow of goods. USAID will support animal health workers through capacity building and access to credit to support farmers in a breeding program for goats as well as to create business opportunities for privately operated slaughterhouses. Over the five years, FTF beneficiaries will develop the skills, knowledge, and attitudes - plus have the capital, equipment, clients, and market linkages - to continue their production, processing, and marketing businesses.

#### Initial Cost Benefit and Beneficiary Impact Analysis

The majority of overall FTF funding, 55 percent, will be invested along the rice and cassava value chains, the largest set of FTF interventions in terms of scale and scope. Over the initial growing seasons, FTF investments will introduce better farming practices to reduce harvest and post-harvest losses, which will produce quick returns. Given the high priority the GOL places on these two staple crops -- coupled with other donor activity in the sub-sector -- FTF interventions will complement and leverage a host of other activities, further accelerating food security benefits. Of the total funding for transforming staple crop value chains, FTF will allocate roughly 30 percent to production improvements, including raising yields, and 70 percent on development of the processing, transport, and marketing activities.

FTF will allocate approximately 30 percent of overall funding to pilot programs in the horticulture (vegetable) and goat value chains. FTF will make small strategic investments during program start-up to collect data, test assumptions, and refine its approach as necessary. FTF expects to scale-up its pilot projects towards the third year, given validation of initial hypotheses. Pilots are likely to be introduced gradually, informed by sequencing necessary to maximize investments and impact in staple crops.

FTF will invest the remaining 15 percent of planned funding to strengthen the enabling environment for policy development and implementation by building capacity and promoting public-private engagement to enhance market structures.

## **2. FEED THE FUTURE OBJECTIVE, PROGRAM STRUCTURE AND IMPLEMENTATION**

### **2.1 LIBERIA FEED THE FUTURE OBJECTIVE STATEMENT**

The global FTF initiative will sustainably reduce poverty and hunger through regional and national programs. As a national program, the overarching objective of USAID/Liberia's FTF MYS is two-fold: 1) support equitable growth in Liberia's agricultural sector and 2) improve the nutritional status of Liberians. The strategy is designed around high-impact FTF investments in key agriculture value chains, complemented by strategic synergies with key health interventions. The FTF MYS is a major component

of the USAID/Liberia's CDCS and activities under its Development Objective 2: Sustained Market Driven Economic Growth to Reduce Poverty, which mutually reinforces the FTF program outcomes for both poverty alleviation and better nutritional status, and in geographic focus.

As described above, the US Government's Liberia FTF MYS focuses on the six counties within the Liberia's principal growth corridors, home to 75 percent of Liberia's population. The population of these counties accounts for 69 percent of the country's poor. The Feed the Future MYS is designed to:

- Reduce poverty within the farming population in the six focus counties - between 2011 and 2015. An estimated 332,000 vulnerable Liberian women, children, and family members—mostly smallholder farmers—will receive targeted assistance to escape hunger and poverty.<sup>22</sup> The reduction in the poverty rate will be achieved through interventions along key high-impact agriculture crop and livestock value chains to maximize food security, create both on- and off-farm jobs, and increase incomes. The interventions are explicitly designed to strengthen private sector change agents. Market-based incentives will motivate these change agents to actively seek to expand supplies of agriculture produce leading to an increased availability and access to diverse foodstuffs. The focus on Liberia's development corridors will reinforce both CDCS and FTF MYS interventions by building on existing market strengths and complementary GOL and development partner on-going and planned investments along these same corridors. The USAID/Liberia FTF program interventions are calculated to be sufficient to establish viable markets in the rice, cassava, vegetable horticulture, and goat value chains and therefore provide self-sustaining means for smallholder households and other value chain participants to lift themselves out of poverty.
- Reduce prevalence of underweight children in the six target counties. More than 96,000 children will be reached with services to improve their nutrition and prevent stunting and child mortality.<sup>23</sup> This will be accomplished through interventions to expand the availability, access, and utilization of more and better food. Strengthening value chains will lead to increased production and greater availability of these foods, while increasing incomes will lead to greater ability to purchase food, further improving access to food. Additionally, improving marketing in targeted value chains will lead, over time, to lower overall prices and increased ability to purchase these foods. Promoting diet diversification, producing more nutritious varieties of crops, and investing in marketing – coupled with behavior change promotion through agricultural extension education in food purchasing and consumption habits—will improve food utilization. Creating synergies with USAID/Liberia's Health Portfolio and its FFP program will contribute substantially to nutrition outcomes. These linkages will include support for growth monitoring, ENA, IMNCI, and WASH activities. These aligned programs are designed in the broader context of the USAID/Liberia CDCS and will be integral to the overall success of FTF.

## **2.2 FEED THE FUTURE RESULTS FRAMEWORK FOR CORE PROGRAMS**

The U.S. Government/ Liberia FTF strategy will invest in three core programs that address food security along four value chains. These programs focus on six counties in Liberia, covering the majority of the population of smallholder farmers and of the poor. The relationship between the Global FTF Results

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<sup>22</sup> These preliminary targets were estimated based on analysis at the time of strategy development using estimated budget levels and ex-ante cost-beneficiary ratios from previous agriculture and nutrition investments. Therefore, targets are subject to significant change based on availability of funds and the scope of specific activities designed. More precise targets will be developed through project design for specific Feed the Future activities.

<sup>23</sup> See previous note.

Framework and Liberia FTF programs is described below. Each of the three core programs impacts the Intermediate Results (IRs) in multiple ways. In Liberia, FTF investments are closely linked through the CDCS<sup>24</sup> and consider other USAID/Liberia and Whole of Government (WOG) programs, which will all contribute to achieving FTF objectives. The Liberia Results Framework, which diagrams Liberia FTF's goal, IRs, and indicators, is discussed below in the Monitoring and Evaluation section.

#### Intermediate Results: Agriculture Sector Growth Supported

**Feed the Future Intermediate Result 1 - Improved agriculture productivity.** The FTF MYS will strengthen the rice, cassava, vegetable, and goat value chains through investments working with private sector-led change agents, who may be lead farmers, business service suppliers, or processor entrepreneurs.<sup>25</sup> The investments will strengthen their capacity and expand access to improved technologies, market information and finance. FTF will introduce improved pre- and post-harvest crop management techniques and better storage methods to address a major failure of current agriculture practices. It will train women and men traders in horticulture production and in extension-type service provision to increase horticulture supplies and quality. Investments to introduce better animal husbandry practices will increase the supply of goats for home consumption and for rural and urban markets.

**Feed the Future Intermediate Result 2 - Expanding markets and trade.** Currently a substantial proportion of rice production is for home consumption and does not enter the market. As production expands and generates rice surpluses through improved seeds, better on-farm management, and post-harvest storage, former subsistence smallholder farmers will begin to trade those surpluses leading to new markets and deeper existing markets. Because FTF investments will be focused along Liberia's development corridors, trade will accelerate as complementary investments – from other development partners, the private sector and GOL - accelerate. Women are key actors in cassava processing and for this value chain, FTF investments will emphasize introduction of small-scale processing units to speed up processing time after harvesting in order to avoid spoilage. In vegetable horticulture, FTF will invest in traders - primarily market women - to provide better access to inputs, provide technical advice to the farmers from whom they source and to upgrade equipment for transport and storage to make higher-quality vegetables increasingly available in rural and urban markets. And finally, FTF investments in animal husbandry will increase the supply of healthy goats for markets.

**Feed the Future Intermediate Result 3 - Increased private sector investment in agriculture and nutrition-related activities.** At the most basic level, subsistence smallholder men and women farmers will become the agricultural sector's first line investors. This increased investment occurs as those farmers move away from asset protection as their main concern, as shown through the work on productive social safety nets by USAID and others, notably in Ethiopia. Those farmers who successfully raise productivity levels will be able to build assets sufficiently to protect their households against unexpected shocks (e.g., to health, harvest, and post-harvest losses). They will be positioned to use their surpluses to buy education and health resources and to invest in pesticides, fertilizer, simple tools, and infrastructure, such as fences, irrigation, and other land improvements. As agricultural commodities become available in larger quantities, investors will find it attractive to build larger processing plants or slaughterhouses (for goats) taking advantage of economies of scale. Traders will acquire better means of transport and in general increased levels of investments along the value chain will occur. Subsistence smallholders have been shown to translate increased surpluses into better nutrition outcomes in several ways: most immediately by diversifying farm production with the introduction of new crops with

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<sup>24</sup> The Results Framework for draft CDCS Development Objective 2 can be found Annex I

<sup>25</sup> Or other participants in the value chain such as research organizations, suppliers of inputs, traders.

additional nutritional benefits. They will also purchase education and health services, both previously unaffordable.

**Feed the Future Intermediate Result 4 - Increased agricultural value chain productivity leading to expanded on- and off-farm employment.** FTF investments along the four value chains will increase the rates of return on individual investments at any point along the chain. Investment in a processing plant or slaughterhouse will have a higher rate of return, for example, if the quantity and quality of foodstuffs is raised through FTF investments to increase productivity and surpluses. FTF investments will support innovative, scalable business models and technologies that enable a level playing field for men and women farmers, such as market price information systems, and will pilot different contract models between change agents and smallholders to ensure equitable power or negotiating dynamics. While 68 percent of the FTF program target population is in farming households, most are not formally employed and there are no reliable data on which to base estimates of anticipated employment generation. We are confident that FTF value chain investments will create jobs and we will set targets after we collect and analyze related employment data. USAID/Liberia will ensure that emphasis is given to creating equal job opportunities for women and for men.

#### Intermediate Results: Nutrition Improved

**Feed the Future Intermediate Result 5 - Increased resilience of vulnerable communities and households.** Liberia's FTF investments will be concentrated on smallholder farms in six countries with high rates of poverty and in the key food security food staples of those households.

**Feed the Future Intermediate Result 6 - Improved access to diverse and quality foods.** FTF investments will expand production of basic staples, as well as vegetables and goat meat, leading to an increased availability of both basic and more nutritious foodstuffs. Over time this investment will also lead to lower market prices in urban and peri-urban areas. Increased incomes of urban and rural populations will boost capacity to purchase these foodstuffs. The Ministry of Health and Social Welfare (MOHSW) is currently completing its micronutrient survey to determine exact micronutrient deficiencies in Liberia. Along with donors it is exploring fortifying cassava flour in response to survey results. The FTF focus on small cassava processing offers a clear path to implement fortification. In addition, FTF interventions will support planting of healthier and more nutritious varieties of cassava. FTF will invest in improving animal (goat) health through capacity building of public and community animal health workers. The investments will support smallholders who wish to own and breed goats, increasing the overall stock of goats and access to meat and (possibly, in future) milk<sup>26</sup>. Later stages of the program can include investment in sanitary slaughterhouses. For vegetable horticulture, FTF will invest in traders, primarily market women, to provide better access to inputs and technical advice to the farmers from whom they source, and to upgrade equipment for transport and storage to make high quality vegetables increasingly and more reliably available in rural and urban markets.

**Feed the Future Intermediate Result 7 - Improved nutrition related behaviors.** The FTF-aligned nutrition activities under USAID/Liberia's FFP Multi-Year Assistance Programs (MYAP) and the Health office portfolio will support the MOHSW to strengthen community- and facility-based health services to provide better nutrition services and information. FTF interventions in improving agricultural extension services will include nutrition training for both women and men agents to build their capacity to include nutrition-related messages in their work with producers, processors, and marketers. Investments in marketing and behavior change, including extension education, will ensure increased incomes are spent in part on more nutritious consumption habits. The FFP MYAPs will work

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<sup>26</sup> Goat milk is not currently a popular food item in Liberia.

with and through Community Health Volunteers and mother Care Groups to help coordinate and facilitate positive behavior change regarding nutrition and health related practices. The MYAPs will work with other potential community change agents, such as Parent-Teacher Associations (PTAs) and religious leaders, to provide health messaging. Furthermore, activities focused on improving access to and utilization of clean water and proper sanitation and hygiene are critical pieces of both MYAPs.

**Feed the Future Intermediate Result 8 - Improved use of maternal and child health and nutrition services.**<sup>27</sup> The USAID FFP programs will improve health and nutrition in vulnerable communities with a focus on children under the age of two and pregnant and lactating women. The FTF MYS nutrition intervention strategy, with the Health Office as the lead, focuses on high impact interventions in support of the MOHSW Extended Package of Health Services (EPHS); will address health and nutrition interventions presently under-represented in the Ministry program; and complement other existing USAID and development partner programs. Interventions will focus on the prevention of malnutrition, the early identification and treatment of acute malnutrition to prevent further deterioration of health/nutritional status, and the promotion of high-impact health and nutrition interventions at household, community and facility levels.

### **2.3 USAID/LIBERIA COUNTRY DEVELOPMENT COOPERATION STRATEGY**

The draft CDCS articulates USAID/Liberia's vision for its support to Liberia's political, social, and economic development from 2011 to 2015. The Strategy design process engaged USAID/Liberia staff, other USG agencies, GOL representatives, development partners and donors, the private sector, and other stakeholders throughout the country, in the region, and in Washington. The CDCS is grounded in Liberia's comprehensive *Poverty Reduction Strategy* and builds on USAID comparative advantage and areas of engagement that provide the best opportunities for results and impact. The CDCS is designed to complement the work of the GOL, civil society, local Non-governmental Organizations (NGOs), and other development partners.

The Government of Liberia's vision for its long-term development is to transform Liberia into a broad-based middle-income country by the year 2030, leaving no Liberians behind. The CDCS supports this vision and focuses on the near-term transformations necessary to lay the foundation for achieving it through the high-level development goal: *USAID/Liberia supports Liberians to solidify the foundation for sustained, broad-based growth with development.*

The Liberia FTF MYS, along with other USAID and WOG investments, will support CDCS Development Objective Two for "Sustained, Market-Driven Economic Growth to Reduce Poverty", which in turn contributes to the Mission's Development Goal. Within this context, the FTF MYS plays a leading role to advance systemic transformation through strategic investments in change agents and extension services, improved technologies, innovation, public/private partnerships, and better national and county-level policies and regulation. The Global FTF Results Framework and the USAID/Liberia CDCS Results Framework for Development Objective Two are strongly aligned, as shown in Table 3, which illustrates how FTF Objectives contribute and are aligned to the Mission's CDCS Development Objective Two, Intermediate Result 1 and its sub-intermediate results.

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<sup>27</sup> Food for Peace, Liberian Agriculture Upgrading, Nutrition and Child Health (LAUNCH) Multi-Year Assistance Program, 2010.

**Table 3. Comparative Results Frameworks: Global Feed the Future and USAID/Liberia Country Development Cooperation Strategy (CDCS) Development Objective 2, Intermediate Result 1**

| Global FTF                                    |  |  | USAID/Liberia CDCS Development Objective 2 |   |  |
|---|--|--|--|---|--|
| Goal  | Sustainably Reduce Global Poverty and Hunger   |  | Intermediate Result 1                      | Food Security Enhanced                        |  |
| First Level Objective                         | Inclusive agricultural sector growth   | Improved nutritional status                                    | Sub-Intermediate Results                   | Agriculture Sector Growth Supported           | Nutrition Improved   |
| Second Level Objective (Intermediate Results) | Improved agriculture productivity  | Increased resilience of vulnerable communities & households*   | Sub-sub Intermediate Result                | Selected value chains strengthened            | Nutrition interventions target vulnerable populations          |
|   | Expanded markets & trade   | Improved access to diverse and quality foods                   |  | Improved extension services                   | FFP Multi-Year Assistance Program activities support nutrition |
|   | Increased private sector investment in agriculture & nutrition related activities        | Improved nutrition-related behaviors                           |  | Actionable agricultural research strengthened | Diversity of quality of nutrient options increased             |
|   | Increased agricultural value chain productivity leading to greater on- and off farm jobs | Improved use of maternal & child health & nutritional services |  | Lending to agricultural MSMEs increased       |  |

## 2.4 WHOLE OF GOVERNMENT CONTRIBUTION

Liberia's ability to achieve food security and improved nutritional status is inherently linked to progress. As noted above, the Liberian FTF MYS is developed within the context of the wider CDCS. USAID is the largest donor in Liberia, engaging in a range of development efforts from support for democratic and educational institutions to the promotion of maternal and child health through the development of agriculture and forestry-related institutions.

USAID/Liberia encourages a WOG approach to achieving FTF goals and objectives and, as such, coordinates with and builds on other Mission-wide activities which will impact FTF.

These include complementary activities/projects within USAID (in Liberia and regionally) and those in the wider Mission.

Within USAID, other activities/programs in the offices of Economic Growth, Education, and Health will contribute substantially to FTF goals and objectives. Key FTF MYS-aligned USAID activities/programs include:

- Food for Peace. The five-year Liberia Agriculture Upgrading, Nutrition, and Child Health (LAUNCH) Program addresses key causes of chronic food insecurity in two of the FTF focus



counties, Bong and Nimba (*note: the second FFP funded program has similar goals and will be implemented in Grand Gedeh and River Gee counties*).

- A four-year Rural Infrastructure in Support of Enterprise program (RISE) is under development and will support infrastructure needs of selected value chains in FTF focus counties and education programs directed at building capacity in core areas of agriculture, engineering, health sciences, and forestry.
- Current and planned Natural Resource Management programs working in community forest management, development of forest-based and agricultural-based enterprises, and improved environmental management. These programs also serve to enhance the quality of water and soil resources and promote actions for both adaptation and mitigation of climate change impacts in two of the FTF focus counties.
- The recently awarded five-year Excellence in Higher Education for Liberian Development (EHELD) program focuses on developing Liberian women and men for professional careers in agriculture and engineering in two institutions of higher education located in two of the FTF focus counties.
- The USAID/Liberia Health Office designed a comprehensive approach to addressing under-nutrition and stunting in three of the six FTF focus counties.<sup>28</sup> Through its high impact interventions, USAID/Liberia will focus health and nutrition activities on pregnant women and children under five with the following services: facility-based delivery of the EPHS, which includes ENA promotion; community-based IMNCl; diarrhea reduction through hygiene promotion; and anemia reduction through Presidential Malaria Initiative (PMI) activities. Additionally, the Health Office will work cross-sectorally to support training of agriculture extension workers to promote diet diversification, exclusive breastfeeding, and improved food consumption behaviors.
- USAID's West Africa Mission also contributes to the USAID/Liberia FTF directly through standards setting, rice seed development, and strengthening of the enabling environment for cross-border trade. It contributes indirectly through its support for the Regional Agricultural Policy for West Africa, the Economic Community of West African States, and the West Africa Common External Tariff.
- The USAID Women in Development office is currently funding Samaritan's Purse for a three-year gender and agriculture program in Lofa county, the Integrated Agriculture for Women's Empowerment (INAWE) program, which works to improve food security and entrepreneurial opportunities for 1,000 women and 500 men, using a skills training and a value chain approach to integrated lowland rice, livestock, and aquaculture production. The program also trains smallholder farmers in literacy and agribusiness, graduating farmers from basic skills to producer groups and associations.

In addition, there will be close coordination and cooperation with WOG partners outside of USAID/Liberia. This includes: the State Department (on diplomatic, political, and policy reform support); the USDA (in particular on interventions in the goat value chain, school feeding programs, and with Cochran Fellowships for agriculture extension and marketing training); the Peace Corps

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<sup>28</sup> Other donors (e.g., Pool Fund and EU), as well as the MOHSW, implement a harmonized model in all of Liberia's other counties, including the other FTF focus countries.

(volunteers in education, both teaching and working on school gardens); and the African Development Foundation (with its various grass-roots agriculture and nutrition activities). USAID/Liberia will also engage the Mission's MCC threshold program activities to advance land policy, trade policy and customs issues and the Department of Defense (DOD), which provided Section 1207 funds to pilot alternative dispute resolution systems for land and other disputes.

### 3. CORE INVESTMENT PROGRAMS

The Core Investment Programs for FTF interventions in Liberia support the priorities articulated in the LASIP. USAID/Liberia made strategic choices to reflect the framework of the USAID CDCS and taking into account on-going or planned activities of other USG actors and of other donors. Our choices were guided by USAID/Liberia's comparative advantages in the agriculture sector and by the potential for making substantial impacts on FTF Key Objectives to Increase Agriculture Productivity and Improve Nutrition.

In selecting target value chains for FTF MYS investments, USAID/Liberia evaluated existing data for 39 products in seven categories: cereals (3); legumes (4); tubers (4); vegetables (9); fruit (6); livestock, including fisheries (8); and tree crops (5). We applied a series of selection filters for each product which looked at its: 1) relevance of smallholder production within the geographic development corridor focus counties, which Annex B shows accounted at the 2008 Census for 75 percent of the country's population, 68 percent of its farming population, and 69 percent of the poor; 2) income potential in terms of market and potential for profitability; 3) nutrition and dietary impacts, both as a source of nutrients and calories and in terms of whether current consumption would require difficult behavior change interventions; and 4) gender impacts, in terms of whether women-headed households produce the crop, the role of women in its production, and their relation to the income it generates.

Through this filtering process, we identified four value chains for investments in two distinct investment programs to:

1. **Transform Staples Value Chains**, with a focus on rice and cassava;
2. **Develop Income and Diet Diversification Value Chains**, with a focus on expanding vegetable horticulture and re-establishing goat husbandry; and
3. **Advance the Enabling Environment and Build Capacity**, which includes integrated agriculture policy advocacy, support, and research; development and coordination of public and private extension; and private sector market structure development.

The Liberia FTF MYS will adopt a phased approach to implementing these core interventions, with initial focus on transforming the staples value chains providing key institutional and market developments and lessons learned to support subsequent expansion of work on horticulture and goat value chains. Initial activity in expanding vegetable horticulture and re-establishing goat husbandry will leverage on-going activities of other programs in these areas, notably the USDA livestock work.

**Table 4. Number of Farm Households by type of production and county, 2010**

|                     | Bong          | Grand Bassa   | Nimba         | Lofa          | Montserrado   | Margibi       | Six Counties   | Liberia        |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| <b>Rice</b>         | 46,966        | 24,164        | 61,885        | 41,257        | 9,703         | 10,255        | 194,231        | <b>289,969</b> |
| <b>Cassava</b>      | 38,470        | 29,017        | 59,332        | 21,620        | 21,660        | 15,770        | 185,869        | <b>279,000</b> |
| <b>Horticulture</b> | 14,462        | 9,754         | 33,130        | 14,328        | 8,931         | 6,082         | 86,687         | <b>110,598</b> |
| <b>Goats</b>        | 2,837         | 1,747         | 6,889         | 3,033         | 2,530         | 3,768         | 20,805         | <b>18,294</b>  |
| <b>All farming</b>  | <b>52,635</b> | <b>32,293</b> | <b>66,521</b> | <b>43,133</b> | <b>25,891</b> | <b>18,731</b> | <b>239,205</b> | <b>348,628</b> |

Source: Republic of Liberia: 2008 Population and Housing Census Final Results, LISGIS May 2009 Table 10.2 Distribution of Farming Households by Agricultural Activity and Sex of Household Head Liberia 2008, pages A 10 -318 to 323; increase by population growth rate of 2.8 percent.

### 3.1 CORE PROGRAM 1: TRANSFORMING STAPLES VALUE CHAINS

An effective poverty reduction strategy focuses investments on commodity value chains where smallholder and poor farmers are heavily involved.<sup>29</sup> The LASIP prioritized Liberia's two principal staples, rice and cassava, and the Mission carried out an independent assessment as described above before confirming those two staples as FTF MYS target value chains. FTF investments in these value chains will strengthen the LASIP Program for Food and Nutrition Security and Competitive Value Chains and Market Linkages. In addition to being the country's most important staples, rice and cassava are produced largely by small-scale farmers.

#### Rice

Rice is Liberia's main food staple, with 80.2 percent of agricultural households nationally reporting to have produced some rice in the 2009 crop survey.<sup>30</sup> Two systems of rice cultivation are common: upland and swamp or lowland. The former dominates today in terms of area, although production techniques differ for each system across communities reflecting local agro-ecological conditions; for example, in FTF target counties upland rice dominates in Nimba, while in Lofa in the north-west swamp rice predominates.

Upland rice, which accounts for over 90 percent of production, is cultivated under rain-fed conditions using slash and burn methods, with the rice planted on farms in the same year that fallow or forest vegetation is cleared.<sup>31</sup> The upland farm is a mixed cropping system that usually includes maize, cassava, and banana/plantain, as well as local vegetables (e.g., pepper and bitter balls). The productivity of the farm depends on the length of the fallow period. Upland rice is harvested with a knife and is usually loaded into a special storage space and threshed only when it is to be eaten or sold. Farm size across the country averages approximately 1.0 ha, with regional variation by county from 0.8 to 1.1, and average yields as reported in the 2009 crop survey ranged from 1.0 metric tons/hectare in Grand Bassa to 1.27 metric tons/hectare in Nimba, with a national average of 1.135 metric tons/hectare.

Swamp rice is traditionally grown in inland valleys cleared by hand. Swamps are extensively used for the production of rice in the rainy season and vegetables during the dry season. Other crops, such as

<sup>29</sup> Michigan State University, Lessons Learned from 25 Years of Food Security Research.

<sup>30</sup> Republic of Liberia MOA/LISGIS. (2010). *Production estimates of major crops and animals – 2009*. Monrovia: LISGIS.

<sup>31</sup> These summary descriptions of current Liberian practice in rice far systems is drawn from the Republic of Liberia, MOA (2007), *Comprehensive Assessment of the Agriculture Sector in Liberia (CAAS-Lib)*, pp. 33-34. Yield data have been updated to reflect most recent crop survey information.

cassava, are planted on mounds during the dry season. They are uprooted and stem cuttings are transferred and planted out on the uplands at the beginning of the rice growing season, when the mounds face the danger of submergence. Mounds constructed by inversion of soil and burying of stubble/grass help to decompose plant materials and thus to improve soil fertility. Swamp rice is harvested and stored in the same way as upland rice although farm sizes are usually smaller and yields higher than on the uplands.

A small number of more modern swamp rice production systems exist on specially developed lowlands, where irrigation and drainage systems are laid out to feed permanently cropped fields. The varieties of swamp rice are different from upland varieties and of shorter germination duration. A few swamp rice farmers attempt two crops a year mainly in the perennial swamps. Drainage is generally poor. Fertilizer application rates are low since adequate supplies are rarely available and prices high. Lowland rice is usually harvested with a sickle, threshed in the field, stowed, and carried in bags from the field. Swamp rice production yields range widely and can reach over 5 metric tons per hectare, but recent pilot experience in Liberia to demonstrate higher yielding varieties and multiple cropping reached around 2.3 tons per hectare.

Existing estimates of the direct resource cost of upland and lowland rice indicate that in current conditions (e.g., low yield seed technology; high-priced and unreliable input supplies; excessive post-harvest losses; high transport costs associated with abysmal road conditions; inadequate processing; weak internal markets with limited opportunities for competition; market prices dominated by low-cost imports) the direct resource cost (DRC) of upland rice is well above one, while that for lowland rice is significantly below one.<sup>32</sup> Updates of these DRC estimates are currently being undertaken by the GOL for the development corridors in preparing its PRS II.<sup>33</sup> Specific FTF MYS investments in the rice value chain will verify these revised estimates and direct activities accordingly. Given the range of opportunities in the rice value chain to reduce costs, support will target economically competitive investments in both systems, working to ensure that these improvements reach those vulnerable households for whom increased availability of rice for household consumption will have major impact on improving nutrition outcomes.

### Cassava

Cassava is Liberia's second most important food crop with annual production estimated at 495 thousand tons in 2009<sup>34</sup>. Unlike rice, cassava can be planted all year round, the time of harvest is not critical; and it can be stored in the ground reducing loss due to spoilage. It is important for food security, especially since it can be harvested before the rice harvest and it is often planted as a follow-on crop after upland rice is harvested. Cassava leaves (greens) are an essential part of the Liberian diet, although harvesting leaves affects tuber yield. National average crop area is around 0.5 hectare per farm and estimated yields range between 6 and 9 metric tons per hectare. Cassava is grown on flatland and is usually intercropped with maize as well as sweet potato and pepper.

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<sup>32</sup> MOA (2007), *Comprehensive Assessment of the Agriculture Sector in Liberia (CAAS-Lib)*, pp. 44-46. A DRC greater than (less than) one means that production of one dollar of added value in a product (e.g., rice) uses more than (less than) one dollar's worth of productive resources, all inputs and outputs measured using social prices.

<sup>33</sup> Preliminary results for selected rice production sites in Bong and Nimba (draft Liberia Growth Corridor Project Domestic Resource Cost Analysis Report, April 2011, pp. 8-10) show DRCs less than one for both upland (0.72 – 0.81) and lowland rice (0.66 – 0.76) when NERICA varieties are used, even when other input levels are relatively modest and no major irrigation infrastructure is employed. The most favorable results for the rice value chain are observed with swamp production technique.

<sup>34</sup> MOA/LISGIS (2010). *Production estimates of major crops and animals – 2009*. Monrovia: LISGIS. Table 3.2, p. 15.

Cassava is of key importance as a food crop for the poor—it is an essential source of calories and critical to food security. As the second most important crop in Liberia, it is widely-grown and consumed and there are specific opportunities to fortify cassava in processing, increasing its nutritional value, and to disseminate more nutritious cassava varieties. Processed cassava offers a significant income-generating potential to smallholders and its production would need to increase by at least one-third to satisfy local demand. While the constraints along the cassava value chain are similar to those for rice – such as lack of improved planting material and supplies of associated inputs; need to expand small-scale processing to reduce post-harvest losses and add nutrient value; and high transport costs and weak internal markets - there is no import price competition.

Constraints across the rice and cassava value chains are summarized in Table 5. While both men and women face these constraints, particular limitations that women encounter merit specific discussion, including women's restricted mobility, greater household responsibilities, and lower literacy and education levels which inhibit their ability to gain information or participate in extension and other skill- and income-enhancing activities. Extension services are less gender-responsive than women's role in agriculture warrants. FTF interventions will address this situation by encouraging employment of women extension agents in the public sector and by ensuring women are well represented in extension-related training activities in the public and private sectors. Women typically have more limited access to seeds, tools, credit, and marketing information than men. Liberia FTF MYS activities will give explicit attention to issues of equity in access in order to increase women's access and FTF will also provide support for women to participate in producer/marketing groups and associations.

#### Feed the Future Investments

Through private and public sector extension, USAID will provide lead farmers and producer organizations identified as change agents with specialized skills. Change agents will also receive support to acquire planting material and inputs through public and private sector channels. Availability of improved planting materials is facilitated through investments in CARL, private sector players, and CORAF. USAID will promote suppliers of seeds, fertilizers, insecticides, herbicides, tools, and livestock by developing their technical knowledge and skills and through support for increased agricultural credit. These entrepreneurs will provide services to others in their respective value chains. Over the five years of the FTF program, both the public and private provision of extension services will reinforce and expand the skill sets of change agents to increase productivity and coordinate with county and local health service providers to extend the reach of nutrition-related behavior change in order both to raise incomes and to improve health outcomes.

Small-scale rice and cassava processors will be a central focus of FTF interventions. Those interventions will help processors to build a supplier base, acquire equipment, access finance, and implement appropriate business practices. It is expected that they will then provide farmers with technical assistance to assure themselves of sufficient supplies of quality commodities to process. The program will work with and support both processors and traders to invest in processing equipment, storage facilities, and transport. It will work with farmers on improving post-harvest handling practices and on producing a consistent and predictable flow of goods. Over the five years, USAID direct beneficiaries will develop the skills, knowledge, and attitudes - plus have the capital, equipment, clients, and market linkages - to continue to expand their production, processing, and/or marketing businesses.

**Table 5. Rice and Cassava Value Chain Constraints and Opportunities**

|                              |  | <b>Key constraints: Rice</b>  | <b>Key constraints: Cassava</b>  |
|------------------------------|--|---|--|
| Access to inputs             | Availability of improved planting material     | Lack of good quality, high-yield variety seeds<br>Free distribution by donors and NGOs undermines commercial seed demand  | Higher yield and disease-resistant varieties available from regional research institutes and private sector farmers  |
|                              | Availability of fertilizer and pesticides      | High cost, low availability, weak technical knowledge for use of fertilizer/pesticides<br>Poor roads make delivery difficult & expensive<br>Lack of cooperation between farmers to bundle inputs for production scale   | High losses due to pest and diseases, no access to appropriate pesticides<br>Traditional methods of pest control are not applicable to root crops  |
| Production                   | Extension/knowledge dissemination              | Weak government extension capacity<br>Limited farmer access to production information   | Weak government extension capacity<br>Limited farmer access to production information  |
|                              | Consistency in supply                          | High variability of quantity and quality of production limits supply relationships  | Production scattered & very small scale<br>Organization to reap economies of scale   |
|                              | Technology (e.g., irrigation or mechanization) | Most appropriate agronomic practices and technologies are not identified and adapted to the farm level and little equipment available; most farming by hand with simple tools<br>Resistance to adopt higher-yielding lowland rice due to perceived need for additional labor, specialized inputs, and risk of schistosomiasis                 | Most appropriate agronomic practices and technologies are not identified and adapted to the farm level   |
| Primary processing and trade | Post-harvest storage                           | Limited rural storage/aggregation capacity<br>Available warehouses in varying degrees of disrepair  | In-ground storage prior to harvest<br>Need for increased storage capacity as processed product volumes increase  |
|                              | Processing                                     | Limited rural processing - some parboiling, cleaning done manually<br>Inefficient or under-utilized mills, in varying degrees of disrepair<br>Donors crowd out private sector equipment dealers<br>Limited distribution and service networks  | High market potential of processed products not yet reaped, few mills available<br>Developing market for on-farm-processed products, improves cash crop opportunity<br>Small entrepreneurs starting to offer manual and motorized cassava grinding machines            |
|                              | Transportation                                 | Poor roads make transport costly and unreliable at all times<br>Rains often prevent ability to reach to urban markets   | Poor roads make transport costly and unreliable at all times<br>Small and scattered production is a challenge for collection, transport and marketing  |
|                              | Marketing                                      | Lack of trust between farmers and trades people – farmers feel exploited.<br>Farmers often desperate to sell even at low prices as a result of poor planning and erratic production<br>Imports strongly preferred to local rice by urban population, due both to tastes and quality<br>Local variety and quality of processing need to adapt. | High price fluctuations for fresh leaves and roots versus more stable prices for processed products (e.g., fufu; gari)<br>Demand potential for higher quality and varieties of processed products increasing<br>Local variety and quality of processing need to adapt. |

Sources: Global Food Security Response, Attachment II Liberia Rice Study (2009); MOA (2007), *Comprehensive Assessment of the Agriculture Sector in Liberia (CAAS-Lib)*, Report prepared for SIDA, *Support for Agriculture and Forestry in Liberia*, GRM, 2010.

As detailed in Annex B, Tables 3.1 and 3.2, an estimated 55 percent of FTF MYS investments will be made in Core Program I. Of these, an anticipated 40 percent will be directed to interventions that address constraints to access to inputs and production, while the remaining 60 percent will invest in primary processing, marketing, and trade. Reflecting the phased approach to Liberia FTF value chain interventions, 70 percent of first-year investment will be in the staples value chains and 70 percent of MYS staple value chain investments will be carried out in the first three years. Given the paucity of reliable data, a significant initial activity in the primary implementation mechanism for the Liberia FTF



MYS – USAID’s Food and Enterprise Development program - will be directed to a series of baseline surveys to collect production, labor, and market information and to facilitate MOA data collection and analysis, especially related to the focus counties. Based on the prioritized constraints that are identified, targeted and sequenced support will be directed to specific steps on the value chain, including to:

- Promote high-yield seed and related inputs, including demonstration plots to test the use of improved seeds, fertilizer, and pesticides, and to introduce better land and water practices and farming methods;
- Build capacity in both public (county-level) and private sector extension, including farmer organizations, traders or other private sector actors to invest in small sized processing mills and storage facilities;
- Provide access to finance and credit guarantees, directed at lead farmers and small processors;
- Implement training to capacitate processors to become key change agents in market and credit transactions; and
- Improve the transparency of market price information to farmers and strengthen business service providers, as an alternative means to make extension type services.

Planned interventions targeted at the key value chain constraints and implemented via the actions of private and public change agents will reach over 92,000 rice and cassava farmers in the six target counties, of which nearly 59,000 households are below the Liberian poverty level, unable to afford 2,400 kilocalories per person per day. The bulk of staple value chain household beneficiaries are located in Bong, Grand Bassa, Lofa and Nimba counties, which constitute the “breadbasket” farming areas of the country although FTF investments also address opportunities, particularly for lowland rice, in peri-urban areas of Montserrado and Margibi counties.

#### Contributions to Feed the Future Intermediate Results

Investments carried out in Core Program I will directly impact FTF IR 1: Improved agriculture productivity, IR 2: Expanding markets and trade, IR 3: Increased private investment in agriculture and nutrition related activities, IR 4: Increased agricultural value chain productivity leading to greater on- and off-farm jobs, IR 5: Increased resilience of vulnerable communities and households, IR 7: Improved nutrition related behaviors, and IR 8: Improved use of maternal and child health and nutrition services. Nutritional benefits of Core Program Area I will accrue from both increased availability of and access to Liberia’s primary food staples. Increased commercialization will provide smallholders the increased incomes needed to obtain more and better food and improved processing will promote fortification to enhance the nutritional value of cassava and to improve the quality of rice. Public and private extension change agents will be trained to engage farmers, communities and farmer organizations across the range of behavioral change needed to promote essential nutrition actions.

#### Aligned USG Investments

The USAID/Liberia Food and Enterprise Development (FED) program will be the primary Mission-funded mechanism leading direct FTF investments. However, a number of aligned USAID and USG activities support achieving FTF outcomes and impacts.

The largest aligned USAID-funded program to impact on Core Area I is the PL 480 Title II Food for Peace MYAP working in Bong and Nimba countries - the five-year LAUNCH program which started in June 2010. LAUNCH is one of two programs comprising the FFP MYAPs. It will directly complement FED to improve smallholder production and post-harvest practices, integrate cash crops, and address the constraints along the value chains to accessing inputs, financial services and markets, while small-scale rehabilitation of farm-to-market roads and bridges will increase access to markets and services. LAUNCH activities in the two counties also include health and nutrition interventions linking vulnerable households to community services, building capacity of health facility staff and community health volunteers, and conducting a supplementary food distribution program for pregnant or lactating mothers and children under the age of two.

Other aligned USAID activities that contribute to FTF Core Program I results include: higher education work to strengthen two Centers of Excellence, including one at the Cuttington University School of Agriculture; energy sector support to pilot small-scale renewable energy in rural areas, which can support processing; current and planned Natural Resource Management (NRM) programs working in community forest management, development of forest-based and agricultural-based enterprises, and improved environmental management, which also serve to enhance the quality of water and soil resources; and the planned rural infrastructure support activity which will construct or rehabilitate feeder roads, bridges and agricultural warehouses. A significant part of aligned Health portfolio activities will address under-nutrition and stunting in the focus counties, specifically focused on pregnant women and children under five. These high impact interventions include: facility-based delivery of the EPHS, which includes ENA promotion; community-based IMNCI; diarrhea reduction through hygiene promotion; and anemia reduction through PMI activities. In addition, the Health Office will work cross-sectorally to support training of agriculture extension workers to promote improved nutrition and diet diversification, exclusive breastfeeding, and improved food consumption behaviors.

Other USG programs that contribute to FTF Core Program I results include: the African Development Foundation support to community and cooperative groups working to strengthen staple production in rice and cassava projects, MCC and DOD programs that work toward clarification and resolution of land tenure and rights issues, and USAID West Africa Regional programs as developed in its FTF MYS in regional research, policy and trade.

Change agent processes could engage market women who are trained to offer inputs/advice to farmers and who invest in vehicle and storage, or it could engage male or female lead farmers who integrate forward to do same, depending on most suitable local characteristics.

### **3.2 CORE PROGRAM 2: DEVELOPING INCOME & DIET DIVERSIFICATION VALUE CHAINS**

#### Horticulture

Among the 39 products analyzed in the value chain identification exercise, we found a range of vegetable products (such as pepper, bitter ball, eggplant, tomatoes, cucumbers, sesame, okra, ginger, and hot pepper) to have significant income potential and profitability in the target counties, offer substantial positive nutrition and dietary impacts in current consumption patterns, and have the highest potential to engage women farmers and youth, notably in peri-urban areas around Monrovia. The possibility to integrate expanded home gardening for diet diversification is also supported by the fact that there are already-existing infrastructure and distribution channels for traditional vegetable products that can be leveraged for a wider variety of vegetables for local and urban markets. Preliminary market analysis

indicated that a significant number of locally produced vegetables command prices which would be profitable, if major constraints to production and distribution are overcome.<sup>35</sup>

Constraints to expanding horticulture exist along the value chain, starting with limited access to improved planting materials, fertilizer, and pesticides, as farmers have little knowledge or awareness of relevant agronomic practices and technologies. The growing season is typically limited to the rainy season, as irrigation is not common, which also produces significant fluctuation in prices over the course of the year, forcing consumers to purchase nutritionally inferior tubers when vegetables are scarce and prices rise. More significant constraints exist in post-harvest handling and processing, especially pertaining to non-existent or poor facilities for storage or transport, which lead to significant wastage and spoilage. Virtually no processing or packaging of vegetable production takes place, which significantly limits current value that traders or other middlemen can add.

### Goats

Bush meat and wild-caught fish are significant sources of protein in rural Liberia; however, their consumption puts unsustainable pressure on local wildlife. Cattle and goats are imported from surrounding countries, but inefficient production systems and the high number of middlemen push the price of meat out of reach for most Liberian households. Instability in neighboring livestock source countries puts the import chain at risk and led to meat shortages in the past.

For the average Liberian smallholder, goats and other livestock are valuable assets that enhance nutritional and economic status. Livestock provide an important source of protein and waste by-products can be used for fertilizer and fuel. They also serve essential functions in the household as cultural capital, used for gift-giving, rituals, and fulfilling social obligations. Livestock are capital assets which provide income through the sale of meat and by-products and also act as savings repositories to fund major purchases and other capital investments. Revitalization of livestock production and processing is a key element for building a sustainable agrarian economy in Liberia.

Constraints to expanding goat husbandry are present throughout the value chain, starting with a lack of good breeding stock and the availability of and access to appropriate veterinary services. Both on- and off-farm infrastructure to support expansion of goat breeding and commercialization are limited or non-existent and local processing facilities are unable to establish and maintain systems for slaughter and storing goat meat needed to expand marketing. On a positive note, goat meat is well established in local cuisine, so the potential of urban demand for any marketable surplus is significant.

### Feed the Future Investments

USAID/Liberia will phase FTF Core Program 2 investments in the vegetable and goat value chains to allow for suitable piloting that takes advantage of “windows of opportunity” that already exist, in peri-urban areas for vegetables and for goats in those areas associated with aligned USDA programs, as well as leveraging other USG and donor activities. Estimated investment levels in these value chains will be lower in the first two years of strategy implementation, ramping up in the last three to take advantage of positive synergies with development along the value chains for rice and cassava under Program Area 1.

FTF Core Program 2 will undertake investments in horticulture pilots to encourage smallholders in relevant areas of all focus counties over time, but will initially focus on peri-urban locations near

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<sup>35</sup> Based on Mission market studies and SIDA, Agriculture and Forestry Review (2010). In particular the SIDA study estimated a profit of \$465.5 per season by growing a mix of vegetables on a typical 0.8 hectare plot.

Monrovia which are close to the largest and most lucrative market and minimize constraints related to storage and transport. These activities will build on a change agent model similar to that for the rice and cassava value chains by supporting lead traders and lead farmers to acquire equipment for transport and storage and to acquire business and marketing knowledge. Key FTF horticulture interventions will include formation and strengthening of farmer associations, post-harvest management and logistics support, promoting public-private partnerships, and providing information and training for behavior changes to promote improved family nutrition.

FTF investments to develop the goat value chain will implement pilot activities that are closely coordinated with the substantial USDA Food for Progress goat value chain enhancement program that will be working to re-establish breed stock and infrastructure for processing. The change agent focus of investment will be on community animal health workers and Core Program 2 activities will train and lend support to them so that they can directly assist improved breeding through the provision of services and infrastructure, making commercialization profitable. USAID/Liberia will determine the scope and scale of change agent engagement in pilot sites based on local conditions and in close coordination with the USDA program.

The US Government in Liberia will make an estimated 30 percent of FTF MYS investments in Core Program 2, with roughly 60 percent of these directed to interventions to address vegetable value chain pilot activities and the remaining 40 percent for implementation of goat pilots. Reflecting the phased approach to Liberia FTF value chain interventions, only 10 percent of first-year investment will be in the diet diversification value chains, while 63 percent of MYS vegetable and goat value chain investments will be carried out in years four and five. As with Core Program Area 1, given the lack of reliable data a significant initial activity in the primary implementation mechanism for the Liberia FTF MYS – USAID's Food and Enterprise Development program - will be directed to ensure relevant baseline surveys to collect production, employment, and market information and to facilitate data collection and analysis, especially related to the focus counties. These investments will be phased to take advantage of opportunities that already exist in peri-urban areas for vegetables and related to the USDA program for goats. Within the proposed total program level, anticipated investment levels in these value chains will be lower in the first two years of strategy implementation and will ramp.

Planned Program Area 2 interventions targeted at the key value chain constraints and implemented via the actions of private and public change agents will reach over 50,250 farming households engaged in horticulture and goat husbandry in the six target counties, of which 32,160 are below the Liberian poverty level and unable to afford 2,400 kilocalories per person per day. The bulk of diet diversification value chain household beneficiaries for horticulture will be located in the peri-urban areas of Montserrado and Margibi counties, while goat-rearing households are located mainly in Bong, Grand Bassa, Lofa and Nimba counties.

### Contributions to FTF IRs

The investments carried out in Core Program 2 specifically address FTF IR 6: Improved access to diverse and quality foods. They also impact IR 1: Improved agriculture productivity, IR 2: Expanding markets and trade, IR 3: Increased private investment in agriculture and nutrition related activities, IR 4: Increased agricultural value chain productivity leading to greater on- and off-farm jobs, IR 5: Increased resilience of vulnerable communities and households, IR 6: Improved use of maternal and child health and nutrition services, and IR 7: Improved nutrition-related behaviors. Nutritional benefits of Core Program 2 will accrue from both increased availability of and access to a wider array of dietary diversity and nutrients through increases in vegetables and meat protein. Increased commercialization will provide smallholders higher incomes to obtain more and better food, while change agents will also be

trained to engage farmers, communities and farmer organizations across the range of behavioral change needed to promote ENA.

### Aligned USG Investments

The USAID/Liberia FED program will be the primary Mission-funded mechanism leading direct FTF investments, but a number of other USAID and USG activities are aligned to support achieving FTF outcomes and impacts.

As noted, the USDA goat value chain program will underpin and frame Core Program activities through direct investments to re-stock and improve breeding stock, establish fattening stations, enhance local feed production, construct slaughterhouses, ensure that slaughterhouse management is trained in best meat-processing practices and provide training for meat inspectors and slaughterhouse personnel. In the focus counties of Bong, Nimba, and Lofa, USDA will train producers in goat husbandry, fodder production, and marketing and will work closely with activities to strengthen the capacity of community animal health workers to provide basic veterinary services.

Other USAID aligned programs that will support implementation in both vegetable and goat value chain development under Core Program 2 include: the Food for Peace LAUNCH MYAP working in Bong and Nimba counties; current and planned NRM programs working in community forest management, development of forest-based and agricultural-based enterprises, and improved environmental management, which also serve to enhance the quality of water and soil resources; the higher education work to strengthen the Center of Excellence at the Cuttington University School of Agriculture; energy sector small-scale renewable energy pilots, which can support processing; and the planned rural infrastructure support activity. As with Core Program 1, there are significant elements of the aligned Health Office portfolio that address under-nutrition and stunting in the focus counties with an emphasis on pregnant women and children under five. These high impact interventions include: facility-based delivery of the BPHS, which includes ENA promotion; community-based IMNCI; diarrhea reduction through hygiene promotion; and anemia reduction through PMI activities. In addition, the Health Office will work across sectors to support training of agriculture extension workers to promote improved nutrition and diet diversification, exclusive breastfeeding, and improved food consumption behaviors.

## **3.3 CORE PROGRAM 3: ADVANCING THE ENABLING ENVIRONMENT**

### Enabling Environment and Capacity

As summarized in the LASIP: “(T)he Liberian civil war decimated the MOA’s capacity to effectively execute its mandate of sector policy formulation, planning, and coordination. There are limited trained staff and resources. The MOA carried out an assessment in 2008, and proposals for change were submitted to the Governance Commission in 2009. The Central Agricultural Research Institute was virtually destroyed by the war, but the Institute is now painfully reinventing its programs and rehabilitating its infrastructure. This provides an opportunity to adapt to the major paradigm shifts seen in developing countries, including emphases on innovation systems, value chains, and development of adaptive research in cooperation with regional institutions. Small farmers are illiterate and live largely in isolated villages with little or no facilities to receive updated information on agriculture and rural development. Agricultural extension services (non-governmental organizations [NGOs], private extension, etc.) will be decentralized and demand-driven. Persistent operational under-funding and conflict have limited the scope and impact of the diverse extension service.”<sup>36</sup>

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<sup>36</sup> MOA (2010). Liberia Agriculture Sector Investment Program (LASIP), Monrovia. September 2010. p.xi.

The LASIP articulates a structured approach to begin to address these constraints over the next five years in its Program 3 on Institutional Development, which focuses on the need to develop sustainable capacities for policy formulation, planning, coordination, and supervision, while implementing programs and projects which are directly linked to successful value chain development. Identified areas of policy development and implementation in that Program include to: clarify roles, responsibilities, and relationships of the MOA and with other key Ministries and Agencies; strengthen MOA's human and institutional capacity; build capacity and transform the national extension service into a decentralized, demand-driven farm advisory system that promotes private sector engagement; rebuild selected farm-based community organizations; revitalize CARI to implement a participatory and demand-driven agricultural research program within 10 years; and improve access and quality of agricultural education and training.<sup>37</sup>

### Feed the Future Investments

FTF investments in Core Program 3 will address selected aspects of the LASIP program for institutional development to support the value chains that are the focus of Core Program Areas 1 and 2. FTF investments in agriculture policy, advocacy support, and research will fund key institutions to carry out actionable research leading to improved land, soil, and water resource management and use and agronomic practices and more productive animal husbandry. FTF Program Area 3 activities will be integrated in the value chain support in order to expand the capacity of civil society groups to analyze and advocate for policy reforms (e.g., in regard to rice pricing and sanitary and food safety standards for food and meat processing) and to help create a more market-friendly policies and an improved trading environment for Liberian smallholders.

The Liberia FTF MYS will assist the MOA to define and implement its decentralized, demand-driven, participatory, pluralistic (i.e., engaging public, private, civil society actors), and accountable agricultural extension system. The critical role of women extension agents will be emphasized and opportunities for them to develop professionally, both in terms of education and field practice, will be supported. Program Area 3 investments will target partnerships with the public and private sectors and other development partners to: accelerate adoption of modern agronomic technologies and practices at the farm level; create effective knowledge distribution mechanisms; and build capacity of the MOA to provide specialized extension services. Revised agricultural extension curricula will provide more effective training in areas such as land use and techniques to reduce soil fertility losses, water resources management, low-cost and organic fertilizers, post-harvest loss reduction, pest management measures, participatory extension methodologies, women's participation in extension activities, farmer organization development, participatory rural appraisal, farmer field school methodology, and farmer-to-farmer extension. These investments will support widespread provision of high quality extension to Liberian smallholders. Core Program 3 interventions on market structure development will create opportunities to establish market information systems to support private and public decision making and invest in alternative profit sharing/contract models between change agents and farmers to ensure equitable market exchanges, based on transparent information and rational decision making behavior. These activities will provide the foundation for fair and transparent markets accessible to all Liberian smallholders.

As detailed in Annex B, Tables 3.1 and 3.2, the US Government plans an estimated 15 percent of FTF MYS investments in Core Program 3. Of this, approximately 40 percent will implement interventions affecting policy, institutional capacity strengthening, and advocacy support and another 40 percent will

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<sup>37</sup> MOA, LASIP (2010), pp. 25-27.



support reform and revitalize agricultural research, closely linked to developing the decentralized, demand-driven agricultural extension system. We will use the remaining 20 percent of these resources to leverage the private sector in support of market structure development. Reflecting the priority need to strengthen the enabling environment to maximize the chances of successful market development, two-thirds of planned investment in this area will be realized in the first three years of the MYS.

All FTF MYS investments in Core Program 3 will be integrated to support value chain activities in transforming rice and cassava staples value chains and piloting the income and diet diversification vegetable and goat value chains. Thus, these activities to advance the enabling environment and build capacity will contribute to ensure benefits of the value chain investments reach all 142,375 households the program will work with, including the 91,120 poor households.

#### Contributions to FTF IRs

The cross-cutting investments carried out under Core Program 3 will directly contribute to IR 1: Improved agriculture productivity, IR 2: Expanding markets and trade, IR 3: Increased private investment in agriculture and nutrition related activities, IR 4: Increased agricultural value chain productivity leading to greater on- and off-farm jobs, IR 5: Increased resilience of vulnerable communities and households, and IR 7: Improved nutrition-related behaviors.

#### Aligned USG Investments

The USAID/Liberia FED program will be the primary Mission-funded mechanism leading direct FTF investments; however, a number of other USAID and USG activities support achieving FTF outcomes and impacts.

Other USAID aligned programs that will support implementation under Core Program 3 include: current and planned NRM programs working in community forest management, development of forest-based and agricultural-based enterprises, and improved environmental management, which also serve to enhance the quality of water and soil resources; and work to strengthen higher education at the Center of Excellence at the Cuttington University School of Agriculture. As with the value chain Core Programs, the aligned Health Office portfolio will address under-nutrition and stunting in the focus counties with an emphasis on pregnant women and children under five. These high impact interventions include: facility-based delivery of the BPHS, which includes ENA promotion; community-based IMNCI; diarrhea reduction through hygiene promotion; and anemia reduction through PMI activities.

USDA also carries out a number of activities designed to strengthen GOL institutions and improve extension services, including the Cochran Fellowships for market, policy, and extension service training, technical assistance for community forestry projects, and support for nutrition and health activities at schools. Other important USG initiatives that contribute to ensuring the outcomes for Core Program 3 include the MCC land and trade policy programs, DOD's Section 1207 support for alternative dispute resolution in land tenure and rights, on-going diplomatic engagement and support by State Department with the GOL, and Peace Corps education programs to establish school gardens and provide nutrition training.

### **3.4 NUTRITION INTERVENTION STRATEGY**

The Liberia FTF MYS nutrition intervention strategy proposes a coordinated set of focused interventions directed to address each element of availability, access, and utilization of more and better quality food. As detailed above, the Liberia FTF MYS Core Program Area investments directly address availability by working to strengthen the production of key staples, rice and cassava, and to expand

production of a more diversified set of nutrition options in vegetables and goats. In addition, through the aligned FFP and USDA programs, increased production in schools and school feeding programs can increase food availability for the most vulnerable populations. With regard to increasing access to food, the value chain investments under Core Program Areas 1 and 2, supported by the strengthened enabling environment and capacity in Core Program Area 3, will increase incomes, contributing to an expanded ability of smallholder farm households to purchase food, while improved processing, transport and marketing in targeted value chains will lead, over time, to lower overall prices and increased ability of the entire population to purchase these foods.

As described in detail above, the change agent approach to transforming staples production and promoting diet diversification value chains to produce more nutritious varieties of crops, will involve explicit investment in both marketing and behavior change approaches to nutrition behaviors that will promote improved food utilization. Leveraging resources and expertise from across the entire Mission portfolio, the FTF MYS creates synergies with health and FFP programs, both of which address food utilization issues through support for ENA, IMNCI, and WASH activities. These aligned programs will contribute substantially to nutrition outcomes and are designed, within the broader context of the CDCS, to be integral to the overall success of FTF.

### **3.5 USAID FORWARD**

The USAID/Liberia FED program will be the primary Mission-funded mechanism leading direct FTF MYS Core Program investments, in conjunction with a number of other USAID and USG activities that are aligned to support achieving FTF outcomes and impacts. The choice to use FED as the foundation for FTF MYS implementation recognizes the severe human and institutional capacity constraints, both external and internal to the Mission, that characterize Liberia's fragile post-conflict recovery to date. Although it may appear counter-intuitive, this choice in fact reflects and embodies USAID/ Liberia's full commitment to use the FTF MYS to support and advance the principles of USAID Forward. Specifically, we will use FED to increase the use of small businesses, to build metrics into implementation agreements to achieve capacity-building objectives, and to use host country systems where it makes sense. FED enabling environment support will complement institutional capacity building at MOA under the GAFSP proposal, which is expected in the course of the FTF MYS to allow host country contracting with the MOA's Program Management Unit. In the near term, we will consider a small grant on rice seed multiplication to a local Liberian NGO and will undertake additional grants as other local partner organizations develop their capacity to manage and account for funds. Implementation of the FTF MYS with FED as its foundation will be the most efficient and effective mechanism in the Liberian context to allow USAID to broaden our partner base and expand direct programming through local systems.

In particular, FED will increase competition and broaden the partner base by extensive sub-contracting with Liberian private sector SMEs and associations as well as provide capacity-building assistance to all private sector and non-governmental counterpart organizations to ensure they can meet the fiduciary and performance requirements that will allow more direct contracting and grants to more and varied local partners over time. As detailed in the Monitoring and Evaluation (M&E) section below, FED will be the linchpin to work closely with the full range of FTF MYS public and private sector counterparts required to build metrics into implementation and to achieve much-needed capacity-building objectives with regard to data and analysis. A key objective of FED assistance at the MOA in Core Program 3 will be to strengthen its capacity to allow use of host country systems over time.

With regard to science and technology, both the FED-led work in Core FTF investments and the Mission aligned programs in health and education will lay the foundation to rebuild agricultural extension and research linkages. This will expand the technical expertise and analytical skills required to ensure that cooperative regional research improves access to scientific knowledge, while higher education and

training opportunities break down the technical barriers that limit development progress. Finally, FED will be an efficient focal point for the Liberia Mission to manage FTF MYS engagement with a range of development partners in India, China, academia, and the broader private sector to foster innovative development solutions to Liberia's development challenges.

## 4. MONITORING AND EVALUATION

The Feed the Future MYS and Monitoring and Evaluation (M&E) activities will have the following four overarching objectives:

1. Assess program progress and address program constraints,
2. Measure program impact,
3. Support M&E activities of implementing partners, most specifically local implementing partners, and the GOL, and
4. Build capacity of critical institutions.

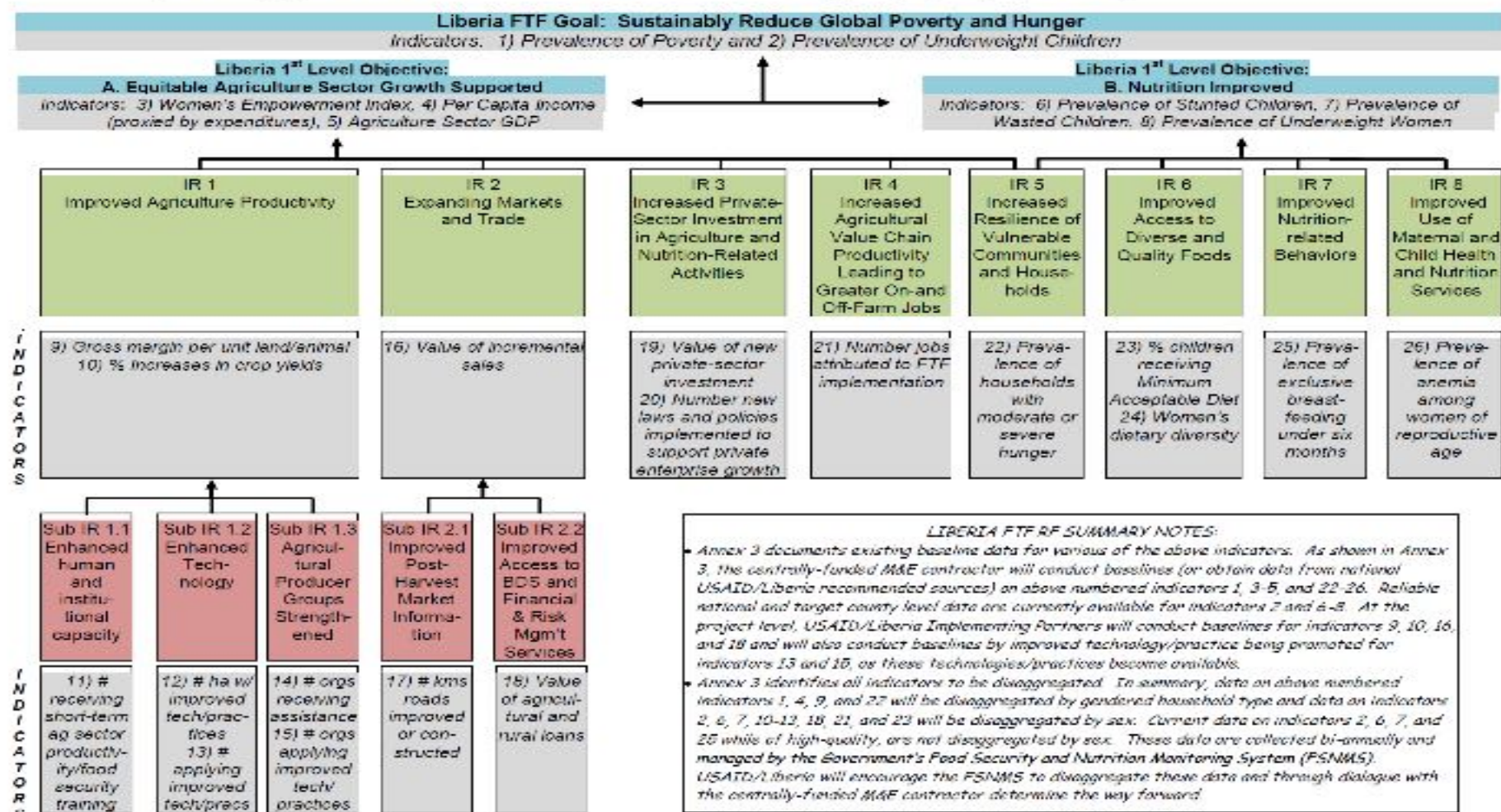
The FTF M&E system is designed flexibly to take into account the systems and indicators being implemented by aligned USG activities, as well as those which the GOL is developing under LASIP reflecting the Government's CAADP commitments. The Mission's newly-awarded M&E program will facilitate the coordination and collaboration work to build the FTF M&E system with appropriate linkages reflecting WOG activities that impact on the FTF Results Framework.

Figure 1 summarizes USAID/Liberia's FTF Results Framework (RF) which is informed by the Global FTF Results Framework. The Liberia RF illustrates the Goal, Objectives, IRs, and Sub IRs of Liberia's FTF program and their linkages with each other. Annex C provides details of USAID/Liberia FTF RF (e.g., specifics on indicators, collection, and baselines).

As shown in Figure 1, the Liberia FTF results framework shares the Global FTF Program goal of Sustainably Reducing Global Poverty and Hunger and the two indicators by which progress toward the goal is to be measured: Prevalence of Poverty and Prevalence of Underweight Children (under five years of age). Liberia's RF additionally shares the Global Framework 1<sup>st</sup> Level Objectives: Equitable Agriculture Sector Growth Supported and Nutrition Improved. The eight global indicators to measure progress toward meeting these 1<sup>st</sup> Level Objectives are also part of and noted in Liberia's RF.

The U.S. Government's FTF program - through its portfolio of agriculture, aligned, and whole of government programs, projects, and activities - addresses each of the eight Global results frameworks and intermediate results, as shown in Figure 1. Given the emphasis on agriculture, which is promoted by both the GOL and USAID/Liberia, and agriculture's ties to markets and trade, Liberia's Framework includes related Sub IRs for agriculture and market/trade. For agriculture, Sub IRs focus on human and institutional capacity development, technology improvement, and producer groups strengthening. For markets and trade the Sub IR focus is on market information facilitation and business development.

Figure I. Liberia Feed the Future Results Framework: Goal, 1<sup>st</sup> Level Objectives, Intermediate Results, Sub IRs, and Indicators



The indicators selected for IRs and Sub IRs, noted in the RF, reflect both Liberia's FTF program and the global FTF M&E requirements.<sup>38</sup> Thus, the eight global high-level indicators are in the Liberia RF. In addition, USAID/Liberia has an additional 18 indicators which will be used to measure progress toward meeting IRs and Sub IRs. These are listed in Annex C and include a mix of agriculture, marketing, private-sector investment, job creation, community resilience, and nutrition related indicators.

Collecting, managing, and reporting data to track indicators is a critical component of Liberia's FTF M&E activities. There are three basic levels at which data will be collected: at the national, target-county, and project-levels; the latter two being the 'zones of influence' of Liberia's FTF program. In general, national-level data will be collected every five or every two years, depending on data source. Typically, target-county level data will be collected every two years or mid-way through the FTF program, depending on data source. Project-level data will be collected annually. Given that much of the data will be for agriculture, data collection will reflect systems, which span growing seasons across more than a single year. The centrally-funded M&E contractor, recently awarded by the Mission, will work with USAID Implementing Partners (IP), GOL, and other entities as appropriate in data collection, management, and reporting as well as in conducting baselines. These will be collective efforts reflecting the importance of data collection and baselines not only for USG priorities but also to partners and other stakeholders in the private sector and GOL.

Ensuring baseline data are available to measure changes resulting from FTF interventions and to contextually monitor the situation in Liberia is essential to the FTF program. For the eight higher-level indicators, USAID/Liberia will coordinate with the centrally-funded contractor to confirm available national-level baseline data for the poverty and agriculture sector GDP indicators. The centrally-funded contractor will lead efforts to obtain baseline data on per capita income at the target county level. Reliable data on underweight, stunted, and wasted children, as well as on underweight women, are available from Liberia's Comprehensive Food Security and Nutrition Survey (CFSNS), a bi-annual survey endorsed and led by GOL with World Food Program oversight. These baseline data are given in Annex C. As the indicator on women's empowerment is being developed, USAID/Liberia will address baseline needs for it as further information on requirements becomes available.

There are an additional six indicators which require baselines to measure project-level activity. In collaboration with the MOA, USAID/Liberia IPs will lead baseline data collection on crop and animal production improvements (indicators 9 and 10 in the results framework), on the value of incremental sales (indicator 16 in the results framework), and on the application of improved technologies and practices by individuals and organizations receiving USG assistance (indicators 13 and 15 in the results framework).

Annex C provides further details on baselines for all indicators (i.e., whether a baseline is needed, current baseline data figures, and available or planned sources for baselines). The Annex notes targets for indicators for which baseline data are available. A number of targets are currently to be determined (TBD). USAID/Liberia will establish the remainder of these baselines and targets, along with further details of data collection through implementing project mechanisms led by the FED project and coordinated closely with the Mission's centrally-funded M&E contractor.

Gender is a cross-cutting issue in the GOL's agriculture sector investment plan and is integrated in the US Government's Liberia FTF MYS. To measure FTF gender impacts, USAID/Liberia will disaggregate data as appropriate by gendered household type or by sex and will track data for the women's empower

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<sup>38</sup> See Feed the Future: Monitoring and Evaluation Frequently Asked Questions at [www.feedthefuture.gov/monitoringevaluationfaq.html](http://www.feedthefuture.gov/monitoringevaluationfaq.html).



index being developed as well as for women specific indicators in the RF. Annex C identifies indicators to be disaggregated by gendered household type or by sex (as well as by other characteristics). Data will be disaggregated by gendered household type for the following indicators: prevalence of poverty, per capita income, gross margin per unit of land/animal, increases in crop yields, and prevalence of households with moderate or severe hunger. There are numerous indicators which will be disaggregated by sex. These are identified in Annex C. The Liberia RF also considers women specific indicators including prevalence of underweight women, women's dietary diversity, and prevalence of anemia among women. It is expected that a rich picture of the extent to which the FTF program is achieving positive gender impacts will emerge via this disaggregation. And in particular, the tracking will allow USAID/Liberia to make rapid programming adjustments in this regard if necessary.

Prior to initiation of FTF MYS activities under the FED program, the Mission will initiate a pre- and post-impact evaluation process to articulate the relevant analytical framework for evaluating program impact in the target counties. Current expectations are to utilize a quasi-experimental design for the impact evaluation. However, a final determination has not been made and plans are to further discuss with the Mission's M&E program and others. In addition, Liberia is a non-presence, monitored member of the West Africa regional Famine Early Warning System Network (FEWSNET). The FTF M&E activities will utilize these data on food prices, regional trade flows, market development in data frameworks for on-going assessment and monitoring of both impacts and risks.

Currently, Liberia's capacity to collect, process, and report data is extremely weak. While USAID/Liberia identified some sources of reliable data, notably that reported in the 2010 CFSNS, there is a paucity of agricultural and trade data available. To address this, USAID will work closely with GOL to build Liberian capacity in this area. The GOL has the primary responsibility to collect poverty, rural and agricultural statistics but the FTF M&E system will support and strengthen the GOL's activity in cooperation with other development partners. It will also strengthen the MOA's Food Security and Nutrition Unit and the Agriculture Coordination Committee to build compatible and consistent M&E systems for food security related activities. The FTF M&E system will support the capacity of critical national institutions especially the Liberian Institute of Statistics and Geo Information Services (LISGIS) and the MOA to improve the reliability, timeliness, and relevance of data for which they are responsible. It will strengthen these institutions to setup management information systems to inform high-level decision-making and will encourage the involvement of these critical institutions in oversight of FTF activities using the M&E system as the focal point. Furthermore, it will carry these activities to the county level and in particular will emphasize MOA M&E capacity in Bong, Lofa, Nimba, and Grand Bassa counties.

In-line with FTF's global knowledge learning agenda, USAID/Liberia will engage in the following activities:

- Promoting the concept of USAID as a learning organization and thus of its Implementing Partners also;
- Collaborating with GOL, particularly the MOA, to contribute to the CAADP learning process;
- Sharing results of monitoring with a wide-array of stakeholders via the Agriculture Donor Working Group and the Agriculture Coordinating Committee;
- Including monitoring results in bi-annual Mission-wide portfolio reviews;
- Disseminating results of studies carried-out by Implementing Partners (e.g., studies of women's role in the FTF value chains will be commissioned and results disseminated);

- Convening feedback meetings with Implementing Partners to act on results of monitoring and identify programming changes that may result from monitoring; and
- Ensuring that lessons learned are articulated and widely disseminated.

## 5. FINANCIAL PLANNING

The LASIP was reviewed at the CAADP business meeting in June 2010 and a final version was submitted along with the country's Global Agriculture and Food Security Program (GAFSP) trust fund proposal in September 2010, endorsed by the Ministries of Agriculture and of Planning and Economic Affairs. At that time, the proposal was favorably reviewed, but was not awarded owing to restrictions on available funding. At the most recent round of GAFSP reviews, in June 2011, Liberia's proposal won funding over five years.

Based on CAADP commitments as presented in the LASIP, the Government of Liberia proposes to increase its budget share for agriculture from the current level of approximately 3 to 10 percent over the five year horizon, although it should be noted that the Liberian budget level remains low and the commitment is met through spending by a number of aligned Ministries (e.g., Public Works, Health, Planning & Economic Affairs), in addition to the Ministry of Agriculture (MOA).

Key donors working on food security in Liberia include the World Bank, IFAD, African Development Bank, the European Union, Japan, Sweden, and China. Most of these development partners contribute to specific projects, although the scope for sector budget support via the MOA Program Management Unit (PMU) is expanding and strengthening its capacity is a common donor objective. An active Agriculture Donor Working Group was established and is co-chaired by the MOA and a donor, with the donors changing on a six-month rotational basis. The ADWG facilitates regular and effective information sharing and coordination across the full range of food security, nutrition and sector issues. There are also active nutrition and WASH donor and GOL working groups facilitating regular and effective information sharing and coordination.

USG contributions to the LASIP consist of both Feed the Future Core investments and significant USAID and other agency aligned activities.

### Aligned Investments

In Liberia, significant other USAID programs are aligned to support FTF objectives. At the bilateral mission, these include:

- The current five-year phase of Food for Peace MYAPs, which are directed to improve both food security and nutrition for vulnerable populations in FTF target countries.
- A portion of the Health Office portfolio supporting provision of basic health services, including maternal and child health and WASH activities operating in three counties.
- Current and planned Natural Resource Management programs in community forestry and sustainable livelihoods, which also serve to enhance the quality of water and soil resources and address climate mitigation and adaptation issues.
- Education Office program building Centers of Excellence in higher education, including in agriculture, engineering, and health sciences.

- Infrastructure programs to support both the needs of selected value chain development and education programs directed at building capacity in core areas of agriculture, engineering, health sciences, and forestry.

Regional programs as developed and detailed in the West Africa Regional Mission FTF Strategy also complement the bilateral investments in Liberia.

In addition a significant number of other USG agency activities are aligned to the Liberia FTF strategy over the period, notably:

- The US Department of Agriculture programs Food for Progress, Food for Education, Borlaug Fellowships and regional assistance support.
- In 2010, the Millennium Challenge Corporation signed a three-year MCC Threshold Program with Liberia to improve key indicators in girls' education, land tenure, and trade policy and customs. Activities during the period of the multi-year strategy that will affect key aspects of the environment for improving food security and nutrition include those on land tenure and trade.
- The U.S. African Development Foundation expects to make new agriculture sector investments under the FTF strategy through FY 2015.
- Peace Corps will leverage its volunteers and community level engagement to support this effort.

Expectations for annual progress against nutrition and poverty indicators including number of targeted beneficiaries and agricultural growth projections over the next five years are based upon having the anticipated amounts of funding for aligned programs and the LASIP.

## 6. MANAGEMENT

Effective implementation of the FTF MYS requires close management of Economic Growth Office activities, especially the FED project, with aligned programs and intensive coordination with other USG activities, with the GOL at the national, country and district levels, with other development partners, and with private sector actors, NGOs, and civil society.

USAID supports USG-wide Mission coordination of FTF activities through the Embassy Monrovia Food Security Working Group convened by the Deputy Chief of Mission. This group meets on a regular basis to ensure coordination in planning and implementation related to USG food security programs in Liberia. This group includes: State Department (Political, Economic and Public Affairs offices), USAID, Peace Corps, African Development Fund and other agencies as they have presence. USDA is a key FTF agency in Liberia, but it does not have a resident presence in country.

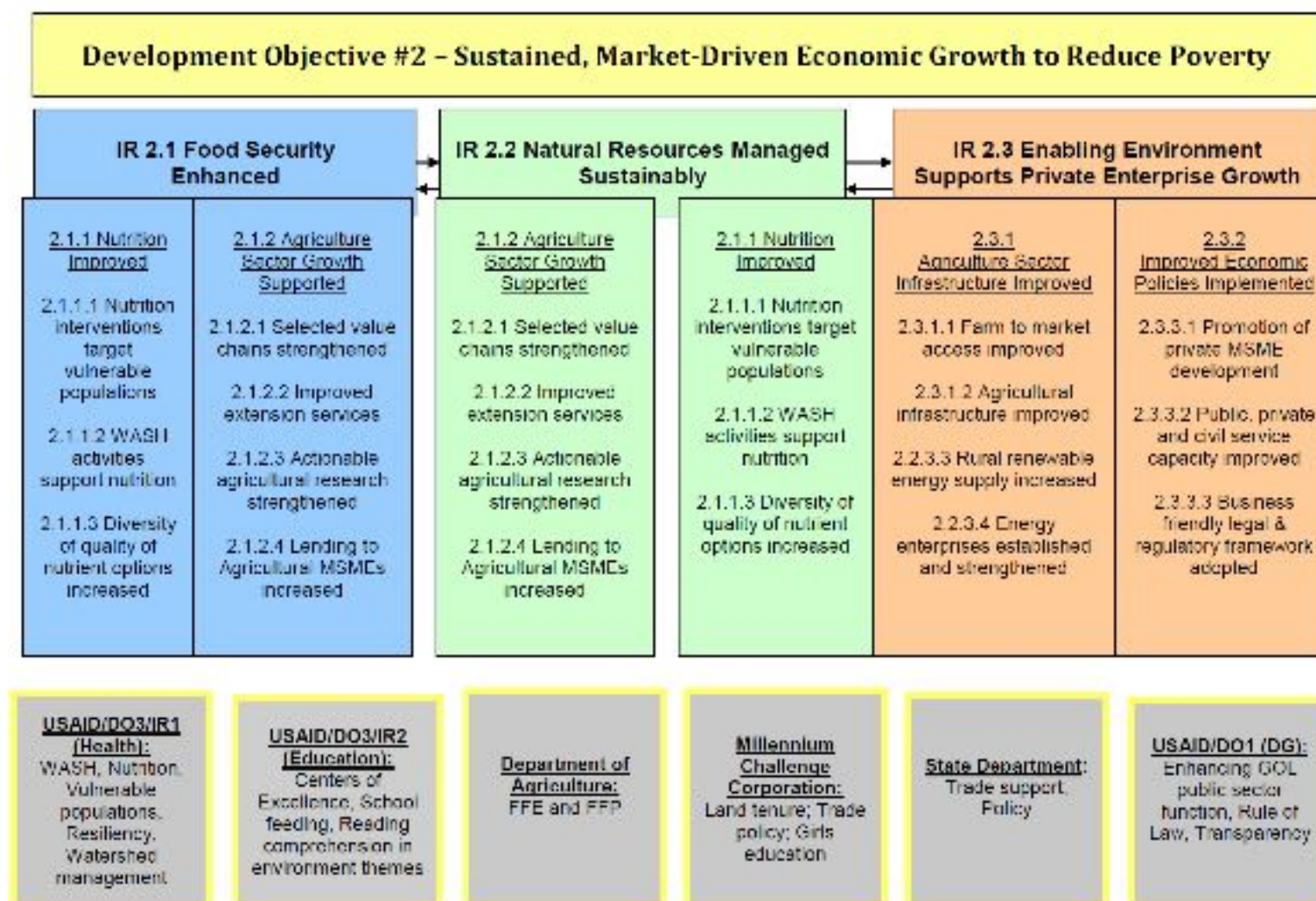
As the pace of FTF implementation increases, it is envisioned that the group will move beyond information sharing and coordination to realize the full benefits of integrated assistance programs. USAID will communicate the full range of USG efforts under the new initiative to both GOL and donors through the Agriculture, Private Sector, Forestry and Environment Donor Partner Groups.

Current space, equipment, staffing, security, and other support requirements for staff are met in the Mission staffing plan and are consistent with Mission projected staff and space requirements associated with the move to the New Embassy Compound planned for January 2012.



## 7. ANNEXES

### ANNEX A. RESULTS FRAMEWORK FOR DRAFT CDCS DEVELOPMENT OBJECTIVE 2



## ANNEX B. DATA TABLES AND IMPACT ANALYSIS

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| <b>1. Population growth rate (% p.a.)</b>   | 2.80%   |
| USAID Health Office preferred; 2010 CIA World Factbook                              |   |
| <b>2. Average household size</b>  | 5.1   |
| Liberia 2008 Population and Housing Census  |   |
| <b>3. Impact on household per change agent</b>                                      | 50  |

## I. Basic Statistics on Households, Population and Selected Crops by Counties

| <b>Table I.1</b> | <b>Total, farming and poor population, by county, 2008</b> |             |                 |                    |             |              |                  |             |
|------------------|--|-------------|-----------------|--------------------|-------------|--------------|------------------|-------------|
|                  | Total Population   | % of Total  | Average HH size | Farming Population | % of Total  | Poverty Rate | Poor Population  | % of Total  |
| Bong             | 333,481  | 10%         | 4.8             | 237,928            | 14%         | 68%          | 227,101          | 10%         |
| Grand Bassa      | 221,693  | 6%          | 4.7             | 142,798            | 8%          | 59%          | 130,577          | 6%          |
| Nimba            | 462,026  | 13%         | 5.7             | 360,246            | 21%         | 68%          | 314,640          | 14%         |
| Lofa             | 276,863  | 8%          | 5.6             | 227,625            | 13%         | 68%          | 188,544          | 8%          |
| Montserrado      | 1,118,241  | 32%         | 4.8             | 117,796            | 7%          | 49%          | 542,347          | 24%         |
| Margibi          | 209,923  | 6%          | 4.7             | 82,510             | 5%          | 59%          | 123,645          | 6%          |
| Six counties     | 2,622,227  | <b>75%</b>  | 5.0             | 1,168,902          | <b>68%</b>  |              | 1,526,853        | <b>69%</b>  |
| <b>Liberia</b>   | <b>3,476,608</b>   | <b>100%</b> | <b>5.2</b>      | <b>1,711,165</b>   | <b>100%</b> | <b>64%</b>   | <b>2,225,029</b> | <b>100%</b> |

Source: Republic of Liberia: 2008 Population and Housing Census Final Results. Population, T. 5, p10; Households, T. 10.1, pp. A-10-315-317. Poverty Rate, Liberia Poverty Reduction Strategy Paper, July 2008, T. 3.1, 2007 Poverty Headcount, p.25; T 3.2: Liberia, 2007 Poverty Profile, p.26.

| <b>Table I.2</b> | <b>Farming households by selected crops and counties, 2008</b> |             |        |        |             |         |                     |                |
|------------------|--|-------------|--------|--------|-------------|---------|---------------------|----------------|
|                  | Bong   | Grand Bassa | Nimba  | Lofa   | Montserrado | Margibi | <b>Six Counties</b> | <b>Liberia</b> |
| Rice             | 44,442   | 22,866      | 58,560 | 39,040 | 9,182       | 9,704   | 183,794             | <b>274,388</b> |
| Cassava          | 36,403   | 27,458      | 56,144 | 20,458 | 20,496      | 14,923  | 175,882             | <b>264,009</b> |
| Plantain         | 11,489   | 7,273       | 28,711 | 11,703 | 6,505       | 4,987   | 70,668              | <b>104,655</b> |
| Others           | 2,196  | 1,957       | 2,639  | 1,855  | 1,946       | 768     | 11,361              | <b>17,311</b>  |
| Livestock        | 2,685  | 1,653       | 6,519  | 2,870  | 2,394       | 3,566   | 19,687              | <b>24,816</b>  |

Source: Republic of Liberia: 2008 Population and Housing Census Final Results, LISGIS May 2009 Table 10.2 Distribution of Farming Households by Agricultural Activity and Sex of Household Head Liberia 2008, pages A 10 -318 to 323

| <b>Table 1.3</b>   | <b>Estimated Number of Farming Households, Selected Crops &amp; Counties, 2010</b> |               |               |               |               |               |                |                |
|--|--|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
|  | Bong   | Grand Bassa   | Nimba         | Lofa          | Montserrado   | Margibi       | Six Counties   | <b>Liberia</b> |
| Rice   | 46,966   | 24,164        | 61,885        | 41,257        | 9,703         | 10,255        | 194,231        | <b>289,969</b> |
| Cassava  | 38,470   | 29,017        | 59,332        | 21,620        | 21,660        | 15,770        | 185,869        | <b>279,000</b> |
| Horticulture   | 14,462   | 9,754         | 33,130        | 14,328        | 8,931         | 6,082         | 86,687         | <b>110,598</b> |
| Goats  | 2,837  | 1,747         | 6,889         | 3,033         | 2,530         | 3,768         | 20,805         | <b>18,294</b>  |
| <b>All farming</b>   | <b>52,635</b>  | <b>32,293</b> | <b>66,521</b> | <b>43,133</b> | <b>25,891</b> | <b>18,731</b> | <b>239,205</b> | <b>348,628</b> |
| Source: Table 1 data increased at population growth rate (2.8%). Horticulture is assumed equivalent to equal the sum of Plantain and Others. Goats values are assumed equivalent to livestock. |  |               |               |               |               |               |                |                |

| <b>Table 1.4</b>   | <b>Projected Number of Households in FTF program value chains, 2010-2015</b> |                |                |                |                |                |
|--|--|----------------|----------------|----------------|----------------|----------------|
|  | Total  |                |                | Poor           |                |                |
| County   | 2010   | 2013           | 2015           | 2010           | 2013           | 2015           |
| Bong   | 52,635   | 57,182         | 58,783         | 35,845         | 38,941         | 40,031         |
| Grand Bassa  | 32,293   | 35,082         | 36,065         | 19,021         | 20,664         | 21,242         |
| Nimba  | 66,521   | 72,267         | 74,291         | 45,301         | 49,214         | 50,592         |
| Lofa   | 43,133   | 46,858         | 48,170         | 29,373         | 31,910         | 32,804         |
| Montserrado  | 25,891   | 28,128         | 28,915         | 12,557         | 13,642         | 14,024         |
| Margibi  | 18,731   | 20,349         | 20,919         | 11,033         | 11,986         | 12,321         |
| <b>Six counties</b>  | <b>239,205</b>   | <b>259,866</b> | <b>267,143</b> | <b>153,130</b> | <b>166,356</b> | <b>171,014</b> |
| Source: Households by county 2010 from Table 2.4; increase at population growth rate estimate (2.8%). Poor households obtained as Total projected households PRS prevalence rates in Table 1.3 |  |                |                |                |                |                |

## 2. Household and Population Beneficiaries, by Crop Value Chain and County

| <b>Table 2.1</b>   | <b>Projected total and poor population in core value chains by county, 2010-2015</b> |                  |                  |                  |                  |                  |
|--|--|------------------|------------------|------------------|------------------|------------------|
|  | Total  |                  |                  | Poor             |                  |                  |
| County   | 2010   | 2013             | 2015             | 2010             | 2013             | 2015             |
| Bong   | 265,716  | 288,667          | 305,059          | 342,817          | 372,428          | 382,856          |
| Grand Bassa  | 159,475  | 173,250          | 183,088          | 186,680          | 202,805          | 208,483          |
| Nimba  | 402,320  | 437,070          | 461,888          | 538,031          | 584,503          | 600,869          |
| Lofa   | 254,210  | 276,167          | 291,849          | 267,744          | 290,870          | 299,015          |
| Montserrado  | 131,554  | 142,916          | 151,032          | 101,771          | 110,562          | 113,657          |
| Margibi  | 92,146   | 100,105          | 105,790          | 103,541          | 112,484          | 115,634          |
| <b>Six counties</b>  | <b>1,305,421</b>   | <b>1,418,176</b> | <b>1,498,705</b> | <b>1,540,585</b> | <b>1,673,651</b> | <b>1,720,513</b> |
| Source: Table 1.4 by average household size from Liberia 2008 Population and Housing Census. |  |                  |                  |                  |                  |                  |

| <b>Table 2.2</b>   | <b>Beneficiary Pool Households, Total &amp; Poor by core value chain and county, 2010 &amp; 2015</b> |             |        |        |             |         |                     |
|--|--|-------------|--------|--------|-------------|---------|---------------------|
|  | Bong   | Grand Bassa | Nimba  | Lofa   | Montserrado | Margibi | <b>Six Counties</b> |
| <b><u>Rice</u></b>   |  |             |        |        |             |         |                     |
| 2010 Total   | 46,966   | 24,164      | 61,885 | 41,257 | 9,703       | 10,255  | 194,231             |
| Poor   | 31,984   | 14,233      | 42,144 | 28,096 | 4,706       | 6,040   | 127,203             |
| 2015 Total   | 53,919   | 27,742      | 71,048 | 47,365 | 11,140      | 11,773  | 222,989             |
| Poor   | 36,719   | 16,340      | 48,384 | 32,256 | 5,403       | 6,935   | 146,036             |
| <b><u>Cassava</u></b>  |  |             |        |        |             |         |                     |
| 2010 Total   | 38,470   | 29,017      | 59,332 | 21,620 | 21,660      | 15,770  | 185,869             |
| Poor   | 26,198   | 17,091      | 40,405 | 14,723 | 10,505      | 9,289   | 118,211             |
| 2015 Total   | 44,166   | 33,314      | 68,117 | 24,821 | 24,867      | 18,105  | 213,390             |
| Poor   | 30,077   | 19,622      | 46,388 | 16,903 | 12,060      | 10,664  | 135,714             |
| <b><u>Horticulture</u></b>   |  |             |        |        |             |         |                     |
| 2010 Total   | 14,462   | 9,754       | 33,130 | 14,328 | 8,931       | 6,082   | 86,687              |
| Poor   | 9,849  | 5,745       | 22,562 | 9,757  | 4,331       | 3,582   | 55,826              |
| 2015 Total   | 16,603   | 11,198      | 38,036 | 16,449 | 10,253      | 6,982   | 99,522              |
| Poor   | 11,307   | 6,596       | 25,902 | 11,202 | 4,973       | 4,113   | 64,092              |
| <b><u>Goats</u></b>  |  |             |        |        |             |         |                     |
| 2010 Total   | 2,837  | 1,747       | 6,889  | 3,033  | 2,530       | 3,768   | 20,805              |
| Poor   | 1,932  | 1,029       | 4,692  | 2,065  | 1,227       | 2,220   | 13,165              |
| 2015 Total   | 3,258  | 2,006       | 7,909  | 3,482  | 2,905       | 4,326   | 23,885              |
| Poor   | 2,218  | 1,181       | 5,386  | 2,371  | 1,409       | 2,548   | 15,114              |
| Source: Total in 2010 from Table 1.2 and grown at 2.8% p.a. to obtain 2015 households. Poor households for both 2010 and 2015 allocated by country level poverty rates in Table 1.3. |  |             |        |        |             |         |                     |

| <b>Table 2. 3</b>   | <b>Number of underweight children under 5 years old, 2010-2015</b> |               |               |               |               |               |               |
|---|--|---------------|---------------|---------------|---------------|---------------|---------------|
|   | <b>2010</b>  | <b>2010</b>   | <b>2011</b>   | <b>2012</b>   | <b>2013</b>   | <b>2014</b>   | <b>2015</b>   |
| Bong  | 16.0%  | 8,500         | 8,738         | 8,983         | 9,234         | 9,493         | 9,759         |
| Grand Bassa   | 15.5%  | 5,474         | 5,627         | 5,785         | 5,947         | 6,113         | 6,284         |
| Nimba   | 13.8%  | 10,142        | 10,426        | 10,718        | 11,018        | 11,327        | 11,644        |
| Lofa  | 14.4%  | 6,263         | 6,438         | 6,619         | 6,804         | 6,994         | 7,190         |
| Montserrado   | 14.9%  | 28,992        | 29,804        | 30,638        | 31,496        | 32,378        | 33,285        |
| Margibi   | 15.1%  | 5,050         | 5,191         | 5,337         | 5,486         | 5,640         | 5,798         |
| <b>Six county total</b>   |  | <b>64,421</b> | <b>66,225</b> | <b>68,079</b> | <b>69,985</b> | <b>71,945</b> | <b>73,959</b> |
| Source: 2010 Comprehensive Food Security & Nutrition Survey; 2011-15 at population growth rate. |  |               |               |               |               |               |               |

### 3. Liberia FTF Budget and Impacts by Core Investment Area

| Table 3.1                                    | FTF Investment Allocations by Core Program Areas |      |                             |            |
|--|--|------|-----------------------------|------------|
| <b>Area 1: Rice and cassava value chain</b>  |  |      |                             | <b>55%</b> |
|  | of which:  | Rice | Cassava                     | Total      |
|  | Production                                       | 28%  | 12%                         | 40%        |
|  | Post -harvest                                    | 30%  | 30%                         | 60%        |
| <b>Area 2: Horticulture and goat pilots</b>  |  |      |                             | <b>30%</b> |
|  | of which:  |      | Horticulture pilots         | 60%        |
|  |  |      | Goats pilots                | 40%        |
| <b>Area 3: Enabling environment capacity</b> |  |      |                             | <b>15%</b> |
|  | of which:  |      | Policy                      | 40%        |
|  |  |      | Coordinated extension       | 40%        |
|  |  |      | Market structure investment | 20%        |

**Table 3.2 Poverty and Nutrition Impacts of 5-year FTF Program**

|  | % of total |     |
|--|------------|-----|
| Population in target area, 2010:                                       | 2,771,128  |     |
| Number living in poverty in target area. 2010:                         | 1,613,553  | 58% |
| Projected population in target area, 2015:                             | 3,181,428  |     |
| Projected number in poverty in target area,2015:                       | 1,625,025  | 51% |
|  |            |     |
| Number of children under 5 in target area, 2010:                       | 429,473    |     |
| Number of underweight children under 5 in target area,2010:            | 64,421     | 15% |
| Projected number of children under 5 in target area, 2015:             | 499,917    |     |
| Projected number of underweight children under 5 in target area, 2015: | 59,990     | 12% |

## ANNEX C. DETAILS OF LIBERIA FEED THE FUTURE RESULTS FRAMEWORK

| Liberia  |     |  | SPS Global | Liberia Indicator |   |        |                         |                   | Liberia Collection |                                |                                     |   |                         |  |
|----------|-----|--|------------|-------------------|---|--------|-------------------------|-------------------|--------------------|--------------------------------|-------------------------------------|---|-------------------------|--|
| RF Level | RF# | Title  | #          | #                 | Title   | Type   | Re-quired <sup>39</sup> | Disag-gregate by  | Level              | Who                            | Frequency                           | Baseline Needed or Other Action             | Current Baseline Figure | Data Sources: -Current Baseline -(Planned) |
| Goal     | G   | Sustainably Reduce Global Poverty and Hunger | 4          | 1                 | Prevalence of Poverty: Percent of people living on less than \$1.25/day | Impact | Yes                     | Gendered HH Type  | National           | UN/Centrally-funded Contractor | TBD                                 | Contractor Confirmation of Current Baseline | 64%-84%                 | WB <sup>40</sup> LISGIS <sup>41</sup>      |
|          |     |  |            |                   |   |        |                         |                   | Target Counties    | Centrally-funded Contractor    | Baselines and Finals, Some Mid-Term | No Other Baseline Needed                    | 58%                     | DHS 2007                                   |
|          |     |  | 3          | 2                 | Prevalence of underweight children under five years of age              | Impact | Yes                     | Sex <sup>42</sup> | National           | FSNMS <sup>43</sup>            | Every 2 years                       | No Other Baseline Needed                    | 15%                     | CFSNS 2010 <sup>44</sup>                   |
|          |     |  |            |                   |   |        |                         |                   | Target Counties    | FSNMS                          | Every 2 years                       | No Other Baseline Needed                    | 15%                     | CFSNS 2010                                 |

<sup>39</sup> Indicators 1-8 are high-level impact indicators and are required of all Missions. Indicators marked “Yes (Is Applicable)” are indicators required of Missions if they are applicable to the Missions programming, and are thus required for Liberia because they are applicable. Indicators marked “No, Custom” are created to measure specifics for which no standard indicator is available.

<sup>40</sup> World Bank, Liberia – poverty headcount ratio. See <http://data.worldbank.org/country/Liberia>.

<sup>41</sup> Liberia Institute for Statistics and Geo-Information Services (LISGIS). (2007). Core welfare indicators questionnaire survey 2007. Monrovia: LISGIS.

<sup>42</sup> CFSNS does not currently disaggregate this data by sex. If essential for baselines and subsequent monitoring, then the centrally-funded contractor will need to conduct baselines for and monitor this indicator. USAID/Liberia will work with FSNMS to encourage disaggregation by sex for this indicator.

<sup>43</sup> Food Security and Nutrition Monitoring System (FSNMS) is a GOL-World Food Program managed entity, led by the MOA. FSNMS conducts the Comprehensive Food Security and Nutrition Survey (CFSNS) every two years. To support country-led processes, USAID/Liberia health and nutrition-related activities (including the Global Health Initiative) use data from the CFSNS. While there are data for this indicator (and for indicators #'s 6, 7, 8, and 25) in the DHS 2007, the FTF MYS uses CFSNS data because CFSNS data are more recent than DHS data and the methodologies applied are the same; it will be possible to monitor at both national and target county levels every two years rather than every five years (except for indicator #25 exclusive breastfeeding); and using CFSNS data contributes to harmonizing USAID/Liberia major initiatives with GOL-led initiatives. Thus, while a centrally-funded M&E contractor may confirm data used for these indicators, new baselines are not needed.

<sup>44</sup> Republic of Liberia. Comprehensive food security and nutrition survey (CFSNS) 2010. Monrovia: Government of Liberia.



| Liberia                 |     |   | SPS Global | Liberia Indicator |  |          |                         |                   | Liberia Collection |                                     |                                 |   |                                |   |
|-------------------------|-----|---|------------|-------------------|--|----------|-------------------------|-------------------|--------------------|-------------------------------------|---------------------------------|---|--------------------------------|---|
| RF Level                | RF# | Title   | #          | #                 | Title  | Type     | Re-quired <sup>39</sup> | Dis-aggregate by  | Level              | Who                                 | Frequency                       | Baseline Needed or Other Action             | Current Baseline Figure        | Data Sources: -Current Baseline - (Planned) |
| 1st Level Obj Ag        | A   | Equitable Agriculture Sector Growth Supported | 4.5        | 3                 | Women's Empowerment Index (under development)                              | Out-come | Yes                     | TBD               | Pending            | Centrally-funded Contractor         | TBD                             | Yes, Baseline Needed                        | TBD                            | TBD   |
|                         |     |   |            | 4                 | Per capita income (as proxy by expenditures) of USG targeted beneficiaries | Out-come | Yes                     | Gendered HH Type  | Target Counties    | Centrally-funded Contractor         | Baselines Finals, Some Mid-Term | Yes, County Baseline Needed                 | National Level: \$160 USD 2009 | WB <sup>45</sup>                            |
|                         |     |   |            | 5                 | Percent change in agricultural GDP   | Impact   | Yes                     | NA                | National           | Centrally-funded Contractor and GOL | Annual Reported                 | Contractor Confirmation of Current Baseline | 41.7%                          | ReSAKSS <sup>46</sup>                       |
| 1st Level Obj Nutrition | B   | Nutrition Improved                            | 3          | 6                 | Prevalence of stunted children under five years of age                     | Impact   | Yes                     | Sex <sup>47</sup> | National           | FSNMS                               | Every 2 years                   | No Other Baseline Needed                    | 42%                            | CFSNS 2010                                  |
|                         |     |   |            |                   |  |          |                         |                   | Target Counties    | FSNMS                               | Every 2 years                   | No Other Baseline Needed                    | 43%                            | CFSNS 2010                                  |
|                         |     |   |            | 7                 | Prevalence of wasted children under five years of age                      | Impact   | Yes                     | Sex <sup>42</sup> | National           | FSNMS                               | Every 2 years                   | No Other Baseline Needed                    | 2.8% Considered Normal         | CFSNS 2010                                  |
|                         |     |   |            |                   |  |          |                         |                   | Target Counties    | FSNMS                               | Every 2 years                   | No Other Baseline Needed                    | 3.1%                           | CFSNS 2010                                  |
|                         |     |   |            | 8                 | Prevalence of underweight women  | Impact   | Yes                     | NA                | National           | FSNMS                               | Every 2 years                   | No Other Baseline Needed                    | 7.5%                           | CFSNS 2010                                  |
|                         |     |   |            |                   |  |          |                         |                   | Target Counties    | FSNMS                               | Every 2 years                   | No Other Baseline Needed                    | 7.5%                           | CFSNS 2010                                  |

<sup>45</sup> World Bank. 2011. (National-level data.) World development indicators data base. See <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>

<sup>46</sup> Regional Strategic Analysis and Knowledge Support System (ReSAKSS). (no date). Liberia: Long-term funding for agricultural growth, poverty reduction, and food security. Monrovia: GOL.

<sup>47</sup> CFSNS does not currently disaggregate this data by sex. If essential for baselines and subsequent monitoring, then the centrally-funded contractor will need to conduct baselines for and monitor this indicator. USAID/Liberia will work with FSNMS to encourage disaggregation by sex for this indicator.

| Liberia  |     |   | SPS Global | Liberia Indicator |  |          |                         |  | Liberia Collection               |                          |           |  |                         |   |
|----------|-----|---|------------|-------------------|--|----------|-------------------------|--|----------------------------------|--------------------------|-----------|--|-------------------------|---|
| RF Level | RF# | Title   | #          | #                 | Title  | Type     | Re-quired <sup>39</sup> | Disag-gregate by                                 | Level                            | Who                      | Frequency | Baseline Needed or Other Action  | Current Baseline Figure | Data Sources: -Current Baseline -(Planned)  |
| IR       | 1   | Improved Agricultural (Ag) Productivity   | 4.5        | 9                 | Gross margin per unit of land or animal of selected product (crop/animal varies by country)                      | Out-come | Yes (Is Applicable)     | Commodity, Gendered HH Type, Rain-fed/ Irrigated | Project Targeted Commod-ities    | Imple-menting Partners   | Annual    | Yes, Baseline Needed   | TBD                     | (Survey)                                    |
|          |     |   |            | 10                | Percent increases in crop yields   | Out-come | No, Custom              | Crop, Sex of Producer                            | Project Targeted Crops           | Imple-menting Partners   | Annual    | Yes, Baseline Needed   | TBD                     | (Participatory Rural Appraisal)             |
| Sub IR   | 1.1 | Enhance Human & Institutional Capacity Dev for Increased Ag Sector Productivity | 4.5.2      | 11                | # individuals who have received USG supported short-term ag sector productivity or food security training        | Output   | Yes (Is Applicable)     | Sex, Person Type                                 | Project Target Beneficiaries     | Imple-menting Mechan-ism | Annual    | No Baseline Needed   | 0                       | (Training Records)                          |
| Sub IR   | 1.2 | Enhanced Technology Development, Dissemination, Management, and Innovation      |            | 12                | # new additional ha under improved technologies or management practices as a result of USG assistance            | Out-come | Yes (Is Applicable)     | New/ Continuing, Sex of Adopter, Technology Type | Ha targeted under USG assistance | Imple-menting Partners   | Annual    | No Baseline Needed   | 0                       | (Survey)                                    |
|          |     |   |            | 13                | # of farmers and others who have applied new technologies or management practices as a result of USG assistance  | Out-come | Yes (Is Applicable)     | Sex, Person Type, New/ Continuing                | Project Target Beneficiaries     | Imple-menting Partners   | Annual    | Yes, Baseline Needed by Specific New Technology or Management Practice | TBD                     | (Key Informant Interviews, Project Records) |
| Sub IR   | 1.3 | Agricultural Producer Organizations Strengthened (continued below)              | 4.5.2      | 14                | # private enterprises; producer orgs; water users, trade, business associations; & CBOs receiving USG assistance | Output   | Yes (Is Applicable)     | Entity Type, New/ Continuing                     | Project Target Entities          | Imple-menting Partners   | Annual    | No Baseline Needed   | 0                       | (Participating Entity Records)              |

| Liberia  |     |   | SPS Global | Liberia Indicator |   |          |                         |  | Liberia Collection           |                        |           |  |                         |   |
|----------|-----|---|------------|-------------------|---|----------|-------------------------|--|------------------------------|------------------------|-----------|--|-------------------------|---|
| RF Level | RF# | Title   | #          | #                 | Title   | Type     | Re-quired <sup>39</sup> | Disag-gregate by                               | Level                        | Who                    | Frequency | Baseline Needed or Other Action  | Current Baseline Figure | Data Sources: -Current Baseline -(Planned)                        |
| Sub-IR   | 1.3 | Agricultural Producer Organizations Strengthened                            | 4.5.2      | 15                | # private enterprises; producer orgs; water users, trade, business associations; & CBOs that applied new technologies or management practices as a result of USG assistance | Out-come | Yes (Is Applicable)     | Entity Type, New/ Continuing                   | Project Target Entities      | Imple-menting Partners | Annual    | Yes, Baseline Needed by Specific New Technology or Management Practice | TBD                     | (Key Informant Interviews, Project/ Entity Records)               |
| IR       | 2   | Expanding Markets and Trade   | 4.5.2      | 16                | Value of incremental sales (collected at farm-level) attributed to FTF implementation   | Out-come | Yes (Is Applicable)     | Ag Products                                    | Project Target Beneficiaries | Imple-menting Partners | Annual    | Yes, Baseline Needed   | TBD                     | (Farmer/ Association Survey)                                      |
| Sub IR   | 2.1 | Improved post-harvest market information                                    | 4.5.1      | 17                | Kilometers of roads improved or constructed   | Output   | Yes (Is Applicable)     | Improved/ Newly Constructed                    | Project Target Roads         | Imple-menting Partners | Annual    | No Baseline Needed   | 0                       | Measurement, Project/ County Records                              |
| Sub IR   | 2.2 | Improved access to BDS & sound & affordable financial & risk mgm't services | 4.5.2      | 18                | Value of agricultural and rural loans   | Output   | Yes (Is Applicable)     | New/ Continuing, Recipient Type, Recipient Sex | Project Target Beneficiaries | Imple-menting Partners | Annual    | Yes, Baseline Needed   | TBD                     | (Bank/ Lending Institutions Records; Survey Target Beneficiaries) |
| IR       | 3   | Increased private sector investment in ag & nutrition related activities    |            | 19                | Value of new private sector investment in the ag sector or food chain leveraged by FTF implementation   | Out-come | Yes (Is Applicable)     | NA   | Target Counties              | Imple-menting Partners | Annual    | No Baseline Needed   | 0                       | (Private Sector/Project Records)                                  |
|          |     |   |            | 20                | Number new laws and policies implemented to support private enterprise growth   | Out-come | No, Custom              | NA   | National                     | Imple-menting Partners | Annual    | No Baseline Needed   | 0                       | (Legislative/ Project Records)                                    |

| Liberia  |     |  | SPS Global | Liberia Indicator |  |          |                         |                      | Liberia Collection              |                             |                                  |                                    |                         |  |
|----------|-----|--|------------|-------------------|--|----------|-------------------------|----------------------|---------------------------------|-----------------------------|----------------------------------|------------------------------------|-------------------------|--|
| RF Level | RF# | Title  | #          | #                 | Title  | Type     | Re-quired <sup>39</sup> | Disag-gregate by     | Level                           | Who                         | Frequency                        | Baseline Needed or Other Action    | Current Baseline Figure | Data Sources: -Current Baseline -(Planned)     |
| IR       | 4   | Increased ag value chain productivity leading to greater on- & off-farm jobs | 4.5        | 21                | Number of jobs attributed to FTF implementation                        | Out-come | Yes (Is Applicable)     | Sex, New/ Continuing | Project Level Attributed to FTF | Imple-menting Partners      | Annual                           | No Baseline Needed                 | 0                       | (Census or Sampling Participating Firms/Farms) |
| IR       | 5   | Increased resilience of vulnerable communities and households                | 3          | 22                | Prevalence of households with moderate or severe hunger                | Impact   | Yes (Is Applicable)     | Gendered HH Type     | National                        | Centrally-funded Contractor | Every 5 years                    | Yes, Baseline Needed               | TBD                     | DHS  |
|          |     |  |            |                   |  |          |                         |                      | Target Counties                 | Centrally-funded Contractor | Baselines, Finals, Some Mid-Term | Yes, Baseline Needed <sup>48</sup> | TBD                     | TBD  |
| IR       | 6   | Improved access to diverse and quality foods                                 | 3.1.9      | 23                | Prevalence of children 6-23 months receiving a minimum acceptable diet | Out-come | Yes (Is Applicable)     | Sex                  | National                        | Centrally-funded Contractor | Every 5 years                    | Yes, Baseline Needed               | TBD                     | TBD  |
|          |     |  |            |                   |  |          |                         |                      | Target Counties                 | Centrally-funded Contractor | Baselines, Finals, Some Mid-Term | Yes, Baselines Needed              | TBD                     | TBD  |
|          |     |  |            | 24                | Women's dietary diversity  | Out-come | Yes (Is Applicable)     | Urban/ Rural         | National                        | Centrally-funded Contractor | Every 5 years                    | Yes, Baselines Needed              | TBD                     | TBD  |
|          |     |  |            |                   |  |          |                         |                      | Target Counties                 | Centrally-funded Contractor | Baselines, Finals, Some Mid-Term | Yes, Baselines Needed              | TBD                     | TBD  |

<sup>48</sup> FFP MYAP performance monitoring plans are being finalized and will provide relevant baselines for Nimba and Bong counties.

| Liberia  |     |  | SPS Global | Liberia Indicator |   |          |                         |                                    | Liberia Collection            |   |                                  |                                 |                         |  |
|----------|-----|--|------------|-------------------|---|----------|-------------------------|------------------------------------|-------------------------------|---|----------------------------------|---------------------------------|-------------------------|--|
| RF Level | RF# | Title  | #          | #                 | Title   | Type     | Re-quired <sup>39</sup> | Disag-gregate by                   | Level                         | Who                                       | Frequency                        | Baseline Needed or Other Action | Current Baseline Figure | Data Sources: -Current Baseline -(Planned) |
| IR       | 7   | Improved nutrition-related behaviors                                 |            | 25                | Prevalence of exclusive breastfeeding of children under six months of age | Out-come | Yes (Is Applicable)     | Sex <sup>49</sup>                  | National                      | FSNMS                                     | Every 2 years                    | No Other Baseline Needed        | 34%                     | CFSNS 2010                                 |
|          |     |  |            |                   |   |          |                         |                                    | Target Counties <sup>50</sup> | Centrally-funded Contractor <sup>51</sup> | Baselines, Finals, Some Mid-Term | Yes, Baselines Needed           | TBD                     | TBD  |
| IR       | 8   | Improved utilization of maternal & child health & nutrition services |            | 26                | Prevalence of anemia among women of reproductive age                      | Out-come | Yes (Is Applicable)     | Pregnant Women/ Non-Pregnant Women | National                      | Centrally-funded Contractor               | Every 5 years                    | Yes, Baselines Needed           | TBD                     | TBD  |
|          |     |  |            |                   |   |          |                         |                                    | Target Counties               | Centrally-funded Contractor <sup>52</sup> | Baselines, Finals, Some Mid-Term | Yes, Baselines Needed           | TBD                     | TBD  |

<sup>49</sup> CFSNS does not currently disaggregate this data by sex. If essential for baselines and subsequent monitoring, then the centrally-funded contractor will need to conduct baselines for and monitor this indicator. USAID/Liberia will work with FSNMS to encourage disaggregation by sex for this indicator.

<sup>50</sup> CFSNS does not disaggregate this data by county and thus, baselines and monitoring will need to be conducted for the centrally-funded M&E contractor.

<sup>51</sup> As part of its performance monitoring, USAID/Liberia Health Team will use annual Lot Quality Assurance Sampling (LQAS), which will provide county coverage point estimates for Bong, Lofa, and Nimba counties. Baselines for these counties will be set from inaugural April 2011 data collection and subsequent progress will be measured yearly in Jan/Feb.

<sup>52</sup> As part of its performance monitoring, USAID/Liberia Health Team will use annual Lot Quality Assurance Sampling (LQAS), which will provide county coverage point estimates for Bong, Lofa, and Nimba counties. Baselines for these counties will be set from inaugural April 2011 data collection and subsequent progress will be measured yearly in Jan/Feb.

## ANNEX D. MAP OF LIBERIA

