

**GLOBAL AGRICULTURE AND FOOD SECURITY PROGRAM**

**SMALLHOLDER AGRICULTURAL PRODUCTIVITY ENHANCEMENT  
AND COMMERCIALIZATION (SAPEC)**

**LIBERIA PROPOSAL UNDER GAFSP**



**MINISTRY OF AGRICULTURE (MOA)  
REPUBLIC OF LIBERIA**

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## Abbreviations/Acronyms

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AfDB	African Development Bank
ACC	Agricultural Coordination Committee
ADWG	Agricultural Donors Working Group
ASRP	Agriculture Sector Rehabilitation Project
CAADP	Comprehensive African Agricultural Development Program
CAAS-Lib	Comprehensive Assessment of the Agricultural Sector of Liberia
CARI	Central Agricultural Research Institute
CBL	Central Bank of Liberia
CDA	Cooperative Development Authority
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization of the United Nations
FAPS	Food and Agriculture Policy and Strategy
FBO	Farmer-Based Organization
FED	Food and Enterprise Development
FY	Fiscal Year
GAFFSP	Global Agriculture and Food Security Program
GDP	Gross Domestic Product
GOL	Government of Liberia
Ha	Hectare
HIPC	Heavily Indebted Poor Countries
IFAD	International Fund for Agricultural Development
LASIP	Liberia Agriculture Sector Investment Program
LISGIS	Liberia Institute of Statistics and Geo-information Services
LRCFP	Land Rights and Community Forestry Project
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MOA	Ministry of Agriculture
MYAP	Multiyear Assistance Program
NGO	Nongovernmental Organization
NIC	National Investment Commission
NFSNS	National Food Security and Nutrition Strategy
PMU	Program Management Unit
PRC	People's Republic of China
PRS	Poverty Reduction Strategy
SAPEC	Smallholder Agricultural Productivity Enhancement and Commercialization
SP	Sub-program

STCP	Sustainable Tree Crops Program
TASMOA	Technical Assistance to the Ministry of Agriculture (USAID)
UN	United Nations
UNDP	United Nations Development Program
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
VAM	Vulnerability Assessment and Mapping
WAAPP	West Africa Agricultural Productivity Program
WARDA	West Africa Rice Development Association
WFP	World Food Program



## **Part 1. Summary of Overall Agriculture and Food Security Strategy and Associated Investment and Technical Assistance Plan**

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### **1.1 Objectives and Indicators**

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**1.1.1** Liberia is a poor nation. According to the Human Development Index published in the 2009 Human Development Report of the United Nations Development Programme (UNDP), the country is ranked at 169 out of 182 countries in the world. The proportion of the population living below the national poverty line in 2008 was 64%, about 2,240,000 people in a population of approximately 3.5 million.

**1.1.2** Liberia's economy, institutional, and human capacity were virtually destroyed by the conflict that pervaded the country between 1989 and 2003. More than 270,000 people died, 800,000 people were displaced, and the economy was ruined. The protracted war devastated the country's basic infrastructure and rendered access to most productive inputs, services, and markets impossible. Public and private institutional capacities, at both the national and local levels, were severely disrupted or destroyed. The political situation has experienced marked improvement since the signing of the Comprehensive Peace Agreement in August 2003. A democratically elected government was formed in 2006, the re-establishment of state authority and rule of law is progressing, and institutions and systems relevant to peace consolidation and national security are being strengthened.

**1.1.3** Liberian agriculture comprises food and tree crops, fisheries, and livestock. The sector accounted for 42.2% of real gross domestic product (GDP) in 2008. Approximately 70% of the country's population depends on agriculture for its livelihood. The sector is a significant contributor to the economy in terms of employment and foreign exchange earnings, and a primary determinant of nutrition, education, poverty reduction, and rural transformation. Rice and cassava are the main staple food crops, while rubber, oil palm, and cocoa are the dominant export tree crops. Women are major players in the sector, producing over 60% of agricultural products and constituting the majority of smallholder producers and the agricultural labor force.

**1.1.4** Approximately half of the population is either food insecure or highly vulnerable to food shortages due in part to low agricultural productivity that in turn is caused by structural impediments, inadequate policies, and prolonged conflicts that displaced farming communities, degraded transport and processing infrastructures, and diminished productive capacities such as assets and skilled personnel. Specific constraints include weak land management and water control systems, limited production intensification and crop diversification, restricted market access due to poor food value chains (i.e., storage, processing, marketing channels, and credit), and low institutional capacity. These constraints have served as disincentives for producing marketable surpluses which would contribute to food security and reducing poverty.

**1.1.5** The Lift Liberia Poverty Reduction Strategy (PRS), the country's national reconstruction and development agenda, is directing efforts toward addressing the interlinking problems of poor governance, illiteracy, unemployment, poverty, and social conflict. The PRS has four pillars: (i) Expanding Peace and Security; (ii) Revitalizing the Economy; (iii) Strengthening Governance and the Rule of Law; and (iv) Rebuilding Infrastructure and Providing Basic Services. The PRS seeks to accelerate conflict-sensitive, equitable growth by rebuilding roads and other important infrastructure; reviving traditional sources of national income that include mining, minerals, forestry, and agriculture; and establishing a competitive business environment to help diversify the economy over the medium term.

**1.1.6** In 2006, the Government of Liberia (GOL) issued the Statement of Policy Intent for the agricultural sector and a short-term action plan for agricultural recovery. This was quickly followed by the Comprehensive Assessment of the Agriculture Sector – Liberia (CAAS-Lib) project that reviewed the role and contribution of the sector to recovery and development. Results of the CAAS-Lib and other relevant information were subsequently used to develop the National Food Security and Nutrition Strategy (NFSNS) and the Food and Agriculture Policy and Strategy (FAPS).

**Table 1: LASIP Indicators/Targets by Programs and Selected Sub-Programs**

<b>PROGRAM/SUB-PROGRAM</b>	<b>INDICATORS/TARGETS</b>
<b>Program 1: Food and Nutrition Security</b>	
<b>Sub-Program:</b> Food Crop Production and Productivity Enhancement	Make food available and accessible, and move toward achieving the Millennium Development Goal#1 (MDG1) of eradicating extreme poverty and hunger by 2015
<b>Sub-Program:</b> Smallholder Tree Crops and Agro-forestry Development	Increase smallholder participation in the tree crop and forestry sub-sector by 50% between 2011 and 2015
<b>Sub-Program:</b> Sustainable Fisheries Sub-sector Development	Increase fisheries contribution to food supply and GDP
<b>Sub-Program:</b> Livestock Development and Promotion	Expand domestic livestock production to meet more than half of domestic demand
<b>Sub-Program:</b> Special Women and Youth Initiative	Increase participation of women and youth in agriculture-related activities by 50% by 2015
<b>Program 2: Competitive Value Chains and Market Linkage</b>	
<b>Sub-Program:</b> Rural Financial Services	Increase the share of total commercial bank credits allocated to the agricultural sector from 5% to at least 15% and expand the sector
<b>Sub-Program:</b> Rehabilitation and Expansion of Rural Roads	Rehabilitate/construct at least 250 km of feeder roads in five years
<b>Program 3: Institutional Development</b>	
<b>Sub-Program:</b> Building Extension and Enhancing Technologies	Decentralized, demand-driven agricultural extension service available in the next three years
<b>Sub-Program:</b> Renewing agricultural education and training	Improve training institutions to meet pre-war status and include higher education in specialized fields in agriculture
<b>Program 4: Land and Water Development</b>	
<b>Sub-Program:</b> Land reform and capacity building	Ensure that statutes and policies regarding ownership and land tenure are reviewed to facilitate the availability of land for sustained crop area expansion and for investment in agriculture
<b>Sub-Program:</b> Expansion of irrigable land	Increase the share of arable land under irrigation from less than 0.2% to 5%
<b>Sub-Program:</b> Enhanced land husbandry	Improve and maintain soil fertility and promote complementary utilization of organic, mineral, and physical components of soil management in support of agricultural production
<b>Sub-Program:</b> Improved wet and degraded land management	Develop and increase the total area of wet and degraded land for year-round utilization to produce food crops, particularly rice and vegetables



These strategic documents are now helping the Ministry of Agriculture (MOA) to better lead and coordinate agricultural development.

**1.1.7** Liberia has also prepared a Comprehensive Africa Agriculture Development Program (CAADP) post-Compact investment plan, and subsequently obtained a CAADP technical review report. The Liberia Agriculture Sector Investment Program (LASIP) presents the strategic choices that Liberia has made for agricultural growth and development over the next five years in an environmentally friendly and sustainable manner. The LASIP seeks to transform Liberian agriculture and, in so doing, maximize the sector's contributions to economic growth, employment and income generation, food and nutrition security, and poverty reduction. The LASIP adopts an approach to raising agricultural productivity, strengthening institutions, and making markets work for households and communities through commercialization and private sector initiatives. The key performance indicator is an increase in agricultural growth of 6% per annum by 2015. Some of the indicators associated with individual LASIP programs and selected sub-programs are shown in Table 1.

**1.1.8** It is within this pro-poor, conflict-sensitive context that the GOL is concentrating its actions and efforts on smallholders with a focus on food crops (rice, cassava, and vegetables) productivity enhancement, value chains development (including market access), and capacity strengthening. The four LASIP programs, through which GOL seeks to address challenges to agricultural growth and development in the country, along with brief descriptions and the corresponding CAADP pillars, are presented in Table 2.

**Table 2. Main LASIP Programs and Corresponding CAADP Pillars**

<b>Programs</b>	<b>Description</b>	<b>Corresponding CAADP Pillars</b>
<b>Program 1:</b>  <b>Food and Nutrition Security</b>	<p>Make food accessible to all, including vulnerable segments of the population.</p> <p>Increase crop yields, providing employment opportunities for food insecure households while contributing to productive assets creation; increase food security among young children while promoting early education; take essential nutrition action particularly on behalf of children under five and pregnant and lactating women.</p>	<b>CAADP Pillar 3:</b> Increasing food supply and reducing hunger across the region by enhancing smallholders' productivity and improving responses to food emergencies
<b>Program 2:</b>  <b>Competitive Value Chains and Market Linkages</b>	<p>Improve market access through increased investment in rural roads, marketing infrastructure (such as physical marketplaces, storage, and processing facilities for crops), livestock; smallholders tree crop, agro-forestry, fisheries, and energy supply.</p> <p>Provide labor-saving transitional devices and technologies to increase productivity and reduce drudgery, particularly among women and youth.</p>	<b>CAADP Pillar 2:</b> Improving market access through adequate rural infrastructure and trade expansion
<b>Program 3:</b>  <b>Institutional Development</b>	<p>Develop enduring capacities in the public sector for evidence-based policy formulation, planning, coordination, and supervision, together with the implementation of programs and projects. Develop key services such as research and extension in a participatory manner and supply them on a demand-driven basis. Also emphasize agricultural education and training.</p> <p>Promote and strengthen farmer-based organizations (FBOs) and commodity-based organizations to facilitate the mobilization of resources needed by individual producers.</p>	<b>CAADP Pillar 4:</b> Improving agricultural research and systems of dissemination of appropriate technologies, as well as increasing support to help farmers adopt them.

Programs	Description	Corresponding CAADP Pillars
<b>Program 4: Land and Water Development</b>	<p>Promote proper planning, development, and management of land and water to ensure that farmers have access to land and secured tenure, and are able to utilize this resource in a sustainable way.</p> <p>Promote better land husbandry initiatives such as increased fertilizer use to foster and sustain soil fertility.</p> <p>Expand area under irrigation particularly through on-farm and small-scale irrigation and drainage development schemes.</p>	<b>CAADP Pillar 1:</b> Extending the area under sustainable land and water management

## 1.2 Key Elements of the Policy Environment

**1.2.1** The GOL recognizes the importance of agricultural growth and development. Accordingly, the PRS, Liberia’s post-conflict renewal agenda, seeks to revitalize the food and agricultural sector to contribute to shared, inclusive, and sustainable economic growth and development, provide food and nutritional security, increase employment and incomes, and measurably reduce poverty.

**1.2.2** Sector-specific policies and strategies were developed within the context of the Lift Liberia PRS. The NFSNS seeks to make certain that “all Liberians have reliable access to the food they need and are able to utilize that food to live active and healthy lives.” The strategy prioritizes the needs of food insecure and nutritionally vulnerable groups such as infants and children under five years of age, pregnant and lactating women, the elderly, orphans, and female-headed and HIV-affected households. The NFSNS lays out various actions Liberia must take to improve food availability, access, and utilization, as well as to reduce vulnerability. The FAPS articulates the transformation required in the sector to maximize its contribution to economic growth and poverty reduction. The three required fundamental orientations according to FAPS are: (i) making safe and nutritious foods available; (ii) ensuring inclusive and pro-poor growth in the sector; and (iii) building effective and efficient human institutional capacities, sustaining natural resources, mitigating risks to producers, and mainstreaming gender and youth considerations.

**1.2.3** The NFSNS and FAPS articulate the need for programs, projects, and other interventions to be undertaken through the joint actions of multiple stakeholders and within a cross-sectoral, collaborative arrangement. Consequently, policy frameworks in the health and education sectors, as well as those in the cross-cutting areas of infrastructure, gender, youth, disaster risk management, and environmental protection, have a direct bearing on progress in agricultural growth and development. Specific sector and cross-cutting policies in this regard are the National Health Policy and National Health Plan, the Education Sector Plan and National Capacity Development Strategy, the National Gender Policy and National Plan of Action on the National Youth Policy and Liberian National Youth Employment Action Plan, the National Disaster Risk Management Policy, the National Environmental Policy of Liberia, the Environmental Protection Agency (EPA) Act, the Environmental Protection and Management Law, and the National Adaptation Program of Action.

**1.2.4** The GOL is cognizant of the centrality of smallholder agriculture to national reconstruction and development. It has removed tariffs on agricultural materials, supplies, and equipment to ensure that these are affordable and accessible to small farmers and it is building technology demonstration centers to improve skills and knowledge. Several policy initiatives in various stages of preparation and development also have the potential to positively affect smallholder agriculture in the country. For example, the work of the newly established Land Commission, once completed, will result in a land policy that strengthens access, use, and tenure security to the benefit of smallholder farmers. Furthermore, the ongoing implementation of the National Gender Policy and other initiatives have brought to the

fore the significant role of women in smallholder agriculture and the need for their empowerment.

**1.2.5** Investing in food and nutrition security, value chains development, and capacity building will help reverse current trends, that if allowed to continue, would make it impossible for Liberia to even come mid-way in its efforts to achieve the MDG1.

### 1.3 Plan Components to Achieve Objectives

**1.3.1** The agriculture sector faces several challenges that must be overcome if the key LASIP target of an increase in agricultural growth of 6% per annum by 2015 is to be achieved. These challenges include:

- a) Limited food availability that can be traced to low production and productivity for rice, cassava, and vegetables;
- b) limited economic and physical market access due largely to absence of rural roads; poor marketing infrastructure such as storage, processing, and marketplaces; and lack of formal agricultural credit;
- c) low capacity of core agricultural institutions at the national and local levels; and
- d) weak land management and water control systems.

The LASIP programs and sub-programs shown in Table 3 manifest the GOL's determination to address these challenges.

**Table 3. Summary of LASIP Programs and Sub-Programs**

Program	Sub Programs
<b>Program 1: Food and Nutrition Security</b>	Sub-Program 1: Food Crops Production and Productivity Enhancement
	Sub-Program 2: Improved Nutritional Status and Management of Food Emergencies
	Sub-Program 3: Smallholder Tree Crops and Agro-forestry Development
	Sub-Program 4: Fisheries Development
	Sub-Program 5: Livestock Development and Promotion
	Sub-Program 6: Special Women and Youth Initiative
<b>Program 2: Competitive Value Chains and Market Linkages</b>	Sub-Program 1: Rehabilitation and Expansion of Rural Roads
	Sub-Program 2: Rural Agricultural Infrastructure and Labor-Saving Technologies
	Sub-Program 3: Market and Enterprise Development
	Sub-Program 4: Rural Financial Services
<b>Program 3: Institutional Development</b>	Sub-Program 1. Rebuilding the MOA and Improved Coordination and Management
	Sub-Program 2. Reviewing and Upgrading Selected Parastatals
	Sub-Program 3. Building Extension and Enhancing Technologies
	Sub-Program 4. Capacity Building of Farm-based Organizations
	Sub-Program 5. Revitalizing Agriculture Research
	Sub-Program 6. Renewing Agriculture Education and Training
<b>Program 4: Land and Water Development</b>	Sub-Program 1: Land Reform and Capacity Building
	Sub-Program 2: Enhanced Land Husbandry
	Sub-Program 3: Expansion of Irrigable Land
	Sub-Program 4: Improved Wet and Degraded Land Management

**1.3.2** Effective implementation is critical to achieving the LASIP framework. The LASIP coordination and leadership rests with the MOA, and the GOL has begun to strengthen appropriate capacities consistent with the human, logistical, and other institutional requirements of LASIP to ensure timely implementation. The LASIP management team and support staff at the MOA's Program Management Unit (PMU) coordinate projects, procure equipment, and provide supervision and capacity building related to LASIP projects. The PMU also strives to demonstrate transparency to the GOL and stakeholder donors. The MOA's Planning and Development Department will prepare annual plans drawing from elements of the investment priorities for resource mobilization, allocation, and utilization. In the execution of the project, there will be strong collaboration between the MOA and other government

ministries and agencies. These include the ministries of Gender and Development; Public Works; Land, Mines, and Energy; and the Ministry of Planning and the EPA and Land Commission.

**1.3.3** The LASIP monitoring and evaluation (M&E) framework seeks to regularly assess the amount and type of investments made, and whether and how these investments (and related policies and practices) are having their desired impact on growth in relation to poverty reduction. Specifically, the outputs of the overarching M&E system address questions relating to the enabling environment for successful implementation of the LASIP, delivery on commitments from donors, effectiveness of interventions, consistency of planned interventions with initial targets, and exploration of policies and interventions with greater and better distributive outcomes.

## **1.4 Planned Composition and Level of Spending to Implement the Components**

**1.4.1** Planned composition and level of expenditure for the LASIP covering the period 2011–2015 are distributed across the four programs and associated sub-programs as shown in Table 4. The expenditures were reviewed and validated at various stages of the LASIP development process that started in March 2009 and included the signing of the CAADP Compact on October 16, 2009. Other participatory engagements were the stakeholder national workshop in May 2010 and the business meeting of development partners that followed.

**Table 4. LASIP Cost Estimates by Programs and Sub-Programs, 2011-2015 (US\$ Millions)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Program 1: Food &amp; Nutrition Security</b>						
Sub-Program 1.1. Food Production and Productivity Enhancement	21.2	42.4	64.14	42.4	42.4	212.54
Sub-Program 1.2. Improved Nutritional Status and Management of Food Emergencies	11.5	23	34.50	23	23	115
Sub-Program 1.3. Smallholder Tree Crops and Agro-forestry Development	5.18	10.36	15.54	10.36	10.36	51.8
Sub-Program 1.4. Fisheries Development	2.2	4.4	6.60	4.4	4.4	22
Sub-Program 1.5 Livestock Development and Promotion	1.11	2.22	3.33	2.22	2.22	11.1
Sub-Program 1.6 Special Women and Youth Initiatives	1	2	3.00	2	2	10
<b>Subtotal</b>	<b>42.19</b>	<b>84.38</b>	<b>127.12</b>	<b>84.38</b>	<b>84.38</b>	<b>421.90</b>
<b>Program 2: Competitive Value Chains and Linkages</b>						
Sub-Program 2. 1. Rehabilitation and Expansion of Rural Roads	34.13	34.13	34.13	34.13	34.13	170.65
Sub-Program 2.2. Rural Agriculture Infrastructure & Labor Saving Technologies	14.89	14.89	14.89	14.89	14.89	74.47
Sub-Program 2.3. Market and Enterprise Development	3.72	3.722	3.72	3.72	3.72	18.61
Sub-Program 2.4. Rural Finance Services	8	8	8.00	8	8	40
<b>Subtotal</b>	<b>60.745</b>	<b>60.745</b>	<b>60.75</b>	<b>60.745</b>	<b>60.745</b>	<b>303.73</b>
<b>Program 3: Institutional Development</b>						
Sub-Program 3.1: Rebuilding the MOA and Improved Coordination and Management	4.68	7.02	5.85	3.51	2.34	23.4
Sub-Program 3.2 : Reviewing and upgrading Selected Parastatals	1.2	1.8	1.50	0.9	0.6	6
Sub-Program 3.3: Building Extension and Enhancing Technologies	2.9	4.35	3.63	2.175	1.45	14.5

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Sub-Program 3.4 : Capacity Building of Farmers-based Organizations	0.6	0.9	0.75	0.45	0.3	3
Sub-Program 3.5: Revitalizing Agriculture Research	8	12	10.00	6	4	40
Sub-Program 3.6: Renewing Agriculture Education and Training	6.3	9.45	7.88	4.725	3.15	31.5
<b>Subtotal</b>	<b>23.68</b>	<b>35.52</b>	<b>29.60</b>	<b>17.76</b>	<b>11.84</b>	<b>118.4</b>
<b>Program 4: Land and Water Development</b>						
Sub-Program 4.1: Land Reform and Capacity Building	2.4	3.6	3.60	1.2	1.2	12
Sub-Program 4.2: Enhanced Land Husbandry	7.44	11.16	11.16	3.72	3.72	37.2
Sub-Program 4.3: Expansion of Irrigable Land	2.3	2.3	2.30	2.3	2.3	11.5
Sub-Program 4.4: Improved Wet and Degraded Land Management	8.6	12.9	8.60	8.6	4.3	43
<b>Subtotal</b>	<b>20.74</b>	<b>29.93</b>	<b>25.50</b>	<b>15.98</b>	<b>11.55</b>	<b>103.70</b>
<b>TOTAL</b>	<b>151.74</b>	<b>214.17</b>	<b>240.35</b>	<b>177.03</b>	<b>164.92</b>	<b>947.73</b>

## 1.5 Financing Sources and Gaps

**1.5.1** The implementation of the LASIP requires significant financial commitment from both the public and private sectors. Between 2003 and 2005, the share of the national budget allocated to the MOA and other agricultural institutions was less than 1%. The low budgetary share is also confirmed by a review of allocations since then. Nonetheless, from FY 2005/2006 to the present, public spending on agriculture has steadily increased and now stands at 2.5% of the total national budget. Up to the present, the development of Liberia's agriculture sector has been funded primarily by donors. These include international and regional organizations such as the European Union, the African Development Bank (AfDB), and Economic Community of West African States, agencies of the UN system, the World Bank, and bilateral donors such as China, Denmark, England, Germany, Japan, Sweden, and the USA. Liberia's attainment of the completion point of the Heavily Indebted Poor Countries Initiative (HIPC) in June 2010 and continuing economic growth provide opportunities for government commitment to the sector to be translated into cash and additional donor funding of the sector. In the upcoming years, national budgetary levels will increase by additional budget support from partners and soft loans as the result of the government attainment of the HIPC Completion Point, increased institutional and administrative efforts in revenue collection, and expanded economic activity as timber, minerals, and even cash crop exports rise.

**1.5.2** The financial contribution of development partners to the sector over the period 2011–2015 is currently estimated at US\$175.43 million, while new investment identified in the LASIP is projected at US\$947.73 million for the same period. This indicates a financial gap of US\$772.09 million. GOL recognizes that donors are planning additional investments over the period of the LASIP, some of which will be substantial, that will reduce the Funding Gap. Table 5 and Table 6 show sources of funding for the LASIP and yearly financial gaps by program, respectively.

**Table 5: Sources of LASIP Financing and Yearly Funding Gaps, 2011-2015 (US\$ Millions)**

	Total Cost	Source	Already Funded	Yearly Funding Gap					Total Funding Gap
				Year 1	Year 2	Year 3	Year 4	Year 5	
1	428.25	National Budget	3.38	0.6	1.28	1.92	1.28	1.28	6.36
		Development Partner	110.42	30.8	61.62	92.43	61.62	61.62	308.09
		<b>Subtotal</b>	<b>113.8</b>	<b>31.4</b>	<b>62.9</b>	<b>94.35</b>	<b>62.9</b>	<b>62.9</b>	<b>314.45</b>
2	306.23	National Budget	1.175	0.5	1.5	2.6	2.9	3	10.5
		Development Partner	50.55	48.3	47	48.4	50	50.3	244
		<b>Subtotal</b>	<b>51.73</b>	<b>48.8</b>	<b>48.5</b>	<b>51</b>	<b>52.9</b>	<b>53.3</b>	<b>254.5</b>
3	105.7	National Budget	0.16	0.76	1.14	0.95	0.57	0.38	3.8
		Development Partner	6.74	19	28.5	23.75	14.25	9.5	95
		<b>Subtotal</b>	<b>6.9</b>	<b>19.76</b>	<b>29.64</b>	<b>24.7</b>	<b>14.82</b>	<b>9.88</b>	<b>98.8</b>
4	107.34	National Budget	0.07	0.71	1.09	0.92	0.55	0.37	3.64
		Development Partner	2.93	20.14	29.06	24.76	15.52	11.22	100.7
		<b>Subtotal</b>	<b>3</b>	<b>20.85</b>	<b>30.15</b>	<b>25.68</b>	<b>16.07</b>	<b>11.59</b>	<b>104.34</b>
<b>GRAND TOTAL</b>	<b>947.52</b>		<b>175.43</b>	<b>120.81</b>	<b>171.19</b>	<b>195.73</b>	<b>146.69</b>	<b>137.67</b>	<b>772.09</b>

Note: Difference in totals between tables due to rounding

**Table 6: LASIP Financial Gaps by Program (US\$ Millions)**

	Total Cost	Source	Total (2011-2015)	Investment Gap	Gap (%)
1	428.25	National Budget	3.38	3.36	
		Development Partner	110.42	308.09	
		<b>Total</b>	<b>113.8</b>	<b>314.45</b>	<b>73.43</b>
2	306.23	National Budget	1.175	10.5	
		Development Partner	50.55	244.00	
		<b>Total</b>	<b>51.73</b>	<b>254.50</b>	<b>83.11</b>
3	105.7	National Budget	0.16	3.8	
		Development Partner	6.74	95.0	
		<b>Total</b>	<b>6.9</b>	<b>98.80</b>	<b>93.47</b>
4	107.34	National Budget	0.07	3.64	
		Development Partner	2.93	100.70	
		<b>Total</b>	<b>3</b>	<b>104.34</b>	<b>97.21</b>
<b>GRAND TOTAL</b>	<b>947.52</b>		<b>175.43</b>	<b>772.09</b>	<b>81.49</b>

## 1.6 Process by Which the Strategy and Investment Plan Were Developed

**1.6.1** The development of FAPS, which informed the LASIP, was highly participatory and inclusive of all stakeholders such as the public sector, private sector, civil society organizations, and development partners. These consultations ensured that the policy and strategy document represented the collective thinking of all stakeholders for rehabilitating and developing the sector into a vibrant vehicle for national reconstruction and poverty reduction. The process unfolded as follows: (i) a comprehensive assessment of the agriculture sector was undertaken; (ii) three regional validation workshops vetted outcomes of the above

assessment, with each workshop organized around five thematic issues; (iii) extensive consultations were held with stakeholders to focus on priority areas, take into account Liberia's comparative advantages, and review best practices; (iv) a three-day National Consultative Workshop was held with stakeholders to vet the draft FAPS; (v) the draft FAPS was finalized by incorporating inputs from the validation workshop and other comments into the final document; and (vi) the final document was presented to the President and Cabinet for adoption by the GOL.

**1.6.2** Formulation of the LASIP also benefited from extensive stakeholder consultations. It was initially reviewed at a CAADP Experts Consultation on September 4, 2009 and at an Interagency and Donors Consultation Meeting held on September 30, 2009 prior to the Validation Workshop on October 14–16, 2009. Additional inputs were received from a wide-range of stakeholders from government agencies, the private sector, nongovernmental organizations (NGOs), FBOs, and civil society during review workshops held May 18 and May 21, 2010 and at the subsequent Validation Workshop on May 28, 2010. The CAADP Post-Compact Technical Review Report required improvements in the areas of financing, program design, the M&E framework, and elaboration on arrangements for ensuring stakeholder involvement in implementation. Policy implications of the LASIP programs, as well as articulation of policy improvements associated with the change in the thrust of agriculture, were also requested. Responses to the Technical Review Report were incorporated into the LASIP, validated by stakeholders and development partners, and accordingly revised. It is this latest version that serves as the basis for this Global Agriculture and Food Security Program (GAFSP) Trust Fund Proposal.

## **Part 2: Specific Proposal for GAFSP Financing Smallholder Agricultural Productivity Enhancement and Commercialization**

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### **2.1 Specific Objectives and Targeted Results**

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**2.1.1** The agriculture sector has significantly contributed to the Liberian economy over the years, increasingly so in the recent past. The contribution of agriculture (including fisheries) to the GDP was around 10% in the late 1970s. During the war years, the sector was the mainstay of the economy and the only meaningful source of livelihood to a large segment of the population (including the displaced and conflict-affected). In the period immediately following the war, the sector contributed over half of the country's GDP (about 52% by 2005) due to the conflict-inflicted collapse of other traditional growth drivers such as mining, forestry, and services. Accounting for over 40% of real GDP in 2008 and the livelihood of 70% of the population, the agriculture sector still remains the key entry point for hunger and poverty reduction in the country if entrenched structural and policy challenges that have led to low productivity, undeveloped input and output markets, and ineffective public and private institutions are addressed.

**2.1.2** Significant opportunities exist for agriculture to make maximum contribution to consolidating peace and security in post-conflict Liberia and to sustaining the country's emerging growth and development trajectory. Land is available; there are potential productivity gains from using technology and productive inputs; and private enterprise is starting to recognize the potential of input trade, marketing, and medium and large-scale agribusiness. Regional markets exist, and there is high commitment and strong political support, both from government and the international community, to improve the quality of life of the rural poor by moving smallholder farmers (that make up the majority of this group) from subsistence to commercial agriculture. This transformation must address overarching, inter-related imperatives through a coordinated, harmonized approach at central and decentralized levels to maximize outcomes. Farmers must be supported to practice agriculture as a business by enhancing their skills and knowledge, making agricultural technologies and inputs affordable and adaptive, providing access to credit, and investing in rural infrastructure such as feeder roads, irrigation, storage facilities, and processing equipment in a bid to add value to what they produce and to establish market linkages.

**2.1.3** There is a consensus among the GOL, development partners, and stakeholders that enhancing the productivity and commercializing the activities of smallholder farmers is an effective strategy to improve food security, alleviate poverty, achieve MDG1, and maximize growth. Consistent with the goals of the GAFSP, this project seeks to scale up agricultural growth and development by using assistance from the Trust Fund to improve the productivity and commercialization of smallholder food cropping.

**2.1.4** The Smallholder Agricultural Productivity Enhancement and Commercialization (SAPEC) Project is designed to hasten the transformation of Liberia's agriculture sector, which is dominated by traditional subsistence farming systems characterized by labor intensive-shifting cultivation and low technologies, thus resulting in low productivity. SAPEC addresses all of the key challenges and interventions identified in the LASIP and, as such, represents an integrated and comprehensive approach to improving food security, reducing poverty, and fostering national economic growth. Food security in Program 1 is dealt with through production intensification; the need for competitive value chains and market linkages in Program 2 are the focus of value addition and market access; and Program 3's institutional development concerns are addressed in SAPEC's Components 2 and 3 that focus on capacity building and institutional strengthening, as well as improved program coordination, management, and implementation.

**2.1.5** The SAPEC area comprises 12 counties, eight of which fall in the project area for the AfDB/International Fund for Agricultural Development (IFAD) co-financed Agricultural Sector Rehabilitation Project (ASRP). These eight counties are the rice production counties of



the southeast (Grand Gedeh, River Gee, Grand Kru, and Maryland) and the major cassava production areas in the northwest (Grand Cape Mount, Bomi, Montserrado, and Grand Bassa). The four counties to be added to this group are Gbarpolu, Sinoe, River Cess, and Margibi. The direct project beneficiaries are estimated at 19,000 low-income, food-insecure households.

**2.1.6** The SAPEC project area will complement the geographic areas targeted for intervention by the Multiyear Assistance Program (MYAP) which is in pre-implementation and the upcoming Food and Enterprise Development (FED) of the United States Agency for International Development (USAID). The geographic areas targeted by MYAP are Nimba, Lofa, Grand Gedeh and River Gee counties. FED primary targets are Bong, Nimba, Lofa, and Grand Bassa. Complementing the project area targeted by FED and MYAP with the geographic area proposed for the SAPEC will ensure nationwide coverage and geopolitical equity, thus facilitating not only agricultural growth and development throughout the country but also peace consolidation in fragile, post-conflict Liberia.

**2.1.7** Women and youth in Liberia constitute a significant proportion of the rice, cassava, and vegetables farmers in the project area. SAPEC capacity building activities will be specifically designed and targeted to strengthen youth and women's self-confidence, decision-making power, and entrepreneurial skills in order to consolidate their participation and benefit from project activities. Furthermore, the project will ensure that all women- and youth-headed households are beneficiaries of the project resources and activities.

**2.1.8** Topping off the ASRP and complementing the MYAP/FED target geographic areas will facilitate quick implementation of SAPEC. The MOA's PMU is currently managing ASRP, and the unit's structure will enable rapid implementation of SAPEC. It would be much easier to scale up the PMU's capabilities than to introduce a new project management arrangement. Likewise, it could also be beneficial to build on the implementing partners that have already been identified for the ASRP as well as potentially bringing on new partners.

**2.1.9** Liberia's partners realize that the country has reached the HIPC Completion Point, paving the way for long-term development. Although humanitarian assistance has been the dominant aid type since 2003, development funding is on the rise through modalities such as budget support that accounts for 10.7% of the nearly US\$425 million projected for disbursement in FY 2010/2011. The United States is by far the largest contributor among all donors, bilateral and multilateral. The European Commission, UN system (i.e., World Food Program, Food and Agriculture Organization [FAO], World Health Organization, UNDP, UNICEF, UNAIDS, UNHCR, and UNESCO), World Bank, and AfDB are the top multilateral aid donors while, Germany, the United Kingdom, Norway, the People's Republic of China (PRC), Italy, Denmark, and Sweden feature prominently among bilateral contributors. Food security related projects include emergency food crisis response, reintegration and recovery of ex-combatants, and agricultural infrastructure improvement, productivity enhancement, technology dissemination, and policy formulation. Enabling assistance is being provided to rehabilitate roads and bridges, reform the water sector, foster gender equality and child development, and strengthen health systems and disease control and prevention, education, governance, and management. Planned projects will target youth employment, fisheries, enterprise development, smallholder farmers, and land policy and administration.

**2.1.10** Among UN agencies, the FAO has assisted government with the formulation of sector development policies and strategies and is the implementing partner for several projects; WFP is executing an innovative Purchase-for-Progress program that is making markets accessible to farmers; and the UNDP, UNICEF, and others are providing valuable support. The GOL and the UN have also formulated and are implementing the Joint Program for Food Security and Nutrition that was designed to support access to markets, factors of production, basic services, essential nutrition, and safety nets over the short- and medium- to long-term. USAID has a great deal of experience in supporting Liberian agriculture and is currently providing assistance in institutional development and capacity building, improved rural infrastructure, and tree crop development among others. Specific projects include the Technical Assistance to Support the Ministry of Agriculture (TASMOA), Sustainable Tree Crop

Program (STCP), and Land Rights and Community Forestry Project (LRCFP). The World Bank is financing an Agriculture and Infrastructure Development Project under which \$8 million is being used to improve agricultural policy formulation and monitoring capacity, and provide quality production inputs and marketing infrastructure. The WB is also contributing to the development of the fisheries sector in the country in the amount of approximately \$12 million through a West Africa Regional Fisheries Project, and the project preparation phase for assistance to the smallholder tree crop industry is nearing an end. Among bilateral donors, the PRC has supplied tools and equipment to farmers, provided technical assistance to improve the knowledge and skills of a number of farming communities, and commenced a US\$5.7 million agricultural technology demonstration project that will operate out of the Central Agricultural Research Institute's (CARI) facilities in Suakoko, Bong County. The EU has funded a Strengthening the Government and UN Joint Response to the Food Crisis in Liberia project that is supplying inputs, expanding irrigable land, improving post-harvest infrastructure and food emergencies management, and scaling up nutrition and safety nets.

### Project Development Objectives

**2.1.11** The overall objective of the SAPEC project is to reduce rural poverty and household food insecurity on a sustainable basis. The specific objectives are to: (i) expand irrigable land and improve land husbandry, intensify production, and increase value added and market access; and (ii) improve technology generation, dissemination, adoption, coordination, management, and implementation capacities at the MOA and other key institutions. Activities to be undertaken to achieve these objectives will mainstream gender perspectives. Achievements of SAPEC M&E results framework is presented in Annex 2 while a detailed Log Frame Matrix comprising both horizontal and vertical models can be found in Annex 3. Indicators for the overall and specific objectives are summarized in Table 7 below.

**2.1.12** In the absence of reliable baseline data for the indicators as outlined in Annex 3, specific targets will be established in the project preparation phase. These targets will be established to ensure realistic objectives relative to past performance, potential and capacity to implement.

**Table 7: SAPEC Development Objectives and Key Output Indicators**

Development Objectives	Output Indicators	Use of Output Monitoring
<b>Component 1: Crop Production Intensification and Marketing</b>		
Expanded irrigable land and improved land husbandry	<ul style="list-style-type: none"> <li>• Increase in land under irrigation and small scale schemes</li> <li>• Total land under cultivation (arable and permanent crops) increased</li> </ul>	These will provide information for allocation of land for planning in the agriculture sector.
Increased productivity and food availability	<ul style="list-style-type: none"> <li>• Percentage increase in average food crop yields</li> <li>• Percentage increase in average food crop farm sizes</li> <li>• Percentage change in aggregate level of food production</li> <li>• Volume of non-food agricultural production</li> </ul>	These will provide information on farmers' adoption rates of improved technologies.
Increased value addition and expanded market access	<ul style="list-style-type: none"> <li>• Percentage increase in volume of locally processed food commodities</li> <li>• Percentage of smallholder farmers having access to competitive produce markets</li> <li>• Percentage increase in the number of kilometers of feeder roads</li> <li>• Percentage increase in the number of farmers accessing markets</li> <li>• Percentage increase in the value of commodities that are marketed</li> <li>• Percentage increase in the volume of</li> </ul>	These will provide information on farmers' access to markets and levels of income as a result of improvements in agricultural value chains.

Development Objectives	Output Indicators	Use of Output Monitoring
	commodities that are marketed	
<b>Component 2: Capacity Building and Institutional Strengthening</b>		
Improved technology generation, transfer, and adoption	<ul style="list-style-type: none"> <li>Percentage increase in improved agricultural technologies developed</li> <li>Percentage increase in the number of farmers adopting improved agricultural technologies</li> </ul>	These will provide information on farmers' adoption rates of improved technologies.
Increased planning, monitoring, evaluation, and implementation capacity	<ul style="list-style-type: none"> <li>Percentage increase in the number of staff with requisite skills in the specified technical areas</li> </ul>	This will provide information on the MOA's ability to implement projects on a more sustainable basis.
FBOs and other private sector operators promoted and strengthened	<ul style="list-style-type: none"> <li>Number of financial services made available to agriculture producers and FBOs</li> <li>Number of farm-based support services made available to agriculture producers and FBOs</li> <li>Number of cohesive farmer groups formed</li> <li>Number of farmers per group</li> <li>Number of farmers involved in FBOs</li> <li>Number of other private sector operators strengthened</li> </ul>	These will provide data on the sustainability of the project within the context of enhancing farmers and FBOs ability to implement the project in a sustainable manner.
<b>Component 3: Project Management</b>		
Human resources strengthened	<ul style="list-style-type: none"> <li>Number of technical staff in PMU with requisite skills to perform their responsibilities</li> <li>Percentage composition of professionals by gender and educational attainment</li> <li>Percentage increase in the number and funding levels of projects managed</li> </ul>	These will provide information the MOA's ability to manage projects (both donor and government funded) more efficiently within internationally approved standards.
Accountability and transparency systems established	<ul style="list-style-type: none"> <li>Internationally acceptable financial management system in place</li> <li>Number of accountability and transparency measures in place</li> <li>Improvement in audit findings</li> <li>Reliable M&amp;E information generated for decision making</li> </ul>	These will provide information on the efficient use of project funds.
Critically needed logistics provided	<ul style="list-style-type: none"> <li>Reliable and modern office equipment supplied</li> <li>Dependable mobility (e.g., land transport) provided</li> <li>Information technology network established</li> </ul>	These will provide information on productivity and efficiency of project management.

## 2.2 Activities to be Financed

**2.2.1** SAPEC has three components: (i) crop production intensification and marketing; (ii) capacity building and institutional strengthening; and (iii) project management. Table 8 outlines the components and sub-components of SAPEC that are to be financed under GAFSP. It also shows that the project's sub-components are aligned with LASIP sub-programs and the CAADP Pillars. All activities related to the project components and sub-components will address the needs of women and youth.

**Table 8: GAFSP-Funded SAPEC Activities and Their Alignment with LASIP and CAADP**

Activities to be Financed	LASIP Program/ Sub-program (SP)	Related CAADP Technical Pillar
<b>Component 1: Crop Production Intensification and Marketing</b>		
1.1 Irrigable Land Expansion and Land Husbandry Improvement	SP 4.2 Enhanced Land Husbandry SP 4.3 Expansion of Irrigated Land	Pillar 1: Land and Water Management
1.2 Production Intensification	SP 1.1 Food Crops Production and Productivity Enhancement	Pillar 3: Increase Food Supply and Reduce Hunger
1.3 Value Addition and Market Access	SP 2.2 Rural Agriculture Infrastructure and Labor-Saving Technologies	Pillar 2: Rural Infrastructure and Trade-Related Capacities for Market Access
<b>Component 2: Capacity Building and Institutional Strengthening</b>		
2.1 Improving Technology Generation, Transfer, and Adoption	SP 3.3 Building Extension and Enhancing Technologies SP 3.5 Revitalizing Agricultural Research	Pillar 4: Strengthening Agricultural Research, Technology Dissemination, and Adoption
2.2 Supporting Results-based Sector Development	SP 3.1. Rebuilding the MOA and Improved Coordination and Management	Pillar 4: Strengthening Agricultural Research, Technology, Dissemination, and Adoption
2.3 Promoting and Strengthening FBOs and Private Sector Operators	SP 3.4 Capacity Building of Farm-based Organizations	Pillar 4: Strengthening Agricultural Research, Technology, Dissemination, and Adoption; Pillar 2: Increase Market Access through improved Rural Infrastructure and other Trade-related Interventions; Pillar 3: Increase Food Supply and Reduce Hunger Across the Region by Raising Smallholder Productivity and Improving Responses to food Emergencies
<b>Component 3: Project Management</b>		
3.1 Human Resources Strengthening	SP 3.1 Rebuilding the MOA and Improved Coordination and Management	Cross-cutting component (all 4 CAADP Pillars)
3.2 Accountability and Transparency System Establishment	SP 3.1 Rebuilding the MOA and Improved Coordination and Management	Cross-cutting component (all 4 CAADP Pillars)
3.3 Logistics Provision	SP 3.1 Rebuilding the MOA and Improved Coordination and Management	Cross-cutting component (all 4 CAADP Pillars)

A brief discussion of each of the three main components and related sub-components follows:

### **COMPONENT 1: CROP PRODUCTION INTENSIFICATION AND MARKETING**

**2.2.2** The objective of Component 1 is to enhance the income of smallholder farmers, particularly women and youth, through irrigable land expansion and land husbandry improvement, production intensification and diversification, and value addition and market access. The aim is to enhance food availability and accessibility in an effort to move toward MDG1. The effort will be centered on rice, cassava, and vegetables. Interventions in the rice sub-sector are consistent with the objectives of the Liberia National Rice Development Strategy and the West Africa Agricultural Productivity Project.

#### **Sub-Component 1.1: Irrigable Land Expansion and Land Husbandry Improvement**

**2.2.3** The objective of this sub-component is to ensure that the country's endowment of land and water is used to accelerate food production and facilitate income generation through proper planning, development, and management. The target is to increase the share of arable land under irrigation from the current estimated rate of less than 2% to 5%.

**2.2.4** The following activities that will be undertaken are as follows: (i) develop a strategic irrigation investment plan; (ii) construct and promote on-farm and small-scale irrigation schemes; (iii) promote organic, mineral, and physical soil fertility approaches; (iv) ensure that project farmers have secured land tenure; and (v) promote health programs in coordination with the expansion of lowlands.

**2.2.5** If enhanced land husbandry practices are implemented and irrigable lands are expanded, there would be increased tenure security to foster sustainable crop area expansion and production, greater involvement of the private sector in agricultural land and water development, and more land under irrigation. This would result in increased agricultural production and subsequently, enhanced food and nutrition security, increased employment, and reduced poverty.

### **Sub-Component 1.2: Production Intensification**

**2.2.6** The objective of this sub-component is to increase food production and productivity in a bid to expand household and national food availability and improve natural resource sustainability. Specific attention will be given to increasing rice, cassava, and vegetable production in the project areas.

**2.2.7** Key activities for increased crop production are as follows: (i) make high-yielding planting materials (i.e., rice seeds, cassava cuttings, and vegetable seeds) available and accessible; (ii) promote integrated plant nutrients and pest management; (iii) provide fertilizer at reasonable cost; and (iv) improve harvesting practices.

**2.2.8** Production intensification will increase the incomes of farming households, improve food security in rural areas, and help Liberia reduce its dependence on the importation of its national staple, rice, thus saving valuable foreign exchange. The production of marketable surpluses of food commodities will facilitate market penetration and foster regional trade. Intensification will also help conserve uplands, thus contributing to natural resource sustainability. Considering the particular conditions of Liberia, farmers will conduct demonstration plots/on-farm trials for which they will be provided inputs, including seeds and fertilizers.

### **Sub-Component 1.3: Value Addition and Market Access**

**2.2.9** This sub-component seeks to improve market accessibility for agricultural products by increasing the availability of rural agricultural infrastructure such as feeder roads, modern marketplaces, storage facilities, and processing equipment, and promoting labor-saving devices. The target is to reduce post-harvest losses in the project area from the current rate of 40% or higher to below 20% and increase market penetration. Critical activities include: (i) rehabilitating and/or constructing permanent, modern market structures; (ii) providing improved storage and processing facilities for staples such as rice and cassava; (iii) disseminating information on improved post-harvest technologies; (iv) making labor-saving technologies and devices (i.e., threshers, winnowers, and milling machines) available to eligible farmers and FBOs; and (v) rehabilitating and/or constructing all-weather feeder roads.

**2.2.10** This intervention will add value to what farmers currently produce, increase the purchasing power of producers and through the introduction of labor-saving technologies, attract youth to agriculture and increase the productivity of women. Private sector participation in agricultural value chains will be enhanced through increased market access resulting from feeder roads construction or rehabilitation, and household health will be improved through access to marketplaces with waste disposal, potable water, or sanitation facilities. Furthermore, farmer incomes will be increased through improvements in post-harvest and labor-saving technologies, and value addition.

## **COMPONENT 2: CAPACITY BUILDING AND INSTITUTIONAL STRENGTHENING**

**2.2.11** The objective of this component is to rebuild and expand the capacities of Liberia's key agricultural institutions to facilitate effective implementation of LASIP and

SAPEC, thus promoting farming as a business. Capacity building is both a PRS and LASIP objective that must be successfully pursued to enable the MOA and related agencies to possess systems, processes, and human resources needed for leading and promoting sector transformation.

### **Sub-Component 2.1: Improving Technology Generation, Transfer, and Adoption**

**2.2.12** The objective of this sub-component is to build adaptive research capacity and improve agricultural advisory services for food crop production and productivity. The target is two-pronged: (i) to implement a demand-driven research paradigm at CARI; and (ii) to enhance and decentralize agricultural advisory services at the MOA.

**2.2.13** Activities aimed at improved agricultural technology generation, transfer, and adoption are as follows: (i) support the rebuilding process of CARI infrastructure; (ii) support rice, cassava, and vegetables research programs; (iv) support development of an agricultural advisory services policy and strategy emphasizing participatory and pluralistic approaches (i.e., promoting private sector participation in service delivery); and (v) mainstream gender and youth perspectives.

**2.2.14** Achieving the objective of this sub-component will contribute to the rehabilitation and modernization of the country's agricultural extension and research services consistent with best practices. Successful execution of activities will result in the generation, dissemination, and utilization of systems that combine farmers' indigenous traditional knowledge with the expertise of agricultural research and extension systems, enabling active involvement of farmers or users in setting the research and extension agenda, implementing trials (i.e. farmer and extension-led) and analyzing findings and results. Once in place, such research and extension systems (i.e., farmer field schools), and practices will deepen the participation of NGOs and the private sector in agricultural technology development and dissemination, and ensure emphases on innovation systems, value chains, research for development, and impact. These outcomes will build the skills and knowledge needed by smallholder farmers to sustain agricultural growth and contribute to food security and their own poverty reduction.

### **Sub-Component 2.2: Supporting Results-based Sector Development**

**2.2.15** The objective of this sub-component is to develop enduring capacities at the MOA for evidence-based policy formulation, implementation, and monitoring. The target is strengthened capabilities for SAPEC implementation within the LASIP framework. Key activities are: (i) staff training in evidence-based policy development and analysis, M&E, and information and statistical data collection and dissemination; (ii) support for the development of key policies and strategies that are critical to the implementation of the LASIP; and (iii) provide appropriate training in specialized fields to the staff of the MOA and partner GOL agencies to sustain agricultural growth and development.

**2.2.17** Capacity building is crucial to analyzing, monitoring, and modifying the complex and dynamic interactions between policies institutional reform, technological change, and human capital development. It will remedy the current paucity of data for analysis and planning, and help transform the sector by establishing and revising, if necessary, commodity value chains. The sub-component will help build the skill set and profile required for promoting agriculture and food security in general, and LASIP implementation and sustainability in particular, by improving policy and technical advice to farmers and the private sector. Advisory and analytical skills will also be enhanced in program and project design and management, food security assessments and monitoring, and policy and market analysis. Providing this requisite skill set will enable impact assessment, efficient resource mobilization, and building of field-level synergies with other agencies. In essence, institutional capacity building will reform the MOA and related agencies, helping them to perform core responsibilities of policy development, regulation, and provision of essential services.

**2.2.18** SAPEC will build on existing interventions, thus requiring high degrees of coordination and synergy to facilitate, among other things, the mainstreaming of gender and youth considerations. The MOA's Department of Planning and Development and its PMU will therefore provide leadership in project management, M&E, and operational guidance (see Annex 1 for MOA's interim organizational chart). Support from the supervising entity and other development partners will be mainstreamed, and ongoing interventions gradually aligned.

### **Sub-Component 2.3: Promoting and Strengthening FBOs and Private Sector Operators**

**2.2.19** This sub-component seeks to build the capacity of FBOs, strengthen the Cooperative Development Agency (CDA), and support private sector participation in food value chains (e.g., provision of inputs, purchase of outputs, and provision of information). The capacities of FBOs will be improved by: (i) a comprehensive reassessment of FBO capacity in the project area; (ii) rebuilding of selected FBOs including improving their ability to access services, credit, improved storage, and processing facilities and markets; and (iii) strengthening the CDA and other apex organizations (i.e., Liberia National Federation of Cooperative Societies, Liberia Farmers Network). To rebuild and commercialize value chains using the private sector, the following activities will be undertaken: (i) support the establishment of centers for input distribution, output purchasing, and information exchange (i.e., quality control measures and standards, market conditions); (ii) build capacities in agro-business organization and management including financial management; and (iii) perform equipment operation and maintenance.

**2.2.20** Functioning FBOs are critical to ensuring smallholder farmer access to markets. Improved capacities of the CDA will enable the agency to perform its responsibility for facilitating and strengthening cooperative societies throughout the country and restructuring and building cooperative societies and other farm-based associations that were crippled by the Liberian conflict. Private sector operators, particularly those in rural areas, will improve the knowledge and skills that will help link them to domestic, regional, and international markets. The project will prepare farmers to access qualify for credit by: (i) building their capacity to access credit through training; (ii) helping them to build their own savings; and (iii) linking them to a formal banking system that delivers credit.

## **COMPONENT 3: PROJECT MANAGEMENT**

**2.2.21** The objective of this component is to improve the delivery capacity of the PMU to ensure the successful execution of SAPEC and the sustainability of its impacts. This entails improving the effectiveness of strategic and operational planning of the SAPEC, efficient coordination between and among the components of the project, and synergy among sources of funding and implementation partners. Improving the functioning of the PMU and putting into place appropriate systems and processes to achieve planned results will ensure that smallholder farmers in Liberia improve their productivity and welfare. It will further GOL capacity building goal of integrating PMUs into core institutional processes (such as ministries) by realigning their functions, systems, structures, and human resources behind the vision and organization design of agencies such as the MOA.

### **Sub-Component 3.1: Human Resources Strengthening**

**2.2.22** The objective of this sub-component is to improve the skills and knowledge of the PMU staff in all aspects of program management. Key activities are: (i) on-the-job training, including skills transfer from national and international experts; and (ii) short- and long-term training within the country and the West Africa region.

**2.2.23** Developing the human resources of the PMU will build its capacity to: (i) manage the day-to-day coordination of donor-funded projects; (ii) plan and coordinate the work of various projects providing support to the MOA; (iii) assist the MOA in the coordination and management of donor projects under MOA, including work programs; and (iv) ensure that

projects are effectively utilized for their intended purposes through the coordination of work programs and budgets.

### **Sub-Component 3.2: Accountability and Transparency System Establishment**

**2.2.24** The objective of this sub-component is to develop systems and processes for assuring effective use of resources. Key activities include: (i) improving financial and procurement management; and (ii) establishing appropriate M&E and reporting systems.

**2.2.25** Achievement of the objective of the sub-component and the successful execution of related activities will help the MOA to: (i) obtain approval of project allocations from the national budget, and conduct external and internal audits as/if required; (ii) ensure that results achieved and lessons learned are documented, disseminated, and duly reported to all stakeholders to allow modification as/if required; and (iii) facilitate donor and partner coordination to eliminate duplication of efforts in resource allocation and other interventions. Building appropriate systems and processes will strengthen the PMU's ability to prepare/compile reports from various donor projects, assist the MOA to provide periodic reports to the GOL and MOA donors, and provide on-time documentation to the Minister of Agriculture and through him/her to the Cabinet on project implementation.

### **Sub-Component 3.3: Logistics Provision**

**2.2.26** The objective of this sub-component is to meet the growing logistical needs of the PMU. Key activities are: (i) supply of office equipment; (ii) access to information communication technology; and (iii) availability of land transport. Infrastructure in Liberia, especially roads and telecommunications, are a major constraint to program management. The accomplishment of these activities will help the PMU carry out its field and headquarters-based mandates in a timely and efficient manner. It will facilitate the management of inter-agency cooperation and partnerships that are particularly essential given the direction and magnitude of change required to transform Liberian agriculture in general and to assure the sustainability of SAPEC's impacts.

## **2.3 Financing Requested and Priority for Funding**

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**2.3.1** The GAFSP proposal for Liberia is to provide financing for the SAPEC. The SAPEC is integral to the LASIP and is viewed as the best possible means for transforming the country's low input/low output agriculture from which the livelihoods of over 70% of Liberians is obtained. As discussed earlier, SAPEC activities are integrated and interconnected, requiring a comprehensive approach to project preparation and implementation. For example, improving farm productivity without value addition and market access is a disincentive that would constrain production increases and opportunities for increasing incomes, reducing food insecurity, and alleviating poverty. Undertaking these activities in the absence of absorptive capacity would result in ineffective and inefficient use of resources. Prioritizing the GAFSP proposal by project component is therefore not appropriate because of the nature of this project. Instead, the GOL has prioritized the request for funding in terms of two scale-based options.

**2.3.2** Table 9 presents the two financing scenarios in order of priority: one for US\$50 million and the other for US\$45 million. The basis for the indicative cost estimates for each activity are the detailed costing studies undertaken during the preparation of LASIP (from which SAPEC has benefitted). As seen in Table 5, the total gap for the CAADP-approved LASIP is approximately US\$772 million. GAFSP support for Priority Scenario 1 would account for about 6.5% of the gap of the overall investment plan. However, GAFSP support for Priority Scenario 2 will only account for 5.8% of the overall investment plan. The difference between the two scenarios is a reduction of US\$5 million (i.e., US\$2.5 million from value addition and market access, and US\$2.5 million from technology generation, dissemination, and adoption), removed from Scenario 1 because of planned interventions in these activities by some development partners and the GOL.



**Table 9: Two Priority Scenarios for GAFSP-funded SAPEC Activities and Budget**

	Priority Scenario 1	Priority Scenario 2
<b>Component 1: Crop Production Intensification and Marketing</b>		
1.1 Irrigable Land Expansion and Land Husbandry	US\$5.0m	US\$5.0m
1.2 Production Intensification	US\$7.5m	US\$7.5m
1.3 Value Addition and Market Access	US\$12.5m	US\$10.0m
<b>Component 2: Capacity Building and Institutional Strengthening</b>		
2.1 Technology Generation, Transfer and Adoption	US\$10.0m	US\$7.5m
2.2 Results-Based Sector Development	US\$5.0m	US\$5.0m
2.3 FBOs and Private Sector Operators	US\$5.0m	US\$5.0m
<b>Component 3: Project Management</b>		
3.1 Human Resources Strengthening	US\$2.5m	US\$2.5m
3.2 Accountability and Transparency Systems	US\$1.0m	US\$1.0m
3.3 Logistics Provision	US\$1.5m	US\$1.5m
<b>TOTAL</b>	<b>US\$50.0 Million</b>	<b>US\$45.0 Million</b>

## 2.4 Preferred Supervising Entity

**2.4.1** The AfDB is chosen as the supervising entity. This decision is based on a number of reasons. First, AfDB is a multilateral development institution with demonstrated comparative advantages in agricultural and infrastructure development. Second, it has established a credible footprint and record of emergency and early recovery work in post-conflict Liberia. The AfDB is funding over 75% of the recently launched US\$24 million ASRP in Liberia that seeks to rehabilitate agricultural infrastructure and enhance smallholder food crop productivity in eight of the country's 15 counties. The ASRP is co-financed by the IFAD. Moreover, the AfDB is providing substantial support to the GOL in water sector reform and infrastructure development, particularly roads and bridges, and is now preparing a regional natural resource sustainability intervention. Third, the AfDB has contributed to Liberia's attainment of the HIPC Completion Point, provided valuable budgetary support and economic capacity building assistance to the GOL, and held recent discussions with the GOL in line with its decentralization strategy. Lastly, the AfDB has developed a joint strategy with the World Bank in terms of their support for national economic recovery and development, thus demonstrating its capacity for partnership building, which is crucial for resourcing and supporting agricultural growth and development. The AfDB, therefore, has the capability as well as country presence to serve in the role of supervising entity.

## 2.5 Timeframe of the Proposed Support

**2.5.1** Project activities identified in the LASIP were designed to be implemented over the 2011–2015 period. SAPEC is an integral part of the LASIP, and every effort should be made to ensure the consistency of its timeframe with that of the LASIP because of the interrelatedness of envisaged interventions in the four LASIP program areas and the three SAPEC project components.

**2.5.2** Implementing SAPEC over a five-year period, including a twelve month project preparation phase, recognizes not only the need for complementarity of LASIP-based projects but also the critical and time-consuming participatory methods that will be employed while working with smallholders. This is why the first year of SAPEC operation will focus on building significant capacity as quickly as possible to assure effective, efficient implementation and project sustainability.

## 2.6 Risks and Risk Management

**2.6.1** Liberia's recent conflict experience and the consequent fragility and low capacity in the public and private sectors underpin risks that are inherent in the implementation of SAPEC. Table 10 presents these risks, level of probability, possible mitigation measures, and rates of risk following mitigation.

**Table 10: SAPEC Risks and Mitigation Measures**

Risk Description	Rating of Risk	Mitigation Measures	Rating of Risk After Mitigation
Difficulty attracting well-trained and skilled personnel, especially for the PMU	H	Advertise widely for recruitment of experienced staff and partners on a competitive basis; provide attractive remuneration and job security	L
Climate change and prolonged drought	L-M	Introduce land irrigation; use short duration varieties of food crops; improve crop management practices that conserve moisture	L
Political interference in project management	L-M	Establish clear and transparent lines of command; put in place regular M&E and reporting system; foster stakeholder sensitization and participation	L
Very limited number of suppliers of basic goods and equipment and the attendant high costs due to lack of competition	M	Advertise opportunities in the country and abroad in widespread and different media (radio, print, Internet, etc.)	L
Difficulties in project coordination	H	Strengthen the Agricultural Coordination Committee (ACC) and the Agricultural Donors Working Group (ADWG).	L-M

Note: L=Low Risk; M=Medium Risk; H=High

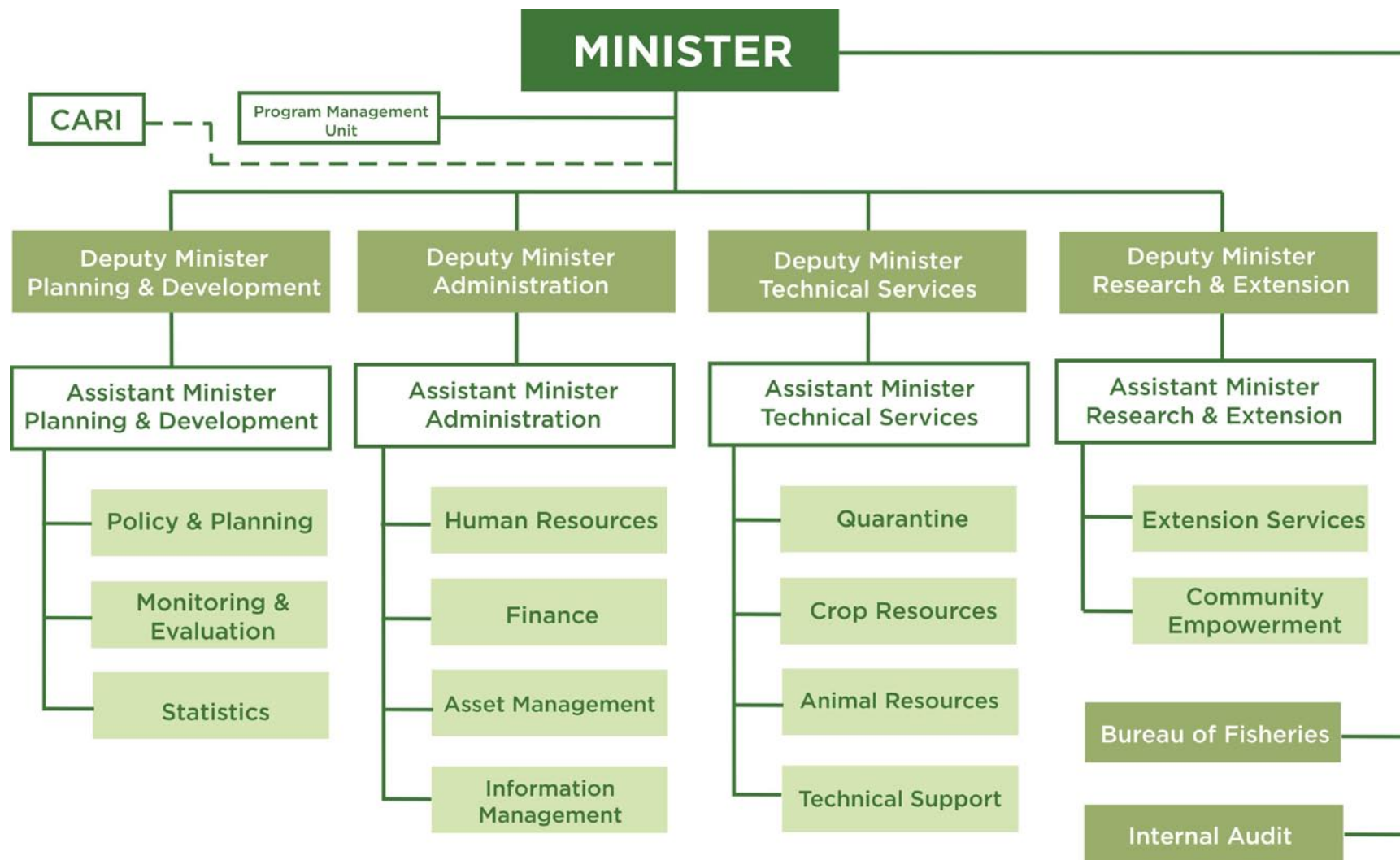
## 2.7 Consultations with Local Stakeholders and Development Partners

**2.7.1** As discussed in Section 1.6, FAPS and LASIP consultations were purposefully and extensively participatory to ensure buy-in from all stakeholders, both national and international. Most importantly, they involved farmers and FBOs and their apex associations, as well as private sector operators along the agricultural value chains. The SAPEC development process built on these inclusive approaches by consulting development partners, private input and output market agents, cooperatives and other FBOs, and government agencies. SAPEC was derived from the LASIP, and its formulation benefitted tremendously from the LASIP's multi-stakeholder, participatory, and inclusive approaches.

## 2.8 Conclusions and Recommendations

**2.8.1** The SAPEC proposal is in line with the approved CAADP Compact. It was developed in the framework of the Liberian Agricultural Sector Investment Program. The components and sub-components of SAPEC are aimed at transforming smallholder agriculture from subsistence farming to a profitable, market-oriented enterprise. The funding of SAPEC will help reduce the financing gap for LASIP, contribute to enhancing food security, and reduce poverty in Liberia, thereby contributing to the achievement of the MDG1. Based on the above, it is recommended that the GAFSP steering committee approve a grant of US\$50 million or alternatively, a grant of US\$45 million, for financing the Smallholder Production Enhancement and Commercialization Project.

## Annex 1. Ministry of Agriculture Interim Organizational Chart



## **Annex 2. Achievement of the SAPEC M&E Results Framework**

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The overall objective of the SAPEC's M&E system is to improve MOA service delivery and improve smallholder production and enhancement through the provision of adequate, accurate, and timely information on the project's performance and MOA activities in support of policy formulation and decision-making. In addition, it will ensure the effective tracking of indicators identified in the SAPEC.

The SAPEC monitoring will build on the M&E system developed for the agricultural sector that is comprehensive and forward-looking in its coordination of data collection and reporting at all levels. Additional focus will be placed on analysis for utilization at all levels during the SAPEC M&E system implementation period and beyond to ensure ownership of the M&E process and subsequent sustainability.

At the policy level, the M&E Directorate will provide coordination of all M&E activities in line with parallel programs of the MOA. The PMU will also draw on best practices of the various project M&E systems of other ongoing MOA programs to track activities of SAPEC to ensure that they are in line with the LASIP.

The main result areas will include:

- Planning and Development Department capacities will be strengthened for technical back-stopping in effective M&E of SAPEC;
- Capacity of the Departments of Agriculture at national, county, and district levels in M&E techniques will be strengthened to collect, analyze, and report data;
- For a successful monitoring of the SAPEC project, positive and effective linkages will be developed between the M&E Directorate and other departments, county and district offices, implementing agencies, and the private sector;
- Assessment of the quality and relevance of MOA services to beneficiaries will be improved through effective M&E of the SAPEC project;
- The SAPEC project's M&E framework will ensure the provision of adequate, accurate, and timely data/information; and
- Designated county M&E officers will ensure effective supervision, especially in those areas where the project will be implemented.

The project will supplement efforts being made by other development partners such as AfDB, IFAD, and USAID. The SAPEC M&E system will be linked with that of the LASIP and the Liberia PRS. This will be important to track indicators and their accompanying data for the PRS M&E system that will be derived from the overall MOA M&E system. Further, data to be collected by the system will be synchronized with that of other major ongoing donor programs.

To ensure feasibility and sustainability of the project, the SAPEC M&E will focus on other aspects of M&E related to the environment and gender mainstreaming. The need for harmonizing data collection processes within MOA will be a major objective of the SAPEC M&E. Sustainability of the project will be derived from ownership of the system by the various actors in the agricultural sector, and efforts would be made to collect data needed for planning at all the levels.

The main risk is that harmonized indicators may be understated if other projects and programs fail to adequately monitor and report. Major reforms now underway to improve the performance of the public sector may meet with resistance and delays, thus impacting negatively on the demand for performance management information (M&E, broadly defined). Additionally, there is also the risk that staff trained by the project will move to leave the MOA at the end of SAPEC.

### Annex 3. Logical Framework Matrix for Smallholder Productivity Enhancement and Commercialization Project

	Narrative Summary/ Intervention Logic	Objectively Verifiable Indicators	Means/Sources of Verification	Critical Assumptions
<b>Component 1: Crop Production Intensification and Marketing</b>				
Overall Goal	To increase the production and productivity of smallholders	% increase in the profit margin of farmers in selected crop enterprises	Annual Crop Survey report	Availability of crop budget information to determine the input and output cost
Purpose/ Outcome	<b>1.1 Expanded irrigable land and improved land husbandry</b>	1.1.1 % increase in irrigable land	National Soil survey report	Availability of funding from national level funding
		1.1.2 % increase in hectares of irrigable land put under irrigation and small scale schemes	National Crop Survey report	Availability of funding from national level and funding
		1.1.3 Total land under cultivation (arable and permanent crops)	National Crop Survey report	Availability of funding from national level funding
	<b>1.2 Increased productivity and food availability</b>	1.2.1 % increase in average food crop yields	National Crop Survey report	Availability of funding from national level and donors
		1.2.2 % increase in average food crop farm sizes	VAM Survey National Crop Survey	Availability of funding from government and donors
		1.2.3 % change in aggregate level of food	Ministry of Commerce and Industry reports	Availability of funding from government and donors
		1.2.4 Volume of non-food agricultural production	Ministry of Commerce and Industry annual reports	Favorable policy environment for investment
	<b>1.3 Increased value addition and expanded market access</b>	1.3.1 % increase in volume of locally processed food commodities	Ministry of Commerce and Industry annual reports	Government commitments in establishing market linkages, developing value chain policy, and promoting market access
		1.3.2 % of smallholder farmers with access to competitive produce markets	CDA Annual Report MOA Annual Report	The continued favorable credit scheme from commercial banks
	<b>1.4 Expanded access to capital by value chain operators</b>	1.4.1 % increase in the number of financial institutions providing credit.	CBL (Micro-credit reports)	The continued favorable credit scheme from commercial banks
		1.4.2 % increase in the number of value chain operators receiving credit	CBL (Micro-credit reports)	The continued favorable credit scheme from commercial banks

	Narrative Summary/ Intervention Logic	Objectively Verifiable Indicators	Means/Sources of Verification	Critical Assumptions
		1.4.3 % increase in the value of credit accessed by value chain operators	CBL (Micro-credit reports)	Guarantee from the government
Output	1.1.1. Increased use of low land under irrigation 1.1.2. Increased economic use of wetlands	1.1.1.1 % of arable land under irrigation	National Soil Survey report	Funding available for study
		1.1.2.1 Value of investment in wetlands 1.1.2.1 % of wetlands reclaimed	NIC reports EPA reports	Funding available for study
Activities	1.2.1 Use of better skills, seeds, and planting material by farmers 1.2.2 Use of labor friendly technologies for farm management	1.2.1.1 # of farmers per extension service provider	MOA annual report, CARI report, MOA report	Sustained commitment to implement the decentralization
		1.2.1.2 % of area or output under improved technologies: (i) improved genetic material; (ii) fertilizer; (iii) irrigation	Crop Survey CARI report, MOA report	Financial institution in the process and effect loan scheme where necessary
		1.2.1.3 Plant density per hectare	CARI Annual report	Institution commitment
	1.3.1 Increased purchasing power of producers 1.3.2 Networks established between farmers across business sectors and consumers for information sharing 1.3.3 Reduced post-harvest loses	1.2.2.1 #labor-friendly equipment operational at farming sites per district	MOA report	
		1.3.1.1 Saving balances of farmers against investment	CDA and commercial bank reports (CBL CARI, CDA) and MOA	Commitment of financial institution to lend
		1.3.1.2 % change in household annual expenditure	MOA reports	Government commitment
		1.3.2.1 # of farmers adopting best farm practices	CDA and Ministry of Commerce and Industry	Government commitment
		1.3.2.2 # of agriculture extension radio programs aired	??	Government commitment
		1.3.3.1 % of farm produce reaching the market after harvest per season		
Output	1.4.1 Availability of favorable credit to rural farmers by commercial bank institutions 1.4.2 Increase in commercial bank credit to the agriculture sector	1.4.1.1 % of farmers with access to agricultural and rural finance and credit	CBL and commercial bank reports	Continued guarantee of loans to rural farmers by commercial bank
		1.4.2.1 Total value of loan provided farmer annually	CBL and commercial bank reports	Continued guarantee of loans to rural farmers by commercial bank

	<b>Narrative Summary/ Intervention Logic</b>	<b>Objectively Verifiable Indicators</b>	<b>Means/Sources of Verification</b>	<b>Critical Assumptions</b>
Activities	<p>1.1 Conduct nationwide viable inland valley swamps survey</p> <p>1.1 Develop a strategic irrigation investment plan</p> <p>1.1 Establish a national resource database</p> <p>1.1 Strategic plan used to inform investment into irrigation agriculture</p> <p>1.2 Expand application of integrated plant nutrient and plant management methods</p> <p>1.2 Develop and implement special distribution and utilization program for fertilizer provision to poor farmers</p> <p>1.2 Encourage diversification in the production and consumption of crops</p> <p>1.3 Provide improved storage facilities and processing equipment</p> <p>1.3 Increase availability of rural agriculture infrastructure</p> <p>1.3 Establish farmer-based cooperatives</p> <p>1.4 Establish credit guarantee schemes</p> <p>1.4 Provide awareness among farmers and farming groups on the availability of such instruments</p> <p>1.4 Extend credit to eligible beneficiaries</p>	1.1.1 Survey conducted in all 15 counties	SAPEC project report	Funding donor commitment
		1.1.2 Irrigation investment plan developed	SAPEC project report	Funding donor commitment
		1.1.3 National resource database established at the end of the first year of project	SAPEC project report	Funding donor commitment
		1.1.4 Information on surveys in the agricultural sector available to inform policy decisions	SAPEC project report	Funding donor commitment
		1.2.1 Integrated pest management procedure established in project districts and disseminated to farmers	SAPEC project report	Funding donor commitment
		1.2.1 Construction of 1 storage facility constructed per project district for supply and distribution of farm inputs	SAPEC project report	Funding donor commitment
		1.2.1 Intercropping information disseminated through extension officers to smallholder farmers	SAPEC project report	Funding donor commitment
		1.3.1 Construction of at least 1 improved storage complex with processing equipment per project district	SAPEC project report	Funding donor commitment
		1.3.1 Rehabilitate at least 1 market outlet	SAPEC project report	Funding donor commitment
		1.3.1 Building per project district	SAPEC project report	Funding donor commitment
		1.3.2 1 FBO strengthened in each project district	SAPEC project report	Funding donor commitment
		1.4.1 Credit modalities developed for at least 1 FBO and farmers established per project district	SAPEC project report	Funding donor commitment
		1.4.1 Awareness create among farmers and FBO	SAPEC project report	Funding donor commitment

	Narrative Summary/ Intervention Logic	Objectively Verifiable Indicators	Means/Sources of Verification	Critical Assumptions
		1.4.1 Eligible farmers and FBOs in project area identified for at least 1 credit per year	SAPEC project report	Funding donor commitment
<b>Component 2: Capacity Building and Institutional Strengthening</b>				
Purpose/ Outcome	<b>2.1 Improved technology generation, transfer, and adoption</b>	2.1.1 % increase in improved agricultural technologies developed	CARI MOA reports CARI/CDA MOA reports	Available appropriate funding from government and partners
		2.1.2 % increase in the number of farmers adopting improved agricultural technologies	CARI MOA reports CARI/CDA MOA reports	Available appropriate funding from government and partners
	<b>2.2 Increased planning, monitoring, evaluation, and implementation capacity</b>	2.2.1 % increase in the number of staff with requisite skills in the specified technical areas	MOA TASMOA report	Available appropriate funding from government and partners
	<b>2.3 FBOs and other private sector operators promoted and strengthened</b>	2.3.1 # of financial services made available to agriculture producers and FBOs	Commercial banks and CDA reports MOA annual report	Available appropriate funding from government and partners
		2.3.2 # of farm-based support services made available to agriculture producers and FBOs	CDA/MOA reports	Available appropriate funding from government and partners
		2.3.3 # of cohesive farmer groups formed	Ministry of Commerce and Industry, Chamber of Commerce reports	Available appropriate funding from government and partners
		2.3.4 # of farmers involved in FBOs		
		2.3.4 # of farmers per group	CDA/MOA reports	Available appropriate funding from government and partners
		2.3.5 # of farmers involved in FBOs	CDA/MOA reports	Available appropriate funding from government and partners
		2.3.6 # of other private sector operators strengthened	MOA reports	Available appropriate funding from government and partners
Output	2.1.1 Linkages developed between CARI and other domestic and regional research entities. 2.1.2 Demand-driven research approach established at CARI 2.1.3 Adoption of new improved technology by farmers	2.1.1.2 # of research findings disseminated among domestic and regional partners	CARI and Dept. of Agriculture/UL annual reports WARDA/IITA/FAO CARI annual reports	Available appropriate funding from government and partners
		2.1.2.1 # of research work produce at CARI per year	CARI reports National Crop Survey	Available appropriate funding from government and partners
		2.1.2.2 # of high-yielding disease resistant developed	CARI reports LISGIS reports	Available appropriate funding from government and partners



	<b>Narrative Summary/ Intervention Logic</b>	<b>Objectively Verifiable Indicators</b>	<b>Means/Sources of Verification</b>	<b>Critical Assumptions</b>
	2.2.1 Staff trained in evidence–base policy development and analysis, M&E, information and statistical data collection 2.2.2 Policies and strategies developed to enable coordination of the Pillars under LASIP 2.2.3 Human capacity training provided for specialized fields in agriculture and rural development for MOA staff and related GOL agencies. 2.3.1 Improved capacities of FBOs to manage credit, storage, marketing, and processing facilities	2.2.1.1 # of professionals as per 1000 farmers	MOA annual report	Available appropriate funding from government and partners
		2.2.2.1 # of direct sector policies developed	MOA annual report	Available appropriate funding from government and partners
		2.2.2.2 # of farmers reached by extension worker per district	MOA annual report	Available appropriate funding from government and partners
		2.2.2.3.1 Composition of professionals, by %: (i) gender; (ii) education attainment (PhD, MS, BS, Diploma)	MOA/TASMOA report	Available appropriate funding from government and partners
		2.3.1.1 Volume of credit made available to agricultural producers and FBOs	CBL (micro-credit) and Commercial banks reports	Commitment from commercial banks and lending financial institutions
Activities	2.1 Develop linkages between CARI and other domestic and regional research entities 2.1 Promote participatory and pluralistic extension approaches and gender mainstreaming 2.1 Develop an appropriate agricultural communication strategy 2.2 Train staff in evidence-based policy development and analysis, M&E, information and statistical data collection under LASIP 2.2 Provide human capacity training for specialized fields in agriculture and rural development for MOA staff and related GOL agencies. 2.3 Undertake a comprehensive assessment of FBOs to date 2.3 Strengthen the CDAs and other apex organizations 2.4 Develop agri-businesses to	2.1.1 Established a working plan to cooperate in the conduct of research	CARI reports	Available appropriate funding from government and partners
		2.1. Formalized arrangements for on farms trials to support pluralistic extension service delivery	CARI reports	Available appropriate funding from government and partners
		2.1 Monthly newsletter publication and distribution to farmers in all project districts, radio messages (in local vernacular)	MOA reports	Available appropriate funding from government and partners
		2.2 Staff developed M&E work plan and collection procedure for all project activities at district level	MOA reports	Available appropriate funding from government and partner
		2.2 Identification of all potential staff for specialized training	MOA reports	Available appropriate funding from government and partner
		2.3 Review all existing CDA rosters on FBOs in project area	MOA reports	Available appropriate funding from government and partner
		2.3 Provide training on new management skill twice a year for CDA and others	MOA reports	

	Narrative Summary/ Intervention Logic	Objectively Verifiable Indicators	Means/Sources of Verification	Critical Assumptions
	link farmers to input and output markets			
<b>Component 3: Project Management</b>				
Purpose/ Outcome	3.1 PMU strengthened	3.1.1 # of technical staff with requisite skills to perform their responsibility	MOA TASMOA report MOA reports Ministry of Gender reports Ministry of Labor reports	Available funding
		3.1.2 % composition of professionals by gender and education attainment	MOA annual report	Available funding
		3.1.3 % increase in the number and funding levels of projects managed	PMU reports	Available donor funding
Output	4.1 Provide overall leadership in project management for the MOA	4.1.1 # of professionals recruited in program area	MOA TASMOA report MOA report Ministry of Gender report Ministry of Labor report Mold	Available donor funding
		4.1.2 % of women in PMU operations	Ministry of Gender report Ministry of Labor report Mold	Available donor funding
		4.1.4 % composition of professionals by gender and education attainment	MOA TASMOA report	Available donor funding
Activities	5.1 Provide office space and equipment 5.1 Make available logistics required 5.1 Develop a effective and operational plan for the project 5.1 Develop a synergy among sources of funding and implementation partners	5.1.1 Required number of staff recruited for each project area	SAPEC Project Report	Available donor funding
		5.1.2 All appropriate equipment purchased and distributed to recruited staff members	SAPEC project report	Available donor funding
		5.1.3 Operational plan for the project developed	SAPEC project report	Available donor funding
		5.1.4 Operational plan for funding tracking developed	SAPEC project report	Available donor funding
Purpose/ Outcome	3.2 Accountability and transparency systems established	3.2.1 Internationally acceptable financial management system in place	Annual independent project audit report	Available donor funding
		3.2.2 # of accountability and transparency measures in place	Annual independent project audit report	Available donor funding

	Narrative Summary/ Intervention Logic	Objectively Verifiable Indicators	Means/Sources of Verification	Critical Assumptions
		3.2.3 Improvement in audit findings	Project audit report	Available donor funding
Output	6.1 Reduce incidence of fraud and increase donor confidence in the existing management structure	6.1.1 # of financial reports produced as per project guidelines	Annual PMU report	Available donor funding
Activity	7.1 Establish financial and management control mechanisms at all levels of the project	7.1.1 All manuals developed for all level of management	Annual PMU report	Available donor funding
	7.1 Put in place inter-control measures 6.1 Adhere to periodic audit schedule as per project/donor requirements	7.1.1 Reports produced monthly on internal control finding produce regularly Audit	SAPEC M&E report	Available donor funding
Purpose/ Outcome	3.3 Functioning M&E and reporting systems in place at all levels	3.3.1 Reliable M&E information generated for decision-making	SAPEC M&E report	Available donor funding
Output	5.1 A well-documented process of program implementation, with benchmarks to guide	5.1.1 Number of M&E report developed	SAPEC M&E report	Available donor funding
		5.1.2 % of M&E recommendations acted upon	SAPEC M&E report	Available donor funding
		5.1.3 # of staff involved in M&E activities at district and field levels	SAPEC M&E report	Available donor funding
Activity	6.1 Data collection techniques in place Systematic field report in place Fully develop M&E plan Reporting format develop	6.1.1 # of data collection on a monthly basis in project districts 6.1.1 # of field reports generated as per implementation on a monthly basis 6.1.1 # of M&E plan activity followed	SAPEC M&E report	Available donor funding