GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title	
Strengthening agricultural resilience through transformational livelihood adaptation in Liberia (SARTLA)	
Region	GEF Project ID
Liberia	11447
Country(ies)	Type of Project
Liberia	FSP
GEF Agency(ies):	GEF Agency ID
UNDP	9672
Executing Partner	Executing Partner Type
Environmental Protection Agency (EPA)	Government
GEF Focal Area (s)	Submission Date
Climate Change	10/18/2023
Project Sector (CCM Only)	
Climate Change Adaptation Sector	
Taxonomy	
Focal Areas, Climate Change, Climate Change Adaptation, Disaster risk management, Climate resilience, Ecosystem-based Adaptation, Private sector, Sea-level rise, Least Developed Countries, Adaptation Tech Transfer, Climate finance, Livelihoods, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Land Degradation, Sustainable Land Management, Improved Soil and Water Management Techniques, Ecosystem Approach, Sustainable Livelihoods, Sustainable Agriculture, Community-Based Natural Resource Management, Restoration and Rehabilitation of Degraded Lands, Sustainable Forest, Income Generating Activities, Integrated and Cross-sectoral approach, Food Security, Forest, Forest and Landscape Restoration, Influencing models, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Demonstrate innovative approache, Convene multi-stakeholder alliances, Stakeholders, Local Communities, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Beneficiaries, Private Sector, SMEs, Individuals/Entrepreneurs, Communications, Awareness Raising, Behavior change, Type of Engagement, Partnership, Consultation, Participation, Information Dissemination, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Gender results areas, Knowledge Generation and Exchange, Access to benefits and services, Participation and leadership, Capacity Development, Capacity, Knowledge and Research, Innovation, Knowledge Exchange, Knowledge Generation, Learning, Theory of change, Indicators to measure change, Adaptive management, Enabling Activities	
Type of Trust Fund	Project Duration (Months)
LDCF	60
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
8,932,420.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)

848,580.00	0.00
Total GEF Financing: (a+b+c+d) 9,781,000.00	Total Co-financing 103,938,106.00
PPG Amount: (e) 200,000.00	PPG Agency Fee(s): (f) 19,000.00
PPG total amount: (e+f) 219,000.00	Total GEF Resources: (a+b+c+d+e+f) 10,000,000.00
Project Tags CBIT: No NGI: No SGP: No Innovation: No	

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B "project description".(max. 250 words, approximately 1/2 page)

Please note that the project title has been revised to: Strengthening agricultural resilience through transformational livelihood adaptation in Liberia (SARTLA)

Climate change, with increasing temperatures, shifting rainfall seasonality and more frequent and intense extreme events, is threatening the productivity of climate-sensitive sectors like rain-fed agriculture and artisanal fisheries. Given that approximately 70% of Liberia's population is reliant on such livelihoods, climate change poses a significant threat to national efforts towards poverty reduction, food security, livelihoods, and sustainable development.

The climate impacts facing Liberia are diverse and interconnected, with compounding linkages between climate hazards, impacts, and baseline drivers. Among the biggest climate threat is changes in rainfall seasonality and intensity, with more frequent and intense storms creating flood risks that damage crops and infrastructure, while the associated increase in surface runoff drives erosion, leeching out critical soil nutrients and contaminating waterways with sediments and pollution from agricultural runoff. In coastal regions, both the flood risk and erosion are exacerbated by sea level rise, with storm surges posing a considerable threat to coastal communities. Moreover, the combined impact of sediment-loaded and polluted waters flowing downstream from degraded rivers and extensive coastal erosion is threatening critical coastal wetlands which act as nursery grounds for the fish species important for the economy – highlighting the connected nature of coastal and inland ecosystems. In response to these challenges, many Liberians, particularly in rural areas, resort to maladaptive coping mechanisms to survive – often leading to extensive environmental degradation and the loss of critical ecosystem services that are needed to minimise the impacts of climate change.

To address the climate change impacts in Liberia, the proposed project will introduce a systemic, integrated adaptation approach to build resilience of communities and food production systems in the country. This

approach will employ nature-based solutions[1][1] to address climate vulnerabilities of rural livelihoods. In doing so, the project will not only restore degraded ecosystems, but also work with local authorities, communities and the private sector to address the drivers of degradation and incentivise sustainable livelihood practices among vulnerable communities, including marginalized and excluded groups. These actions will be supported by the development of sustainable alternative livelihoods that reduce the uptake of maladaptive practices, with a focus on productive and inclusive value chains and green enterprise development – underpinned by innovative finance mechanisms that unlock private sector investment.

The project will build on lessons learned from successful pilot initiatives in the agriculture, fisheries and ecotourism sectors that have developed coastal and agricultural resilience in the country, as well as integrating indigenous knowledge with innovative and adaptive practices to achieve sustainable outcomes. The innovation lies in the systems-based approach which leverages best practices from multiple sectors in a single, integrated system. By targeting coastal and inland counties together, the project will address the intricate linkages and co-dependencies between the upstream and downstream systems (source-to-sea), along with the impacts of climate hazards, flooding in particular, on food production systems and other natural resource-based livelihoods. This will represent a shift away from traditional adaptation approaches that generally target coastal and inland ecosystems as distinct and isolated systems, despite the intricate connectivity between the two. Moreover, the interventions will be underpinned by a strong knowledge and capacity development focus which will enable local government agencies, civil society and the private sector to not only sustainably manage the project interventions in the long term, but also to learn from and replicate the model across the country.

[1] For example, active restoration, assisted natural regeneration, and conservation practices in forest, wetland and coastal ecosystems, supplemented where needed with hybrid green-grey solutions.

Indicative Project Overview

Project Objective

Building climate resilience in natural-resource dependent rural communities of Liberia through systems-based, transformational adaptation in the agricultural, fisheries and ecotourism sectors.

Project Components

Component 1: Investment in conserving the agro-ecological landscape and food production systems.

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing ($)	Co-financing ($)
2,650,000.00	32,090,817.00

Outcome:

Outcome 1: Improved management of the agro-ecological landscape through nature-based solutions and climate-resilient food production technologies for small-holder farmers and fishers.

Output:

1.1. Coordination mechanisms established to build institutional capacity for cross-sectoral coordination and integrated management of the agro-ecological landscape.

1.2. NbS implemented in degraded forest and wetland ecosystems to safeguard ecosystem services.

1.3. Climate-resilient agriculture and fisheries practices promoted in vulnerable rural communities through training and awareness.

1.4. Extension Services strengthened and diversified to deliver advisory services to farmers and fisherfolk on climate-resilient practices.

1.5 Communication Strategy developed to raise awareness and disseminate best practices for climate-resilient agriculture and fisheries.

Component 2: Livelihoods and value chain development.

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing ($)	Co-financing ($)
3,400,000.00	39,726,732.00

Outcome:

Outcome 2: Alternative, climate-resilient livelihoods, including ecotourism, supported by improved market access and value-added services in agricultural and coastal areas.

Output:

2.1. Sustainable climate-resilient livelihoods and agricultural and fisheries value chains and enterprise development in target communities through provision of training and start-up inputs.

2.2. Alternative livelihoods including ecotourism established (with participation of at least 50% women) and linked with agricultural and fisheries value chains.

2.3 Business development tools and guidance delivered to build technical and financial capacity of MSMEs.

Component 3: Innovative finance.

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing ($)	Co-financing ($)
2,210,000.00	25,213,137.00

Outcome:

Outcome 3: Innovative financing architecture incentivizes private sector investment in climate-resilient agricultural technologies, livelihoods, and enterprises.

Output:

3.1. Establishment of private sector engagement facility with new funding windows opened under the UNDP Growth Accelerator Platform.

3.2. Partnerships established between private sector (MSMEs, cooperatives) partners, communities, and other stakeholders.

3.3. Partnerships with larger commercial agriculture, agro-processing, and ecotourism corporations facilitated for climate-resilient livelihoods.

M&E

Component Type	Trust Fund
	LDCF
GEF Project Financing ($)	Co-financing ($)
250,000.00	1,957,986.00
Outcome:	
Output:	

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Component 1: Investment in conserving the agro-ecological landscape and food production systems.	2,650,000.00	32,090,817.00
Component 2: Livelihoods and value chain development.	3,400,000.00	39,726,732.00
Component 3: Innovative finance.	2,210,000.00	25,213,137.00
M&E	250,000.00	1,957,986.00
Subtotal	**8,510,000.00**	**98,988,672.00**
Project Management Cost	422,420.00	4,949,434.00
Total Project Cost ($)	**8,932,420.00**	**103,938,106.00**

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

PROJECT CONTEXT

Liberia is a Least Developed Country (LDC) in the equatorial region of West Africa, with a population of 5.19 million people — 70% of which relies on climate-sensitive sectors like rain-fed agriculture and fisheries for their livelihoods[1][2]. The agricultural sector has also been identified as having the potential to drive growth and poverty reduction in Liberia for the foreseeable future[2][3] — with significant potential for the adoption of transformative technologies and approaches that will boost and sustain productivity in the country. Moreover, Liberia hosts about 40% of West Africa's Forest cover, with both timber and non-timber forest products including providing important sources of food, medicines, fuels and livelihood for communities. However, despite these opportunities and the fact that the agriculture, fisheries, and forestry sectors already constitute over 35% of GDP in 2021[3][4], the productivity of these natural resource-based livelihoods falls well below the global average, resulting in ~70% of Liberians experiencing multi-dimensional poverty[4][5] and high incidences of food insecurity. These challenges are expected to be exacerbated by climate change — the impacts of which pose significant threat to poverty reduction, livelihoods, and the sustainable development of the country.

Figure 1: Map of Liberia with targeted coastal counties highlighted in blue, inland counties in green.

Climate Change Context

Baseline Climate

Liberia has a tropical, equatorial climate, with heavy rainfall, averaging over 2,500 mm per year. Rainfall is highest along the coast, but gradually decreases as one moves towards Liberia's interior plateaus and low mountains, where the average annual rainfall is ~2,030 mm (Figure 2). The southern regions experience consistent rainfall throughout the year, while the rest of the country follows a two-season pattern, influenced by the West African Monsoon, where the wet season typically unfolds during the summer months, spanning from May to November, accompanied by average temperatures of around 25°C. Conversely, the dry season prevails from December to April, characterized by the influence of the harmattan winds and average temperatures ranging from 24 to 27°C. Relative humidity levels reach as high as 90%–100% during the rainy season, while the dry season sees relative humidity ranging from 60%–90%.[1] In recent years, however, the baseline climate of Liberia has been affected by climate change, leading to shifts in rainfall patterns, temperature fluctuations, and potential impacts on the region's ecosystems and communities.

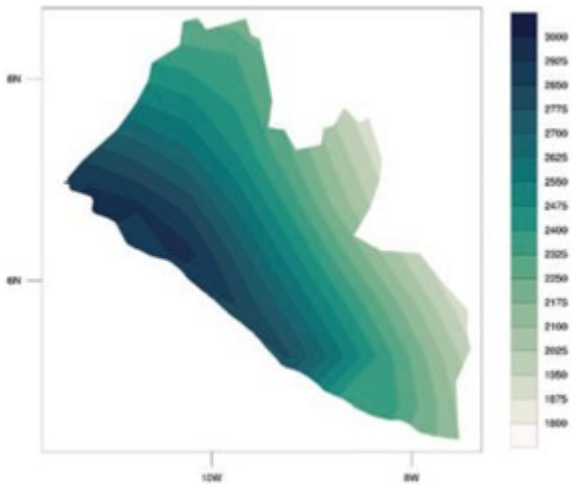

Figure 2. Annual Precipitation (mm) of Liberia, 1991–2020 (WB CCKP).

Climate Change Trends and Projections

Over the past 60 years, mean annual rainfall has decreased, although it remains unclear if this is a long-term trend or due to the variability in rainfall for the region. Despite the high inter-annual variability, clear signals have been identified for increasing variability in rainfall; a trend that is projected to continue into the future. This variability presents as an increase in extreme rainfall intensity during the wet season, contrasted by a reduction in rainfall during the dry season, particularly in the southern regions. For example, Figure 3 shows that the frequency of higher intensity rainfall events (i.e. those with a higher 5-day cumulative rainfall) increases for each period across the coming century relative to the 1995-2014 baseline. This results in a decrease in the return period of extreme rainfall events, with the future return period of a 1 in 20 precipitation event reaching 9.6 years (SSP5-8.5) by the mid-century, and as low as 5.45 years by end-century. These changes are most pronounced in the northern reaches of the country (8.2—9.2 years), with the southern end still experiencing decreased return periods, but only reaching ~15 years by mid-century.[1]

These rainfall shifts are accompanied by increasing temperature, with mean annual temperature increasing by 0.18°C per decade since 1960. Although data limitation restricts the observation of daily extremes, there is evidence of an increase in the number of ‘hot nights’ (additional 57 nights per year) and a decrease in the frequency of ‘cold nights’ (18 less nights per year) between 1960 and 2003.[1] Future projections show with high confidence that temperatures will continue to increase in the region, including an increase in extreme heat[2]. For example, Figure 4 shows that the number of days with a heat index above 35°C increases under all scenarios, with the rate of increase more pronounced under SSP2-4.5, SSP3-7.0 and SSP5-8.5

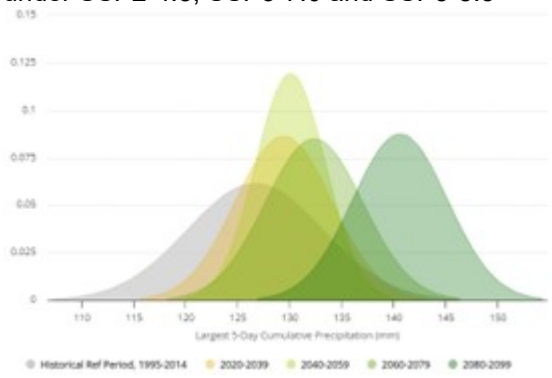

Figure 3. Projected change in distribution of projected 5-day cumulative rainfall under SSP5-8.5.(WB CCKP).

In coastal zones, the increasing impacts of rainfall and storm intensity are exacerbated by sea level rise (SLR), which presents a considerable threat to coastal communities, in which ~60% of Liberia’s population resides. SLR has already resulted in increased rates of inundation, storm surges, erosion and other coastal hazards that are threatening coastal

settlement, resulting in loss in infrastructure and involuntary migration in communities like West Point and Buchanan. Considerable shoreline recession has also been observed in the cities of Greenville, Harper, Monrovia and Robertsport, with the extent of beach loss estimated to be as high as 3 m/yr in extreme circumstances[1].

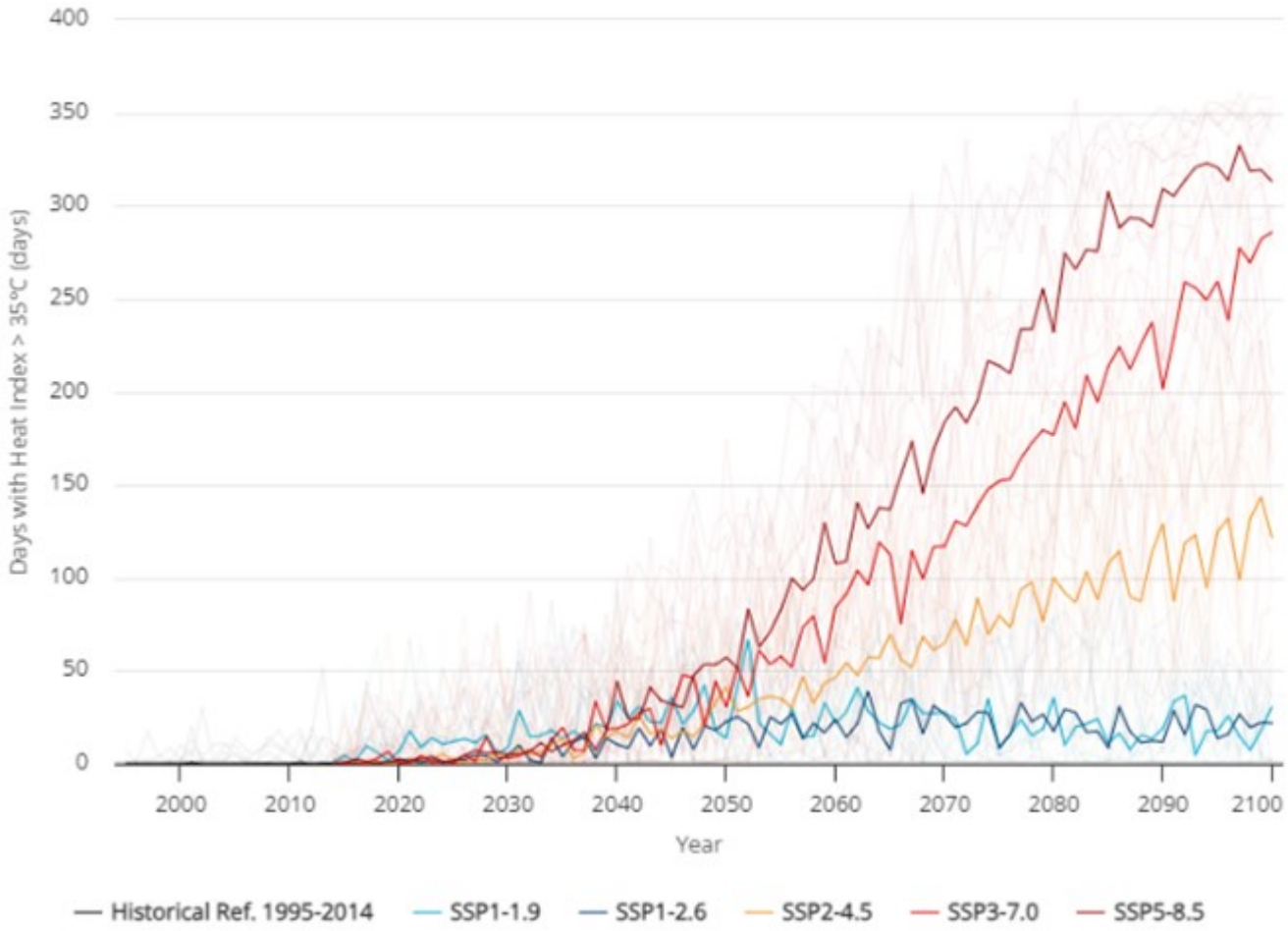

Figure 4. Days with Heat Index above 35°C.(WB CCKP)

Climate Change Impacts and Vulnerability

The impacts of these climate change pathways in Liberia are diverse, with considerable interconnectivity between climate hazards, impacts, and baseline drivers (Figure 5Figure 6). Among the biggest climate threats is changes in rainfall seasonality and intensity, with more frequent and intense storms creating flood risks that damage crops and infrastructure. Moreover, the increase in surface runoff drives erosion, leeching out critical soil nutrients and further reducing already strained agricultural productivity. The combined impact of crop damage and soil erosion on agricultural land exacerbates food security challenges in the country, while sediments and agri-chemical pollution from farm runoff are deposited into waterways, contaminating downstream water supplies, threatening both human populations and critical wetland ecosystems. In coastal regions, flood risk is exacerbated by sea level rise (SLR), with storm surges posing a considerable threat to coastal communities. Swell waves have been observed to contribute to coastal flooding in the same manner as storm surges, primarily through wave run-up and wave setup along the coastline[1]. Given that a vertical rise of sea level by 1 cm has a horizontal extent of 100 cm on sandy beaches, projected vertical rise in sea levels of nearly 1 m by 2100 under a SSP5-8.5 scenario would result in the submergence of coastal zones in Liberia's cities, costing ~USD250 million in infrastructure loss. SLR also drives saltwater intrusion, which in turn affects the quality of groundwater and degrades soils affecting agricultural productivity.

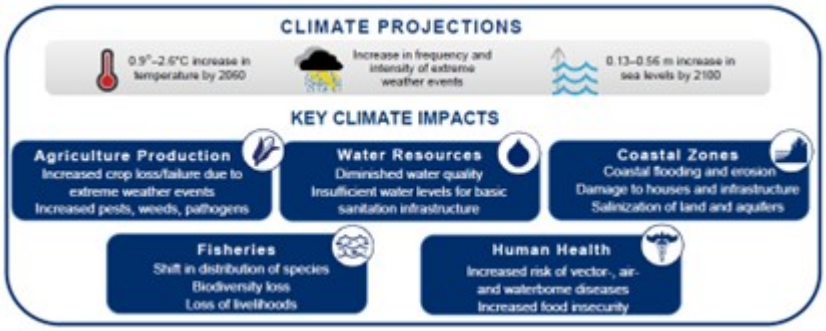

Figure 5. Main climate projections and their impacts for Liberia. USAID. 2017. Climate Change Risk Profile: Liberia.

Moreover, increased storm and wave action is causing extensive erosion, as well as threatening critical coastal wetlands which act as nursery grounds for economically important fish species — particularly when combined with SLR. These wetlands are further threatened by sediment and pollutants flowing downstream from rivers which have notable impacts on the health of coastal wetlands and mangrove forests, as well as the critical ecosystem services they provide for flood reduction and fish stock replenishment —highlighting the critical links between coastal and inland ecosystems. Beach loss through coastal erosion also has adverse impacts on tourism potential, which is an important economic sector in the coastal zone. This problem is further exacerbated by the severe erosion during heavy rainfall events, which further degrades road infrastructure and exacerbates access challenges for the tourism industry.

As a result of these impacts, Liberia is ranked as the 9th most vulnerable country in the world on the ND-GAIN Index, with agricultural capacity scoring highest of the vulnerability components measured. Liberia also scored among the lowest in terms of readiness to adapt. Low-income communities, particularly those residing in informal settlements and rural communities, would be disproportionately affected by climate change impacts given their low adaptive capacity.

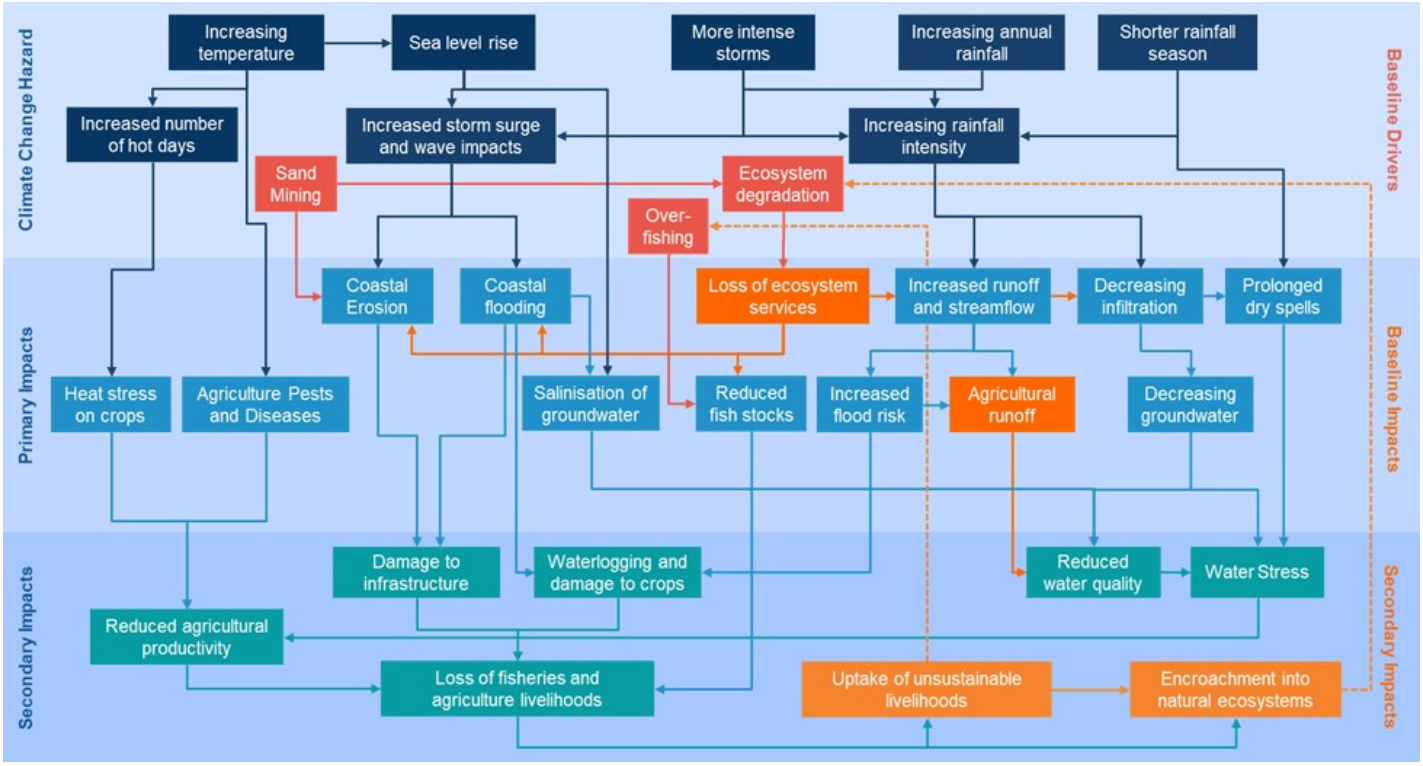

Figure 6: Climate Change Impact Pathways affecting natural resource-based livelihoods in Liberia.

Root causes and drivers of vulnerability

The climate change impacts listed above need to be considered in relation to the baseline drivers of degradation that underpin the vulnerability of communities. For example, deforestation linked to fuelwood collection, unsustainable charcoal production and harvesting for timber is resulting in a loss of critical ecosystem services that regulate the hydrological cycle. The loss of these services exacerbates flood risks, reduced groundwater infiltration, and accelerates erosion. Moreover, illegal and uncontrolled sandmining further drives erosion, threatening downstream water quality and the health of coastal wetlands and mangrove forests. While these drivers of degradation are largely independent of climate change, the impacts of climate change on natural resource-based livelihoods and food production are driving the uptake of maladaptive practices – such as agricultural expansion, charcoal production and sand mining – that exacerbate degradation and loss of ecosystem services, further undermining adaptive capacity to cope with climate stressors. It is largely a result of this vicious cycle that rural communities reliant on natural resources for their livelihoods are among the most vulnerable to climate change, with high exposure and limited adaptive capacity. Table 1 below provides an overview of the key baseline drivers of degradation, along with their impact on climate vulnerability. The need to address these drivers is well recognized in Liberia and is the target of numerous government-led initiatives, including through the Pro-Poor Agenda for Prosperity and Development (PAPD)[1] which outline pathways towards Liberia's Vision 2030 goals, including building livelihoods and creating sustainable opportunities for community empowerment and job creation. However, to achieve Liberia's Vision 2030, support is required to address the additional climate drivers that are underpinning the proliferation of maladaptive practices among vulnerable, natural resource-dependent communities.

Table 1: Baseline drivers of degradation and their impact on climate vulnerability

Driver	Description	Impact
Deforestation and encroachment into forest and wetland ecosystems for food, land and natural resources	Total forest cover in Liberia has declined considerably from ~90% of total land area in 1959 to ~32% in 2009[1], and the current rate of deforestation is ~0.5% *per annum*. The primary drivers of deforestation include logging, mining, charcoal production, the expansion of agro-industrial crop plantations and inadequate enforcement of relevant legislation. The top forest resources harvested included fuelwood, poles, bushmeat, rattan and fronds. Fuelwood was found to be particularly important, as 98% of Liberian households harvested this resource from forests rather than purchasing it. Forest products are also important for the construction and maintenance of dwellings and for medicinal uses. The expansion of settlements has also increased human development requirements in forest and wetland areas, placing greater pressure on natural resources by: i) converting natural areas into housing, infrastructure and agricultural land; and ii) unsustainably utilising natural resources, which includes excessive sand mining as well as overharvesting of mangroves for wood fuel and other uses. The urban expansion also causes increased pollution of water resources as a result of inadequate systems for the disposal of liquid waste. This pollution drives habitat loss, coastal erosion and ecosystem degradation in the country, as well as having direct impacts on human health and water use for agriculture and surrounding households.	One of the primary impacts of deforestation at the community level is the loss of forest ecosystem services, including provisioning services such as fuelwood, bushmeat and plant medicine, as well as regulation of micro-climates in and around degraded ecosystems. Communities located within 2.5 km of forests in Liberia reported relying on the sale of forest products for ~35% of total household income, and for meeting subsistence needs, including food, energy and shelter. By reducing the availability of the forest resources, deforestation will further increase the vulnerability of communities to climate change by undermining the incomes, food security and other needs of households, consequently reducing their adaptive capacity.
Unsustainable agriculture practices	Unsustainable agriculture practices, such as slash and burn or shifting agriculture result in the clearing of vast areas of forest to create space for farmland, exacerbating the deforestation challenges listed above. Moreover, poor land management practices, including inadequate	The loss of soil nutrients and disruptions to ecosystem services result in a decline in productivity. In addition to exacerbating existing food shortages, the pressures from reduced productivity drives a negative cycle of degradation, in which farmers adopt maladaptive

	soil conservation methods, overuse of chemical fertilizers, and improper irrigation techniques, lead to soil erosion and degradation. Excessive and improper use of agrochemicals can also contaminate water sources, including rivers and streams, harming aquatic ecosystems and human health, while soil erosion contributes to sedimentation of waterbodies.	practices to compensate, including further expansion of agriculture into forest areas and the uptake of destructive livelihoods such as charcoal production and sand mining.
Sand mining	Although officially governed under Liberia's Environmental Protection Agency Act (2003), sand mining along the Liberian coastline is often poorly regulated and at times entirely illegally practiced. In recent years, both regulated and illegal sand mining have increased in intensity because of the greater demand for construction sand linked to population growth in coastal settlements. Sand mining has resulted in widespread negative environmental and socioeconomic impacts, including the removal of natural coastal barriers and the disruption of coastal and underwater sand flows and increased water turbidity.	Sandmining results in increased beach degradation in the form of erosion as well as flooding in coastal areas, resulting in damage to houses and other critical infrastructure while also undermining the future potential for tourism in affected natural areas. Extensive sand mining also reduces the ability of coastal ecosystems to provide a buffer against storm surge for nearby settlements, leaving residents increasingly exposed to climate hazards, as well as undermining the productivity of coastal fisheries and livelihoods.
Overfishing	Fish protein is a major contributor to Liberia's food security — comprising ~65% of the population's animal protein intake — largely because it is a more affordable alternative to poultry and livestock protein. The demand for fish is therefore high, and there remains a considerable supply shortfall. Consequently, the Bureau of National Fisheries has stated that overfishing and poaching are "rampant" in the country. Along with overfishing, other unsustainable fishing practices, including the use of destructive or non-targeted fishing gear, have also been identified as a driving factor in the degradation of Liberia's fish stocks. These practices include the use of explosives in 'dynamite fishing' and the utilisation of toxic herbs into streams during the dry season, which cause fish to suffocate and rise to the surface for oxygen, where they are subsequently captured.	The use of unsustainable fishing practices causes declines in the available breeding population for affected fish species. If unmanaged, this could result in the depletion of the breeding population beyond a point of recovery, ultimately leading to extinction and substantially impacting the Liberian fishery industry. These baseline activities will increase the vulnerability of Liberian fisherfolk to climate change impacts such as increased sea surface temperatures and a greater frequency of extreme storm events. Moreover, these impacts are projected to exacerbate the decline in available fish stocks and undermine both food security and economic wellbeing.
Pollution of water resources	Water quality in Liberia is affected by several factors — most notably inadequate water, sanitation and hygiene (WASH) facilities. Only ~17% of the total population has access to improved sanitation facilities which has led many communities to resort to basic pit latrines and open defecation. Access to basic sanitation by residents in rural areas is considerably lower than those in urban areas. Moreover, in 2019, ~24% of healthcare facilities in the country did not provide any sanitation services. Liberia's existing sanitation system has been poorly maintained since the end of the civil war in 2003, resulting in its inability to sufficiently meet the current needs of the country's population.	WASH systems are prone to frequent clogging during high-intensity rainfall events, contributing to increased flooding when stormwater drains overflow — particularly in urban areas — resulting in increased water contamination during flooding events, presenting a considerable health risk to affected residents. Climate change hazards, particularly an increased incidence of high-intensity rainfall events and associated flooding, is projected to considerably exacerbate this health risk.
The intersection of pandemics and climate change	The social, economic and fiscal impacts of pandemics in Liberia has increased the vulnerability of affected communities. For example, the Ebola Virus Disease (EVD) outbreak in 2014 resulted in the loss of ~USD113 million in fiscal revenues for Liberia, which equated to ~5% of GDP. These revenue shortfalls required government to readjust budgets, impacting long-term development spending in favour of more immediate priorities. Similar trends were observed during the Covid-19 pandemic. The lockdown restrictions implemented throughout 2020 and 2021, albeit successful in containing the spread of Covid-19, resulted in several negative socioeconomic impacts. A World Bank survey undertaken in August 2020 found that ~75% of	The resulting loss of incomes and livelihoods drive rising climate change vulnerability, as the adaptive capacity of affected workers and communities is undermined. Vulnerable population groups, such as women, are commonly the worst affected. For example, during the 2014 EVD pandemic in Liberia, women were more likely to contract EVD as a result of, inter alia, cultural practices including their roles as caregivers in the home. Female business owners experienced reduced access to credit as the financial capital of women's savings and loans groups was constrained by people who could not pay back their loans. Indirect health impacts also arose, as people avoided seeking treatment at health facilities for fear of contracting EVD.

	households experienced job losses while ~68% noted reduced incomes. These factors have caused increases in food insecurity and ~66% of households are in a "dire food situation".	

Baseline in the absence of the project

Without urgent intervention and long-term investment, food production systems in Liberia will continue to decline, while the continued degradation of agroecological systems will further reduce the provision of critical ecosystem services needed to support natural-resource based livelihoods in the country. In the absence of ecosystem services, communities will become increasingly vulnerable to the impacts of climate change, resulting in further reductions in food security as well as severe risk to lives and infrastructure from flooding and erosion.

Baseline Investments

The proposed project has been designed to complement and build on a number of ongoing initiatives and baseline investments in Liberia. Key baseline projects are described below.

UNDP Growth Accelerator Program

A central initiative that the proposed LDCF project will build on is the UNDP Liberia MSMEs Growth Accelerator Programme (Growth Accelerator Liberia), which is implemented in partnership with the Ministry of Commerce and Industry. Growth Accelerator is designed to help revenue-generating small and medium-sized enterprises and commercially viable agricultural cooperatives to scale-up their operations and contribute substantially to national economic development through increased revenues and job creation. This is accomplished through a rigorous annual business development training and business plan pitching competition with up to US$40,000 co-financing for each winner. Applicants are provided business development skills and mentorship culminating in a business plan pitching competition where the most bankable plans are selected for funding. Most of the winning businesses in 2021 and 2022 are using the funds to procure major production equipment, improve and/or expand production and processing facilities and operations, increase their human resources, and improve their business services. Component 3 of the proposed project will directly engage with the Growth Accelerator Liberia to open additional funding windows for private sector investment in climate adaptation. These private sector investments will enable climate resilient livelihoods that reduce the communities' need to depend on practices such as deforestation, encroachment, unsustainable agricultural practices, overfishing and unsustainable water usage thereby contributing to reduction in some of the drivers of degradation and their impact on climate vulnerability, without negatively affecting community livelihoods and economic well-being.

Other baseline projects

In addition to the Growth Accelerator Liberia, the proposed project will build on and collaborate with a number of ongoing initiatives and baseline investments in Liberia. These initiatives have been broadly categorized into two divisions: i) non-climate change projects that address baseline development issues on which the proposed LDCF project will bring an additional climate-change lens; and ii) climate change related projects that are already addressing specific climate adaptation needs in the country from which the proposed project will draw lessons as well as directly collaborating with and/or scaling interventions being piloted in specific sites.

Table 2. Related baseline projects in Liberia and alignment with the proposed project

Project Details	Description and Alignment

Non-climate change related projects	
UNDP Programme Support Agency: UNDP Period: Ongoing Finance: USD 60 million per year	UNDP plays an extensive supporting role in Liberia's national development and currently provides ~USD60 million per year in grants. Several UNDP programmes pertain to coastal area development — the most relevant including: • Liberian Decentralization Support Programme (LSDP) — aimed at developing a local government system built on principles and practices of good governance under the leadership of elected local officials; • Community-Based Recovery and Development; • Micro-Finance — Improved Access by Women to Financial Services in Rural Areas; • Disaster Risk Reduction Programme; and • Centre Songhai Liberia Initiative. Community-Based Forestry and Protected Area Management (CBFM): Boosting Biodiversity Conservation and Improving Livelihoods of Forest-Fringe/Forest-Dependent Communities and Groups in Liberia
Livelihoods and Employment Creation in Liberia Agency: UNDP/GoL (Ministry of Commerce and Industry) Period: 2021–2025 Finance: USD 7.8 million	The objective of the 'Livelihoods and Employment Creation in Liberia' project is to contribute to reducing poverty and inequality in seven counties, namely Grand Bassa, Grand Cape Mount, Grand Gedeh, Lofa, Monsterrado, Nimba and Sinoe. The project aims to support the creation of income-generating opportunities for poor and vulnerable populations, including refugees and their host communities. The interventions of this project will be implemented under two components, specifically: i) supporting the creation of sustainable, viable and diversified livelihood opportunities for the youth, women and persons living with disabilities by investing in and developing community infrastructure, environmental services, vocational skills, including digital skills, as well as inputs and technical advice to increase local food production — Component 1; and ii) strengthening business and enterprise development services by promoting access to finance, capacity building and innovation — Component 2. The proposed project will draw lessons from and scale pilot initiatives implemented through the 'Livelihoods and Employment Creation in Liberia', with specific focus on aligning livelihood and business development strategies with climate adaptation efforts through the systems-based approach.
Reducing deforestation from palm oil and cocoa value chains Period: 2021–2026 Agency: Conservation International Finance: USD74 million total	This project will target the 'Biodiversity' and 'Land Degradation' GEF Focal Areas by combatting the degradation and deforestation of forested areas in northwestern Liberia. Improved land-use management strategies, combined with a focus on 'formal protected areas, community forestry, livelihoods and economic development' will be introduced to achieve this objective. The proposed LDCF project will draw lessons learned from land management and livelihood activities, with a focus of integrating best practices into a systems-based approach for climate resilience in Liberia.
Smallholder Agriculture Development for Food and Nutrition Security (SADFONS) Agency: Period: 2021-2026 Finance: AfDB – USD 9 million	The objectives of the Project are to improve food and nutrition security and reduce poverty of targeted rural populations in Liberia. The objectives will be achieved through: i) increased agricultural productivity and production of smallholder farmers (with a focus on food crops such as rice, cassava, and vegetables); ii) improved smallholders' value addition, market access and income; and iii) strengthening the capacity of the government institutions, farmers and producer organizations.
Climate change related projects.	
Monrovia Metropolitan Climate Resilience Project (MMCRP) Agency: UNDP Period: 2021-2027 Finance: GCF- USD25.6 million	The MMCRP will enhance the resiliency of vulnerable coastal communities to climate-induced sea-level rise by constructing coastal defence structures, developing a coastal zone management plan, and supporting livelihood diversification. The proposed LDCF project will align efforts in coastal counties with the ICZMP being developed under the MMCRP, as well as drawing lessons from the livelihood development interventions and scaling them across other coastal counties where appropriate.

Enhancing the resilience of vulnerable coastal communities in Sinoe County of Liberia Agency: UNDP Period: 2023-2029 Finance: GEF – USD20 million total	The project will address the vulnerability of coastal communities to these hazards by implementing a sea and river defence and risk management (SRDRM) approach to protect coastal assets and promote climate-resilient livelihood diversification. Long-term objectives to achieve this include: i) introducing innovation and technologies into adaptation solutions and livelihoods that increase the resilience of coastal communities to climate change risks; and ii) using a systemic approach to mainstream climate change adaptation (CCA) and resilience options. The proposed LDCF project will complement the efforts in Sinoe county, introducing a systems-based approach that will extend across other counties – including both coastal and inland counties to address the full extent of the agroecological landscape of Liberia. The strong private sector focus of the proposed project will help unlock finance for scaling successful livelihood practices.
Conservation and Sustainable Use of Liberia's Coastal Natural Capital Agency: Conservation International Period: 2019–2025 Finance: GEF - USD15 million total	The objective of this project is to improve sustainable use and conservation of Liberia's coastal natural capital by mainstreaming the value of ecosystems and their related services into Liberia's development trajectory. Planned outcomes of the project include, inter alia: i) ensuring that the value of biodiversity and ecosystem services — particularly in coastal areas — is incorporated into national decision-making and development pathways by developing Liberia's first national mangrove account under the Natural Capital Accounting (NCA) framework; and ii) developing community incentives for shifting away from unsustainable resource-use practices in favour of preservation, restoration and sustainable use.
Energy and Environment (E&E) Programme Period: 2020–2024 Agency: UNDP/GoL (EPA) Finance: USD58 million	The E&E Programme seeks to support the efforts of the GoL in achieving diversified and inclusive economic growth through investments in sustainable and eco-friendly agriculture, food security, job creation and enhanced resilience to climate change and natural disasters. The programme approach includes enabling diversified and inclusive economic growth within a broader development context to facilitate synergies among four thematic areas, namely: i) Livelihood Diversification, Disaster Resilience and Climate Change; ii) Biodiversity, Conservation Ecotourism and Land Management; iii) Renewable Energy Access; and iv) Waste Management. The results of this initiative are expected to carry beyond the timeframe of the E&E programme, providing value lessons and complementary outcomes that will align with the objectives of the proposed project.

[1] Government of Liberia (GoL). 2017. National Biodiversity Strategy and Action Plan-II 2017–2025.

[1] Government of Liberia. 2018. Pro-poor Agenda for Prosperity and Development (PAPD): a five-year national development plan towards accelerated, inclusive, and sustainable development. https://faolex.fao.org/docs/pdf/lbr204464.pdf

[1] Wave run-up refers to the driving of water onto the beach by a wave breaking, which can result in coastal flooding when occurring in tandem with wave setup (a phenomenon where waves consistently break along the shoreline and prevent the recession of water back into the ocean from the beach, where it was initially driven by wave run-up). From: Kalinski V. 2019. *Climate Hazard, Vulnerability and Risk Assessment for the Coastal Zone of Liberia.*

[1] UNDP. 2006. First State of the Environment Report for Liberia.

[1] Climate Risk Profile: Liberia (2021): The World Bank Group.

[2] IPCC WGI Interactive Atlas: Regional synthesis.

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[1] Climate Risk Profile: Liberia (2021): The World Bank Group.

[2] IPCC WGI Interactive Atlas: Regional synthesis.

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[1] World Bank Climate Change Knowledge Portal (CCKP).

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[1] Climate Risk Profile: Liberia (2021): The World Bank Group.

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[1] National Adaptation Plan; and the National Food and Agriculture Policy and Strategy.

[2] Government of Liberia. 2018. Pro-poor Agenda for Prosperity and Development (PAPD)

[3] World Bank

[4] IMF 2021. Liberia Poverty Reduction and Growth Strategy.

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Theory of Change

Problem statement

With approximately 70% of Liberia's population reliant on natural resource-based livelihoods, agriculture and fisheries have the potential to drive growth and poverty reduction in Liberia for the foreseeable future, particularly when transformative technologies and inclusive approaches are integrated into the sector to boost and sustain productivity as well as developing value chains and alternative livelihoods. However, despite this potential, natural resource-based livelihoods' productivity in Liberia falls well below the global average, resulting in ~70% of Liberians experiencing multi-dimensional poverty and high incidences of food

insecurity. These challenges are expected to be exacerbated by climate change, with increasing temperatures, shifting rainfall seasonality and more frequent and intense extreme events threatening the productivity of climate-sensitive sectors like rain-fed agriculture and artisanal fisheries. Consequently, climate change poses a significant threat to national efforts towards poverty reduction, food security, livelihoods, and sustainable development.

The climate impacts facing Liberia are diverse and interconnected, with compounding linkages between climate hazards, impacts, and baseline drivers. Among the biggest climate threat is changes in rainfall seasonality and intensity, with more frequent and intense storms creating flood risks that damage crops and infrastructure, while the associated increase in surface runoff drives erosion, leeching out critical soil nutrients and contaminating waterways with sediments and pollution from agricultural runoff. In coastal regions, both the flood risk and erosion are exacerbated by sea level rise, with storm surges posing a considerable threat to coastal communities. Moreover, the combined impact of sediment-loaded and polluted waters flowing downstream from degraded rivers and extensive coastal erosion is threatening critical coastal wetlands which act as nursery grounds for economically important fish species. In response to these challenges, many Liberians, particularly in rural areas, resort to maladaptive coping mechanisms to survive. This includes adopting unsustainable livelihoods practices – such as charcoal production, sand mining and agricultural expansion – that cause extensive environmental degradation and the loss of critical ecosystem services that are needed to minimise the impacts of climate change. Without urgent intervention, climate change will accelerate the decline of natural resource-based livelihoods in Liberia, exacerbating poverty levels and food insecurity in the country and perpetuating the negative cycle of degradation that underpins the problem.

Preferred Solution

Given the fundamental links between natural resource-based livelihoods, ecosystem services and climate vulnerability in Liberia, a systemic, integrated adaptation approach is needed to build resilience of communities and food production systems in the country. Such an approach should be cross-cutting, working across various sectors, administrative levels, and geographic areas to create a holistic solution through which all actors within the system work together to create sustainable solutions. Nature-based solutions (NbS) have been identified as the preferred approach, integrating key economic sectors and priority development areas to sustainably leverage the power of ecosystem services to disrupt climate change impact pathways and build adaptive capacity of vulnerable populations. This approach requires not only restoring degraded ecosystems, but also safeguarding ecosystems in the long term through working with local authorities and communities and the private sector to address the drivers of degradation and incentivise sustainable livelihood practices among vulnerable communities including marginalized and excluded groups. Key areas of intervention include the adoption of climate-resilient agricultural and fisheries practices that improve productivity of food systems, while reducing degrading pressure on surrounding ecosystems. These actions should be supported by the development of sustainable alternative livelihoods that reduce the uptake of maladaptive practices, with a focus on productive and inclusive value chains and green enterprises. Strengthening agricultural value chains should be achieved through building of community and individual capacities via technical assistance, climate-resilient production practices and access to energy efficient technologies, and building access to markets via de-risked private sector investments (from both MSMEs and larger commercialized corporations) as well as enhancing access to finance, insurance and social protection measures. The ecotourism industry also provides considerable opportunity for sustainable development, creating new markets for sustainable produce and green enterprises. Moreover, the ecosystem services provided through restoration and conservation of natural

systems extend beyond the regulating services essential for adaptation to include cultural services and scenic beauty that would support the development of the ecotourism sector, further incentivising the conservation of natural systems and creating win-win scenarios. Given the strong need to engage the private sector across all target sectors, the sustainability of the initiative will be contingent on the viability of business opportunities created and expanded. It is therefore essential that the solution include viable financial and technical capacity development within MSMEs, assisting communities to formalise livelihoods and businesses and actively engage, develop and expand markets. This should include integrating climate resilience and related actions into sectoral development priorities, thereby transforming development pathways in the country.

Barriers

Although the need for innovative and integrated adaptation solutions is well recognised in Liberia, several barriers currently constrain efforts to successfully shift development pathways in the country. These barriers are outlined below, each underpinned by a general financial barrier, with limited fiscal space within the government budget to address the barriers without additional support.

Barrier 1: Limited institutional capacity to implement climate change adaptation actions at scale, compounded by limited awareness and understanding of climate change impacts and the adaptation options available to address the impacts.

Liberia has developed a robust set of national development programs, policies, plans and initiatives that address possible vulnerabilities of the various sectors to climate change risks including climate adaptation efforts. While these policies and strategies offer an opportunity to align adaptation efforts across various sectors, as has been seen through ongoing efforts to develop an Integrated Coastal Zone Management Plan, the Government of Liberia still has limited institutional capacity to develop a holistic long-term vision and related policy objectives to drive adaptation efforts. This is particularly the case at the County and District levels, where administrative structure and statutory support are largely absent. Moreover, government institutions have inadequate financial and human resources to fully implement the diverse array of policies and plans developed for the country, or to enforce environmental protection policies and laws. Specifically, existing structure for horizontal (between ministries and agencies) and vertical (between national, county and district levels) coordination are not adequate to manage the complexities of integrated, systems-based adaptation response. While the need for such coordination is strongly recognised by the government, and considerable attention is being applied to the challenge, additional support and structured systems are required to build institutional capacity and ensure effective, collaborative management of climate change adaptation in the country.

Communities engaging in natural resource-based livelihoods, and government entities mandated to support adaptation across various sectors in Liberia, have limited understanding of the extent of climate change impacts, the vulnerability of communities, and the actions available to address the changes. For communities, limited awareness not only hinders their ability to adopt more resilient practice, but also the interest to do so. While many communities are already feeling the impacts on their livelihoods, they do not fully understand the impact pathways, and therefore are often reluctant to forego traditional practices or other (often maladaptive) survival measures to adopt new sustainable practices. For example, without an understanding of ecosystem services and the link between environmental degradation and climate impacts, communities are less inclined

to shift away from unsustainable practices such as charcoal production and sand mining, which provide supplementary income, particularly when primary agriculture or fisheries livelihoods are unproductive. Where understanding of these links is stronger and people are willing to change, the uptake of alternative, resilient practices is often still constrained by a lack of knowledge and know-how (compounded by limited outreach support - see Barrier 2) as well as limited access to the necessary resources and inputs required. At the institutional level, many government entities lack the necessary climate information and knowledge of best practice to generate effective adaptation strategies and support programmes – particularly at the sub-national and local levels.

Barrier 2: Inadequate extension services to support the rollout of climate-resilient practices to the agriculture and fisheries sectors, compounded by underdeveloped supply and value chains for agriculture and fisheries, with limited knowledge and skills among subsistence farmers and fisherfolk of value-addition practices for agricultural and fisheries products.

The challenges of knowledge and awareness are compounding constraints on the local extension services to provide the necessary technical support to roll out training on resilient practices. Most livelihoods in Liberia comprise subsistence agriculture and fishing, with minimal knowledge and information available to promote their expansion. The constraints on extension services are twofold. First, existing extension services lack the financial and human capacity to reach rural communities. Institutions providing extension services, including the Ministry of Agriculture, are generally underfunded, understaffed, and lack the tools required to reach rural communities most in need of support. Some donor-funded private entities and CSOs have arisen to fill the gaps, however, these operations are limited by the funding available and do not create sustainable solutions within the core public sector extension services. Second, extension officers have limited technical knowledge on best practices for climate-resilient activities and are ill-equipped to train farmers they do reach on suitable practices. In particular, extension officers are not adequately trained on climate change impact chains and the integrated nature of adaptation response. Investment in agricultural training institutions that support extension worker training and lead research and development, coupled with the provision of adequate incentives to these extension personnel through budgetary allocation, is needed to improve public sector extension and advisory services[1][6].

In addition to the training constraints outlined above, the uptake of climate-resilient practices is further constrained by the underdevelopment of supply and value chains in the country. On the supply side, smallholder farmers lack access to the necessary inputs to adopt new practices, for example climate-resilient seed varieties, water-efficient irrigation infrastructure and solar pumps. As is often the case in rural settings, the limited access to input extends to include access to energy and electricity, which constrain multiple aspects of modern livelihoods. Similar challenges face fisheries, where artisanal fisherfolk do not have access to suitable non-destructive fishing gear or resources for the adoption of sustainable aquaculture (see Barrier 3 for further details on financial barriers that perpetuate these challenges). Moreover, many farmers and fisherfolk are reluctant to shift to new practices where the market is unknown or underdeveloped. Private sector investments into climate change adaptation and resilience have also been limited in Liberia, with effective implementation of climate change adaptation and resilient livelihood enhancement of affected communities requiring the de-risking private sector investments along with public investments, which is not prominent. While some community members are involved in alternative livelihood activities like beekeeping, this is only to a limited extent without a formalized structure for access to markets and access to finance.

Much of the market access challenges are rooted in the limited physical access to markets outside of their own villages, with degraded road infrastructure and few transport options. These challenges are compounded by inadequate post-harvest storage and processing, resulting in postharvest losses and reduced market value of agricultural and fisheries produce. Specifically, local communities do not have the skills to develop agricultural and fishery value chains or maximise the value of their products — including post-harvest value-addition practices, such as food processing and storage. Given the limited capacity of farmers/communities to engage in producing high volumes of high-quality agricultural commodities and value-adding activities (such as post-harvest processing), very few private sector enterprises have invested in associated value chains, as they are perceived not to be profitable. They are also limited due to various factors, notably: i) high costs associated with accessing smallholders who are not organized and exercising collective bargaining power, and therefore do not generate economies of scale needed to keep prices competitive; ii) products are not value-added and do not meet quality requirements and standards necessary for access to high-value markets; and iii) limited information and information sharing between actors along the value chains on available products and markets. Other constraining factors include lack of mobilization of smallholder communities into cooperatives, and limited formalized interventions to build community capacities. Communities also lack access to agricultural/disaster risk insurance, and social protection measures.

For climate-resilient practices to be implemented sustainably and at scale, support is required to develop the supply and value chains for sustainable produce – including developing MSMEs to provide value add services and development of markets. Targeted public investment is also required to develop the road infrastructure to improve access to markets – which would have co-benefits for the development of the ecotourism industry.

Barrier 3: Limited financial capacity and access to finance for communities, smallholder farmers and MSMEs, as well as in the underdeveloped tourism industry

Given the limited public funds available to drive sustainable development in Liberia, partnership with the private sector is essential to achieve climate action at scale. With much of the private sector in Liberia being small-scale businesses, engaging the private sector requires specific focus on the empowerment of MSMEs to engage across the value chains, including in the agriculture, fisheries and ecotourism sectors. However, the development of MSMEs is severely constrained by limited access to financial resources, and as a result, the adoption rate of enhanced agricultural and alternative livelihoods is limited.

Currently, communities within the target counties have limited access to commercial finance from banks and microfinance institutions. There are many factors contributing to this barrier, including the perceived low demand for financial products among Banks and MFIs, perceived high costs of providing credit to these communities in remote rural areas. There are currently 19 registered Non-Bank Credit Only Microfinance Institutions (NBCOs) in Liberia, most of which are concentrated in the Montserrado County area near Monrovia, the capital city – limiting access for much of the country. Where access to micro-finance is available, it remains largely inaccessible to many businesses and individuals because of high interest rates on loans from NBCOs. Moreover, MSMEs often don’t meet requirements to access finance from larger banks which may offer better interest rates, particularly for natural resource-based livelihoods, such as agriculture and related value chains, where returns as slow and unpredictable, and risk is high. This challenge is

compounded by the fact that most banks and MFIs do not offer tailored loan products that meet cropping/harvesting patterns and cashflows of farmers. According to 2017 Findex data, only 35.7% of the population have accounts at a financial institution or with a mobile money provider – although access is increasing, having risen by 18.8% over an 8-year period, with mobile money being the driving force behind these gains in financial inclusion. [2][7] Mobile money services are available in all 15 counties in Liberia through a large mobile money agent network (6,995 agents as of 2018)[3][8]. The limited access to finance is further compounded by the low level of financial literacy among communities, which constrains their income generation potential and prevents them from effectively engaging in the development of sustainable, climate-resilient livelihoods.

There is also significant potential for tourism – particularly ecotourism – to play a central role in the sustainable development of Liberia. The country's rich biodiversity in the lowland and highland forests, along with the indigenous cultures, history, and heritage offer a unique opportunity for a rich mix of potential visitor experiences. However, the tourism industry in Liberia remains largely underdeveloped. A core constraint is the absence of suitable infrastructure – including roads and aviation – which physically restrict access to potential tourism sites. This has resulted in a lack of investment in tourism-related activities and infrastructure, including suitable hotels and guest experiences. Moreover, it is unlikely that the potential visitor experiences alone (i.e. as standalone destinations) will be sufficient to stimulate significant tourism-related demand within the short to medium term (5-10 years), given current access constraints, lack of investment in visitor services, interpretation, and other challenges. To address this, the Liberia National Tourism Plan has noted the need to combine the value of biodiversity assets with other potential tourism offerings – such as urban and indigenous culture, history, heritage, beaches, watersports and other activities and attractions – to create unique and diverse travel experiences that can be marketed to domestic, expat, Diaspora, and international travelers and that have the potential to stimulate growth in visitor arrivals, spending, and tourism-related investment. ***[4]***[9] The plan also recognizes the need to work with a broad range of actors in the tourism industry, including private actors to minimized the burden on government ministries and agencies to drive the tourism development process.

Enablers

Despite the barriers to adaptation noted above, several key enablers have been identified that will underpin the successful implementation of the proposed project. Firstly, the policy environment in Liberia recognizes the need for urgent, integrated climate action. In particular, the National Climate Change Policy and Response Strategy, the National Adaptation Plan and Nationally Determined Contributions provide an overarching framework to guide the development of a coordinated approach to adaptation. This policy environment also reflects, and translates towards, strong political support for adaptation action. Second, the EPA currently operates an Environmental Knowledge Management System (EKMS) that provides an established platform that can be strengthened to support the sharing of lessons learned. While support is needed to strengthen this system – particularly in terms of updating the IT infrastructure and integrating knowledge across various sectors – building on an established platform will create enable effective, centralized coordination for knowledge management.

Project Approach

To address the impacts of climate change, the proposed project will adopt a systems-based approach to adaptation that will establish linkages between key economic sectors to create sustainable pathways for climate resilience in Liberia. This approach will center around three primary spheres of influence: i) the rehabilitation of the agroecological landscape to conserve and restore the provision of ecosystem services; ii) value chain and market development to incentivize the uptake of sustainable livelihood practices; and iii) access to finance to support sustainable livelihood development (Figure 7). While each component of the proposed approach targets a separate sphere of influence, it is the intersection of the three components that defines the systems-based approach that will transform climate change adaptation in Liberia. The interactions between that underpin the systems-based are further outlined in Figure 8 below. The project will target a combination of coastal and inland counties (Figure 1), representing areas with high potential for ecotourism and the breadbaskets of the country, respectively. These areas and the core livelihoods that support them are largely dependent on natural resources, making them highly vulnerable to climate change and making urgent climate action essential to the sustainable development of Liberia.

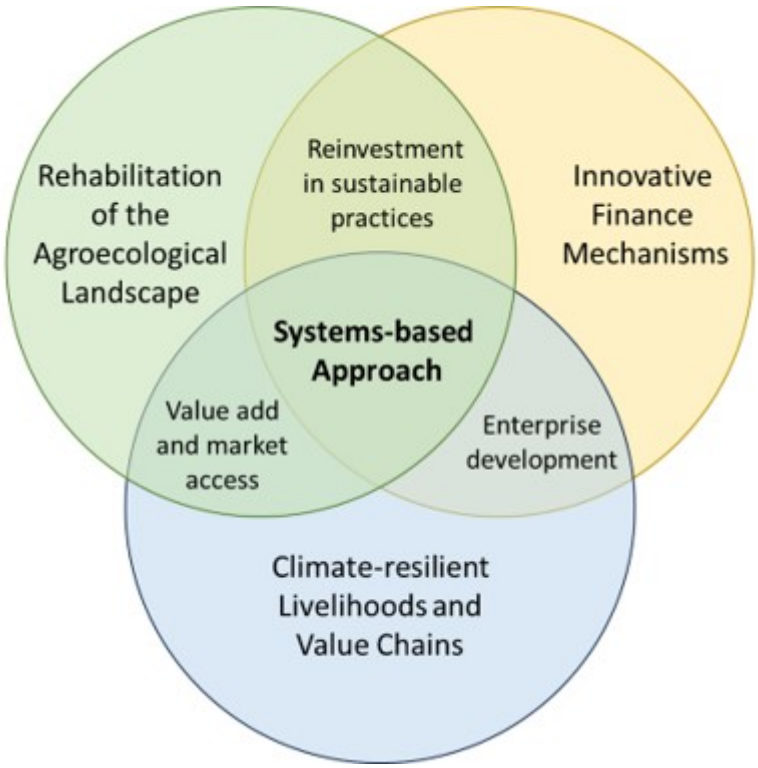

Figure 7: Intersection of the three spheres of influence of the proposed project.

Under the first component, the project will support farmers and fisherfolk to adopt resilient and regenerative practices that will improve productivity under changing climate conditions, thereby reducing the additional drivers of degradation that are resulting from climate hazards. This will be complemented by nature-based solutions (NbS) within the surrounding landscape to restore ecosystem functioning through a combination of active restoration, assisted natural regeneration, and conservation practices in forest, wetland and coastal ecosystems, supplemented where needed with hybrid green-grey solutions.

The second component will complement the first by strengthening value chains for sustainable produce. This will be underpinned by the promotion of alternative livelihood practices that add value to sustainable produce (i.e. through agro-processing), reduce pressures on nature resources (i.e. through alternative livelihoods such

as sustainable briquette production or ecotourism[1]) or connect producers with new markets. The benefits of such value chain development across agriculture, fisheries, ecotourism and other natural resource-based livelihoods will be twofold: firstly, strengthening markets to incentivise the uptake and long-term adoption of climate-resilient practices that conserve natural resources; and secondly, reducing the uptake of maladaptive livelihoods that vulnerable communities fall back on in times of hardship.

The third component will create the enabling financial environment needed to scale and sustain climate-resilient livelihoods. In particular, the project will attract investments from the private sector and improve access to finance — operationalizing sustainable, innovative and private sector-driven business and engagement models focused on climate-resilient livelihood improvement. Partnerships with the private sector will be central to scaling and sustaining livelihood and enterprise development interventions.

Across all three components, the project will build on lessons learned from successful pilot initiatives in the agriculture, fisheries and ecotourism sectors that have developed coastal and agricultural resilience in the country, as well as integrating indigenous knowledge with innovative and adaptive practices to achieve sustainable outcomes. The innovation lies in the systems-based approach which leverages best practices from multiple sectors in a single, integrated system. By targeting coastal and inland counties together, the project will address the intricate linkages and co-dependencies between the upstream and downstream systems, along with the impacts of climate hazards, flooding in particular, on food production systems and other natural resource-based livelihoods. Moreover, the interventions will be underpinned by a strong knowledge and capacity development focus which will enable local government agencies, civil society and the private sector to not only sustainably manage the project interventions in the long term, but also to learn from and replicate the model across the country.

Finally, the approach will ensure inclusion of marginalized farmers to support access to technologies, practices and inputs that will transform the system so that it remains the backbone of the country's economy, while linking these farmers to the ecotourism sector through innovative market developments. This will include specific considerations of gender dynamics in the target systems, mobilizing direct investment into gender-responsive interventions that specifically target empowerment of women and other vulnerable groups. The resulting 'whole-of-society' approach will enhance ownership, unlock local knowledge, and ensure that no vulnerable groups are left behind.

The selection of a systems-based approach to adaptation was made in response to the often siloed nature of climate action in Liberia. While the need for integrated action has long been recognized in the country – evident, for example, in the efforts to develop integrated coastal zone management plans – traditional adaptation approaches in Liberia have generally targeted coastal and inland ecosystems as distinct and isolated systems, despite the intricate connectivity between the two. Under the systems-based approach, the project will address the intricate linkages and co-dependencies between the upstream and downstream systems (source-to-sea), enabling transformation in the adaptation approach for the country. The pathways to transformation are underpinned by the livelihood and value chain development aspects of the project design – including leveraging the potential for sustainable ecotourism – which will diversify and strengthen the market for sustainable produce and conserved natural spaces. Together with the proposed financial innovations, such market and value chain development is essential to reaching the project objective under the systems-based approach, as they incentivize and support the uptake and maintenance of NbS and climate-resilient agriculture and fisheries practices.

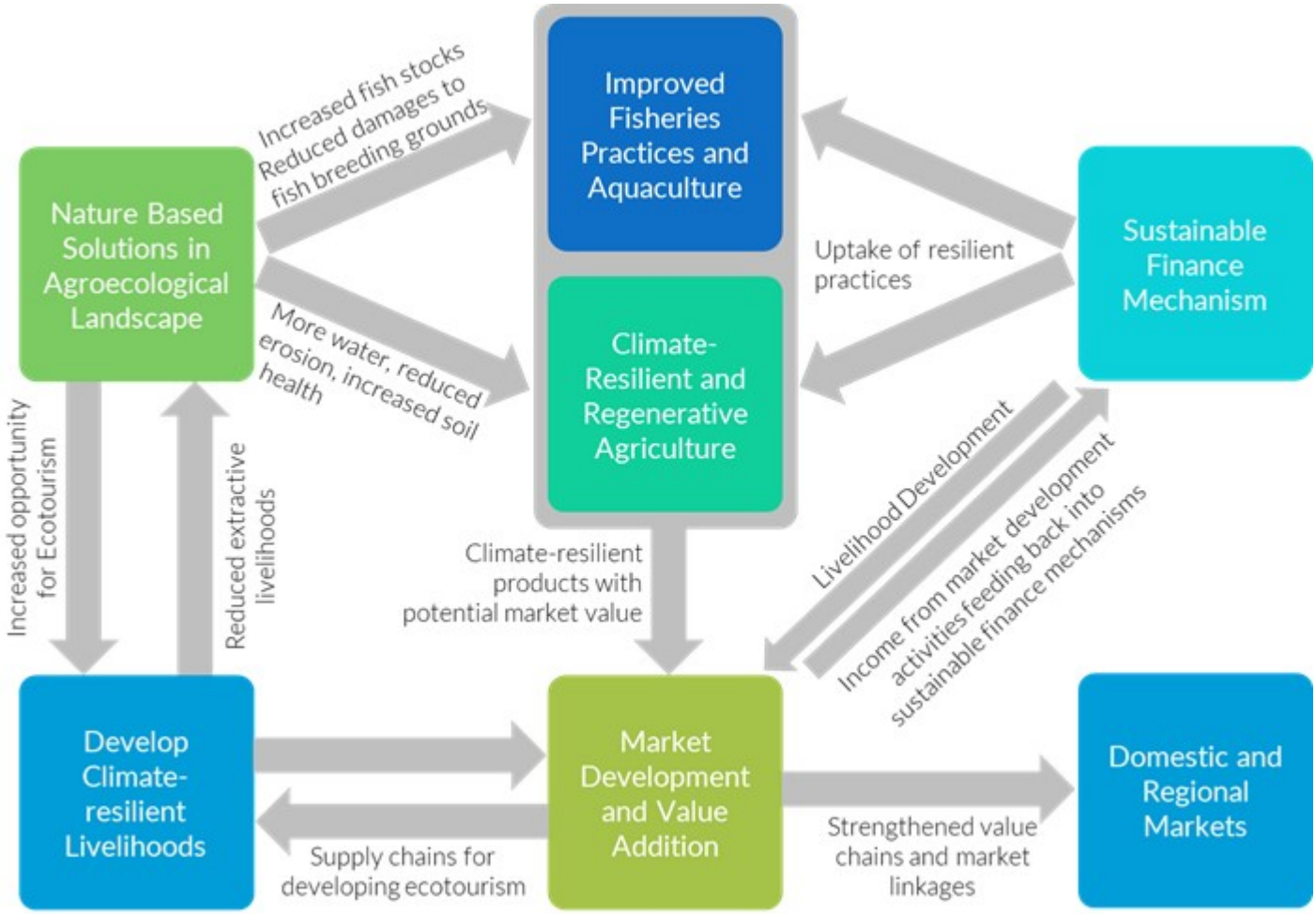

Figure 8: Overview of the systems-based approach to adaptation envisioned for the proposed LDCF project. The approach targets the integration of five key transformative systems to achieve long-term resilience and sustainable development. These systems include: i) landscapes and ecosystem services; ii) resilient smallholder production and food systems; iii) value chains and market development; iv) ecotourism; and v) financial innovation and Invesment.

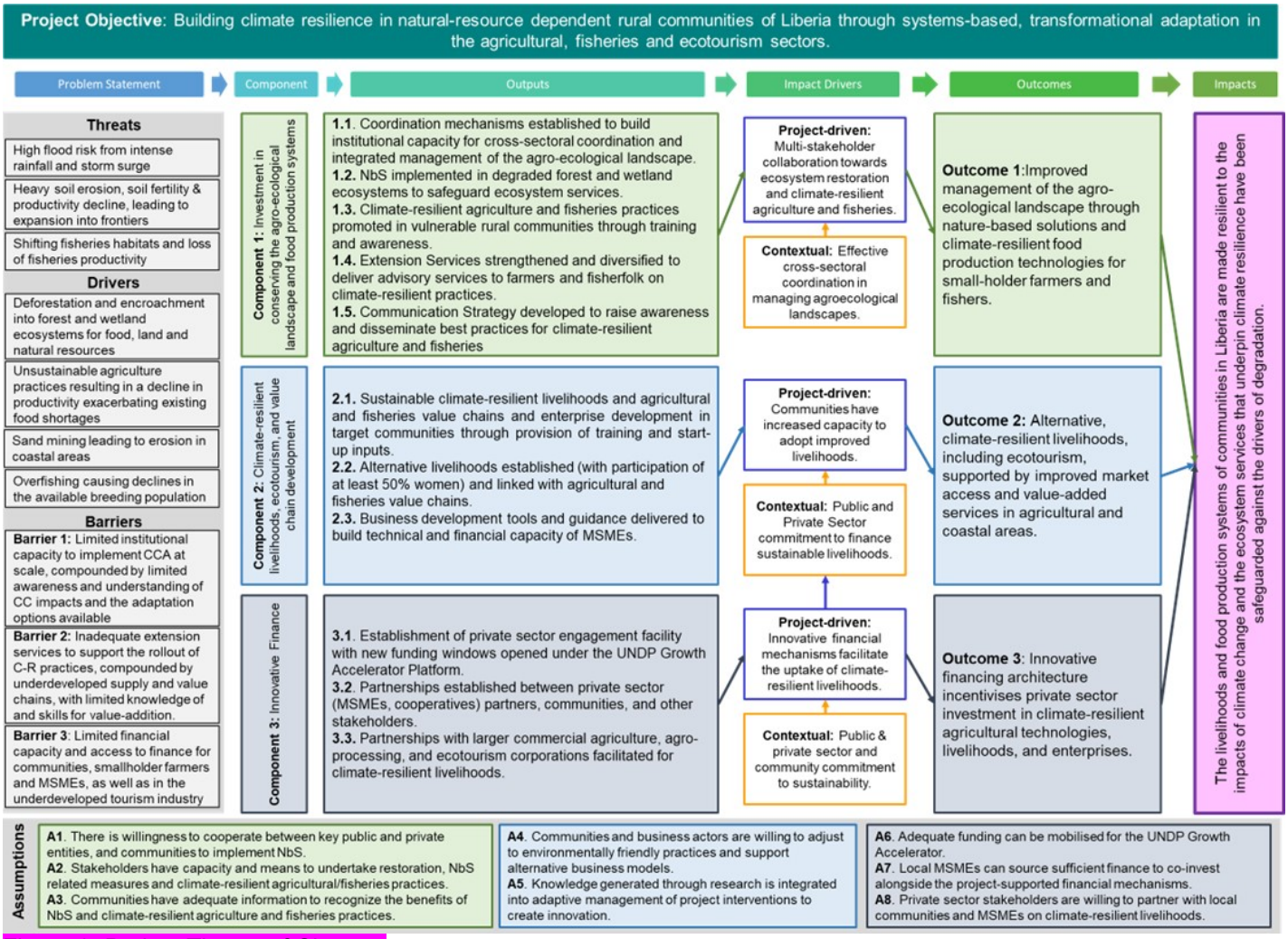

Figure 9. Project Theory of Change.

Component 1: Investment in conserving the agro-ecological landscape and food production systems

Outcome 1: Improved management of the agro-ecological landscape through nature-based solutions and climate-resilient food production technologies for small-holder farmers and fishers.

Given the intrinsic links between rural livelihoods and the ecosystems that surround them, it is essential to consider the agro-ecological landscape as an integrated system, underpinned by diverse and complex interactions and feedback loops. These interactions are particularly important under changing climate conditions, with natural ecosystems offering critical services to vulnerable communities, including regulating the hydrological cycle and reducing the impacts of intensifying rainfall events. Likewise, the interaction of natural resource-based livelihoods with the ecosystems they rely on is critical for maintaining these ecosystem services and achieving balance in the system – highlighting the need for a system-wide approach to address current and future climate risks. Using this principle, the first component of the project will build resilience among vulnerable communities by improving the management of the agro-ecological landscape, focusing not only on the natural ecosystems, but on the agriculture and fisheries sectors operating within and around these ecosystems. In so doing, the project will leverage the benefits of ecosystem services to reduce flood risk and

improve the productivity of food production systems in response to climate change impacts. This approach will be multi-dimensional, with several inter-connected outputs, including direct investments in nature-based solutions (NbS) to restore and conserve the agroecological landscape, as well as the promoting of climate-resilience agricultural and fisheries practices. The restored and maintained landscapes will also provide cultural and scenic benefits that will underpin ecotourism development under Component 2. These direct investments will be supported by developing institutional capacity to improve coordination for effective land management, complemented by strengthened extension services and knowledge systems that will build awareness and disseminate best practices for climate resilience across the agro-ecological landscape. These Outputs are described below.

Outputs under Component 1:

1.1. Coordination mechanisms established to build institutional capacity for cross-sectoral coordination and integrated management of the agro-ecological landscape.

Given the cross-sectoral nature of the systems-based approach, effective management of the agro-ecological landscape requires effective coordination and collaboration between multiple stakeholders and decision makers – including various public sector ministries and agencies, vulnerable communities and local governance entities, and the private sector. To this end, the first output will establish a coordination mechanism to build institutional capacity for cross-sectoral coordination and integrated management of the agro-ecological landscape. This mechanism will factor in horizontal coordination (between agencies at the same level of government) and vertical coordination (between different levels of government from national, county and local levels). Provisions will also be made to engage local leadership structures, civil society organisations and the private sector in the coordination mechanism to actively promote collaboration and co-management of resources[1]. The coordination mechanisms will be led by the EPA, through the Department of Intersectoral Coordination.

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[1] This will include engaging appropriate community-based structures for natural resource management, including community forest management groups or similar CSOs where available. Opportunities to further develop or strengthen such arrangements within the target communities will be assessed during the next phase of project development.

1.2. NbS implemented in degraded forest and wetland ecosystems to safeguard ecosystem services.

Under Output 1.2, the proposed project will introduce a suite of nature-based solutions to build climate resilience in the target landscapes. These interventions will focus on restoring and protecting forest, wetland and coastal ecosystems that form part of the mosaic agroecological landscape, using a combination of active restoration, assisted natural regeneration, and conservation practices, supplemented where needed with hybrid green-grey solutions. Improving the health of ecosystems in Liberia offers multiple benefits to local communities through regulating ecosystem services, including maintaining soil fertility for agricultural production; regulating the flow of water for drinking water, irrigation and hazard reduction; providing habitats for plant and wildlife species used for subsistence and livelihoods[1]. During the next phase of project development, lessons will be drawn from pilot interventions across the country and best practices applied to

ensure that solutions are suited to the Liberian context. Interventions will also be aligned with priorities identified in key strategic documents, including the National Adaptation plans (2020-2030). The implementation of NbS will not only benefit communities in the immediate vicinity of the targeted ecosystems, but the resulting ecosystem services will have benefits for urban communities as well, particularly with regard to flood risk reduction and water quality. Preliminary research has identified the following priority interventions for the restoration and conservation of natural ecosystems in Liberia:

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[1] UASID 2014. Liberia – environmental threats and opportunities.

- **Forest Ecosystems:** Reforestation activities in degraded areas with a focus on improving biodiversity richness, including wild fauna. In line with priorities identified under the NAP, Liberia's Nationally Determined Contribution and the Pro-Poor Agenda for Prosperity and Development (PAPD), reforestation efforts will include high-value species that provide livelihood opportunities through non-timber forest products (NTFPs) to ensure that local communities sustainably benefit from forest resources. Moreover, as per the proposed approach under the National Forestry Policy and Implementation Strategy, local communities will be engaged as partners in forest plantation development, enabling them to share in the benefits and incentivising the maintenance of forest areas. This will include contributing to activities under the National Forestry Policy to establish a network of community managed forests on communal land. Specific target areas for restoration will be determined based on several factors, including but not limited to: i) land tenure, specifically targeting communal land; ii) existing land uses, extractive pressures and drivers of degradation, as well as avoiding potential economic displacement; iii) strategic importance for managing hydrological cycles, including areas of high erosion or flood potential, as well as key water sources for major rivers; and iv) local forest users and the potential benefits they will accrue. Only indigenous or naturalised species will be used in restoration efforts to avoid the potential introduction of invasive species that could negatively impact biodiversity of ecosystem services.

- **Freshwater and Coastal Wetlands***:* Liberia is home to both freshwater and coastal wetlands, which each play key roles in maintaining biodiversity and ecosystems services, providing multiple economic benefits to local communities. Mangroves are particularly important given their role in safeguarding against erosion, storm surge and flooding in coastal areas, as well as serving as nursery environments for economically important fish species. Under this activity, the project will restore degraded mangroves, ideally targeting a mosaic of mangrove species as opposed to monoculture restoration. Heavily degraded areas will be targeted for active restoration, paired with conservation and assisted regeneration of less degraded habitats. For freshwater wetlands, efforts will focus on community-based conservation, working with communities to train them on wetland management and sustainable use.

In all instances, opportunity will be sought for linking restoration activities with local livelihood development, with particular focus on empowering women through targeted engagement. This forms a core aspect of the systems-based approach, seeking to address vulnerability across the agro-ecological landscape by integrating nature-based solutions with sustainable livelihood practices. In line with this approach, restoration and conservation efforts will be paired with an awareness raising campaign to build understanding of the importance of healthy ecosystems under changing climate conditions, highlighting the extensive benefits offered through ecosystem services to incentivise ownership of conservation efforts. Through the planned gender assessment, opportunities for directly involving women and other marginalised groups in the restoration efforts will be identified and integrated into the implementation plans.

1.3. Climate-resilient agriculture and fisheries practices promoted in vulnerable rural communities through training and awareness.

Agriculture and fisheries are particularly vulnerable to climate change, with decreasing productivity, depleting soil nutrients and damage to crops and infrastructure in both sectors, and increasing temperatures and the proliferation of pests and disease driving post-harvest losses — contributing to food insecurity in the country. Moreover, as productivity declines, vulnerable farmers and fisherfolk often adopt maladaptive practices to compensate for lost income or to buy food in time of need. Such practices include: i) the uptake of unsustainable alternative livelihoods such as sand mining and charcoal production; ii) expanding agricultural areas to increase hectarage or shifting agricultural fields to target more nutrient rich soils; and/or iii) adopting harmful or destructive fishing practices that impact coastal ecosystems or inhibit stock replenishment. In all cases, the net result is the further degradation of ecosystems and the loss of associated ecosystem services, which in turn perpetuates the loss of productivity and creates a negative cycle of degradation and food insecurity.

To address this issue, the proposed project will train farmers and fisherfolk on climate-resilient practices that increase productivity of food systems without the need for maladaptive practices.

- **Agriculture:** Considering that the majority of Liberia's rural population is highly dependent on climate-sensitive rainfed agriculture, the need to increase the resilience of the agricultural sector has been identified as a key adaptation strategy in Liberia. A suite of priority climate-resilient practices have been identified in the NAP, including: i) integrated pest management; ii) pest-, drought-, and flood-resilient crop varieties; iii) soil fertility management; iv) rainwater harvesting; v) conservation agriculture practices, including intercropping, cover cropping, minimum tillage and crop rotation; and vi) agroforestry. Additional targeted agricultural interventions will also be identified for women, accounting for the specific challenges related to access to and control of resources. Options include market gardens, horticulture, aquaculture and small livestock rearing.

- **Fisheries:** Climate change is causing a shift in the distribution and stocking density of many fish species along the West African coast, resulting in local populations of traditionally targeted fish species no longer meeting the needs of the local population. This challenge is exacerbated by overfishing, which in turn is further compounded by high post-harvest losses related to increased temperatures and lack of processing and refrigeration facilities. Given that it is not feasible to mitigate against shifting suitability of marine habitats, it is necessary to adapt fisheries practice to the new conditions. To this end, the project will support artisanal fisherfolk in the target coastal counties on sustainable fishing practices that are suited to the shifting conditions, including training on the use of appropriate fishing gear, targeted fishing practices, and awareness related to catch sizes and sustainable harvesting. These interventions will be paired with value-chain development interventions (Component 2) to reduce post-harvest losses.

For both the agriculture and fisheries sector, the project interventions will focus on providing technical assistance to vulnerable communities on the uptake of climate-resilient practices. This will include the establishment of demonstration plots in target communities, identifying local champions who will be trained to operate and maintain the plots and share lessons with other farmers in their community. Active training on climate-smart practices will be paired with an extensive awareness campaign to build understanding of the

impacts that climate change is having on agricultural production and the need for the adoption of climate-resilient practices to adapt to these impacts and secure food security under future climate conditions. In line with the proposed system-based approach, the awareness campaign will be integrated with the related campaign under Output 1.2, focussing on the integrated nature of the agroecological landscape.

Activities under this Output will be closely linked with efforts to strengthen extension services under Output 1.4, enabling ongoing support and training, along with facilitating the upscaling of interventions to other communities not directly targeted by the project. To this end, the local champions identified to maintain demonstration plots will also be engaged as part of the strengthened extension services approach.

1.4. Extension Services strengthened and diversified to deliver advisory services to farmers and fisherfolk on climate-resilient practices.

Sustainably adapting natural resource-based livelihoods – such as agriculture, fisheries and the value chains that support them – at scale requires a well-developed extension programme, with the necessary technical, financial and human capacity to reach a broad range of stakeholders. However, as noted in Barrier 2, extension services in Liberia currently lack the required capacity to operate effectively, constraining the ability to roll out knowledge on climate-resilient practices. In response to this barrier, the proposed project will build the technical capacity of existing extension services, while also introducing innovative community-based systems to improve extension services in remote and inaccessible locations.

First, existing government extension officers will be trained on best practices for climate-resilient agriculture and fisheries, as per the approaches promoted through Output 1.4. This capacity development will not be limited to discrete training of existing staff, but will be integrated into the core training mechanisms within the Ministry of Agricultures extension service programme operated by the Central Agriculture Research Institute (CARI), ensuring ongoing learning for new staff joining the service as well as continued refresher training for existing extension officers beyond the project period. Moreover, drawing on the knowledge systems proposed under Output 1.5, mechanisms will be established to continually update training material based on best practices identified through implementation, and to regularly hold refresher training for existing staff. The training on the practical implementation will also be complimented by general awareness training, enabling extension officers to not only disseminate training on the adoption of climate-resilient practices, but also the theory behind the need for and effectiveness of the proposed approaches. This includes the theory behind the climate change impact chains that necessitate an integrated adaptation response and the benefits shifting practices — linking traditional and indigenous knowledge with modern climate information. This is vital to overcome inherent hesitancy for many farmers and fisherfolk to shift away from traditional practices that are no longer suited to the changing climate conditions, or that perpetuate drivers of degradation.

In addition to strengthening existing extension services, the access challenges for many remote communities — resulting from degraded road infrastructure and insufficient transport for extension officers — necessitates innovative action to extend the reach of extension support. Overcoming the infrastructure challenges is beyond the scope of a single project and instead forms a key part of Liberia's pro-poor development agenda. Instead, the proposed project will target alternative means to increase reach and disseminate best practices on an ongoing basis. In particular, the project will look to identify and capacitate local champions within remote communities to develop a community-based extension service using a training of trainers approach. This will tie in with the local champions that will be trained to manage demonstration plots under Output 1.3, as well as developing a broader network of farmers and fisherfolk that will be engaged to champion the shift to climate-

resilient practices, and to train their communities. Moreover, specific focus will be given to involving women's groups in the process to ensure that the needs of women and other vulnerable groups are adequately accounted for in the local-level extension plans. Engagements are planned for the next phase of project development to further develop the community-based extension service concept.

Across both the public-sector and community-based extension service interventions specific focus will be applied on gender responsiveness, ensuring not only equal access to extension services, but also tailored training that accounts for the varied roles of men and women in the agricultural and fisheries sectors. Strengthening extension services in Liberia will supplement the direct training and support provided under Output 1.2 and 1.3, as well as the livelihood development under Outcome 2, enhancing the sustainability and scaling of interventions.

1.5. Communication Strategy developed to raise awareness and disseminate best practices for climate-resilient agriculture and fisheries

A key priority for the Government of Liberia's adaptation ambitions for the proposed project is creating an effective platform for drawing lessons learned and disseminating best practices to establish a sustainable and dynamic enabling environment for scaling adaptation interventions. To this end, the proposed project will establish a long-term monitoring programme to track project performance indicators and identify best practices for high-impact investments, closely linked with a communication strategy to collate and disseminate best practice and lessons learned to decision makers and communities. This includes not only details on specific practices, but also the full range of incentives and tools developed under the project — tying together the system-based approach across all elements of the project through the capturing and sharing of knowledge. During project implementation, the monitoring programme will be integrated with the project M&E to track progress against targets, while initiating monitoring of long-term lessons and best practices for nature-based solutions[1]. Beyond the project period, the monitoring programme will be continued by the EPA, integrating monitoring processes into ongoing efforts of field and extension officers in Liberia.

The impact and suitability of best practices will consider not only performance in terms of productivity, but also several sustainable development criteria, including gender responsiveness, use of and compatibility with indigenous knowledge, and environmental sustainability. These lessons will be centrally collated through the EPA's Environmental Knowledge Management System (EKMS), which will form the foundation of the project's communication strategy. To accommodate this, the project will work with the EPA to strengthen the EKMS, ensuring that the system-based approach is fully integrated into the system. This will include collaboration with other ongoing initiatives which are integrating sector-specific lessons and best practices into the EKMS, with the additional focus of linking best practices across various sectors to enable systems-based planning and action.

A core component of the communication strategy will be user handbooks, presenting the lessons as clear and actionable guidelines that will supplement the efforts of the strengthened extension service. The guidelines will be tailored to the various agroecological zones of Liberia, accounting for the dominant practices and crops in each area. Focus will be applied to the usability of the handbooks, translating to local languages and illustrating the content to support uptake in areas where literacy is low. The handbooks will be disseminated through public-sector extension officers, who will also be trained on their content (Output 1.4). In addition to the use handbooks, the project will develop a broad outreach and awareness strategy that leverages multiple communication pathways, including flyers and other printed materials, social media campaigns, annual symposia at district and national levels to share lessons and inform policy, as well as exploring options for sharing lessons at regional and global climate events.

[1] Specific methodologies and indicators to be tracked in the long-term monitoring programme will be identified during the next phase of project development.

Component 2: Climate-resilient livelihoods, ecotourism, and value chain development

Outcome 2: Alternative, climate-resilient livelihoods, including ecotourism, supported by improved market access and value-added services in agricultural and coastal areas.

As part of the preferred systems-based approach, it is essential to consider the full value chain for agriculture and fisheries livelihoods, as well as other natural resource-based activities that put pressure on natural systems. This includes strengthening value chains through processing, value addition and market access, as well as creating alternative livelihoods that encourage a shift away from unsustainable practices that disrupt the provision of ecosystem services. Providing suitable alternatives to unsustainable practices is essential for creating long-term buy in among communities and avoiding economic displacement when restoring and conserving natural ecosystems in areas that have previously supported unsustainable practices. To this end, the project will work closely with local communities to co-develop locally appropriate livelihood options that maximise the productivity of food systems and/or incentivise the conservation of natural habitats. In addition to developing livelihoods along the agricultural and fisheries value chains, the project will also promote ecotourism-related ventures that benefit from and contribute to nature conservation.

Outputs under Component 2:

2.1. Sustainable climate-resilient livelihoods and agricultural and fisheries value chains and enterprise development in target communities through provision of training, and start-up inputs.

Effective value chain development is key to maximising the sustainability of the agricultural and fisheries sectors. Specifically, sustainability in small-scale agriculture and artisanal fisheries – who's produce is relatively limited – can be achieved through several steps in the value chain, including reducing post-harvest losses, processing goods to increase the potential value per unit of produce, and improving access to broader markets (both local and international). Market access can be further broken down into two approaches: improving physical access; and creating products that meet the quality-standards of higher-value markets. To this end, the project will support local communities to establish green enterprises along the agricultural and fisheries value chains, specifically targeting sustainably produced products (using practices promoted under Component 1). Output 2.1 aligns with Component 3, focussing on agricultural and fisheries value chains, and

sustainable briquette supply chains, as well and leveraging opportunities for development of ecotourism supply chains. In both instances, opportunities for linking rural and urban markets will be explored, with particular focus on value-addition and market linkages to meet the needs of urban populations.

Output 2.1 will focus on providing Technical Assistance (TA), training, capacity building, and access to finance to vulnerable communities in the target counties. The project will also provide the most vulnerable groups[1] – for example female- or child-headed households — with basic startup equipment[2] needed to engage in value chain development, including energy-efficient cookstoves, solar water pumps, drip irrigation, solar dryers, and beekeeping equipment. Direct support to these most vulnerable groups will be complemented by the financial architecture proposed under Component 3, which will provide support to MSMEs and larger collectives. By supporting value chain development, the project will enable communities to enhance their economic productivity potential, as well as improving access to financial products. Moreover, the project will support local enterprises to partner with the MSMEs and larger corporations to further enhance impact and reach broader markets. A gap assessment will be conducted for each value chain to identify specific needs and communities will be provided with technical assistance to develop businesses that fill those gaps. Throughout this process, interventions will focus on particularly vulnerable groups, including women and the youth; identifying gender-responsive livelihoods that account for the role of women in the value chain, as well as opportunities for young people to establish green enterprises and become active participants in the market. This will include consideration of cultural aspects within the communities and their influence on the vulnerability of these groups. The TA provided under this output will be underpinned by a value-chain mapping exercise, which will explore existing value-chains, what services are available, what gaps exist, and what are the challenges constrain the development of the value chain, including technical capacity of potential value-chain actors as well as access to finance, inputs and energy.

2.2. Alternative livelihoods established (with participation of at least 50% women) and linked with agricultural and fisheries value chains.

In addition to livelihoods directly within the agriculture and fishery value chains, the project will support the establishment of complementary alternative livelihoods in target communities. Such livelihoods will not only benefit from the value chains developed under 2.1, but will also incentivize the maintenance on restoration and conservation efforts (Outcome 1). For example, the ecotourism sector in Liberia has been identified as a priority area for sustainable, climate-resilient development under the NDC and PAPD. This potential lies not only in the immense natural beauty and biodiversity of the country, but also in the role that ecotourism can play in incentivizing the conservation of natural spaces – thereby reducing degradation and maintaining critical ecosystem services needed for climate resilience. This underpins the link between ecotourism development under this Output and the conservation and restoration efforts under Output 1.2, with the ecotourism potential further incentivizing conservation of natural spaces. However, as outlined in Barrier 3, the tourism sector in Liberia is largely underdeveloped, with numerous factors constraining further development of the sector — such as inadequate transport infrastructure and ineffective immigration systems that limit physical access, as well as limited and often unmaintained accommodation options, and lack of investment in developing guest experiences. Despite this, Liberia's Action Plan for Sustainable Tourism Development identifies several action areas that could drive the development of the sector, particularly with regards to ecotourism and leveraging the potential of protected areas by combining biodiversity assets with other components of the tourism offer – urban and indigenous culture, history, heritage, beaches, and water sports. While some of the development strategies identified in the Action Plan are not feasible within the scope of the proposed project (for example major infrastructure development), others are well aligned with the proposed project strategy and will be implemented under Output 2.2 as part of the livelihood development.

Specifically, the project will target two areas of development within the ecotourism sector. First, the project will support local communities to identify and develop unique travel experiences within the natural spaces around them — providing alternative livelihood options that incentivize the conservation of natural resources. These livelihoods will focus on non-extractive activities that draw on the benefits of the rich faunal and floral diversity of forest and wetland ecosystems, including guided tours, bird watching, kayaking, as well as the cultural elements of rural and urban communities, including historical tours, cultural heritage events and homestays. Existing initiatives/community co-operatives involved in management of forest and protected areas, wherever they exist, will be engaged and capacitated to develop ecotourism activities, whereas in other locations such initiatives/co-operatives will be setup, operationalised, capacitated as needed. The project safeguards team will also be engaged throughout the process to ensure that training on ecotourism development aligns with the environmental safeguards and that ecotourism livelihoods do not cause harm to natural environments. It is anticipated that these actions will largely target domestic or regional tourism, as well as adventure tourism, where the infrastructural challenges are less of a barrier. Second, the project will link tourism operators with agricultural and fisheries supply chains (Output 2.1) to promote farm-to-table style supply chains for the tourism industry. Development of the ecotourism sector and capitalizing on the global demand for sustainable tourism offerings will have multiple adaptation benefits, including: i) incentivizing the conservation of natural spaces and the ecosystem services that safeguard communities from climate change impacts[1]; ii) driving local demand for sustainably produced products — thereby strengthening value chains and incentivizing the climate-resilient practices promoted under Component 1; iii) attracting tourism income into the local economy, building overall community resilience. Potential ecotourism actions are identified below:

- Develop tourism experiences/products, and a certain percentage of the revenue earned will be spent on tour guides, local communities, attraction sites, lodges, eating houses and souvenir shops. By focusing on local communities for tour guides and related activities, these experiences will create employment opportunities, including tailored positions for women and the youth. Another metric for measuring the success will be monitoring the number of livelihood opportunities created for women and youth, to ensure that this ecosystem will sustain beyond the duration of this project.

- Technical training and capacity building towards biodiversity knowledge in flora and fauna of Coastal and inland counties.

- Empower the community towards ownership of enterprises thereby having climate resilient jobs and reducing their dependence on agricultural produce and fisheries.

- Training for women-led private sector entities/consortia in business management, entrepreneurship, marketing, and branding while also providing vocational skills through partnerships with TEVET.

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[1] See Output 1.2

Under both scenarios, the project will provide technical assistance, training, capacity building, and basic startup equipment to support the development of ecotourism livelihoods. This will be further supported by general business development training under Output 2.3, and the innovative financial mechanisms under Component 3. Moreover, partnerships will be sought between local communities' ventures and other MSMEs and lager private sector tourism operators to establish diverse tourism offerings that maximise the attractiveness of the target areas to tourists. Tourism offerings will be marketed to domestic, expat, Diaspora, and international travellers in order to stimulate growth in visitor arrivals, spending, and tourism-related investment. While the tourism sector alone will likely not be sufficient to drive the value chain development – particularly in the short term while the tourism sector remains underdeveloped – the opportunity for small-scale tourism as described above will form an important part of the broader market development targeted by

the project. Further complementary alternative livelihoods will be explored during the next phase of project development.

2.3. Business development tools and guidance delivered to build technical and financial capacity of MSMEs.

To further enhance the livelihood support under Outputs 2.1 and 2.2, the project will enhance the technical capacity of communities, extension services, CBOs, farmers, buyers, and private sector enterprises to identify and prepare climate-resilient business plans and project packages that are financially viable, for support from the private sector engagement facility established under Outcome 3. This output will focus on enhancing technical capacity through the introduction of technical and business training programs. It will also help the communities with business identification and the development of sustainable livelihood opportunities for the communities. Under this output, along with technical assistance, farmers will be assisted with various facilities like bookkeeping and financial management. The focus will be on collaboration with different existing cooperatives to increase the productivity of agriculture and allied activities, as well as provision of equipment for drip irrigation, beekeeping, solar water pumping, solar dryers for fish etc. Communities will also be provided with storage facilities via community mobilization and farmers cooperatives, while also training them on collective marketing of their produce for a fair price.

Component 3: Innovative Finance

Outcome 3: Innovative financing architecture incentivises private sector investment in climate-resilient agricultural technologies, livelihoods, and enterprises.

Component 3 of the proposed project will unlock financing for climate resilient investments and private sector engagement in the project area. This Component will design and operationalize sustainable, innovative and private sector-driven business and engagement models focused on climate-resilient livelihood improvement under UNDP's existing Growth Accelerator program. Specifically, funding windows will be launched for private sector engagement and investment under Growth Accelerator for this project's activities under component 3, that would offer technical assistance, capacity building and co-investments for Micro, Small and Medium Enterprises (MSMEs) and community cooperatives to partner with communities in this project's seven target counties: Lofa County, Bong County, Nimba County, Montserrado County, Maryland County, Margibi County and Grand Cape Mount County. Profitable value chains and investments will be developed for the private sector which will also improve livelihoods for these communities.

In addition, the project will work with larger private sector companies to build commercial agricultural/food processing value chains and eco-tourism ventures in the project's target counties. Essentially, this component of the project will focus on; i) Climate resilient agricultural value chain development for staple food grains and high value products. ii) Sustainable biomass briquette production from waste agricultural biomass. iii) Sustainable business practices of production and marketing of non-timber forest products (NTFP). iv)

Sustainable ecotourism ventures that provide alternative livelihoods for communities in the project's target counties as well as incentives for the protection and restoration of forests and natural ecosystems, and v) Access to microfinance, insurance, and social protection to further catalyse climate-resilient business development in target counties.

Based on stakeholder consultations and secondary research, intervention focus will be on:

- **Agriculture and food processing value chains**: Focus will be on multiple kinds of crops: staple crop (rice, corn, and pulses: cowpeas, mung beans, lima beans, and chickpeas), high-value agricultural crop (coffee and cocoa)[3], horticulture (pineapples and banana), and Non-timber Forestry Products (honey). The interventions under this component will be in inland counties; Lofa, Bong and Nimba counties. Focus on agriculture and allied sectors will not just provide improved, climate resilient livelihood opportunities and income generation for local communities in the project's target counties, but also opportunities for private sector investments into development of agricultural and food processing value chains – both at small-scale (MSMEs, cooperatives) and at large commercial agriculture scale. The focus of this component will be on the agricultural value chain for climate resilient crops and sustainable farming practices. In-depth technical assistance will be provided to agricultural extension workers and local communities of farmers on sustainable farming techniques, climate smart agriculture, agro forestry, improved and high productivity seeds and on lending/providing risk insurance for climate resilient agricultural value chains. Engagement with large private commercial agriculture/food processing corporations will enable access to markets and finance for smallholder farming communities in these counties as well as high-quality climate resilient seeds and technologies.

This component will also aim to collaborate with ongoing programs by other donors such as "&Green Fund: Investing in Inclusive Agriculture and Protecting Forests"[4] for improving value chains, market linkages, access to financial services for strengthening agricultural livelihoods and building climate resilience.

- **Fisheries**: Demersal, Crustacean, and other local fish varieties are consumed by local communities which can be marketed. The interventions under this component will be in coastal counties; Grand Cape Mount, Margibi, Montserrado and Maryland. Investments will be focused on fisheries, processing (fish drying and smoking), value chain and cold chain development of multispecies fisheries (focus only on local varieties of fish), rehabilitation of selected fish landing sites, and fisheries stock assessment. The component will also explore the possibility and assess viability of shrimp and prawn farming.

- **Ecotourism**: Liberia is geographically well endowed with national parks and reserve forests. Ecotourism will be the focus in coastal counties: Grand Cape Mount, Margibi, Montserrado and Maryland. Implementation of ecotourism interventions via private sector investments can lead to increased economic value of the ecosystem that protected areas provide to local communities, thereby offering alternative livelihoods to a subset of households and increasing their incentive to protect these natural ecosystems. Various activities like hiking, bird watching, safari, river rafting, will be setup together with private sector partners in the mountain ranges and forest ecosystems, while employing local communities in the delivery of ecotourism services. Local communities can also earn livelihoods through home stays, and providing

immersion experience in local cultures, etc. Beneficiaries of these eco-tourism interventions will be both direct (those that will be directly engaged in provision of services such as tourism guides, homestays etc.) and indirect (those that would benefit from improved restoration and management of ecosystems, protected areas, marine ecosystems, and improved governance of these areas).

Liberia has developed an Action Plan for Sustainable Tourism Development with the objective to assess and prioritize tourism development opportunities. It has defined pilot projects, and prioritized actions that would help catalyse sustainable tourism development in Liberia. It builds on the Liberian National Export Strategy On Tourism, 2016-2020. The proposed Protected Areas includes; Sapo National Park, Gola National Park, Grebo, Krahn National Park, Lake Piso Multi-Use Reserve, Gbi (Krahn Bassa), Cestos-Sankwein, Wonegisi, Kpo Mountain and Foya.

- **Sustainable Biomass Briquette Production**: Firewood and charcoal are an important part for Liberian rural households as they lack access to modern and cleaner sources of energy for cooking and heating. The interventions under this component will be focused on all seven target counties. Dependence on firewood is a major cause of deforestation in Liberia, while burning of agricultural waste biomass (as a practice to clear the land for next sowing season) is a key source of air pollution and fire hazard in the target counties, it also leads to land degradation. Production and marketing of sustainable biomass briquettes can provide high energy dense, low emission alternative fuel source for these communities, while reducing their dependence on firewood and the need to burn waste agricultural biomass. The bulk waste that is generated from agriculture, such as rice husk, rice straw and maize core can be utilised for the production of high energy density biomass briquettes and pellets. Such production of waste biomass-based briquettes and pellets hasn't been implemented widely in Liberia so far, due to limited access to finance, technical capacity and know-how among government, CBOs and private sector entities involved in clean cooking value chain in Liberia. There have been a few interventions on production and distribution of clean/energy efficient cookstoves (such as UNDP intervention with partners such as Green Gold) but those need to be complemented with production and distribution of sustainable fuel for cooking/heating such as biomass briquettes. Currently, there is limited formalized private sector investment in the biomass briquette production value chain in the target counties, and this component aims to address that issue. Briquette production will be a long-term sustainable solution for energy needs of the community. There are several social and environmental benefits by shifting to sustainable briquettes like increase in carbon sinks, enhanced household energy security, and greater entrepreneurial opportunities created for local communities through production and sales of sustainable biomass briquettes. UNDP, through its Energy and Environment (E&E) Programme, is working with the EPA and other partners like Green Gold to support vulnerable coastal communities through training on the production of energy-efficient cookstoves.

Outputs under Component 3:

3.1. Establishment of private sector engagement facility with new funding windows opened under the UNDP Growth Accelerator Platform

A private sector engagement facility established to stimulate private sector investment for and from larger private sector corporations, Micro, Small and Medium sized Enterprises (MSMEs), with new funding windows opened under the UNDP Growth Accelerator Platform, as well as provision of technical assistance and strengthening of the micro-finance industry for innovation in climate-resilient livelihoods, enterprises, and technologies. This output will focus on establishing a private sector engagement facility to catalyse private sector investments in climate resilient livelihood and enterprises. Private sector engagement facility will be set up under the existing challenge fund mechanism of UNDP Liberia's Growth Accelerator program for MSMEs as well as for strengthening micro-finance industry for innovation in climate resilient livelihoods, enterprises, and technology.

The fund will be used for strengthening **climate resilient agriculture, fisheries value chain, sustainable briquette production, eco-tourism value chain, access to finance, insurance,** and **social protection measures**. GEF/LDCF resources will be deployed only for provision of TA, training and capacity building for private sector and community engagement as described in this section, with capital grants (with matching resources invested by private sector partners) being provided from UNDP co-finance. The activities mentioned below will provide technical assistance for the design and operationalisation of the private sector engagement facility under UNDP's Growth Accelerator Program. UNDP Liberia Growth Accelerator program's service will be engaged as a Responsible Party (RP) by the project for launching challenge fund windows, selection of private sector (MSMEs, cooperatives) partners, disbursement of capital grants, portfolio management and monitoring and evaluation activities.

A competitive process of 4 challenge fund windows of call for proposals for selection of private sector entities for partnership will be launched under the existing UNDP Growth Accelerator for this project, which will aim to receive applications from the private sector requesting for TA, access to markets and funding to develop and implement business models in the target counties with an aim to co-invest in and build profitable business ventures that also have the potential to improve climate resilient livelihoods of rural communities. These challenge fund windows will primarily be for-profit entities, with an aim to engage a significant number of MSMEs, Banks, Microfinance Institutions (MFIs), and insurance companies under this output. This output will engage in community mobilisation and setting up a formal ecosystem for MSME's and communities.

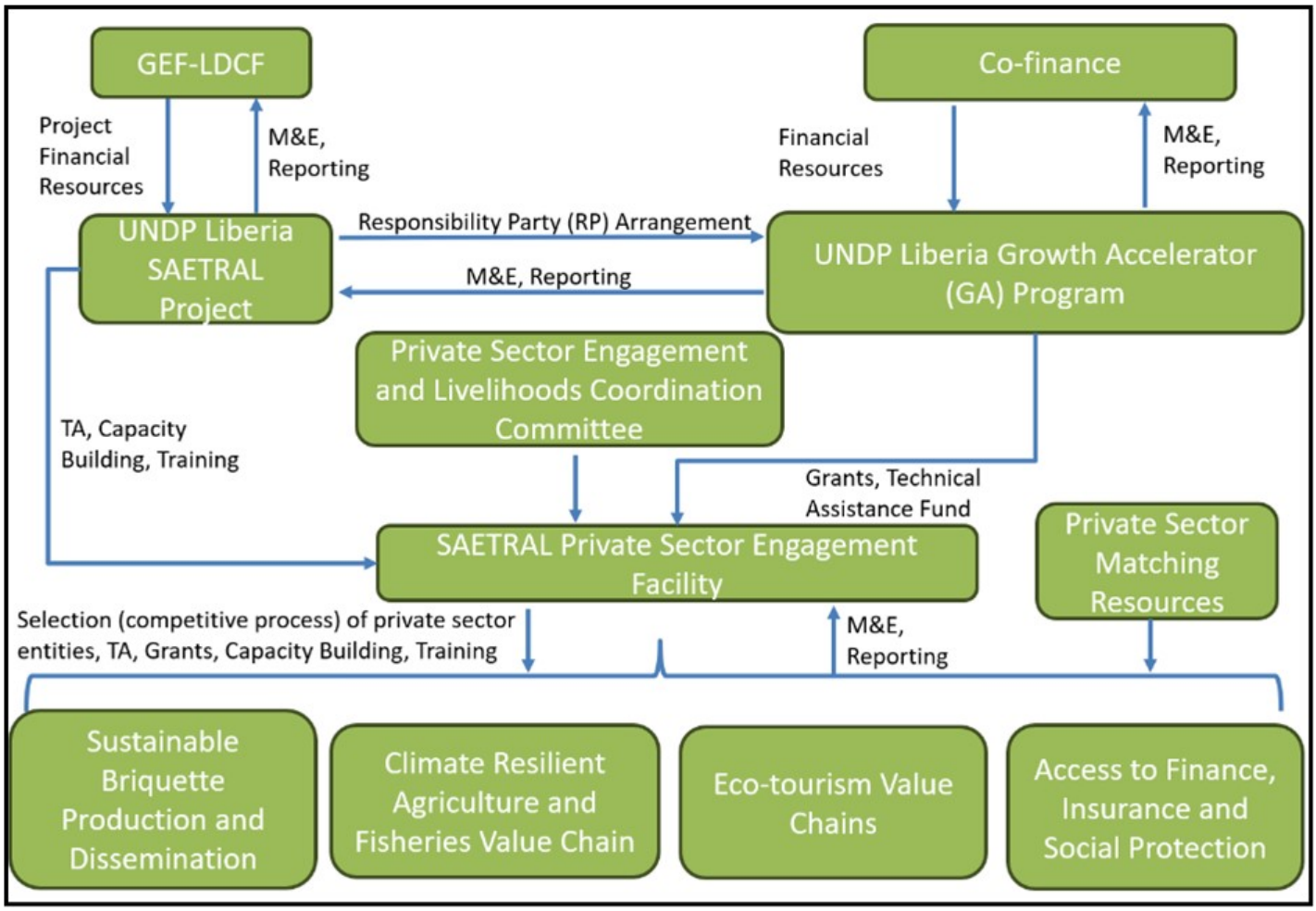

Figure 10. UNDP Liberia SATRLA: Growth Accelerator Engagement Model

The activities proposed under Output 3.1 include: i) Structuring and launching of private sector engagement facility for TA/co-investment support to private sector; ii) Establishing funding windows and financial products for Sustainable Briquette Production; iii) Establishing funding windows and financial products for Climate Resilient Agriculture and fisheries value chain development; iii) Establishing funding windows and financial products for ecotourism value chain development; and iv) Establishing funding windows and financial products for increasing access to finance, insurance, and social protection measures.

A 'call for proposal' mechanism will be established that includes shortlisting ventures based on 5 criteria:

1. Whether business/venture is registered;
2. Has financial/revenue statement and
3. Reported the last 12 months of sale
4. Requested an amount from the Growth Accelerator Programme
5. Has been in business for at least 6 months
6. Owner(s) have a full-time employment status in the business venture;
7. Business/venture is working in the sector for which call for proposal has been made.

Previously, in 2021 for the first cohort, a five-member Independent Investment Committee (IIC) made up of stakeholders from the Central Bank and business community were setup to screen and select 10 semi-finalists. For final pitching event, business development workshops, bootcamps and training were also conducted for the semi-finalist. During the final pitching event, semi-finalists pitched their growth plan to a six-person high-level judging panel comprising of senior experts in development, agriculture, banking, education, and law. The high-level judging panel assessed the semi-finalists based on 6 criteria:

1. Business model strength;
2. Financials;
3. Investibility;
4. Marketing plan;
5. Implementation plan; and
6. Scalability

Of the 10 semi-finalists, 5 finalists were selected for Cohort-I.

The Call for Proposal mechanism for SATRAL project is expected to be similar to Cohort-I. Timeline for the proposed GEF project is expected to be during the first 12-18 months (Year 1 and Year 2 of project implementation period) so that there is enough time to implement the selected ventures and achieve intended impact within the project implementation period. More accurate timeline will be scoped out during PPG phase.

Technical assistance provided to a suitable national institution to integrate and implement the private sector engagement facility. The aim of the EPA would be to mobilize capital for both climate change mitigation and adaptation investments in Liberia, from both domestic and international sources such as GCF. Key thematic areas of investments for the institutions would be climate change adaptation, climate change mitigation, training, capacity building, private sector incentives and investments (such as PPP model) and so on. Learnings from this project's Component 3 will be applied and will be scaled-up in a manner that ensures that private sector engagement and livelihood activities implemented under this project will be sustained. The project will provide technical assistance to EPA to setup a mechanism and process to absorb assets and activities implemented under this Component 3 (Outputs 3.1, 3.2, 3.3 described above) towards the end of this project, and setup systems, processes, and capitalization for national-level scale-up of these investments and activities.

3.2. Partnerships established between private sector (MSMEs, cooperatives) partners, communities, and other stakeholders.

Partnerships established between communities, and extension services, Community Based Organisations (CBOs), buyers and private sector enterprises (MSMEs and cooperatives), including through the development of a market information hub and the introduction of technologies that will increase access to, and strengthen, high value markets. As part of Output 3.2, TA and capacity building will be provided to private sector entities (MSMEs, cooperatives) via private sector engagement facilities. The focus will be on sustainable briquette production, climate-resilient agricultural and fisheries value chain development (which includes high-value agricultural products, staple grains, fisheries, and aquaculture), ecotourism and access to finance. This

partnership will be established between communities/farmers on the one side (community mobilization etc.) and extension services, CBOs, buyers, and private sector enterprises (MSMEs and cooperatives) selected via the Growth Accelerator challenge fund windows (as described in Output 3.1 above). Further, farmers and communities will be educated on market linkages and farmers' cooperative groups. The focus will also be on the development of a market information hub and the introduction of technologies that will increase access to and strengthen high value markets. Support to be provided to selected private sector enterprises selected via Growth Accelerator challenge fund modality are described in the table below.

Table 3 TA and Matching Investment Support Summary

Support Type	**Estimated Value or Amount per selected Private Sector Entity/Consortium**	**Total Amount for 12 selected Private Sector Entities/Consortia**	**Source of Funding / Support**
Specialized business-specific TA, training, capacity building, business development support, community mobilization/engagement support, facilitation of access to finance/insurance products	~US$ 33,000	~US$ 400,000	GEF/LDCF budget for Component 3
Optional, additional TA on generic business acceleration support and training **(this is optional – only if requested by private sector entities/consortia)**	~US$ 30,000	US$ 360,000 (need-based only)	UNDP Growth Accelerator program budget
Co-investment (as grants) from the project into existing or new business ventures/ operations of selected private sector entities/consortia that can engage and enhance climate resilient livelihoods of communities in the target counties of Liberia	~US$ 40,000	US$ 500,000	UNDP co-finance from TRAC Resources
Investment from selected private sector entities / consortia as matching investments from their own capital sources	~US$ 40,000	US$ 500,000	Private sector (MSME)

The activities proposed under Output 3.2 include: i) TA/capacity building to private sector entities via Growth Accelerator on sustainable briquette production, climate-resilient agricultural/ fisheries venture, ecotourism venture and financing climate resilient livelihood activities; ii) Provide capital investments to the private sector the Growth Accelerator platform; iii) TA to establish partnerships between communities and the private sector; and iv) Establish a market information hub to enable documentation and dissemination of best practices on livelihood diversification and sustainable climate-resilient enterprises.

3.3. Partnerships with larger commercial agriculture, agro-processing, and ecotourism corporations facilitated for climate resilient livelihoods

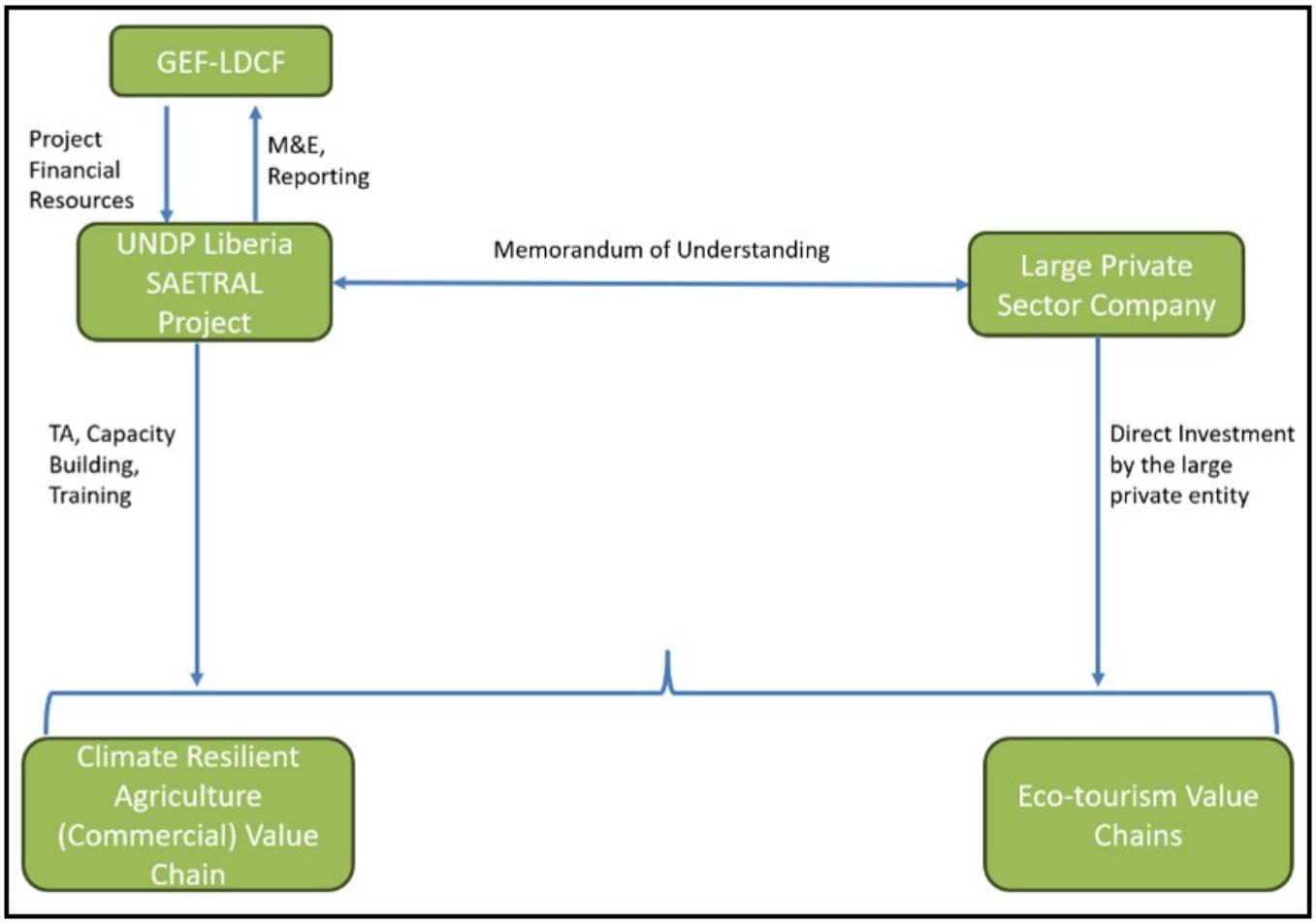

Figure 11. UNDP Liberia SATRLA: Larger Private company Investment Engagement Model

The aim of this output is to engage and partner with larger commercial agriculture and agro-processing corporations in Liberia to help them build relationships with smallholder farmers/local communities for distribution of high productivity and climate resilient seeds, farming techniques, technologies, guaranteed access to markets and finance and for these farming communities; this output will also engage with ecotourism operators/companies to enable partnerships with local communities and development of newer ecotourism infrastructure and activities for alternative livelihood generation for these communities.

The project will also play the role of a neutral partner between communities and larger corporations in the project's target counties. The project will identify larger private sector entities which are already established in processing of agricultural products and ecotourism businesses. These larger commercial corporations will not be provided with capital grants from UNDP co-finance, but only TA for community mobilization and to enable them to build relationships with smallholder/local communities in the project's target counties. Partnerships with larger corporations will also provide smallholder farmers access to high productivity seeds, farming techniques and technologies and the development of a systemic ecosystem of access to markets (via guaranteed purchase of agricultural outputs and processed products) and access to finance for smallholder farmers.

Few domestic corporations that operate in Liberia;

- Green Gold Liberia (sustainable briquette market)
- NOVEL (rice marketing firm)

- Wienco, Aya Group, LTI Group, Radling Holdings Wienco, Aya Group, LTI Group and Radling Holdings (cocoa exporters)

- Green Future Agro Inc. and International Trade Centre (coffee supply chain)

Some of these companies have an existing setup to process food and sell it domestically and/or export these commodities. Collaboration between smallholder farmers and these corporations will enable access to climate resilient seeds, technologies, and ready access to markets and finance, thereby building sustainable agricultural value chains that are resilient and adaptive to climate change. Similar engagement interventions will be implemented between larger tourism operators/companies in Liberia and local communities for setting up of newer ecotourism activities and infrastructure in the project's target counties, thereby enabling newer economic activities and alternative livelihoods to communities.

The activities proposed under Output 3.3 include: i) TA to establish partnerships between communities and larger agriculture and agro processing companies; and ii) TA to establish partnerships between communities and larger ecotourism companies.

Monitoring and Evaluation (M&E)

The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored annually and evaluated periodically during project implementation. If baseline data for some of the results indicators is not available, it will be collected during the first year of project implementation.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. The UNDP Country Office is responsible for ensuring full compliance with all UNDP project monitoring, quality assurance, risk management, and evaluation requirements. Activities under the M&E component will include the hosting of an Inception Workshop (and development of the associated report); producing annual GEF Project Implementation Reports (PIRs); monitoring of Social and Environmental Safeguards Screening, stakeholder engagement and gender action plans; supervised site visits and on-the-ground assessments; an Independent Mid-term Review (MTR); and a Terminal Evaluation (TE).

Stakeholders and Implementation Modality

The project will be implemented under the National Implementation Modality (NIM), with the Environmental Protection Agency of Liberia (EPA) taking the role of implementing partner (IP). The UNDP Liberia Country Office (CO) will provide first level oversight, incorporating: timely implementation in accordance with the ProDoc; compliance with all relevant UNDP and GEF policies and standards; approving financial advances to the NIM partner and ensuring that the project's financial management complies with relevant fiduciary standards; providing first-level technical oversight and quality assurance of outputs; conducting monitoring missions and organizing spot-checks; monitoring and management of risks; ensuring completion and quality of the annual PIR and all other relevant reporting requirements. Second level oversight will come form the Regional Bureau for Africa (RBA), which will ensure that the CO implements the country programme in compliance with UNDP rules and regulations. Third level oversight will be provided by UNDP BPPS / GPN – Climate Hub (Climate Change Adaptation), providing technical quality assurance and overseeing the project to ensure compliance with the UNDP and GEF policies and procedures. Further responsible parties and their respective roles are outlined in the table below.

Stakeholders

Stakeholder	Proposed role
UNDP	GEF Agency, providing oversight to the project and supporting the EPA in the nationally-led implementation
Environmental Protection Agency (EPA)	Lead executing entity, responsible for the day-to-day operation of the project and general coordination. Will provide overall strategic advice of project implementation and ensure alignment of the project strategies with the national sustainable development goals and PAPD. Project progress will be reported to EPA who will engage directly with UNDP for implementation, monitoring and reporting. The EPA will also take direct responsibility for Output 1.1 and 1.2.
Ministry of Agriculture (MoA)	Technical partners overseeing interventions related to the agriculture and fisheries, in collaboration with sector-specific groups and authorities. The MoA will form part of the coordination mechanisms established under Output 1.1 and will be the key stakeholder for Outputs 1.3 and 1.4.
Ministry of Finance and Development Planning (MFDP)	MFDP will be closely engaged in efforts to align national development planning with the climate-resilient practices and financial mechanisms proposed under the project, as well as directing investments towards key infrastructure development needed to enhance market access and promote ecotourism in the country.
Ministry of Information, Culture and Tourism (MICAT)	MICAT will take core responsibility for the development of ecotourism livelihoods under Output 2.2, working closely with the National Tourism Association.
Ministry of Commerce and Industry (MoCI)	MoCI will support activities related to value chain development and market access, as well as linking private sector partners with the financial mechanisms developed under Component 3.
National Fisheries Authority (NAFAA)	Providing sector-specific support in the design and implementation of project interventions.
Forest Development Authority	
Liberia National Tourism Association	
National Cassava Federation	
Liberia National Rice Federation	
Liberia Artisanal Fishermen Association (LAFA)	
Network of Microfinance Institutions in Liberia (NEMIL)	
Liberia Agribusiness Development Activity (LADA)	
Private Sector	Partners in operationalisation of financial mechanism and support to livelihood improvement of the targeted communities. The project will engage closely with the private sector during the PPG phase to identify specific entry points to help catalyse private investment.
Communities	Co-management of project activities and beneficiaries of capacity building on climate change, land use management, livelihood support and project activities.

[1] Selection criteria for the most vulnerable groups and individuals eligible for full grant support will be defined during the PPG phase; all other target groups and individuals will be able to acquire equipment via combination of grants and loans.

[2] The provision of equipment/energy efficient technologies from project resources will be only for pilot/demonstration purposes and a finance mechanism (via microfinance etc.) will be developed under Outputs 3.1, 3.2 and 3.3 via private sector engagement and access to finance interventions described under Component 3.

[3] Coffee and cocoa will follow no deforestation principle as per "&Green Fund: Investing in Inclusive Agriculture and Protecting Forests".

[4] &Green Fund aims to invest in countries (including Liberia) with significant tropical forests under threat from agricultural expansion and where the largest opportunities for transformational change exist. Recently, it received funding approval from GCF.

[1] The Development of small-scale ecotourism enterprises will not only expand the market for sustainable produce but will also broaden the landscape of alternative livelihoods available to vulnerable communities.

[1] Grow2. ND. Agriculture Extension and Advisory in Liberia.

[2] 2017 Global Findex

[3] CBL

[4] Liberia Sustainable Tourism Plan 2019.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

While the project will be executed by the EPA under the National Implementation Modality (NIM), the Government of Liberia has requested additional support — particularly relating to international procurement of goods and services which has been identified as a challenge on previous projects. Given the size and complexity of the project, substantial procurement needs are envisaged, in addition to the need for technical support in areas such as private sector engagement and financing. In view of this, the PPG phase will undertake detailed assessments of potential gaps in capacity that may impede timely and effective implementation of the project, and potential providers of the support, in line with the GEF Policy, and in consultation with the GEF Secretariat.

Core Indicators

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

META INFORMATION – LDCF

LDCF **true**	SCCF-B (Window B) on technology transfer **false**	SCCF-A (Window-A) on climate Change adaptation **false**

Is this project LDCF SCCF challenge program? **false**
This Project involves at least one small island developing State(SIDS). **false**
This Project involves at least one fragile and conflict affected state. **true**
This Project will provide direct adaptation benefits to the private sector. **true**
This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). **false**
This project will collaborate with activities begin supported by other adaptation funds. If yes, please select below

Green Climate Fund	Adaptation Fund	Pilot Program for Climate Resilience (PPCR)
true	**false**	**false**

This Project has an urban focus.

false

This project will directly engage local communities in project design and implementation

true

This project will support South-South knowledge exchange

true

This Project covers the following sector(s)[the total should be 100%]: *

Agriculture	45.00%
Nature-based management	25.00%
Climate information services	0.00%
Coastal zone management	0.00%
Water resources management	0.00%
Disaster risk management	0.00%
Other infrastructure	0.00%
Tourism	10.00%
Health	0.00%
Other (Please specify comments) Private Sector Engagement (20%) Fisheries (10%)	20.00%
Total	100.00%

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise	Change in mean temperature	Increased climatic variability	Natural hazards
false	**true**	**true**	**true**

Land degradation	Coastal and/or Coral reef degradation	Groundwater quality/quantity
true	**false**	**true**

CORE INDICATORS – LDCF

	Total	Male	Female	% for Women
CORE INDICATOR 1 Total number of direct beneficiaries	99,460	43,400.00	56,060.00	56.36%
CORE INDICATOR 2 (a) Area of land managed for climate resilience (ha) (b) Coastal and marine area managed for climate resilience (ha)	3,640.00 0.00			
CORE INDICATOR 3 Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation	3.00			
CORE INDICATOR 4 Number of people trained or with awareness raised	81,800	36,800.00	45,000.00	55.01%
CORE INDICATOR 5 Number of private sector enterprises engaged in climate change adaptation and resilience action	30.00			

Risks to Project Preparation and Implementation

Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the project preparation process will undertake to address these (e.g. what alternatives may be considered during project preparation- such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the "Project description" section above). The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: High, Substantial, Moderate, Low.

Risk Categories	Rating	Comments
Climate	Moderate	Extreme climate events such as floods may impact on-the-ground implementation of NbS. The project activities will consider the expected timing of rain seasonality, planning community consultations and training workshops outside of the rainy season where possible, and starting active ecosystem restoration at the onset of the rain season to maximize growth potential and allow plants to establish root systems before heavy rains start, and other physical interventions outside the rain season to reduce flood risk.
Environment and Social	Moderate	On-the-ground project interventions will focus on NbS and climate smart agricultural measures that will have a positive impact on the environment. However, some E&S risks have been identified, particularly related to land tenure and economic displacement with regard to shifting away from livelihood practices that degrade ecosystems, or exclusion from rehabilitation sites. A risk mitigation plan for matters related to tenure will be developed in consultation with relevant stakeholders including communities, following extensive screening to determine the extent of the issue. From an environmental perspective, restoration efforts will ensure that only indigenous and non-

		invasive species are used. To this end, the project will engage with local experts to identify a list of suitable species.
Political and Governance	Moderate	There is strong political support for the project, with the EPA taking strong ownership of interventions. While capacity constraints are currently impacting land use management, the project will directly address governance risks by building capacity and strengthening policy alignment. Cross-sectoral coordination posses additional risk to the governance of the project (which is adopting a systems-based approach), with competing mandates potentially impacting the adoption of an inclusive and cross-cutting solution. This risk will be mitigated through active engagement of the EPA's project management team in coordinating all aspects of the project design and implementation.
Macro-economic	Low	There is an ongoing risk to global markets related to the war in Ukraine, which is influencing costs and disrupting global supply chains. Moreover, threats of a global economic recession predicted by the World Bank may impact exchange rates as well as affecting global demand for high-value commodities and ecotourism.
Strategies and Policies	Low	Liberia has developed several core policies and plans to drive sustainable development in the country with which the proposed project is aligned.
Technical design of project or program	Moderate	Limited availability of up-to-date data and information (particularly at the local level) in Liberia may hinder project design. In the absence of locally-relevant data, project activities may not adequately meet

		the needs of beneficiary communities. Inadequate infrastructure may hinder physical access to rural areas, impacting the effectiveness of outreach and extension services, as well as hindering access to ecotourism enterprises. Moreover, immigration challenges may further restrict the development of sustainable ecotourism without intervention to improve VISA accessibility and processing. The complexity of multi-stakeholder engagements (see below) and the involvement of the private sector may hinder the technical design of innovative financial mechanisms under Outcome 3, particularly in identifying suitable partners, managing expectations and outlining co-finance commitment needs.
Institutional capacity for implementation and sustainability	Moderate	The overall risk rating for EPA, which will serve as Implementing Partner, is Moderate in all material respects for its financial management capacity. The implementation of recommendations made to improve institutional capacity have been tracked with further UNDP support to improve in critical areas including financial management and programme management through capacity building.
Fiduciary: Financial Management and Procurement	Moderate	To mitigate against the risk, the project will be implemented under the Support-to-NIM modality, with UNDP providing close support throughout implementation, particularly with regard to procurement of international services.
Stakeholder Engagement	Moderate	Risks may present if communities are not adequately engaged in the design of the project, or feel that benefits are

		not suitably distributed, which could impact the sustainability of interventions. This will be mitigated by adopting a collaborative governance approach underpinned by detailed, multistakeholder engagement. However, the complexity in multi-stakeholder engagement may slow the development and implementation processes - particularly in remote areas where road infrastructure and access are degraded. Further engagement risks may arise from restricted access to communities, particularly during the rainy season when roads may become flooded or damaged.
Other		
Financial Risks for NGI projects		
Overall Risk Rating	Moderate	The overall risk rating is moderate. No substantial or high risks have been identified, and mitigation strategies can be presented to manage all identified risks. The project will continue to monitor risks throughout the project development and implementation phases, and will adopt an adaptive management approach to mitigate against any additional risks that may arise.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

This LDCF project has been designed to promote a systems-based approach to the management of agroecological systems to create climate resilience, with due consideration of aligning with the climate change programming strategies of GEF-8, alongside national priorities. Specific areas of alignment are outlined below:

GEF-8 LDCF

The proposed project has been designed to focus on two of the four themes of interest for LDCF under GEF-8, namely Theme 1: Agriculture, Food Security, and Health; and Theme 3: Nature-Based Solutions. This multi-disciplinary approach was adopted in recognition of the interdependency between human well-being and a healthy environment, particularly in rural areas of Liberia where people's livelihoods are deeply reliant on climate-sensitive natural resources. The project is also aligned with three Priority Areas and related entry points for the LDCF under GEF-8, namely: i) Priority Area 1: Scaling up finance for adaptation — addressed through Component 3; ii) Priority Area 2: Strengthening Innovation and Private Sector Engagement — addressed through Component 2 and 3, focusing on the entry points of enabling the conditions for private sector action and accelerating micro, small, and medium enterprises; and Priority Area 3: Fostering Partnership for Inclusion and Whole-of-Society Approach — addressed through the systems-based approach that considers strategic engagement and contributions of key actors and stakeholders, including civil society[1][10], women's groups and the youth. Finally, the project adopts two of the three levers of transformation identified for LDCF. Specifically, Component 1 works to strengthened governance for adaptation, while components 1 and 2 both contribute to knowledge exchange and collaboration.

National Priorities

The project is nationally driven and has been designed to directly address several key national priorities as identified in various policies and plans related to environmental degradation, climate change and sustainable development. Although Liberia experiences extensive development challenges, considerable progress has been made by the Government of Liberia (GoL) to address these challenges, with several core policies and plans in place to drive sustainable development in the country with which the proposed project is aligned. In particular, the country's core development plans are captured in the Pro-Poor Agenda for Prosperity and Development (PAPD)[2][11] released in 2018. The PAPD identifies four pathways towards Liberia's Vision 2030 goals, namely: i) Power to the People — To empower Liberians with the tools to gain control of their lives through more equitable provision of opportunities in education, health, youth development, and social protection; ii) The Economy and Jobs — Economic stability and job creation through effective resource mobilization and prudent management of economic inclusion; iii) Sustaining the Peace — Promoting a cohesive society for sustainable development; and iv) Governance and Transparency — An inclusive and accountable public sector for shared prosperity and sustainable development. The proposed project particularly targets the first two pillars, building livelihoods and creating sustainable opportunities for community empowerment and job creation.

The project also aligns strongly with the National Policy and Response Strategy on Climate Change (NPRSCC, 2018)[3][12] – which was introduced to help Liberia cope with climate change impacts through mitigation, adaptation and disaster risk reduction measures – and the National Adaptation Plan (NAP)[4][13]. The NPRSCC aims to fulfil Liberia's commitment towards SDGs, especially 13, 14 and 15, which deals with fighting climate change and promoting sustainability. The NAP process is a key milestone for Liberia to deal with its vulnerability and resilience to climate change. It provides an overall framework to guide the country

in planning, coordinating, and implementing its NAP process. Other key policies and plans considered in the design of the project include:

i) Nationally Determined Contribution (NDC)[5][14] – The project will contribute to targets in the Agriculture, Forestry and Fisheries sectors, including adaptation targets for resilient agriculture, alternative livelihoods to reduce pressure on forest resources and marine fisheries, and climate-smart technologies to promote postharvest and value addition practices as well as strengthening markets for sustainable produce.

ii) National Biodiversity Strategy and Action Plan (NBSAP, 2017)[6][15] – the project will contribute to Target 1,3 on the sustainable use of biodiversity resources, and Target 2.6 on the implementation of adaptation measures in vulnerable ecosystems.

iii) Liberia Land Degradation Neutrality Targets – the project will contribute towards the restoration of 1 million hectares of degraded landscapes, reducing soil erosion and improving tree cover and land productivity.

iv) National Policy for Disaster Risk Management (2012)[7][16] – The NbS under the project will provide co-benefits towards DRM, aligning with Policy Priority Area 4 on reducing risk and vulnerability, including through integrated natural resource management and diversified livelihoods.

v) National Environmental Policy (2002)[8][17] – the proposed project aligns with several priorities under the NEP, including the integration of environmental considerations in sectoral, structural, regional, and socioeconomic planning; sound management of the environment and natural resources; and the protection and maintenance of human habitats, the ecosystems, and ecological processes essential for the functions of the biosphere.

vi) Action Plan for Sustainable Tourism Development – The project will adopt actions identified in the action plan, focused on ecotourism and leveraging the potential of protected areas by combining biodiversity assets with other components of the tourism offer – urban and indigenous culture, history, heritage, beaches, and water sports.

vii) National Energy Policy for Liberia (2009) – The project will provide equipment to engage in value chain development that align with the energy policy strategy for rural and renewable energy development, including energy-efficient cookstoves, solar water pumps, and solar dryers.

viii) Food and Agriculture Policy and Strategy (2009) – The proposed project contributes to several policy areas, including Increased competitiveness and linkages to markets through growth in agricultural production, productivity, competitiveness, value addition, and diversification.

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[1] CSOs targeted for the project will include grass-roots organisation and special interest groups within the target communities to build strong local governance and support.

[2] Government of Liberia. 2018. Pro-poor Agenda for Prosperity and Development (PAPD): a five-year national development plan towards accelerated, inclusive, and sustainable development. https://faolex.fao.org/docs/pdf/lbr204464.pdf

[3] Government of Liberia. Environmental Protection Agency. 2018. National Policy and Response Strategy on Climate Change.

[4] https://unfccc.int/sites/default/files/resource/LIBERIA_%20NAP_%20FINAL_%20DOCUMENT.pdf

[5] https://unfccc.int/sites/default/files/NDC/2022-06/Liberia%27s%20Updated%20NDC_RL_FINAL%20%28002%29.pdf

[6] Convention on Biological Diversity. CBD National Strategy and Action Plan – Liberia. Available at: https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf

[7] Government of Liberia. 2012. Disaster Management Policy. Available at: https://www.climate-laws.org/geographies/liberia/policies/national-disaster-management-policy

[8] https://faolex.fao.org/docs/pdf/lbr175141.pdf

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

Stakeholder engagement summary [Please refer to Annex G: stakeholder Engagement report inside the PIF document (word) uploaded to the Roadmap section.; all revisions are made in magenta]

The design of the project was informed and guided by close engagements with key stakeholders throughout the development process. This approach used three primary channels of engagement, namely two engagement workshops, weekly coordination calls and a questionnaire distributed to stakeholder. These followed internal Government-UNDP meetings that, prior to the design of the PIF, identified and agreed on the sectoral focus of the project. Specifically, UNDP and EPA at the country level had a meeting on 23 March to agree on the project sectoral focus as well as a road-map for PIF development, including timelines. Following these basic engagements to frame the project direction and approach, stakeholder engagements were held to inform project design as follows (see also Annex G of the PIF).

Initial stakeholder workshop – 30 June 2023 using hybrid format: First, a broad stakeholder meeting was hosted by the Environmental Protection Agency of Liberia (EPA) on 30 June 2023 at their offices while international experts joined remotely. The purpose of the meeting was to discuss the initial design considerations of the project, and getting stakeholder inputs into the priorities, approach and coordination aspects of project design. The workshop was attended by representatives of the following stakeholder groups: the Office of the GEF OFP and project proponent, who is also the GCF NDA, the EPA; representatives of Government sectoral ministries key to the project (Ministry of Agriculture, Ministry of Information Cultural Affairs and Tourism, and Ministry of Commerce and Industry); representatives of sectoral associations and authorities (the Liberia National Tourism Association, National Fisheries Authority, and National Rice Federation of Liberia); Civil Society representation from National Cassava Sector Coordinating Committee Liberia; Private sector representation from Green Gold Liberia; UNDP Country Office and Regional advisors; and international project development specialists. The meeting agreed on the focus of the project, confirmed its relevance need in Liberia as well as its contribution to key national ideals such as the Pro-Poor Agenda for Prosperity and Development (PAPD) and the NDC. The stakeholders also indicated their willingness to support in the whole process of project development and implementation, while they stressed the need for national ownership and leadership of the EPA in the process. They also indicated their willingness to provide relevant information and documents to inform further design.

Questionnaire: June-July 2023 Following this meeting, a questionnaire was distributed to all stakeholders to provide their inputs, and additional sources of data to inform the design of the project.

Second Stakeholder Workshop held on 14th July. This focussed meeting was attended by the EPA, the National Tourism Association and UNDP. The objective of the meeting was to discuss the initial design of the project as well as the institutional coordination mechanisms. At the meeting, it was agreed that project would follow a National Implementation Modality (NIM). It also endorsed the initial project Theory of Change and that EPA will be the host and lead implementing partner, with the Ministry of Agriculture, Ministry of Commerce and Industry and Ministry of Cultural Affairs and Tourism providing support as potential Responsible Parties. Several other recommendations were also made including that the Ministry of Finance and Development Planning (MoFDP) should be part of the planning processes/driving of the project; that there should be alignment between development agenda and vulnerability to climate change and reducing that vulnerability should be integrated into the narratives of the different development agendas.

Weekly meetings: In addition to these workshops, stakeholder engagement continued throughout the project design process through weekly coordination and technical input and validation meetings with participation from the EPA, other government entities and private sector entities/organisations. These meetings were used to present and discuss all design considerations of the project with stakeholders on an ongoing basis throughout the development of the PIF, ensuring that specific aspects were validated and endorsed. A final meeting before PIF submission was held with the EPA to endorse it.

It is planned that during the PPG, more detailed stakeholder engagements will be held with national and sub-national stakeholders (including target communities, districts and counties), covering at all these levels: Government in multiple sectors, civil society organizations including grassroots organizations, private sector entities covering large and small and medium enterprises, including the financial services sector (banks, microfinance institutions etc); and international development partners.

The pre-SESP safeguard screening also highlighted the need for detailed engagements with target communities as part of the ESIA and gender assessments, as well an indigenous peoples assessment and accompanying FPIC process. These will culminate in a stakeholder engagement strategy and plan for the implementation of the project.

Further detailed stakeholder engagement is planned for the next phase of project development. In addition to continuing workshops at the national level, stakeholder engagements during the PPG phase will be expanded to include consultation with county/district representatives.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
UNDP	LDCF	Liberia	Climate Change	LDCF Country allocation	Grant	8,932,420.00	848,580.00	9,781,000.00
Total GEF Resources ($)						**8,932,420.00**	**848,580.00**	**9,781,000.00**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount ($)

200000

PPG Agency Fee ($)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG($)	Agency Fee($)	Total PPG Funding($)
UNDP	LDCF	Liberia	Climate Change	LDCF Country allocation	Grant	200,000.00	19,000.00	219,000.00
Total PPG Amount ($)						**200,000.00**	**19,000.00**	**219,000.00**

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
Total GEF Resources					**0.00**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
CCA-1-1	LDCF	2,679,726.00	31181432
CCA-1-2	LDCF	2,679,726.00	31181432
CCA-1-3	LDCF	3,572,968.00	41575242
Total Project Cost		**8,932,420.00**	**103,938,106.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Ministry of Agriculture Rural Economic Transformation Project (RETP)	Public Investment	Investment mobilized	54000000
Recipient Country Government	National Fisheries & Aquaculture Authority (NFAA)	Public Investment	Investment mobilized	21000000
Recipient Country Government	Government of Liberia Accelerated Community Development Programme (ACDP)	Public Investment	Investment mobilized	20000000
Others	Green Climate Fund Monrovia Metropolitan Coastal Resilient Project (MMCRP)	Public Investment	Investment mobilized	2938106
Others	Embassy of Sweden Blue Ocean Programme (BOP)	Public Investment	Investment mobilized	6000000
Total Co-financing				**103,938,106.00**

Describe how any "Investment Mobilized" was identified

The public investment mobilized as co-finance to the proposed project will contribute to addressing sector-specific needs, as well as baseline development needs, across the agroecological and coastal landscape of Liberia. Relevant investments are outlined below, with the systems-based approach under the proposed project envisioned to link investments from source-to-sea.

- RETP – Mobilized investment will improve productivity and market access for smallholder farmers and agri-enterprises for selected food value chains through agribusiness development, productive alliances, and investments in road infrastructure. The project will also incorporate the use of climate-resilient seed varieties; investments in climate-resilient infrastructure and soil conservation; improved water management; and efficient methods and technologies to manage pests and diseases.

- NFAA – Mobilised investment through component 2 of the NFAA will contribute to holistic and integrated approach in the fisheries sector by: i) improving governance and management reforms; ii) driving value addition for fisheries products; and iii) supporting marine sustainable fisheries production.

- ACDP – Investments under the ACDP will support poverty reduction and accelerate socio-economic development among the most vulnerable rural communities. This includes investments in agriculture and food security, infrastructure and roads, affordable clean energy and access to water.

- MMCRP – Investments in Monrovia will build the resilience of the climate-sensitive fishery industry, as well as mitigating the ongoing degradation of mangrove ecosystems in the Mesurado Wetlands and supporting the implementation of Integrated Coastal Zone Management (ICZM) across Liberia.
- BOP – Investments will contribute to the sustainable management of Liberia's coastal and marine ecosystems through conservation and restoration.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Pradeep Kurukulasuriya	10/16/2023			pradeep.kurukulasuriya@undp.org
Project Coordinator	Muyeye Chambwera	10/16/2023			muyeye.chambwera@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Prof. Wilson K. Tarpeh	Executive Director & CEO	Environmental Protection Agency	11/23/2023

ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
PIMS 9672 LDCF Liberia -SAETRA - Pre SESP_ Annex D -15 September 2023_V4_Clean (1)

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation

No Contribution 0	Principal Objective 2	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing models	Strengthen institutional capacity and decision-making		
	Convene multi-stakeholder alliances		
	Demonstrate innovative approaches		
	Deploy innovative financial instruments		
Stakeholders	Private Sector	SMEs	
		Individuals/Entrepreneurs	
	Beneficiaries		
	Local Communities		
	Civil Society	Community Based Organization	
		Non-Governmental Organization	
		Academia	
	Type of Engagement	Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	Communications	Awareness Raising	
		Behavior Change	
Capacity, Knowledge and Research	Enabling Activities		
	Capacity Development		
	Knowledge Generation and Exchange		
	Learning	Theory of Change	
		Adaptive Management	
		Indicators to Measure Change	
	Innovation		
	Knowledge and Learning	Knowledge Management	
		Innovation	
		Capacity Development	
		Learning	
	Stakeholder Engagement Plan		
Gender Equality	Gender Mainstreaming	Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	Gender results areas	Participation and leadership	
		Access to benefits and services	
		Capacity development	
		Awareness raising	
		Knowledge generation	
Focal Areas/Theme	Forests	Forest and Landscape Restoration	
			Restoration and Rehabilitation of Degraded Lands

	Land Degradation	Sustainable Land Management	Ecosystem Approach
			Integrated and Cross-sectoral approach
			Community-Based NRM
			Sustainable Livelihoods
			Income Generating Activities
			Sustainable Agriculture
			Sustainable Forest/Woodland Management
			Improved Soil and Water Management Techniques
		Food Security	
	Climate Change	Climate Change Adaptation	Climate Finance
			Least Developed Countries
			Disaster Risk Management
			Sea-level rise
			Climate Resilience
			Ecosystem-based Adaptation
			Adaptation Tech Transfer
			Private Sector
			Innovation
			Livelihoods
		Climate Change Mitigation	Agriculture, Forestry, and other Land Use
		United Nations Framework on Climate Change	Nationally Determined Contribution