



I. PROJECT TITLE: ENERGY & ENVIRONMENT PROGRAMME

Project Number: 00126149

Implementing Partner: Environmental Protection Agency

Start Date: March 2020

End Date: December 2024

PAC Meeting date: March 2020

Brief Description

Liberia has rich and diverse natural resources and is a global biodiversity hotspot¹. Linkages between socioeconomic and environmental issues in the context of sustainable development in Liberia and in the sub-region, especially for women and marginalized groups, are critical. Climate change, deforestation and threats to protected areas are likely to adversely affect various sectors including agriculture, fisheries, forestry, hydropower generation and health. Rising sea levels have accelerated coastal erosion, damaging infrastructures and impacting livelihoods of coastal communities. Low-lying areas are frequently flooded due to inadequate drainage systems and poor waste management. Early warning systems in Liberia remain nascent. It is estimated that a one-meter rise in sea-level will place 230,000 people at risk and cause the loss of 2,150 km² of land valued at US\$250 million. Increased rainfall and flooding will lead to a greater vulnerability to disease such as malaria, cholera and diarrheal². Planning and resource allocation are not evidence-based due to limited data and knowledge of current climate risks and anticipated climate change impacts.

Liberia ranks amongst the lowest countries in the world in terms of electrification and energy access. 82.3 percent of the total population and 96.9 percent of the rural population having no access to electricity (HIES, 2016). Charcoal and firewood are the main sources of energy for cooking and heating for an estimated 95 percent of the population. Only 2 percent of the population have access to clean fuels and technologies for Cooking³. With a humid, tropical climate, an average temperature of 27 Celsius (81 Fahrenheit) and a monthly solar radiation on horizontal surface ranging between 4 KWh/m²/day during the rainy season and 6 KWh/m²/day during the dry season, Liberia's solar energy potential is significant. The country has the potential to generate 1,400 to 1,500 KWh/p of solar energy⁴.

UNDP, through its the Energy and Environment (E&E) Programme, proposes to tackle these challenges within a broader development context that would facilitate synergy amongst the four thematic/focus areas of UNDP's work: 1. Livelihood Diversification, Disaster Resilience and Climate Change; 2. Biodiversity Conservation Ecotourism and sustainable Land Management; 3. Renewable Energy Access and 4. Waste Management. In line with the CPD (2020-2024), the E&E Programme will provide support to promote diversified and inclusive economic growth along a low carbon and climate resilient pathway that is underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters in Liberia.

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¹ National Environmental Policy, Republic of Liberia (2011).

² <https://unfccc.int/resource/docs/natc/lbrnc1.pdf>

³ World Bank 2014

⁴ State of the Environment Report (SoER) of Liberia 2007-2018

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Contributing Outcome (UNDSCF/CPD) & PAPP:

UNSDCF (2020-2024) Outcome 2/ UNDP

OUTCOME 3: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

Indicative Output(s) with gender marker²:

Output 1.1: Gen 2

Output 1.2: Gen 2

Output 1.3: Gen 3

Output 2.1: Gen 1

Output 3.1: Gen 2

Output 4.1: Gen 2

Output 4.2: Gen 2

Total resources required:	\$58,226,800.00	
Total resources allocated:		
	UNDP TRAC:	\$3,760,000
	Donor:	\$42,939,800
	Government:	2,500,000
	In-Kind:	Materials, office space, etc.
Unfunded:	\$9,027,000	

Government	UNDP	Implementing Partner
Print Name:	Print Name:	Print Name:
Date:	Date:	Date:
Signature:	Signature:	Signature:

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I. DEVELOPMENT CHALLENGE

Liberia is confronted with a plethora of environmental challenges and issues that tend to seriously undermine and impede its developmental processes. Some of the key drivers of Liberia's economic growth and development include agriculture, fisheries, mining and forestry, energy, land, water, as well as the untapped sector of ecotourism. Disaster, climate change, environmental pollution (e.g. poor waste management system), as well as poor organization, allocation and management of resources impede the productivity of these sectors and by extension challenge the development of the country. These challenges, among others, have created a major stumbling block to the Government in achieving its national development agenda whose goal is improve quality of life by bring people out of poverty. Given the multitude of challenges and the complexities involved in resolving them, UNDP through its Energy and Environment Programme will examine four key sectors: Disaster Resilience and Climate Change, Biodiversity Conservation, Ecotourism and Land Management, Renewable Energy Access and Waste Management. These sectors will be the basis for which programme interventions will be designed and its support to the government in climate change and natural disaster will be delivered. The programme will also look to contribute to addressing some of the national development challenges endure by those at the lower socioeconomic spectrum of society as they are often the most affected due to negative effectiveness of climate change.

Liberia is prone to disasters and highly susceptible to the effects of climate change. Climate change is considered as one of the most significant long-term threats to Liberia's sustainable and inclusive growth. It is expected to affect economic and livelihood activities for many people in Liberia, most notably those in the agricultural sector. It is predicted under the climate change scenario, decreasing annual rainfall and increasing erratic rainfall patterns will adversely affect rural livelihood structures throughout Africa, including Liberia.

Using Regional Circulation Models, the average increase in rainfall from 2010–2050 will be between 2.0% and 5.0%. Mean air temperature is unanimously projected to increase by 0.4°C to 1.3°C. Simulations of the water balance show that the St. Paul River Basin runoff is expected to diminish by 0.7%–25% in the 2020s which will reduce the production of electricity from the Mount Coffee hydropower plant located in the basin. The supply of raw water to the city of Monrovia also could be seriously affected. Climate Change impacts in Liberia is leading to sea level rise, making Monrovia and other coastal cities vulnerable to flooding and erosions. It has been estimated that a one-meter rise in sea level will place 230,000 people at risk and cause the loss of 2,150 km² of land, including the infrastructure and much of Monrovia, valued at US\$250 million. Increased rainfall and flooding will lead to a greater vulnerability to epidemics of malaria, cholera and diarrheal diseases⁵. Disasters affect many communities across the country, affecting thousands of people and destroying several thousand dollars' worth of property each year. The human and economic loss caused by disasters is enormous, as they interrupt and threaten the lives and livelihood of people, displacing the population and occasioning humanitarian crisis. For example, between July and August 2019, the National Disaster Management Agency (NDMA) recorded a total of 25,000 persons that were affected by disasters (mainly floods) across four counties (Montserrado, Margibi, Grand Cape Mount and Lofa). Some of the hazards that frequently cause disasters around the country include windstorm, flood, coastal erosion, household fire, and epidemics. In addition, the disaster management institutions are constrained by low technical and logistical supports, including financial supports (e.g. low budgetary allocation). Such situations immensely imperil the lives, safety and health of the population by weakening disaster preparedness, response and management.

Disasters and climate change impact are interwoven such that disasters tend to be worsened by the effects of climate change. Liberia is highly vulnerable to climate change amidst its high reliance on climate sensitive activities (e.g. agriculture, fisheries, mining, forestry, etc.), and its impact is felt in many sectors. Agriculture, fisheries, the ecosystem, biodiversity, forestry, energy, health, water and sanitation, coastal zones are key sectors already being affected by climate change events such as extreme weather (heavy

⁵ <https://unfccc.int/sites/default/files/resource/lbrnc1.pdf>

and erratic rainfalls), increased temperature and sea level rise. The effects of climate change on different sectors in the country vary. In the agriculture sector, increased temperature and increased frequency of intense precipitation affect agricultural productivity through low yields, crop loss, increased incidence of pests and diseases; increased heat stress on coffee and cocoa crops, accelerated erosion of topsoil and water logging of rubber plants. Similarly, climate change impacts the water resources by degrading water quality for commercial and domestic use, insufficient water level for agriculture, fishing and energy generation like hydroelectricity. On the other hand, sea level rise, increased temperatures and increased frequency of intense precipitation cause coastal flooding, beach erosion, salinization of land and rivers, and damages wetland and mangrove swamp systems. Coastal communities in the nine coastal counties of Liberia is seriously threatened by the effects of climate change. Significant portions of New Kru Town and West Point in Monrovia and Greenville in Sinoe County, for example, have been eroded by the encroaching sea. These events have led to displacement and loss of livelihood and property. Yet the continuous advancement of the sea towards the land poses a significant threat to the lives, livelihood, health and property of the inhabitants. The fisheries and forestry sectors are equally affected by climate change events. The fisheries sector faces risks from climate change and climate variability as rising sea surface temperatures are reducing biodiversity and overall fish stocks as a result of death, diminished reproductive cycles and migration to cooler waters. Increased duration and intensity of rainfall lead to slower tree growth and, in more severe cases, rotting because of waterlogged tree roots while increased runoff due to heavy rain, combined with root loss may cause greater siltation of surrounding reservoirs and rivers; thus, contribution to negative effects on the forestry sector⁶.

Liberia, with a total forest area of approximately 4.35 million hectares, holds more than half of the remaining forests within the West African Upper Guinean Forest Ecosystem. The forest of Liberia provides a wide range of benefits—both locally and internationally—ranging from provision of habitats for globally significant biodiversity, revenue generation from timbers and non-timber forest products, energy, and food to the provision of socioeconomic benefits to local inhabitants. through the harvesting and sale of non-timber forest products (NTFPs) and the provision of ecological services including carbon sequestration. *However, these forests and associated ecosystems/habitats including mangroves along the Liberia's coastline continue to face enormous anthropogenic and natural threats including deforestation and forest landscape degradation, among others.* Increasing atmospheric greenhouse gas concentrations pose a major threat to the coastal biodiversity and habitats. The impacts of climate change are therefore likely to influence these habitats and biodiversity including mangroves. Liberia's 580 km long coastline, running from Cape Mount to Cape Palmas, is home to exceptional biodiversity and sensitive ecosystems including mangroves, sea grass, wetlands, estuaries, coastal lagoons, and sandy beaches. This coastline is recognized as critically bio-diverse requiring significant conservation investments to safeguard biodiversity, critical habitats and provide sustainable livelihoods to support approximately 58% of the country's population dwelling in local communities along the coast. Strengthening Liberia's biodiversity using renewable energy is vital to sustaining the environment.

Liberia's energy sector is marred with underperformance and is operating far below its optimum capacity. Poor investment in energy infrastructure; high-risk business environment; bureaucratic inefficiencies; poor regulatory framework; weak and underdeveloped enabling environment; weak public utilities; delayed expansion of transmission and distribution network; and a nascent off-grid sector are some of the major challenges facing the sector and seriously undermining its development. The unmet energy need for the country is huge, with just 12% of the population having access to electricity. Access to electricity is disproportionately low in the rural areas with 3% of the population having access compared to 16% in the urban areas. The Government of Liberia (GoL) has identified renewable energy as alternative energy sources to increase access to electricity in the country, particularly rural communities. GoL through the Rural Renewable Energy Agency is making significant efforts to provide mini-grid systems to rural communities. For example, the Liberia Renewable Energy Access Project, with support from the World Bank, will seek to construct 2.5 MW Hydropower plant. Other projects with funding from EU, USAID and the African Development Bank are seeking to increase energy access in the coming years. There is limited participation of the private sector in the Energy Sector of Liberia, and currently no standards and labeling to promote energy efficiency management practices in Liberia. For renewable energy to contribute

⁶ USAID 2017: Fact Sheet, Climate Change Risk Profile, Liberia

to sustainable development in Liberia, the private sector needs to play a significant role. Adequate sources of energy will also play a major role in how waste management is handled in a sustainable manner by ensuring that solid waste is recycled efficiently. Without access to energy, the sector will struggle in ensuring that waste is managed sustainably.

Liberia's municipalities particularly, Monrovia and Paynesville, face significant challenges with solid waste management. Despite the increasing urban population and the resultant impact on waste generation in these municipalities, there is currently no waste resource management programme implemented by any city authorities in Liberia. The increasing indiscriminate disposal of waste materials poses serious risk to the environment and human health, with the greatest adverse impact felt by the most vulnerable and low-income earners. The draft National Solid Waste Management Policy provides that solid waste generation as of 2011 was estimated at 0.65kg per person per day, this is likely to increase as urban population increases. Adequate systems are not in place in most parts of the country to improve waste management services. The initial Liberia National Communication to UNFCCC estimated waste generation for the Monrovia municipality to be about 724 metric tons and is projected to increase by 2.5% every year—producing about 321,000 tons/day by close of year in 2020⁷. There is a need for a new way to think about the issue of waste in Liberia and not just from a management standpoint but from the perspective of re-use at multiple levels. Through consultations made leading to the development of the Energy and Environment Programme Document, it was evident that city authorities and other waste management service providers such as the Community Based Enterprises (CBEs) and that of the Small and Medium Enterprises (SMEs) are only engaged in waste collection and not in the management and recovery of waste as a resource. The policy incoherence, poor institutional coordination, bureaucratic tendencies, perceived corruption and lack of clarity of the roles and responsibilities of various government institutions in the entire waste value chain are critical barriers to private sector participation in waste management in Liberia. As climate change experts and practitioners are increasingly searching for new and innovative approaches to increase the climate ambition to enable the achievement of the Paris Agreement, circular economy especially in the waste sector has the potential to shift the world economy to a 2⁰ C or even 1.5⁰ C pathway since 67% of global greenhouse gas emissions are related to material management. Liberia's Nationally Determined Contribution (NDC) recognizes integrated waste management as one of the actions to be implemented to reduce its carbon emissions by 2030. Despite some efforts in the waste sector, there are still serious challenges for the country in dealing with waste, particularly in the urban settlements. Huge piles of uncollected garbage at disposal sites and the littering of the streets and communities in Monrovia and other cities in the country are a commonplace. Waste generated are inadequately disposed of, which encourages open dumping and burning of waste. As indicated, there is an apparent weak waste management system; inadequate institutional capacities (both technical and logistical); inadequate financial support; poor implementation of regulations; insufficient technology to ensure proper waste management; as well as knowledge gaps. These factors contribute significantly to the deplorable state of waste management in the country. Poor management of waste pose serious health hazards for the country and contributes significantly to environmental pollution and degradation. Studies have shown that the mismanagement of solid wastes tends to hinder any progress towards environmental sustainability. Recycling of waste is almost non-existent, except for a few local organizations and private individuals that carry out nominal interventions and/or experimentations of the recycling of plastic wastes on a very low scale.

There is a correlation between climate change and poverty. When natural disaster strikes, the poorest suffer the most and face the longest and hardest road to recovery. This is harder for women and girls who often benefit least from socio-economic schemes; and are restricted in what they can do because of cultural reasons. As such, they are the likeliest to bear the brunt of the effects of natural disaster and negative climate change. In Liberia, the poverty rate is 50.9% and given that females make up a higher percentage of the population, it is highly likely that more women and girls in Liberia are poor⁸. Sea erosions due to rising sea-levels as well as increased flooding of lowlands and agri-lands affect women greater as since more women are either unemployed or have vulnerable employment. Given that many

⁷ <https://unfccc.int/sites/default/files/resource/lbrncl.pdf>

⁸ Liberia HIES 2017

women, both rural and urban centers, serve as caregivers and contribute to the economic sustainability of the household, they are stretched to the maximum when disaster occurs, and this can have further health implications. In addition, women are at the highest risk of sexual and domestic violence, excluded from decision-making processes and have limited access to hygiene services after a natural disaster occurs. Disaster relief and recovery efforts often discount female healthcare as priority with silent consequences. Girls are more likely to suspend schooling to assist their mothers in the clean-up and recovery process. These factors further affect women's ability to participate in decision-making about climate change solutions.

Liberia has a youthful population. Approximately 44.5% of the population is below the age of 15⁹, while 19.9% is between the ages 15 and 24¹⁰. Youth tend to disproportionately receive limited attention and services from the government and other service providers, despite being disadvantaged in many socio-economic spheres¹¹. Majority of the youth have fewer skills, work experience, financial resources, physical assets, and mostly find themselves in poverty-affected families. They mainly work in the informal or vulnerable employment sector; are very likely to drop out of school (60% have not completed primary education); with female youth being at greater risk of unintended pregnancy (estimated one-third of young women give birth before the age of 18); while youth living with disabilities face unique financial and physical barriers to accessing education and other services, as well as experience social exclusion caused by systematic discrimination.

In Liberia, like in most part of the world, youth tend to be more susceptible to the impacts of climate change and other environmental problems. In an event of disasters and other environmental problems, youth are one of the segments of the population that are seriously affected. Extreme weather events such as changing rainfall pattern resulting into flood or drought, for instance, compromise water and sanitation facilities; damage or impair health and educational facilities, cause crop failure and global rising food prices, destroy livelihoods, etc. These often (if not always) result into lack of access to essential services (e.g. education, health, safe drinking water), food insecurity, and nutritional deprivation, etc., which disproportionately impact youths (particularly children)¹².

Persons with disabilities (PWD) are often left out of the discourse on climate change and natural disaster¹³. This has devastating consequences on how they prepare for, respond to, and recover from natural disaster and other environmental shocks. PWDs are the least like to access information, resources, and services that would allow them to effectively respond to environmental changes. Disabled youth—most especially those below the poverty belt—are worst off since they already have limited access to education, sources of employment, proper healthcare and are excluded from decision-making processes. PWDs are the most at risk of danger and death due to disaster because of the impaired or reduced mobility. Proving opportunities for PWDs to contribute to finding sustainable solutions to climate change is vital given that they face the most danger from the effects of natural disasters. Given the plethora of challenges faced by Liberia on the effects of climate change and natural disaster as well as the loss of potential national revenue due to the untapped potential of ecotourism, the Energy and Environment programme will seek to strengthen resilience in key sectors, capacities and frameworks for sustainable management of water, land and waste. the programme will also seek to strengthen livelihoods, facilitating policy frameworks and capacity for innovation and investments in waste management, eco-tourism and renewable energy with the involvement of communities and private sector as key actors.

⁹ HIES 2016: Liberia Institute of Statistics and Geo-Information Services (LISGIS), Monrovia, Liberia

¹⁰ HIES 2016: Liberia Institute of Statistics and Geo-Information Services (LISGIS), Monrovia, Liberia

¹¹ USAID, 2019: USAID/Liberia Youth Assessment Situational Analysis Report, Monrovia, Liberia accessed February 10, 2020 from https://www.youthpower.org/sites/default/files/YouthPower/files/resources/Brief_LIBERIA_JUNE19th_ONLINE%20VERSION.pdf

¹² UNICEF: Environment and Climate Chang: Climate change and environment degradation undermine the rights of every child accessed February 10, 2020 from <https://www.unicef.org/environment-and-climate-change>

¹³ Statistics on Liberia's disabled population is almost non-existent. Nonetheless, UNICEF estimates that able 16% of the population has some form of disability.

II. STRATEGY

The Liberian environment is under immense threats from many natural and man-made factors (e.g. human activities) that have imposed enormous negative consequences for the lives, livelihood, safety and health of its populations. Climate change, disasters, environmental pollutions; encroachment and depletion of the rain forest and biodiversity; inadequate energy infrastructures and supplies; unsustainable environmental practices as well as their associated impacts have continued to negatively affect the lives and livelihood of the people and challenge the developmental process of the country. The situations are further exacerbated by the non-existence and limited enforcement of environmental policies; inadequate institutional, financial and technical capacities; and limited knowledge and skills in sustainable environmental practices. These situations significantly contribute to environmental degradation, maintaining and widening of the poverty and inequality gaps among the population and threatens the sustainable socioeconomic development of the country.

With the plethora of challenges, the Energy and Environment (E&E) programme seeks to support the Government's efforts in achieving diversified and inclusive economic growth through investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters. UNDP works to empower the population and build a resilient nation. It supports the government to develop and implement interventions aimed at improving the lives of the people, including women, youth and PWD. Through its Energy and Environment (E&E) Programme, UNDP will support the government through its relevant Ministries, Agencies and Commissions (MACs) to address environmental issues and mitigate their impacts to support the collective growth and development of the country.

The Energy and Environment (E&E) Programme proposes to tackle these challenges within a broader development context that would facilitate synergies amongst the following four thematic/focus areas: 1. *Livelihood Diversification, Disaster Resilience and Climate Change*; 2. *Biodiversity, Conservation Ecotourism and Land Management*; 3. *Renewable Energy Access*; and 4. *Waste Management*. In line with the CPD (2020-2024), the E&E Programme will provide support to *promote diversified, and inclusive economic growth along a low carbon and climate resilient pathway that is underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters in Liberia.*

The success of the E&E programme is dependent on the government and other stakeholders' willingness to (a) adopt and implement relevant laws, regulations and policies that boost the environmental sectors; (b) implement effective inter-agency coordination among the various energy and environment sectors; (c) make available resource (financial and technical) commitment to invest in disaster resilience, renewable energy, biodiversity, waste management, land management, and sustainable livelihood sources adequate for affected communities; and (d) the political willingness of GoL to create the enabling environment for the aforementioned to become successful.

The Programme is informed by sectoral policies, strategies and action plans, including the National Policy and Response Strategy on Climate Change – 2017, Liberia's National Biodiversity Strategy and Action Plan, National Disaster Management Policy, Liberian National Action Programme to Combat Desertification 2011-2018 – Strengthening Capacities for Sustainable Agriculture to Reverse the Trend of Land Degradation, Rural Energy Strategy and Master Plan for Liberia 2015/2030 and the National Gender Policy. The programme's five-year objective is to strengthen Liberia's capacity to manage its environment for sustainability (or for sustainable development) through improved resilience to climate change and disasters, biodiversity conservation, sustainable land and waste management; access to renewable energy and promotion of ecotourism.

Under *Livelihood Diversification, Resilience to Climate Change and Disaster* component of the Programme, priority intervention will include livelihoods diversification for improved Adaptation to Climate Change in 30 at-risk Communities, fully operationalizing the Emergency Operation Centers (EOC), housed at

the National Disaster Management Agency (NDMA), support effective disaster risk reduction and strengthening regional and county management committees through training and logistical support; conduct disaster risk assessments and vulnerability analysis to develop sub-national hazard and vulnerability maps and support for a gender responsive post-disaster recovery support to vulnerable populations, including emergency food and supplies for victims. Efforts would be made to support environmental studies programs at tertiary institutions, increased support for coastal and community-based adaptations; provide strategic support to the implementation, monitoring and reporting of Liberia's Nationally Determined Contributions (NDC). All of this will be done with the active participation and engagement of women, youth and PWDs. The importance of ensuring that key sub-set of the population are included is to ensure that everyone equally contribute to minimizing the effects of disaster to their livelihood and safety. As part of the resource mobilization strategy, UNDP shall explore options with Adaptation Fund Board and other bilateral development partners such as the EU, Norway, Japan etc. to develop a robust programme on building community resilience through early warning system, development of an integrated water resource management plans and diversifying rural livelihoods due to climate change risks. Through UNDP's Climate Promise, E&E will also work to mobilize resources to support the review and update of Liberia's NDC. UNDP will engage the public and private sectors towards strengthening their capacity to mobilize and absorb international climate finance.

The top priority under the **Biodiversity Conservation and Ecotourism** intervention will include protected area management mainly through reforestation, conservation and management of mangroves for improved livelihoods for people living in the proximity of protected areas. Priority interventions will also include supporting the preparation of a National Tourism Policy and the development of a model for public-private partnership that promotes ecotourism with broad participation of community-based organizations and forest host communities. As part of efforts to promote local ownership and leadership, a series of capacity-building initiatives will be undertaken. It has been globally observed that involving communities in the management of natural resources (e.g. forest, water bodies, wildlife etc.) is a successful approach to support government efforts to promote environmental conservation, especially in developing countries where local government agencies are not adequately equipped with the needed human and financial resources to effectively implement environmental policies. If communities are enabled to benefit economically from resource management and have stronger rights over those resources, they will have a strong incentive to actively participate in their preservation. In other words, this approach promotes conservation through the sustainable use of natural resources, enables communities to generate income that can be used for rural development, and promotes democracy and good governance in local institutions. Ensuring long-term ecosystem protection at the district to clan levels, the priority will be to establish and strengthen Gender Sensitive Clan/community Resource Management Areas (CREMAs) or 'Designated Forests' in off-reserve zones to give management authority over forest areas and natural resources used by the Clans and communities. Women and youth also play a major role in contributing to conservation and biodiversity. Empowering women, youth and PWDs to contribute to conserving the environment and participating in ecotourism will help to improve the lives of the population, while also protecting the environment in a sustainable manner.

The sustainable production of cocoa will play a pivotal role for sustainable development, including poverty reduction in Liberia. The use of production landscapes in Liberia for cocoa/rubber/Palm oil production will most likely intensify in the coming years. This could lead to significant forest loss. As part of efforts to promote environmental sustainability in the Cocoa/Rubber/Palm oil plantation Landscape, UNDP through the Energy and Environment Programme, will seek to explore partnerships with the private sector to establish a platform/dialogue space for promoting green commodities in Liberia. Liberia has great potential to grow its cocoa industry. A strengthened and inclusive Liberia Cocoa Platform will be an initiative aimed at enhancing public-private dialogue and joint action planning to support the scale up of sustainable production and skills development in the sector. The Platform will consist of long-term facilitated dialogues for stakeholders directly involved with the Liberia cocoa chain. The Platform will provide the opportunity to address main barriers for scaling up sustainable green commodities production through generating dialogue among producers, government and buyers on how to address root causes, such as land tenure issues, government policy and institutional capacity to improve national technical support systems, improved access to crop inputs, access to finance and markets. The UNDP Liberia Country Office will seek technical support from UNDP's Green Commodities Facility Programme to develop potential projects for funding.

Under **Renewable Energy**, the overarching aim of UNDP's E&E Programme is to promote Liberia's transition towards a low-carbon and clean energy society with emphasis on increasing private sector investment opportunities and increasing access to renewable energy for critical services and livelihood activities, mainly through decentralized renewable energy solutions such as off and mini-grids as well as strengthening the policy framework for improved access and use of renewable energy sources. Currently there is lack of effective financing models and mechanisms for providing efficient and sustainable financing for productive use of energy at the local levels. UNDP will seek to explore and collaborate with International Financial Institutions (IFIs) such as the African Development Bank and World Bank, the Private Sector, Ministry of Mines & Energy, Rural Renewable Energy Agency and others to implement Liberia's NDC actions in the Energy Sector particularly on promoting efficient and improved cook stoves. Efforts will be made to explore options to operationalize the implementation of the Article 6.2 of the Paris Agreement on Cooperative Approaches on the Internationally Transferred Mitigation Outcomes with potential countries such as Switzerland, Sweden and Norway. Building on the existing project on Solar for Health, UNDP will seek to build partnerships with local financial institutions such as Ecobank and other cooperate entities to use their Corporate Social Responsibility Funds to support scaled-up actions on the Solar for Health, Solar for Education, solar for agriculture, etc. The project will seek opportunity to collaborate with WaSH entities such as the National Water, Sanitation & Hygiene Commission to link access to renewable energy to WaSH services, for health and educational institutions.

As part of sustainability measures, Innovative Financial models such as revolving fund in collaboration with UNCDF and Results-based Financing models would be explored. UNDP, in collaboration with UNCDF, will explore other sources of funding such as the SDG Delivery Fund as a catalytic means to improve the energy consumption of households, businesses, and industries, among others in order to reduce GHG emissions and increase energy security through flexible financial mechanism to implement efficient energy management practices. This will include a financial mechanism to provide tailor-made loans as well as a mechanism to provide guarantees on energy savings. Strong consideration will be given to women-led enterprises, youth innovation projects, and PWDs to participate in this revolving fund scheme.

UNDP's capacity development programmes on energy will include policy development, coordination, and international negotiations. To accelerate private sector investment in Liberia energy, transition an active role from the Liberia government in designing and implementing policies in clean energy is fundamental. The underlying barriers that are the root causes of investment risks for renewable energy solutions in Liberia is weak or lack of regulatory support at the national level. The private sector needs transparent, long-term and clear policies and regulations. Government interventions in the form of policy de-risking measures and instruments can help reduce the risk for clean energy investments. Well-designed and robust policy de-risking instruments can provide the long-term stability, visibility and transparency that is critical to attract and sustainably scale-up private sector investment in Liberia Energy Industry. In connection to this, the Energy and Environment Portfolio will seek to collaborate with the UNDP Centre for Policy De-risking to undertake comprehensive analysis of the policy and regulatory frameworks in the electricity sector of Liberia aimed at de-risking private sector investment.

Additionally, the interventions will seek to enhance capacity of financial institutions, particularly micro-credit providers to understand, evaluate and respond to energy services needs of community projects, and enhanced managerial, business development and marketing skills of local entrepreneurs, energy service providers, CSOs, and local communities to operate, manage and diversify the productive uses of renewable energy projects and services. UNDP shall collaborate with Liberia Electricity Regulatory Commission, Ministry of Mines and Energy and other the relevant partners to implement programmes aimed at raising the awareness of the benefits and available opportunities for implementing energy- efficient practices. This will include systematic data collection to encourage evidence-based decision making on investments and sharing of market information, such as suppliers, technologies, case studies, available business models, etc. Providing technical assistance to strengthen the capacity of relevant stakeholders to implement energy management practices.

Under Waste Management, UNDP will seek to promote sustainable waste management by supporting innovative and efficient waste management practices such as recycling and composting. It will convene relevant stakeholders in the waste value chain, through a Multi-stakeholder Waste Recovery Platform. It will

seek means to foster ideas on how results-based financing models and waste resource innovation challenge for sustainable waste management that will stimulate private sector participation in recycling, composting and other sustainable waste management practices. The waste recovery platform will connect stakeholders, especially women, youth and PWDs, to facilitate partnerships and promote effective waste management in a circular economy context in Liberia. UNDP will seek to build partnership with the African Development Bank, EU, ECOWAS and other development partners to hold high-level investment forums on Liberia's NDC Actions with focus on an integrated waste management. UNDP will explore opportunities with the African Development Bank under the Africa Policy Colloquium to organize structured policy dialogues on promoting sustainable waste management in Africa. At the policy level, the focus will be on strengthening the policy, legal and institutional frameworks that supports the implementation of appropriate programs and initiatives for waste management driven by private sector. New partnerships with CSOs (for advocacy on sustainable waste management) and the private sector (for the incubation of solutions, identification of alternative sources of resources, and creation of green jobs) will be explored, nurtured and managed. The E&E resource mobilization strategy will include scaling up vertical funds and forge new partnerships with plastic waste companies, bilateral development Partners such as Netherlands, Norway, DFID, among others.

III. RESULTS AND PARTNERSHIPS

i. Results

The E&E Programme, aligned with UNDP CPD 2020-2024 and Liberia's national development agenda (PAPD 2018-2023), seeks to achieve the following results:

Strategic objective:

By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters. (UNSDCF Outcome 2 and UNDP CPD Outcome 3)

E&E Programme objective:

To strengthen Liberia's capacity to manage its environment for sustainable development through improved resilience to climate change and disasters, biodiversity conservation, sustainable land and waste management; access to renewable energy and promotion of ecotourism.

E&E Programme outcome:

By 2024, Liberia has improved resilience to climate change and disasters through sustainable management of its land, waste, water and forest resources, and the use of alternative energy sources and/or renewable energy.

- **Output 1.1:** Climate- resilient programs, policies and plans in key sectors developed
- **Output 1.2:** Capacity for disaster-risk governance, preparedness, and awareness at national and sub-national levels strengthened
- **Output 1.3:** Gender sensitive Livelihood diversification schemes¹⁷ established for improved Adaptation to Climate Change, disasters and biodiversity management.
- **Output 2.1:** Policies and institutions strengthened to promote sustainable management of natural resources, ecosystem services, and biodiversity at the national and community levels
- **Output 3.1:** Environmentally friendly and energy efficient cooking stoves accessed by households
- **Output 3.2:** Conducive environment for investment and use of alternative energy sources created
- **Output 4.1:** Policy, and institutional frameworks for sustainable management at the national and county levels established.
- **Output 4.2:** Private Sector investment potentials for integrated waste resource management promoted

ii. Resources required to achieve the expected results:

The successful execution of the programme is contingent on the availability of resources that need to be mobilized. Resources required for this programme will include human resources (technical expertise in project

management and administration, consultants and subject matter experts; material resources-equipment/materials (office supplies, gadgets and machines for project activities and ICT); and cost resources to include, transportation, office etc. for project staff and project activities. A robust strategy for resource mobilization will be employed to ensure the successful implementation of this intervention.

The strategy for resource mobilization builds on and complements ongoing efforts to secure funding from public and private sources as well as bilateral and multilateral initiatives, including activities funded by GCF and GEF. Core resources will be used to build partnerships and mobilize additional resources towards implementing sustainable and pro-poor interventions at the national and regional level. The country office will explore opportunities with other bilateral and multilateral donors (DFID, USAID, NORAD, SIDA, AfDB, World Bank) and regional institutions. The Country Office will organize consultations with businesses and donor partners to identify areas of convergence and discuss opportunities for future engagement, including strategies to earmark funds for selected projects. Resources will be mobilized through: (1) leveraging resources by mainstreaming programme initiatives in sectoral strategies, plans, and programmes; (2) strengthening resource mobilization activities with regional, global actors; and (3) promoting secondments of regional resource persons from UN agencies, bilateral and multilateral institutions, to reduce transaction costs for delivering high- quality knowledge and advisory support to clients and country partners. UNDP's value proposition will be to leverage its global knowledge networks, partnerships with International Finance Institutions (IFIs), international organizations and INGOs to bring to the table, local and international best practice.

iii. **Partnerships:**

The success and effectiveness of the E&E programme will largely depend on the quality of partnerships with government, intergovernmental organizations, civil society organizations (CSOs), and the private sector. To ensure coherence and maximize benefits, opportunities for collaboration with other projects and practice areas – SDGS related to rule of law and democratic governance, peace building, poverty, trade, environment, south-south cooperation and Gender – will be critical. UNDP will build and strengthen collaboration with other United Nations organizations, and multilateral as well as bilateral donors, including Japan, Norway, the European Commission (EC), Denmark, Canada, and the United States of America. New partnerships with CSOs (for advocacy), academia (for data gathering, identification of tech-specific solutions, and knowledge production and dissemination) and the private sector (for the incubation of solutions, identification of alternative sources of resources, and creation of green jobs) will be explored, nurtured and managed. In the area of integrated waste management, specific partnerships will be explored with the African Development Bank, The EC, DFID and World Economic Forum's Programme on Global Plastic Action Partnership. The E&E Resource Mobilization strategy will include scaling up vertical funds and forging new partnerships with the Adaptation Fund and Montreal Protocol.

Disaster Resilience and Climate Change: Under this component, the E&E programme will scale-up activities already underway with GEF, GCF and other UN agencies, as well as build partnerships with donors such as the Adaptation Fund Board, national and regional organizations, private companies, and financial institutions. The E&E programme will tap into the expertise of UNDP Regional Service Center, as well as work in partnership with civil society and government actors at the local, national, and regional levels. Specific partners are as follows: Environmental Protection Agency, Forestry Development Authority, Ministry of Agriculture, National Disaster Management Agency, Ministry of Transport, Ministry of Gender, Children and Social Protection, Ministry of Mines & Energy, National Fisheries and Aquaculture Authority (NAFAA), University of Liberia. The Project will forge partnerships with relevant UN agencies (WHO, UNICEF, WFP) and other regional institutions such as the African Development Bank (AfDB).

Renewable Energy Access: The Renewable Energy component will build upon existing work under the ongoing Solar4Health project which is being funded under TRAC resources. The Project will forge partnerships with relevant UN agencies (WHO, UNICEF, FAO) and other regional institutions (African Development Bank) and local banks such as the Liberian Bank for Development & Investment (LBDI), to build collective resources for policy advocacy, institutional capacity and knowledge management. Specific partners are as follows: Rural & Renewable energy Agency, Ministry of Mines & Energy, National Water, Sanitation & Hygiene Commission, Environmental Protection Agency, Ministry of Gender, National

Investment Commission, Liberia Chamber of Commerce Children and Social Protection, Liberia Energy Regulatory Commission, Community-based Organizations, Private Sector suppliers and distributors of energy products.

Biodiversity Conservation and Ecotourism: Throughout implementation, the project will seek to build upon and contribute to initiatives under key initiatives such as those being implemented by the REDD Implementation Unit at the Forestry Development Authority. The Project will forge partnerships with relevant UN agencies (GEF SGP, FAO, UNWOMEN, etc.); regional and global initiatives already underway in the region West African Biodiversity & Climate Change Project-WABiCC-USAID projects, and others; as well as build partnerships with donors, national and regional civil society organizations, and international financial institutions aimed at biodiversity conservation. Crucial to the success and sustainability of the project is active stakeholder participation in planning and implementation of activities. This will require dialogue and engagement with other development partners to promote programme support for biodiversity conservation. The project will work with national and sub-regional civil society organizations to promote cooperation between stakeholders and enhance stakeholder participation in decision-making processes in order to ensure information is adequately disseminated up to policy levels and down to all relevant stakeholders. Specific partners are as follows: Forestry Development Authority, Ministry of Information Culture Affairs & Tourism (MICAT), Ministry of Internal Affairs, Environmental Protection Agency, Ministry of Gender, Children and Social Protection, Ministry of Mines & Energy, University of Liberia. The Project will forge partnerships with relevant international and local organizations working on biodiversity in Liberia (Conservation International, Fauna & Flora International, Society for the Conservation of Nature of Liberia, World Resource Institute, etc.

Waste Management- This component will build upon existing work under the various sectors. The Project will forge partnerships with relevant UN agencies (WHO, UNICEF, UNWOMEN) and other regional institutions (African Development Bank [AfDB]) to build collective resources for policy advocacy and institutional capacity. Specific partners are as follows: National Water, Sanitation and Health Commission, Ministry of Mines & Energy, Liberia Water & Corporation, Liberia Land Authority, Local Municipal authorities, Environmental Protection Agency, Ministry of Gender, Children & Social Protection, Community-based Organizations (CBOs), private sector supplies and distributors.

Risks and Assumptions


The following represents some of the risks that the project is likely to face:

- There are risk that monetary and non-monetary challenges would limit the capacity of duty-bearers to meet their obligations in the Project e.g. limited funds restrict engagement of all affected stakeholders in project.
- Secondary activities could lead to adverse social and environmental effects, for example adaptation projects identified through this project may present their own social or environmental risks.
- There will be project activities that may result in the limited generation of non-hazardous material waste.
- Policy reforms, if not undertaken, could adversely affect the project.
- Lengthy legislative processes could affect the performance of the project.
- Political stability or instability could affect the performance of the project.
- Economic growth continues or the project is adversely affected.
- Natural disasters could derail progress.
- Lack of ownership and leadership by communities and national, sub-national authorities could affect the project.
- The global COVID-10 pandemic could delay the start of the programme as well as its potential to raise adequate resources within the first year of intervention.


Assumptions

The key assumptions around the project development are as follows:

- **Political stability:** there is an assumption that the current political stability will continue throughout the


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life of the project. There is a risk that this may not be the case. Political instability would affect the implementation of the project.

- **Continued economic growth:** the programme assumes that the current economic growth trajectory will be maintained throughout the project period. Unanticipated slow down or contraction of the economic would affect delivery of outputs especially if accompanied by reduced government revenues and expenditure.
- **Disaster risks:** the proposed programme assumes that there will be no sudden shocks of an environmental, social, or economic nature. Disaster shocks, resulting in new crises would negatively impact the implementation of the programme. Disaster shocks that may occur include natural disasters of a climatic nature, conflict, epidemics, and economic shocks related to international commodity prices.
- Management will ensure that project team members are available as needed to complete project tasks and objectives.
- The Government Implementing Partners will participate in the timely execution of the Project Plan (including timely approval cycles and meeting when required).
- The COVID-19 pandemic does not have a devastating impact of Liberia like it has on other countries and that the pandemic ends quickly.

Stakeholder Engagement:

Stakeholder engagement will form the basis for building strong, constructive, and responsive relationships that are essential for the successful implementation of the project, beginning at the inception to ensure timely public access to all relevant information and that stakeholders have an opportunity to input into the Project design and the evaluation of results. The intent of this process is to establish and maintain a constructive relationship with a variety of external stakeholders over the entire life of the Programme.

All relevant stakeholders, including state and non-state actors, as well as communities and private sector, will be engaged within the framework of this project through a consultative process that allows for communities to have a strong voice. The programme will help communities identify interventions that are demand driven and linked to their well-being and livelihoods needs, through public awareness raising campaigns of poverty–environment issues. This will include identifying and understanding the various processes, institutions, actors, mandates, existing policies and other factors that are relevant for enhancing disaster and climate resilience.

Mainstreaming Gender:

Gender inequality with respect to differential access to education, income and economic opportunities exacerbate the vulnerable situation of women and girls and their ability to cope with the effects of climate change. Both men and women are affected by environmental and climate risks as well as the mismanagement of natural resources. In the Liberian context, the National Adaptation Plan project has conducted gender analysis and developed tools for mainstreaming gender into programme activities. The provision of additional gender expertise for screening project activities will ensure that project interventions are gender sensitive. Additionally, the Programme Document has ensured that gender, youth and PWDs are woven into the fabric of the document to ensure that every sub-set of the population is included in addressing climate change activities.

South-South and Triangular Cooperation (SSC/TrC):

The programme will participate in very targeted capacity-building and institutional strengthening initiatives around sustainable livelihood practices (i.e. eco-tourism, climate-smart agriculture) that allows stakeholders and beneficiaries the opportunity to exchange knowledge and lessons learned – through South-South and North- South cooperation – with a view of applying best practices and success stories. E&E Programme will take advantage of the many best practices around resilience and sustainability; ICT for development; and innovation in comparable countries. This will be done in the form of case studies, exchange visits and exchange of technical expertise.

Knowledge:

Based on the experience from implementation of the last cycle of information from the Liberia NAP Roadmap and Liberia’s national circumstances, the main areas that the NAP process may focus on are: (a) Generation

and management of climate information; (b) Human and Institutional capacities development; (c) Long term vision and mandate; (d) Mainstreaming; and (e) Implementation at the sectoral, multi-sectoral and local level of governance. The programme will take advantage of the many best practices around resilience and sustainability; ICT for development; and innovation in comparable countries. This will be done in the form of case studies, exchange visits and exchange of technical expertise.

Sustainability and Scaling-up

The sustainability and scaling up component of the programme is framed within the following context:

Capacity building of Partners-Sustainability will be built into the project by adequately capacitating partners at all levels through joint planning, refresher training, knowledge sharing and collaboration at all levels: national (relevant Ministries); sub-national (Government and other structures); community-based organizations and the communities themselves). The programme will also be closely aligning with the government strategic plans to ensure ownership.

Ownership, leadership and Community involvement–The project will involve communities and seek their buy- in at the earliest stage of project inception. By so doing, communities will get a degree of control over the project financial returns and tangible benefits, and based on the successful outcome, the project will provide a sense of satisfaction that allows communities to drive the interventions beyond project close, particularly with the involvement of the private sector.

Private sector–The facilitation and support for the private sector participation in project interventions around renewable energy and eco-tourism will allow for demonstration of success stories that motivate private actors in using their own resources for the implementation of the same intervention multiple times thereby increasing the number of stakeholders and/or covering larger areas, by leveraging finance and knowledge. Additionally, a model of Public-Private Partnership in implementing interventions can increase access to finance for implementation of key interventions.


Linkages and partnerships-The project will build on ongoing interventions. This will allow for the sharing of experiences and knowledge that can contribute to expanding the outcomes and overcoming of barriers and challenges. By building partnership with national and sectoral agencies during implementation, interventions can be integrated within regular operations of entities such as the Ministry of Agriculture. This will allow for the adoption by these institutions, which results in the intervention being implemented and expanded to reach a wider scope at the sub-national level. The project will create synergies with the other UNDP interventions in the CPD (2020-2024).

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IV. RESULTS FRAMEWORK

Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:

Indicator 2.4: (1) Area of forest under protection, (2) Rate of deforestation per annum

Baseline: 1) 1.3%, 2) 0.7% (2015);

Target: (1) 30%, 0,9%

Indicator: CO2 emissions (Mt. CO2 eq); Baseline: 1.69, Target 1.79

Baseline: 1) 1.3%, 2) 0.7% (2015); Target: (1) 30%, 0,9%

Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
Component 1: livelihood Diversification, Disaster Resilience and Climate Change. OUTPUT 1.1 Climate-resilient programs, policies and plans in key sectors developed	1.1.1 Number of gender-responsive sectoral adaptation plans and tools developed and implemented for improved climate-resilience at national and county-levels.	UNDP Liberia website, EPA Annual Reports, and Project Monitoring Data	0	2015	4	4					4	Annual Review meetings with Partners. Steering Committee meetings.
	1.1.2 Length of coastline protected from coastal erosion by building coastal defense structures	UNDP, Government NAPA and Coastal add-on project monitoring reports	1.6 km	2019	6.6 km		0.5	1	1.5	2	5 km	Field monitoring
	1.1.3 Number of governance structures and frameworks for monitoring and reporting	NDC Dialogue Report	0	2019	A: 1		1				1	Annual review meetings and validation workshops

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Baseline: 1) 1.3%, 2) 0.7% (2015); **Target:** (1) 30%, 0.9%

Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
	on NDC set up.											
	1.1.4 Number of persons and communities implementing and benefitting from ecosystem-based adaptation, and gender responsive post disaster support activities disaggregated by sex and age.	UNDP NAP Annual Report	200 ¹⁴ persons 4 communities	2018	1,200		100	300	300	300	1,000	Field monitoring/community review meetings.
		UNDP, Government Reports, and Project Monitoring Data	0 ¹⁵	2019	4		1	1	1	1	4	Validation meetings

¹⁴ This indicates only interventions from UNDP-supported projects. There is no study that has

¹⁵ There is currently a Water Resource Management Policy (2007); however, there are no plans that domesticate this policy.

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Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

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Indicator: CO2 emissions (Mt. CO2 eq); Baseline: 1.69, Target 1.79

Baseline: 1) 1.3%, 2) 0.7% (2015); **Target:** (1) 30%, 0.9%

Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
Output 1.2. Capacity for disaster-risk governance, preparedness, and awareness at national and sub-national levels strengthened	1.2.1 Number of national and sub-national sectoral MACs receiving and acting on credible early warning information from the Operating Center (EOC) for Disaster Risk Reduction.	UNDP, Government Reports, and Project Monitoring Data	0	2019	11 ¹⁶		2	3	3	3	11	Cross-sectoral meetings and annual review meetings with partners.
	1.2.2 Existence of an autonomous hydro-met agency	EWS Project Terminal Evaluation Report	Non-existent	2019	1 ¹⁷			1			1	High level validation meetings.

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¹⁶ These are only MACs that fall within the environment sector.

¹⁷ Currently, there is no autonomous hydro-met agency established.

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Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:

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Indicator: CO2 emissions (Mt. CO2 eq); Baseline: 1.69, Target 1.79

Baseline: 1) 1.3%, 2) 0.7% (2015); **Target:** (1) 30%, 0.9%

Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
	1.2.3: Number of County Disaster Management Committees strengthened	NDMA Report	1	2019	7		1	1	2	2	6	Field monitoring and review meetings with IPs.
	1.2.4 Number of county hazard and disaster vulnerability maps developed (disaggregated by county and effects on gender and age groups).	UNDP, Government Reports, and Project Monitoring Data	0	2019	5 ¹⁸			1	2	2	5	Technical meetings and validation workshops.

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¹⁸ The program targets 5 counties now based on availability of funding

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Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

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Target: (1) 30%, 0.9%

Indicator: CO2 emissions (Mt. CO2 eq); Baseline: 1.69, Target 1.79

Baseline: 1) 1.3%, 2) 0.7% (2015); **Target:** (1) 30%, 0.9%


Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
Output 1.3 Gender sensitive Livelihood diversification schemes ¹⁹ established for improved Adaptation to Climate Change, disasters and biodiversity management.	1.3.1 Number of women, PWD and youth led livelihoods schemes established	UNDP website, Government Technical reports and Project Monitoring data	0	2019		1	5	5	5	5	21	Field monitoring and stakeholder dialogues.


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¹⁹ Scheme in this context refers to initiatives/interventions undertaken in cooperative.

Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

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Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
	1.3.2 Number of persons (women, youth and persons living with disabilities) benefitting from sustainable livelihood and capacity building programs around Protected Areas	UNDP website, Government Technical reports and Project Monitoring data	500	2019	2500	50	500	500	500	450	2000	Field monitoring
Component 2: Biodiversity conservation, eco-tourism and Land Management Output 2.1 Policies and institutions strengthened to promote sustainable management of natural	2.1.1 Existence of national tourism policy and plans	National Tourism Export Strategy	1	2019	1		1				1	Stakeholder Consultative meetings.
	2.1.2 Number of approved policies and action plans	UNDP annual report, Government Reports, and	0	2019	2	1	1				2	Validation workshops.

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Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

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Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
resources, ecosystem services, and biodiversity at the national and community levels	developed for oil palm production ²⁰	Project Monitoring Data										
	2.1.3 Number of Community structures strengthened for Biodiversity Conservation	UNDP, Government Reports, and Project Monitoring Data	0	2019	4		1	1	1	1	4 ²¹	Field visits and community consultations.
Component 3: Renewable Energy Access	3.1.1 Number of solar based rural health/education facilities piloted and linked to WASH.	UNDP Solar4Health Assessment Report	3.1.1 a: 5 ²²	2010 & 2020	24	11	2	2	2	2	19	Field monitoring
Output 3.1:			3.1.1b: 0	2020			2	2	2	2	8	

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²⁰ These policies are to be developed following targeted scenarios analyses. One policy will be developed for one of two targeted scenarios

²¹ Four of the 7 targeted communities will be targeted to be decided later

²² Four of the baseline values were done in 2010, while the rest was done in 2020

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EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
Output 3.2: Conducive environment for investment and use of alternative energy sources created	3.1.2 Number of renewable energy-based livelihood pilot projects.											
	3.1.3 Number of persons trained in eco-stoves production disaggregated by sex, PWD and age in targeted counties.	UNDP NAP Annual Report	51	2018	251	0	50	50	50	50	200	Field monitoring
	3.1.4 Number of eco-stoves produced and in use by households in targeted counties.		51		6551	0	500	2000	2000	2000	6500	
	3.2.1 Number of private sector entities with secured access to finance for renewable energy	UNDP REPORTS	0	2019			1				1	Validations meetings

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Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

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Baseline: 1) 1.3%, 2) 0.7% (2015);

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Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
	3.2.2 Number of households with access to renewable energy sources											
	3.2.3 Number of Bankable projects developed with secured finance to promote Energy Efficiency, resource efficiency management practices and mitigations actions	UNDP Reports	0	2019	3		1	1	1		3	E&E Brainstorming meetings and resource mobilization strategy
Component 4 Sustainable Waste Management	4.1.1 Existence of an approved National Policy on Waste Management	UNDP, Government Reports, and Project Monitoring Data	0				1				1	Validation meetings
Output 4. Policy and institutional frameworks for sustainable management at the national and county levels	4.1.2 Number of municipalities in targeted counties implementing	UNDP, Government Reports, and	0	2019	5	0	1	2	1	1	5	Field monitoring

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Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:

Indicator 2.4: (1) Area of forest under protection, (2) Rate of deforestation per annum

Baseline: 1) 1.3%, 2) 0.7% (2015);

Target: (1) 30%, 0.9%

Indicator: CO2 emissions (Mt. CO2 eq); Baseline: 1.69, Target 1.79

Baseline: 1) 1.3%, 2) 0.7% (2015); **Target:** (1) 30%, 0.9%

Indicator: CO2 emissions (Mt. CO2 eq); **Baseline:** 1.69

Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
established.	sustainable waste management practices.	Project Monitoring Data										
4.2 Private Sector investment potentials for integrated waste resource management promoted	4.2.1 Number of Micro, Medium and Small-Scale Enterprises /Businesses (MSMEs) equipped to take advantage of opportunities to implement sustainable waste management practices.	UNDP, Government Reports, and Project Monitoring Data	0	2019	8	0	2	2	2	2	8	Field monitoring
	4.2.2 Number of High-level Private Sector Investment Dialogue organised to attract private sector financing in the waste sector.	UNDP, Government Reports, and Project Monitoring Data	0	2019	3	1		1		1	3	meetings
	4.2.3 Number of Partnerships built with	UNDP, Government	0	2019	4	1	1	1	1		4	Meetings and dialogues

Intended Outcome as stated in the UNSDCF Programme Results and Resource Framework: *By 2024, Liberia has diversified, and inclusive economic growth underpinned by investments in sustainable and environmentally friendly agriculture, food security, job creation and improved resilience to climate change and natural disasters.*

Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:

Indicator 2.4: (1) Area of forest under protection, (2) Rate of deforestation per annum

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Baseline: 1) 1.3%, 2) 0.7% (2015); **Target:** (1) 30%, 0.9%

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Target 1.79

Applicable Output(s) from the UNDP Strategic Plan:

Project title and Atlas Project Number: ENERGY & ENVIRONMENT PROGRAMME 00126149

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		Life of Project (LoP) Target	TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year		Year 1	Year 2	Year 3	Year 4	Year 5	FINAL	
	secured funding to promote sustainable waste management practices in Liberia	Reports, and Project Monitoring Data										

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V. Monitoring and Evaluation

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans: *[Note: monitoring and evaluation plans should be adapted to project context, as needed]*

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analyzed to assess the progress of the project in achieving the agreed outputs.	Quarterly, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.	UNDP, EPA, MoA, NDMA, FDA, MIA, MFDP, MME, MoT, RREA	30,000
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	UNDP, EPA, MFDP	N/A
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.	UNDP, EPA, MoA, NDMA, FDA, MIA, MFDP, MME, MoT, RREA, NaFAA local stakeholders/communities/beneficiaries	10,000
Annual programme Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	EPA, UNDP, MFDP	N/A
Review and Make	Internal review of data and	At least	Performance data, risks,	EPA, UNDP, MFDP	5,000

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Course Corrections	evidence from all monitoring actions to inform decision making.	annually	lessons and quality will be discussed by the project board and used to make course corrections.		
Programme Report	A progress report will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.	Quarterly, Annually, and at the end of the programme (final report)		EPA, UNDP, MFDP, MOCI	2,500
Programme Review (Project Board)	The programme's governance mechanism (i.e., project board) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	Specify frequency (i.e., at least annually)	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	UNDP, EPA, MoA, NDMA, FDA, MIA, MFDP, MME, MoT, RREA, NaFAA, MOCI	10,000

Evaluation Plan²³

Evaluation Title	Partners (if joint)	Related Strategic	UNSDCF Outcome	Planned Completion	Key Evaluation Stakeholders	Cost and Source of
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²³ Optional, if needed

		Plan Output		Date		Funding
E&E Programme Mid-Term Evaluation		1.4.1; 1.5.1	2	May 2022	EPA, MICAT, FDA, MOA, MME, WASH, NDMA, MOT	35, 000
E&E Programme Terminal Evaluation		1.4.1; 1.5.1	2	September 2024	EPA, MICAT, FDA, MOA, MME, WASH, NDMA, MOT	35, 000
Thematic evaluations (4 thematic areas)		1.4.1; 1.5.1	2	May-August 2023	EPA, MICAT, FDA, MOA, MME, WASH, NDMA, MOT	100,000
Projects' terminal evaluations		1.4.1; 1.5.1	2	August-October 2022	EPA, MICAT, FDA, MOA, MME, WASH, NDMA, MOT	180,000

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VI. Multi-Year Work Plan

EXPECTED OUTPUTS	PLANNED ACTIVITIES	Planned Budget by Year					RESPONSIBLE PARTY	PLANNED BUDGET		
		Y1	Y2	Y3	Y4	Y5		Funding Source	Budget Description	Amount
Component 1: livelihood Diversification, Disaster Resilience and Climate Change. Output 1.1 Climate-resilient programs, policies and plans in key sectors developed	1.1.1 Support the development of gender-responsive sectoral adaptation plans and tools for improved climate-resilience at national and county-levels.	350,000	-	-	-	-	UNDP	GCF		350,000.00
	1.1.2 Design and construct coastal defense infrastructure-and other activities under the Monrovia Metropolitan Climate Resilient Project	-	1,000,000	10,000,000	10,000,000	8,000,000	EPA	GCF/GoL/ UNDP		29,000,000.00
	1.1.3 Develop funding proposal and concept note for implementing gender - responsive adaptation action plans and strategies identified in the various vulnerability and risk assessments (agriculture, forestry, fisheries, and coastal).	65,000	-	-	-	-	UNDP	GCF		65,000.00
	1.1.4 Develop coastal resilient project for Sinoe County	100,000	500,000	3,000,000	4,500,000	-	EPA	GEF		8,100,000.00
	1.1.5 Establish governance structure and framework for monitoring and reporting on NDCs implementation	-	20,000	25,000	-	-	EPA	TBD		45,000.00
	1.1.6 Strategic Support to preparatory activities for UNFCCC Conference of the Parties (COPs) meetings each year.	20,000	20,000	20,000	20,000	20,000	UNDP	TBD		100,000.00

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Output 1.2. Capacity for disaster-risk governance, preparedness, and awareness at national and sub-national levels strengthened	1.1.5 Update Liberia NDCs, with Financing strategy and Plan	200,000	-	-	-	-	UNDP	Climate Promise		200,000.00
	1.2.1 Strengthen sub-national institutions to assess climate change risk and integrate them in county development agenda	-	100,000	100,000	-	-	EPA/NDMA	TBD		200,000.00
	1.2.2 Develop standardized, national environmental studies curricula to include hydro-metrological studies for graduate, undergraduate, associate degree programs in environmental science	-	25,000	25,000	-	-	UL	TBD		50,000.00
	1.2.3 Support national actors to develop legal and regulatory frameworks for the establishment of a hydro-meteorological agency and income generation from hydro-met services	-	25,000	50,000	25,000	-	MOT	TBD		100,000.00
	1.2.4 Strengthen county management committees through training and logistical support and operationalize the EOC for effective disaster risk reduction and response	25,000	100,000	100,000	100,000	100,000	NDMA	TBD		425,000.00

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
OUTPUT 1.3 Gender sensitive Livelihood diversification schemes ²⁴ established for improved Adaptation to Climate Change, disasters and biodiversity management.	1.2.5 Conduct county specific disaster risk assessments and vulnerability surveys to develop hazard and vulnerability maps; and develop and implement county specific disaster risk reduction strategies and resilience plan	-	75,000	100,000	100,000	100,000	NDMA	TBD		375,000.00
	1.3.1 Conduct climate change vulnerability analysis and livelihood mapping in 21 communities across the 7 counties.	30,000	-	-	-	-	EPA	TRAC		30,000.00
	1.3.2 Design and establish agrobusiness schemes and conduct training of women in how to manage and optimize these schemes.	50,000	-	200,000	200,000	200,000	MOA	TRAC/AF		650,000.00
	1.3.3 Provide gender responsive post disaster support for vulnerable populations, including women, people living with disabilities and children			200,000	200,000	200,000	NDMA	TRAC/AF		600,000.00
	1.3.4 Design and implement fish processing schemes and training of women in how to manage and optimize these schemes in 21 communities	50,000	-	200,000	200,000	200,000	NAFAA	TRAC/AF		650,000.00
Sub-Total for Component 1										40,940,000

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²⁴ Scheme in this context refers to initiatives/interventions undertaken in corporative.

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Component 2: Biodiversity conservation, eco-tourism and Land Management Output 2.1 Policies and institutions strengthened to promote sustainable management of natural resources, ecosystem services, and biodiversity at the national and community levels	2.1.1 Support the development of Liberia National Biodiversity Strategy Action Plan	-	50,000	-	-	-	EPA	TRAC		50,000.00
	2.1.2 Support the consolidation of studies on Liberia's Biodiversity and into a National Biodiversity Repository.	-	30,000	-	-	-	EPA	TBD		30,000.00
	2.1.3 Develop County and District Environmental Action Plans and support implementation in Sinoe, Lofa, Nimba, Grand Gedeh and Grand Cape Mount counties.	-	20,000	20,000	20,000	20,000	EPA	TBD		80,000.00
	2.1.4 Support for National stakeholder's dialogue on tourism export strategy and action plans and entry points for eco-tourism investments	50,000	-	-	-	-	EPA/MICAT	TRAC		50,000.00
	2.1.5 Develop national policy on eco-tourism	30,000	-	-	-	-	MICAT/EPA/FDA	TRAC		30,000.00
	2.1.6 Develop eco-based small-scale infrastructure/facilities and activities around 3 protected area based on a UNDP-inspired PPP investment that seeks to empower community and promote entrepreneurship (Lake Piso, Kpatawee and Blue Lake)	-	-	300,000	300,000	300,000	EPA/MICAT	TBD		900,000.00
	2.1.7 Set up of platform for eco-tourism awareness and promotion that is linked to institutional framework developed under the Private Sector Program	-	50,000	-	-	-	MICAT	TBD		50,000.00

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	2.1.8 Support capacity development for the implementation of Rio Conventions.	479,000	421,000	-	-	-	EPA	GEF		900,000.00
	2.1.9 Capacity building for CBOs and community management structures for eco-tourism management	-	25,000	25,000	25,000	-	MICAT	TBD		75,000.00
	2.1.10: Support community structures for Biodiversity Conservation.	-	25000	25000	25000	-	FDA/EPA	TBD		75,000.00
	2.1.11: Support the restoration and conservation of protected areas for improved livelihoods	-	1,000,000	1,000,000	1,000,000	1,000,000	FDA/EPA	TBD		4,000,000.00
	2.1.12: Support the development of a green commodities program	-	5,000	-	-	-	MOA	TBD		5,000.00
	2.1.13: Support the development of policy recommendations for the development of oil palm production based on Targeted Scenario Analysis under the GGP Production Project	-	5,000	-	-	-	MOA	GEF		5,000.00
	Sub-Total for Component 2									6,250,000.00
COMPONENT 3: RENEWABLE ENERGY ACCESS	3.1.1 Develop 2 funding proposals for energy efficiency projects	50,000	50,000	-	-	-	UNDP/EPA	TRAC		100,000.00
Output 3.1 Greenhouse gas emission at	3.1.2 Replicate & scale up solar for energy support to other public health facilities and other critical community infrastructure with links to WASH services.	-	300,000	400,000	400,000	350,000	UNDP/RREA/ MOH	TBD		1,450,000.00

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national and household levels reduced Output 3.2 Access to alternative energy sources improved	3.1.3 Develop 2 proposals for solar power projects to support small scale livelihood and basic infrastructures (i.e. health)	20,000	20,000	20,000	20,000	20,000	UNDP/RREA/MOH	TBD		100,000.00
	3.1.4 Provide hands-on, intensive-training, and awareness to community members, with a focus on women and youth, in targeted counties on how to build, market, and use of eco-stoves. (6,550)	-	50,000	25,000	25,000	25,000	EPA/MME	GCF (MMCRP)		125,000.00
	3.1.5 Setting up solar power supply for 5 rural service centers (Mont, Nimba, Lofa, C. Mount and G. Gedeh) link to enhancement of UNDP funded decentralization programme	75,000	75,000	75,000	75,000	75,000	MIA	TBD		375,000.00
	3.1.6 Undertake policy de-risking studies	-	100,000	-	-	-	UNDP	TRAC		100,000.00
	Sub-Total for Output 3									2,250,000.00
Output 4. 1: Policy, and institutional frameworks for sustainable waste management at the national and county levels established.	4.1.1: Conduct a study to understand the institutional coordination mechanism in the WASH sector to inform policy review and implementation.	12,000	-	-	-	-	WASH	TBD		12,000.00
	4.1.2: Review, validate and finalize the National Integrated Waste Management Policy.	5,000	-	-	-	-	WASH	TBD		5,000.00
Output 4. 2: Private Sector investment potentials for	4. 2.1 Map and Assess private sector investment potentials in the waste sector of Liberia	50,000	25,000	-	-	-	WASH	TBD		75,000.00

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integrated waste resource management promoted	4.2.2 Establish multi-stakeholder waste Resource Recovery Platform.	10,000	10,000	10,000	5,000	5,000	WASH/UNDP	TBD		40,000.00
	4.2.3 Support Micro, Medium and Small-Scale Enterprises /Businesses (MSMEs) through waste recovery innovation challenge to take advantage of opportunities to implement sustainable waste management practices.	50,000	100,000	100,000	100,000	-	WASH/UNDP	TBD		350,000.00
	4.2.4 Organize high-level investment forum to showcase Liberia's waste Management Challenges, Gaps and Investment opportunities.	10,000	50,000	-	-	-	WASH/UNDP	TBD		60,000.00
	4.2.5: Support the conduct of advocacy and awareness-raising on waste resource recovery.	10,000	10,000	10,000	10,000	10,000	WASH/UNDP	TBD		50,000.00
	Sub-Total for Component: 4									592,000.00
	MONITORING (3%)									250,000.00
Evaluation (as relevant)	EVALUATION (3%)									350,000.00 ²⁵
General Management Support	Staffing and operations (15%)									7,594,800.00 ²⁶
TOTAL										58,226,800.00

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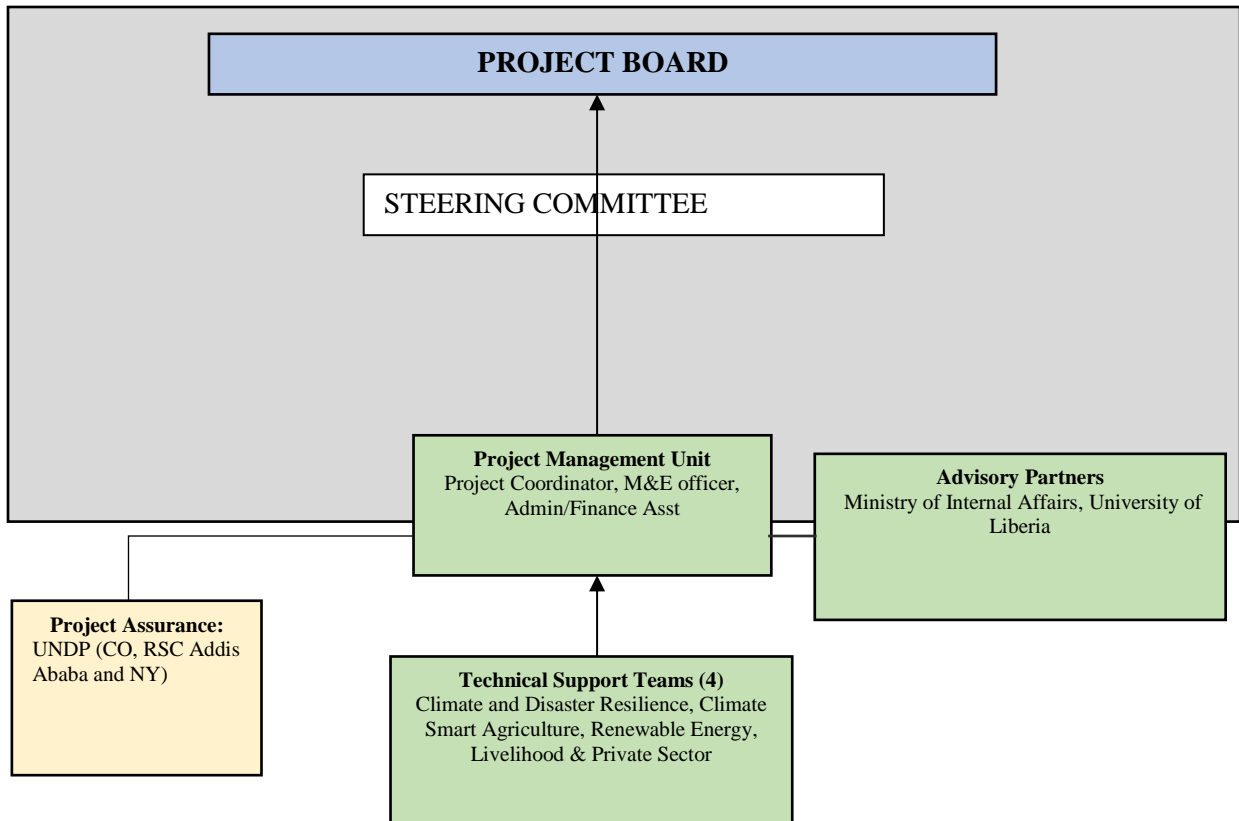
²⁵ This includes evaluations of all project and the programme evaluation over the 5-year period.

²⁶ This includes staffing of all individual projects staff as well as the E&E programme support staff.

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VII. Governance and Management Arrangements

The project will be implemented over a period of 5 years commencing in January 2020 and running up to December 2024. The project will be executed under the UNDP National Implementation Modality, consistent with the Standard Basic Assistance Agreement between UNDP and the Government of Liberia and the Country Programme. The Implementing Partner (IP) for this project is the Environmental Protection Agency (EPA). The IP will be responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Project Management Unit, consisting of a Project Coordinator, Admin/Finance Assistant and M&E Officer; will carry out day-to-day project implementation, with the support of a Financial and Administrative Assistant. The management arrangements for this project are summarized in the chart below:



Project Board

The Programme will set up a Project Board, chaired by the MFDP and co-chaired by the MFDP. Members of the board will include heads of MACs (Ministries, Agencies and Commissions) who have stake in this project (Environmental Protection Agency, Ministry of Mines & Energy, Ministry of Agriculture, Forestry Development Authority, the National Water, Sanitation & Hygiene Commission, Monrovia City Corporation and other relevant municipalities and Rural & Renewable Energy Agency). The Board will meet quarter quarterly to oversee progress and provide strategic guidance, including approval of project work plans and reporting. The project board is responsible for project oversight, ensuring that appropriate project management milestones are completed, the project benefits from oversight and monitoring; and that the project works closely with all key partners. Project assurance on behalf of the Project Board will be the responsibility of the Head of Inclusive Growth and Sustainable Livelihoods in UNDP. Monitoring and Evaluation will be the responsibility of both UNDP and MFDP, with reporting done through the Project Assurance component of the project implementation structure.

Project Steering Committee

A Project Steering Committee will be established(see diagram above) to provide guidance to the project and the

Project Coordinator. The Steering Committee will be chaired by the EPA with membership to include the Coordinator of the Energy & Environment Portfolio at EPA and technical focal points from the relevant ministries, agencies and commissions (MACs)- MFD, MME, MOA, MME, FDA, WASH Commission, MCC. Periodic project reviews by the Project Steering Committee will be done in accordance with key reporting requirements of UNDP, i.e., annual reviews, a mid-term evaluation and a final evaluation. The annual review reports will include detailed information on the status of project implementation and the achievement of project outputs and outcomes as outlined in the project's RRF. The detailed expenditure report will indicate expenses by category as outlined in the project budget (original or latest approved revision).

The Steering Committee will be consulted if and when the Project Coordinator's tolerances (in terms of time and budget) have been exceeded. These tolerances will be monitored by the UNDP Programme Support Unit (PSU). Quarterly Progress Reports (QPRs), prepared by the Project Coordinator, will be reviewed by the PSU and consolidated for submission to Project Steering Committee meetings.

The PSU will have overall responsibility for project monitoring, risk management, quality assurance and for timely submission of reports to the Project Steering Committee.

Technical Support Teams-This team shall comprise of subject matter experts on Climate and Disaster Resilience, Climate Smart Agriculture, Renewable Energy, Livelihood & Private Sector from the relevant MACs. The project shall draw on the expertise of this team for reviewing technical reports. The **team** is collectively responsible for: assisting the programme or project manager to deliver programme or project objectives. carrying out the elements (within their technical expertise) of the programme or project they are tasked with; advising the programme or project manager if any risks arise that are likely to affect delivery of programme or project objectives and to be part of the risk reduction process; providing information for programme or project documentation; and producing programme or project products as planned to the required level of quality and to timescales.

Project Advisory Partners

An Advisory Panel of 5 experts nominated by the University of Liberia, Ministry of Internal Affairs and relevant NGOs shall advise on project implementation and ways to strengthen linkages with partners and donors. Meetings may be held virtually or in person.

VIII. LEGAL CONTEXT

This programme document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Liberia and UNDP, signed on April 27, 1977. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This programme will be implemented by the Environmental Protection Agency ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

IX. RISK MANAGEMENT

Government Entity (NIM)

1. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
 - a) put in place an appropriate security plan and maintain the security plan, considering the security situation in the country where the project is being carried;
 - b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Programme Document.
3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999)²⁷.
4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Programme Document.

(a) In the implementation of the activities under this Programme Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").


(b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Programme Document, in the implementation of

²⁵ The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.


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activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment (“SH”). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment.

5. a) In the performance of the activities under this Programme Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

- i. Prevent its employees, agents or any other persons engaged to perform any services under this Programme Document, from engaging in SH or SEA;
- ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
- iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;
- iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
- v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards and related Accountability Mechanism.

7. The Implementing Partner shall: (a) conduct programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Programme Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to projects, sites under this programme, relevant personnel, information, and documentation.
9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the programme or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
10. The requirements of the following documents, then in force at the time of signature of the Programme Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Programme Document.
11. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.
12. The signatories to this Programme Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

13. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Note: The term "Programme Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

14. Each contract issued by the Implementing Partner in connection with this Programme Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.
15. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively

investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

16. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled “Risk Management” are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled “Risk Management Standard Clauses” are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

MM 06-May-2020


Dorla Fancarty 07-May-2020


RJA
07-May-2020

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07-May-2020

X. ANNEXES

1. Project Quality Assurance Report
2. Social and Environmental Screening Procedure (SESP)
3. Risk Analysis
4. Capacity Assessment
5. Theory of Change Diagram


07-May-2020


07-May-2020

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