Plan for Implementing and Financing the Nationally Determined Contributions (NDC)

PREPARED BY

RESEARCH INSTITUTE FOR
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Acronyms

AFOLU ..... Agriculture, Forestry, and Other Land Uses
CCS ..... Climate Change Secretariat
CVCA ..... Climate Vulnerability and Capacity Assessment
EMP ..... Environmental Management Plan
EPA ..... Environmental Protection Agency
EUC ..... European Union Commission
EWS ..... Early Warning Systems
FAO ..... Food and Agriculture Organisation
FCDO ..... Foreign Commonwealth and Development Organisation
GDP ..... Gross Domestic Product
GHG ..... Greenhouse Gas
IFAD ..... International Fund for Agricultural Development
LDN ..... Land Degradation Neutrality
LECRDS ..... Low Emissions and Climate Resilient Development Strategy
MCCU ..... Millennium Challenge Coordinating Unit
MDA ..... Ministries, Department, and Agencies
NAP ..... National Adaptation Plan
NCCP ..... National Climate Change Policy
NDC ..... Nationally Determined Contributions
NDMA ..... National Disaster Management Agency
NFCS ..... National Framework for Climate Services
REDD+ ..... Reducing Emissions from Deforestation and Forest Degradation
RMFA ..... Road Maintenance Fund Administration
SDG ..... Sustainable Development Goals
SLRA ..... Sierra Leone Roads Authority
ToC ..... Theory of Change
UNCCD ..... United Nations Convention for Combating Desertification
UNDP ..... United Nations Development Programme
UNFCCC ..... United Nations Framework Convention for Climate Change
UNIDO ..... United Nations Industrial Development Organisation
UNOPS ..... United Nations Office for Project Services
UNSE4ALL ..... United Nations Sustainable Energy for All
USAID ..... United States Agency for International Development
WASH ..... Water Sanitation and Hygiene

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1. Introduction

This consultancy required supporting the Climate Change Secretariat (CCS) at the Environment Protection Agency (EPA) in preparing an Implementation and Financing Plan for the updated Nationally Determined Contributions (NDC). The plan presents various funding vehicles and strategies that reflect opportunities on different levels and across sectors. Developing the plan involved gathering stakeholder insights through regional workshops, with the following notable outcomes realized:

- The review of the NDC's Theory of Change (ToC) or implementation logic to assess the extent to which financing and implementation outcomes are explicitly associated with achieving the changes attributed to the NDC. Although the need for a more fine-grained logic that better captures the heterogeneity of certain Critical Partners did not arise, the session provided a chance for evaluating the potential for achieving diverse outcomes promised in the document.
- The identification and classification of critical partners, whether identified in the NDC (or not) as key stakeholders, based on targets set and progress markers (indicators) proposed for adaptation, mitigation, and loss and damage. As part of this step, participants discussed the 'reach' of the NDC (i.e., which actors are engaged directly, which actors are potentially likely to be 'influenced' and to what degree are some actors 'ignored'). The aim of this process was to ensure that the plan includes information on areas (and partners) with sensitivity (i.e., gender, persons with disability, youth, children, etc).
- The review of the extent to which financing and related outcomes are already systematically monitored in NDC implementation (ideally including whether documentation/data exists on baseline outcomes, state of play, and intended future outcomes). The goal of this session was to build a monitoring plan around specific critical partners and financing mechanisms to effectively track domestic and international commitments.

1.1. Purpose and scope of the consultancy

This assignment involved completing two key deliverables: (i) conducting stakeholder consultations in four regions to gather the perspectives and reflect on the stories of stakeholders and organisations; and (ii) developing a plan for implementating and financing the NDC. Completing these deliverables required completing phases of data collection (intentional design and outcome and performance monitoring planning), data analysis and synthesis (outcome mapping through regional stakeholder consultations), and reporting. Data collection helped the consultant to establish consensus about the desired macro-level changes the

CCS should aim to achieve (in terms of NDC implementation and financing) and plan the strategies it will use. It answered the following four questions: (i) to what vision does the NDC aim to contribute? (ii) with whom (i.e., individuals/groups/organizations) does EPA and CCS interact? (iii) what outcomes are being sought? (iv) how will NDC implementation contribute to the change process?

Generally, the approach entailed using a preparatory meeting with the CCS to prioritize interventions and interfaces to discuss at the regional consultations; and workshop sessions to examine the NDC's influence, both deliberate and unintended, to propose delivery and financing strategies for achieving desired outcomes. The purpose was to promote strategies that are appropriate to the local context and recognize the potential contributions of other actors in achieving specific outcomes. In a nutshell, the meetings helped with identifying the high-level outcomes the CCS and its partners would 'love to see', and the progress markers that identify incremental changes that they can reasonably influence/contribute to in terms of NDC financing and implementation.

1.2. Country context

The population of Sierra Leone is approximately 7.1 million based on the previous census (2015), with over 40% comprising persons below the age of 15 years. About 40% of the population is urban, concentrated in the capital city Freetown and the major provincial urban areas. The rural population remains majority (60%), yet in 2010, it was almost twice as high than the urban population. This reflects the limited opportunity for people to access jobs, and historically, the dependence of rural communities on natural resources notably forests for their livelihoods. The approximate 70% poverty data is indicative of multiplicity of issues like low educational attainment, limited opportunity for people to compete for high flying jobs, but more so as in the case with Sierra Leone, the legacy of the brutal civil war which infiltrated into the entire fabrics of the system (social, economic, and environmental), with forest communities targeted as a source of exploitation to fund guerrilla activities (UNEP 2010). According to UNDP Human Development Report (UNDP 2014), the following apply to Sierra Leone's development status: life expectancy at birth stands at 54.3 years (51.3 in 2015); expected years of schooling and mean year of schooling are given as 10.2 and 3.6 (9.5 and 3.3 in 2015), respectively.

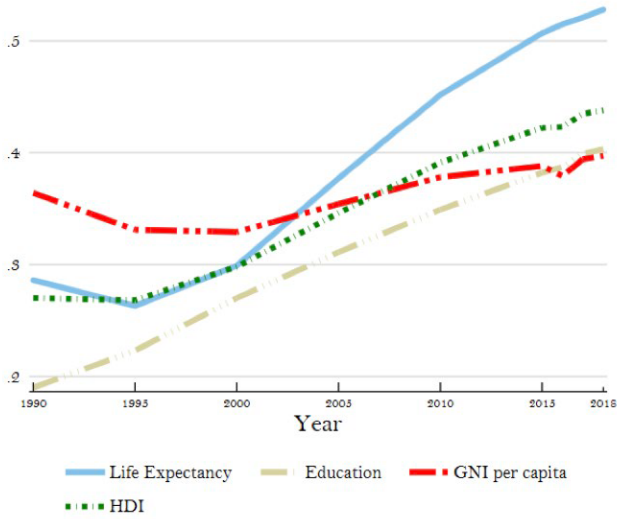


Figure 1: Trends in Sierra Leone's HDIs- 1990 to 2018 (UNHDR 2019)

The Gross Domestic Product (GDP) considerably grew to up to 21% in 2013 and contracted to a negative value of -21% because of the EVD outbreak in 2014, implying a corresponding decline in the Gross National Income per capita to US$ 1,529; and recovered to +5.5% in 201916. Gender inequality remains very high, with the female Gender Development Index (GDI)[1] value standing at 0.411 in contrast with 0.465 for males (0.392/0.451 in 2015), resulting in a comparative GDI value of 0.881 (0.871 in 2015). The overall Human Development Index value for Sierra Leone in 2019 stands at 0.438 (0.422 in 2015), giving a rank of 181 out of 189 countries, which some improvement compared to the last two decades. However, as a measure of multiple deprivations in a household in education, health and living standards, 57.9% of Sierra Leoneans were considered multi-dimensionally poor in 2017 (EUC 2020).

As for the Sustainable Development Goals, Sierra Leone has a global rank of 153 (out of 166 countries). As seen in the figure below, SDG13 on Climate Change and SDG12 Sustainable Production and Consumption, show particularly good scores and are the only ones where Sierra Leone is "on track". Of interest for the present review, results for 14 Life Below water and 15 Life on land remain above the average and SDG15 is even marked with a positive trend. On the other end, SDG7 on Energy is particularly low, and SDG6 on Water shows that strong challenges remain (Sachs et al 2020).

[1] https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=SL

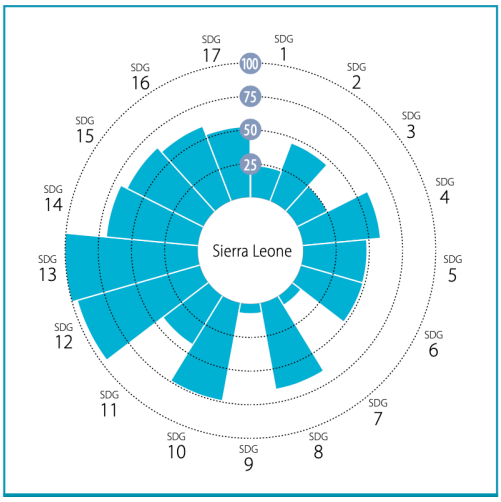


Figure 2: Sierra Leone's overall performance across the SDGs

The country ranked 177th out of 180 in the Environmental Performance Index (EPI) for 2020 (Guinea, Côte d'Ivoire and Liberia being respectively ranked 175, 176 and 180)[2]. Sierra Leone scores below the regional average in all categories of the EPI except for ecosystem vitality for Agriculture, which relies on the Sustainable Nitrogen Management Index (SNMI) as a proxy to "measures efforts to support healthy populations while minimizing the threats of agriculture to the environment", and Fisheries, which intends to measure the health and sustainability of the world's fisheries through three indicators: fish stock status, marine trophic index, and fish caught by trawling. Over the last 10 years, the most significant changes concern: a loss in biodiversity (measured by the Species Habitat Index), tree cover loss and climate change.

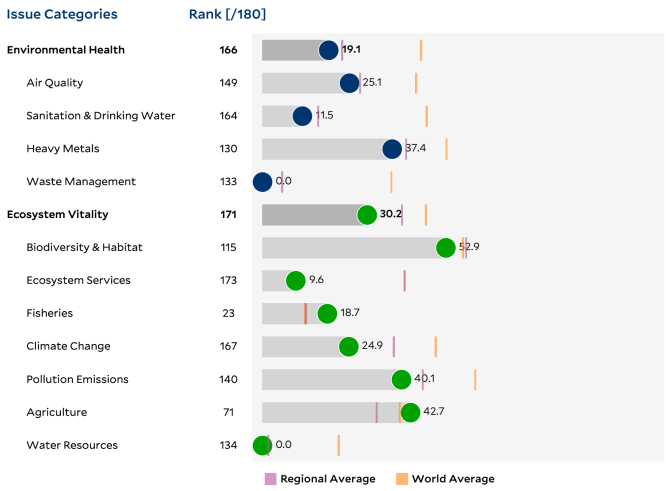


Figure 3: Sierra Leone's overall performance across the EPIs

Countries in the Gulf of Guinea including Sierra Leone have experienced the most significant and warmest signals ranging from 0.2°C to more than 0.5°C per decade. This is consistent with the 5th IPCC report (IPCC 2013) and a study from 2015

[2] https://epi.yale.edu/

(Padgham et al 2015) stating that the whole of West Africa has warmed between 0.3 and 1°C in recent decades. The average annual temperature is 26.09°C, having increased by 0.8°C since 1960, an average rate of 0.18°C per decade (McSweeney et al, 2010). According to data from the Government of Sierra Leone (GoSL, 2007) temperatures are lowest at the peak of the wet season (about 22-25°C) and high the rest of the year (about 25-27°C).

Climate models used to project climate change in Sierra Leone (HADCM2, UKTR, CSIRO, ECHAM and UKMOEQ) indicate a steady increase in temperature with little inter-model variance. By 2060, there is an estimated 1-2.5°C rise in average temperature with more rapid warming inland (UNDP 2012) and a temperature rise of ~5°C by 2100 (GoSL 2018), with a monthly mean change of 0.26°C to 1.3°C for the period 2011 to 2040 compared to 1981 to 2010 (SMHI, 2021). A temperature rise of +1.30°C and reduced rainfall of approximately -6% may lead to food and nutrition insecurity, which, compounded with rising commodity prices and poverty, will increase vulnerability and lock households in poverty. At the same time, a temperature rise of +2.5°C will increase the disease burden through reduced water quality and sanitation issues, whilst water scarcity will affect sustainable energy supply (hydro power) in the dry season (USAID 2016).

The precipitation regime has become more erratic in the last 50 years (World Bank, 2021)[3]. Periodic fluctuations have been observed, with 1960s and late 1970s particularly wet and the early 1970s and 1980s significantly dry (McSweeney et al, 2010). Across Sierra Leone, seasonal precipitation is observed to have significantly decreased between 1951 and 2000 in the northwest coastal areas, directly affecting supply of water, rain-fed agriculture, and livestock productivity (Wadsworth et al, 2019). With a potential increase in rainfall of about 30% for some parts of the coast where monthly rainfall can exceed 1000mm (McSweeney et al, 2010), climate-induced events like flash floods, storms (including squall lines bringing thunderstorms and high winds) and subsidence will become more frequent, disrupting communications, transportation and damaging homes and agriculture. Generally, more rainfall leads to increased surface runoff, risking polluting coastal waters with nitrogen, phosphorous, sediments and toxic contaminants that affect dissolved oxygen levels. In other coastal areas (including the far West), rainfall is significantly decreasing which, combined with higher temperatures, will diminish water supplies, increase the salinity gradient of freshwater and cause fires (USAID 2019).

To underdstand and address climate change, efforts have been made by the Government of Sierra Leone and its partners to design and deliver various policies and interventions. Notable among these is the development of a National

[3] World Bank, 2021. https://climateknowledgeportal.worldbank.org/country/sierra-leone

Adaptation Plan (NAP) in 2020 and the review of the NDC in 2021. The NAP process inspires this NDC planning process by enabling the consultant to identify and prioritise medium and long-term priorities for adapting to climate change. Similarly, the updated NDC provides a framework for tailoring specific adaptation and mitigation needs to the resources available in-country and externally, ensuring that prioritised measures can be transformed into bankable initiatives and locally appropriate interventions.

2. Overview of the NDC

Sierra Leone's vision for climate change is divided into measures for mitigation and adaptation. For mitigation, based on the LECRDS, the vision is to earn forest carbon credits through the implementation of REDD+ (Reducing Emissions from Deforestation and Forest Degradation) programmes. For adaptation, drawn from the iNAP, the vision is to reduce vulnerability by half by 2030 through increased risk awareness, improvements in rule compliance, increased institutional capacity and an integrated approach to adaptation in development policy and programs across sectors and scales. The above visions support proposals in the National Climate Change Policy (NCCP), which was revised in early 2021.

It also expands on the goals set for adaptation in the NAP, which include increasing resilience capacity at all scales; supporting an integrative approach to climate change adaptation programming and policymaking; allocating 10% of annual national budgets to climate change adaptation across sectors; harmonizing climate-relevant policies and regulations to improve coordination and cross-sector linkages; mainstreaming adaptation into local development plans by 2025; institutionalize NAP implementation through laws, policies, and regulations; establishing a National Trust Fund for channelling adaptation support across sectors; and securing 40% of international development funding to support adaptation priorities across different sectors.

These national goals contribute to achieving the Global Goal on adaptation by reducing vulnerability through integrating adaptation considerations into all relevant plans, policies, and strategies, and prioritizing and plan for adaptation. They also ensure that the adaptation component of the NDC becomes a strategic and ambitious vehicle for capturing, reporting, and updating commitments and progress, as well as aligning long-term national development priorities with the SDG framework. Moreover, the goals contribute to improving the delivery of climate services as prescribed in the National Framework for Climate Services (NFCS). The NFCS will benefit a wide range of sectors and climate intervention areas, including biodiversity, health, energy, agriculture, human settlements, water etc. By implementing the NDC, key actors, including SLMet, can produce sector-specific products to enable informed decision-making in the context of the effective, efficient, and equitable delivery of climate services.

2.1. Priorities for NDC Implementation

In the NDC, sectors have been prioritised for both adaptation and mitigation. For mitigation, the priority sectors include energy; industrial processes and product use; waste; Agriculture, Forestry, and Other Land Uses (AFOLU); and the blue

economy, while for adaptation, the priority sectors are Agriculture and Food Security, Water Resources and Energy, Coastal Zone Management (including fisheries, coastal ecosystems etc.), Environment (including tourism, land, mineral resources, forestry, etc.), Disaster management, Gender, and Social Inclusion (focusing on youth, women, elderly, persons with disabilities), and hard and soft infrastructure (including for transportation, WASH, etc). The actions to be undertaken in each of these sectors to meet targets prescribed in the NDC are described in table 1.

Table 1: Sectoral priorities for NDC implementation

Focal area	Sector	Priorities
Mitigation	Energy	Priorities for energy focus on reducing emissions from power plants and other energy fossil fuel-based sources. They are based on efforts in the sector to increase universal energy access through the deployment of renewable energy technologies and increased efficiency of energy sources. Generally, the sector could contribute immensely to emissions reduction through the implementation of the Integrated Resource Plan (IRP) developed by the MCCU and the offgrid solar energy strategy developed by the Foresign and Commonwealth Development Office (FCDO). Both documents complement actions in the sector to promote universal access to clean energy by 2030 and meet targets for emissions reduction by 2025.
	Industrial process and product use	Priorities for industry focus on actions to reduce emissions from local industry and the use of various products. They are based on efforts across multiple public and private sectors to improve process and product use and enforce extended producer responsibility while reducing emissions that endanger air quality and engender persistent air pollution. The selection of mitigation options for this sector is also based on national plans to implement the Kigali Amendment to the Montreal Protocol on substances that deplete the Ozone Layer, as well as Environmental Management Plans (EMP) adopted by various producers in compliance with the Environment Protection Agency Act of 2008 (Amended in 2010).
	Waste	Priorities identified for waste management reflect efforts in various sectors to effectively manage waste from agricultural, healthcare, and other practices and sources. The priorities build upon national plans for managing animal waste, general solid waste, and other hazardous substances that endanger health and ecosystem vitality.
	AFOLU	AFOLU cuts across agriculture, forestry, and other land use sectors that contribute to land use change and land cover change for various outcomes. It focuses on the carbon impacts of forest loss, mining, and traditional agricultural practices such as slash and burn and the use of pesticides and chemical fertilizers. It also focuses on the net carbon

		gain of large-scale agro-investment land leases across the country, such as monoculture oil palm and sugarcane plantations run by SOCFIN and Sunbird Energy respectively. Efforts to reclaim mined-out areas, or the general impacts of mining on forest carbon sequestration and soil carbon is also addressed.
	Blue economy	As a priority for climate change mitigation, the blue economy in Sierra Leone incorporates traditional maritime industries such as fisheries, tourism, mining, boat building, aquaculture systems, and carbon stored in mangrove and seagrass ecosystems. The fisheries sector for instance is a major source of jobs and a key driver of mangrove deforestation in coastal communities in Sierra Leone, which can have a major impact on the country's blue carbon stock. These analyses inform an understanding of the current change in the country's blue carbon stock, including losses or gains overtime in mangrove and seagrass resources.
Adaptation	Agriculture and food security	Agriculture and food security are prioritised for adaptation because climate change is already having a toll on agricultural food systems in the country, including exporters and importers as well as those at subsistence level. In the future, changes in mean rainfall and temperature as well as the increase in extreme events will affect agriculture and livestock practices. At the same time, many impacts, such as increased land degradation and soil erosion, changes in water availability, more frequent and more intense pest and disease outbreaks as well as disasters need to be addressed to reduce food security risks.
	Water resources and energy	The water sector is prioritised for adaptation because future strategies will need to address many emerging trends driven by climate change. These include both demand and supply side concerns, including reduced availability, quality, and allocative efficiency. The energy sector is also a priority because the impacts of climate change will mostly affect the resource base of renewable energy sources through changes in water availability for hydropower, impacts on thermal power plants and energy infrastructure.
	Coastal Zone Management (including fisheries, coastal ecosystems etc.)	The coastal zone and the resources they provide are priorities for adaptation because climate change will impact the health, function and productivity of coastal ecosystems, thus impacting the health and welfare of coastal communities and the people that depend on these natural resources. Climate change will have significant and immediate consequences for the country's coasts, the goods and services provided by coastal ecosystems, and coastal inhabitants. This includes accelerated coastal erosion and loss of land and property, flooding, saltwater intrusion, shifts in the distribution and abundance of valuable marine habitats, species and biodiversity, and the accelerated spread of exotic and invasive species.

	Environment (including tourism, land, mineral resources, forestry, etc.)	Tourism is prioritised for adaptation in this NDC to reduce the business risks of tourism companies and protect their natural capital (such as beaches, rainforests, and biodiversity) and ecosystem services (water supply, protection against floods, landslides, etc.). The land and forestry sectors also lie at the heart of ongoing efforts to protect ecosystem integrity and promote the livelihoods and resilience of the poor and vulnerable. The mining sector is also a priority because threats to the sector's profitability and viability, such as climate change, may have significant consequences for development in the country and undermine resilience in various communities.
	Disaster management	Disaster risk reduction and climate change adaptation represent policy goals for the government of Sierra Leone, one concerned with an ongoing problem (disasters) and the other with an emerging issue (climate change). As these problems overlap a great deal through the common factor of weather and climate and the similar tools used to monitor, analyse, and address adverse consequences, disaster management is prioritised in this NDC to allow for approaching the twin issues of climate change and disaster risk reduction in a systematic and integrated way.
	Gender and social inclusion	Gender is a cross-cutting concern for adaptation planning because women and girls are subject to a disproportionate amount of risk from climate-related natural disasters. Risks during and following natural disasters are often higher for womengirls, and persons with disability due to social norms, breakdowns in law and order, and disrupted livelihoods. Women girls and persons with disability also bear the brunt of risks and vulnerabilities brought on by droughts, floods, and other extreme weather events, which places them at the front lines of adaptation as important and necessary stakeholders in effective adaptation to climate change. The NDC, therefore, considers gender-transformative and socially inclusive strategies that will empower women, girls and persons with disability reduce gender inequality, and improve adaptation and resilience outcomes.
	Hard and soft infrastructyre	Infrastructure, whether hard or soft, is a priority here because such networks will be affected by the physical impacts of climate variability and change but will also play an essential role in building resilience to those impacts. The strategies proposed will ensure that infrastructure is climate resilient to reduce direct losses and reduce the indirect costs of disruption. New infrastructure assets will also be prioritised, planned, designed, built, and operated to account for the climate changes that may occur overtime. Existing infrastructure will also be retrofitted, or managed differently, because of climate change.

2.2. Prioritising activities for NDC Implementation Planning

To narrow the focus down to the key sectors and activities that this plan could support until 2030, the CCS worked with the Consultant to revise the activity schedules (list of measures and resources) presented for both adaptation and mitigation in the updated NDC. The result was eight mitigation and seven adaptation activities selected because of their trialability, measurability, scalability, local appropriateness, benefit distribution potential, and alignment with national development goals and climate mainstreaming approaches (see table 2).

Table 2: Activities earmarked for NDC implementation until 2030

Mitigation	Sector	Selection criteria					
		1	2	3	4	5	6
Increase access to sustainable and clean energy systems	Energy	X	X	X	X	X	X
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	IPPU/	X	X	X	X	X	X
Develop a national forest inventory and forest management information system	AFOLU	X	X	X	X	X	X
Reforest14,000 hectares of degraded lands	AFOLU	X	X	X	X	X	X
Improve waste management infrastructure and governance processes	Waste	X	X	X	X	X	X
Promote integrated management of water resources	AFOLU		X	X	X	X	X
Enhance access to sustainable transport systems	Transport	X	X	X	X	X	X
Establish and manage blue carbon systems in the coastal zone	AFOLU	X	X	X	X	X	X
Adaptation	Sector	1	2	3	4	5	6
Promote climate-resilient agriculture	Agriculture	X	X	X	X	X	X
Provide climate-resilient infrastructure and systems for the health sector.	Health	X	X	X	X	X	X
Support the expansion of early warning systems	Environment	X	X	X	X	X	X
Operationalize the coastal zone management plan	Environment (coastal zone management)	X	X	X	X	X	X
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	Environment	X	X	X	X	X	X
Increase the resilience of the fisheries sector	Environment (fisheries)	X	X	X	X	X	X
Improve land governance and SDG15.3 reporting	Environment (land)	X	X	X	X	X	X

Key: 1 (High mitigation/adaptation potential); 2 (High measurability); 3 (High scalability); 4 {Local appropriateness (fitness-for-purpose)}; 5 (Benefit distribution potential); 6 (High alignment with national development goals)

3. NDC Implementation Planning

Following from the prioritisation done in Table 2 in the preceding section, the CCS identified various considerations that have gone into the design and delivery of relevant plans and strategies, developed either by government or supported by partners. A selection of these developments since 2015 (when the Intended NDC was submitted to the UNFCCC) are outlined in Table 3 below. The developments were useful sources of inspiration for updating the NDC, and are the bases for this plan. To establish the value add of the NDC implementation plan, the consultant worked with the CCS to evaluate efforts made on different levels (national, subnational) to build NDC awareness and support, strengthen institutional capacities, conduct technical assessments, build an NDC outcome map, mobilise resources for implementation, develop enabling conditions, and monitor progress and performance. These processes are not expected to be sequential, but they provide a framework for defining progress and for institutionalising planning for future cycles of NDC design and delivery.

Table 3: Some developments since the submission of the INDC in 2015

Some developments since 2015	Year
Establishment of an Environment Ministry	2019
Enactment of the Sierra Leone Meteorological Agency Act of 2017	2017
Transformation of the National Meteorological department to the Sierra Leone Meteorological Agency	2017
Development of and validation of an initial National Adaptation Plan (NAP)	2021
Development and adoption of the fourth generation Poverty Reduction Strategy Paper (PRSP), also known as the Medium-Term National Development Plan	2019
Establishment of a Renewable Energy Directorate in the Ministry of Energy	2021
Establishment of a National Water Resources Management Agency	2017
Establishment of a National Disaster Management Agency	2020
Review of the Disaster Management Policy	2021
Development of a capacity development plan for disaster management	2020
Development of new acts for forestry, wetlands management, and conservation of wildlife	2021
Development of a National Framework for climate services	2020
Development of a national document for Land Degradation Neutrality target setting	2018
Revision of National Climate Change Policy and a climate change communications strategy	2021
Development of the third National Communications to UNFCCC	2017
Development of a contingency plan for drought management	2018
Development of a Coastal Climate Change Adaptation Plan	2018
Offgrid Solar Energy Strategy	2020
Nationally Appropriate Mitigation Action	2020

National Biodiversity Action Plan	2017
Development of the Renewable Energy Policy	2016
Off-Grid Solar Energy Strategy	2020
National Renewable Energy Action Plan	2016
Development of the Energy Efficiency Policy	2015
Establishment of a National climate change standing committee to coordinate actions at national level	2016
Establishment of regional climate change committees for subnational coordination.	2020

3.1. Building NDC awareness and support

To estimate the nature and extent of public awareness and support developed for the NDC, discussions with the CCS focused on efforts to increase awareness at the national level- both within the government and among stakeholder groups outside of government. The review also focused on consultations done and planned to take stock and build support for NDC implementation decisions, such as institutional arrangements, monitoring procedures and results, and technical assessments. These discussions were guided by the questions addressed below.

Table 4: Responses to questions on NDC awareness raising

Questions	Feedback obtained
Has the NDC been effectively communicated to all key stakeholders (e.g., sectoral ministries, local governments, parliamentarians, business and industry associations, academia, national media, the public, other stakeholder groups). If no, how do you plan to increase awareness of the NDC among different stakeholder groups?	A Climate Change Communications Strategy has been developed and some early steps have been taken to garner public support and raise awareness.
2) Have the implications of the NDC for each of these different stakeholder groups been clearly articulated?	The CCCS identified different target groups or audience segments and the most likely channels to use to reach them. The strategies however generically present the vision of the NDC (not measures), since adaptation and mitigation measures have not been differentiated along target groups.
3) What national or sub-national consultations have already taken place in the country to begin planning for NDC implementation?	Nationwide statekeholder consultations preceded the design of the NDC, but no specific actions have been taken to further consult people on the pathways to delivering the NDC. This outcome, to engage for the sake of developing a plan for implementation, has been explored through this consultancy.
4) Are additional consultations needed for the planning phase? If yes, which consultations are the highest	Yes, with the regional workshops organised recently to support this

priority and why? 5) What is the timeframe over which we should complete these consultations?	strategy development process the most significant priority.

3.2. Strengthening institutional capacities

Concerning the extent of institutional capacities developed and/or strengthened, discussions with the CCS focused on the existence of institutional arrangements for delivering the NDC, as well as priorities for deploying new coordination mechanisms, or improving coordination across levels of governance (e.g., national, departmental, local). These discussions were guided by the questions addressed in Table 5.

Table 5: Responses to questions on strengthening institutional capacities

Questions	Feedback obtained
1) Will an existing institution (e.g., CCS/EPA) coordinate the NDC implementation process or will a new institution need to be created? What are the benefits and constraints of each option in our national context?	Yes, NDC implementation will be led and coordinated by the CCS at the EPA. New coordination mechanisms or committees will be created to facilitate the delivery of the different components of the plan.
2) How can roles and responsibilities be allocated across institutions depending on defined national circumstances and the sectors covered by the NDC?	Roles and responsibilities are clearly delineated in the updated NDC, which will be adapted for this plan to provide an idea of the governance
3) What structures need to be put in place to improve coordination across ministries and levels of government (e.g., national, departmental, local)?	Regional coordination committees will be established, and a scope of work and action developed to support their activities.
4) What type of data will be needed to track progress toward the NDC? Are there mandates/mechanisms in place to ensure that this data is collected efficiently? Are there sufficient resources (human, technical, financial) allocated to institutional arrangements defined for NDC implementation?	The resources available to institutional arrangements for monitoring, evaluation, and reporting are meagre and unevenly distributed. The CCS also lacks a results-based management strategy, which will be needed to coordinate data collection and lessons-learning.
5) What skills must each institution possess to carry out its role in NDC implementation?	Trainings in NDC design processes, including data collection and strategy development will improve learning for future NDC development and implementation. A CBIT project being implemented by the CCS promises to train trainers (from across all relevant sectors) in various aspects of NDC design and delivery.
6) How can the prescribed institutions strengthen capacities where skills may be lacking?	A capacity development strategy willneed to be developed, focused on introducing focal points from across all relevant sectors in the key principles and practices

	of NDC design and implementation, and climate governance broadly.

3.3. Conducting technical assessments

Regarding technical assessments conducted, discussions with the CCS focused on activities undertaken to record information and analyses, including NDCs, national greenhouse gas inventories, national communications and biennial update results, and various plans and strategies to identify gaps in learning and determine the next steps for evidence generation and application to decision-making. The discussion also examined barriers to producing credible data, including whether a strategy or plan for evidence generation has been produced since the NDC was submitted. Also discussed was whether the CCC has taken steps to develop Business-as-Usual scenarios and calculate allowable emissions, which were identified as weaknesses of the recent version of the NDC. These issues are further illuminated in Table 6.

Table 6: Responses to questions on technical assessments

Questions	Feedback obtained
1) What barriers or challenges can you envision in the process of developing an NDC implementation plan for the country? How can these barriers/challenges be overcome?	The main barriers are technical incapacity and limited financial resources.
2) What existing technical information, documents, and analyses can the implementation plan draw on?	The information required for developing the plan is qualitative, so the NAP and updated NDC are the critical sources of information. Other plans and strategies developed by different sectors and departments also provide inspiration and enrich stakeholder consultations.
3) What additional information (e.g., BAU scenarios, sectoral targets, sub-national GHG inventories, adaptation needs assessments, etc.) will be needed to prepare/fully execute the NDC implementation plan, given the country's overall contribution and existing information?	Sectoral targets and measures will be gleaned from the updated NDC and prioritised so that the plan is focused on what is practical, bankable, and achievable in the given period.
4) What is the strategy for incorporating and/or undertaking these processes and studies?	Literature reviews and regional stakeholder consultations.

3.4. Developing an NDC Outcome Map

For progress made with outcome mapping, discussions with the CCS focused on the availability of technical information required to identify and prioritize concrete adaptation and mitigation options for NDC implementation, including areas in the

NAP and previous plans (or prioritisation processes) to improve the targeting of NDC actions. Also, the existence of geographic boundaries for specific mitigation and adaptation measures to begin to understand and estimate impact was probed. Questions regarding the existence of an outcome map also stemmed from the extent to which previous efforts have sought to build consensus to increase ownership among relevant government institutions and other stakeholders. These points are summarised in Table 7.

Table 7: Responses to questions on outcome mapping efforts

Questions	Feedback obtained
1) Does the NDC already identify specific mitigation and adaptation actions that will allow you to achieve our NDC goals? If not, how can you undertake an inclusive process to identify and prioritize specific actions informed by estimated impacts, costs, feasibility, etc.?	Yes, specific mitigation and adaptation actions are identified in the updated NDC. The options mostly draw insights from previous NDCs and other national plans and strategies.
2) What existing plans, strategies, or prioritization exercises can you build on? What decisions will need to be made in terms of sectors, scope, timeframe, roles, and responsibilities, etc. to develop the implementation plan? What aspects will require high-level political approval?	The NAP, climate change policy, climate change communications strategy and other climate-related instruments provide a base for this work. Going forward, the proposals for domestic financing in the plan should be accorded high-level political approval.
3) How can you consider the global Sustainable Development Goals, the long-term national development vision, gender equality, and other key aspects in the design of the NDC implementation plan?	The priority measures for adaptation and mitigation align with different sections of the national development plan and contribute to different SDGs. The measures also promote gender mainstreaming and women's empowerment to ensure that marginalised populations are meaningfully involved in the design and delivery of NDC-related projects and programme3s.
4) How can you ensure ownership among relevant stakeholders as you develop our NDC implementation plan?	Some communication work has been done following the development of the National Climate Change Communications Strategy. More work is required, nonetheless, to raise climate risk awareness and foster ownership of actions and outcomes.

3.5. Mobilising Resources for Implementation

In terms of technical and financial resources mobilised, discussions with the CCS focused on the existence of a funding strategy that accounts for existing climate-related public expenditures in all sectors, and the likelihood for additional public

resources to be invested in identified and/or prioritized measures. Also, the possibility of engaging the private sector in the context of NDC delivery, developing bankable projects to attract investment, and finding options to lower, transfer, or compensate investor risk were explored. More information on the feedback obtained can be found in table 8.

Table 8: Responses to questions on resource mobilisation

Questions	Feedback obtained
1) Have you quantified what portion of the NDC is unconditional versus conditional upon additional resources (as relevant)? What components of our NDC implementation plan should be funded by national expenditures? For which components will we need private investment or international support?	A budget was provided in the updated NDC and the conditionality of the costs determined, although the budget was largely speculative. This plan takes that work further by identifying specific costs that will be supported by public and private sectors and through international funding mechanisms. The determination of costs is based on stakeholder consultations done across the country where representatives from government and communities examined the financial and technical requirements of implementing the NDC.
2) What needs to happen at the national level (e.g., cabinet, or parliamentary approval) to appropriate public resources toward implementation of certain components? What is the country's strategy for attracting private investment or international support?	The NAP called for a public funding cap to be set by both the cabinet and the House of Parliament, which has not been achieved. This means that such high-level support of this plan and the NDC broadly will need to be mobilised. A similar approach will be needed for attracting private investment in local climate actions.
3) What information (e.g., costs, information on past and planned public expenditures, information on investment flows, etc.) will you need to inform these decisions? What tools can you use in this process (e.g., analyses of investment and financial flows, climate public expenditure and institutional reviews, etc.)?	A measurement of in-flowing and outgoing climate finance is difficult because because many climate-informed international development and government interventions are not explicitly related to priorities set in the NDC. A detailed assessment will be needed to understand the scale of finance mobilised so far, from whom, and for what purpose (adaptation or mitigation).

3.6. Developing Enabling Conditions

As regards developing enabling conditions or a supportive governance context (or policy environment), discussions with the CCS focused on the existence of a plan

for implementation (whether developed for sectoral or departmental purposes or not), and the passage and application of laws, regulations, and policies. These discussions were guided by the question addressed in Table 4.

Table 9: Responses to questions on enabling conditions

Questions	Feedback obtained
1) What enabling conditions will be needed based on the country's list of prioritized actions and identified barriers to implementation?	Many laws, policies, and regulations have been developed to support NDC implementation. These are rules developed and applied centrally by the CCS or developed and applied separately by MDAs across government. Such decision-making processes are often supported by donor partners and updated in the light of changing circumstances and needs.

3.7. Monitoring Progress and Performance

Finally, on the collection of data and the management of results showing progress and performance, or otherwise, discussions with the CCS focused on the need to create or strengthen systems for collecting data and tracking progress toward NDC implementation. Questions regarding whether systems exist for national GHG inventories, national communications, NAPs, nationally appropriate mitigation actions, and projects and programes were posed. Also, the existence of mandates for data collection was probed, including the existence of a monitoring plan to track the implementation of NDC-related adaptation and adaptation measures, the existence of a system for updating GHG inventories, and a means to transparently report on progress both domestically and internationally. The feedback obtained is summarised in Table 10.

Table 10: Responses to questions on monitoring performance

Questions	Feedback obtained
1) What existing systems can we build on to monitor NDC progress? In what ways will these systems need to be strengthened?	There is no result-based management system for tracking NDC progress and performance, but individual projects institute mechanisms for monitoring, evaluation, and learning. A national plan or framework for moniroting, evaluation, reporting, and research will surely enhance accountability.
2) To what extent are policy implementation and policy impacts already being tracked? Do methodologies exist for tracking implementation	Policy implementation is happening but the point of whether it is being tracked in terms of uptake and impact is vaguely understood. This is where a national

or impacts? What additional data will be needed? What mandates for data collection will be needed?	framework for monitoring will be effective by aiding the collection of data on both policy and practice.
3) What is your strategy for developing a monitoring plan that will allow you to transparently demonstrate progress toward NDC goals and report domestically and internationally?	A way to extend NDC planning is to produce a comprehensive plan for monitoring and reporting. The CBIT project is already strengthening processes for transparently reporting NDC performance overtime, which will form a crucial basis for streamlining reporting practices and enhancing transparency at all levels.
4) What updates (e.g., to national inventories, BAU scenarios, etc.) will be needed to implement our proposed monitoring plan?	The national GHG inventory will need to be updated to effectively monitor progress with mitigation. The same will need to be done (in terms of collecting baseline data) to effective track adaptation impacts.

4. NDC Implementation Plan

Having described the purpose of the consultancy and this plan and provided an analysis of the value add of the plan based on both the synthesis of literature on previous and current progress and discussions with the CCS, this section proposes an action plan and budget for implementing the NDC until 2030. It begins by outlining the vision and presenting the results of the outcome mapping process (regional stakeholder consultations- see Annexes 2,3, 4, and 5), including key barriers and triggers, outcome targets, and progress markers for implementing the plan. Then, it moves on to scheduling priority adaptation and mitigation measures in the light of these outcomes, and by providing costs and timelines for achieving each measure. These and other details are presented in the following subsections.

4.1. Vision

The central goal of this plan is to realise the vision of a sustainable, low-carbon, and resilient country through a well-governed and sustained financing architecture run by stakeholders working at different levels of government. The vision will be realised by: (i) improving NDC planning, policy, and strategy; (ii) strengthening the enabling environment for engagement and delivery; and (iii) accelerating NDC actions, reporting, and verification. Accordingly, this plan provides a framework for preparing for NDC implementation, which includes aligning processes with development outcomes; prioritising policies and measures; assessing capacities, institutions, and regulatory frameworks; and engaging stakeholders. It also provides a chance for costing implementation options, formulating strategies for financing NDC implementation, and scaling-up finance in a more coordinated and sustainable manner.

In the long-term, this plan will form the basis for disaggregating national targets to the level of sectors to deliver on various ambitions. This will mean offering sectors an opportunity to draw on the plan to develop sectoral roadmaps to develop a more harmonised vision for reducing emissions and delivering climate-informed development projects. Following this approach, the CCS will be able to examine convergences across sectors and measure the nature and extent of transformative impact resulting from such interactions.

4.2. Barriers and triggers

One outcome of the outcome mapping process (stakeholder consultations held across the regions) was the identification of barriers and triggers to effective,

efficient, and equitable NDC implementation. Most stressed was funding limitation for the implementation of activities. Also observed were the limited institutional capacity to design and deliver strategic actions and targets and the limited availability of credible data and knowledge to broker effective institutions and decision-making at scale. These issues and some of the key opportunities identified by stakeholders are summarised in table 11.

Table 11: Barriers and triggers to NDC planning and implementation

Activities	Barriers identified	Triggers identified
Increase access to sustainable and clean energy systems	Existing laws are not specifically climate-focused Mitigation potential of energy projects is normally not estimated by proponents, which undermines data availability for planning.	There is a growth in the uptake of renewable energy systems and technologies Access to clean energy systems is increasing, leading to less climate-risky economic activities.
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	Poor coordination (mechanisms for coordination exist but are not effective) Climate accounting is not a normal in the manufacturing and extractive sector	New mining law recognises the impact of climate change and the need for adaptation Many structures in the sector feature as key players in all standing committees
Develop a national forest inventory and forest management information system	Available inventory is outdated There is no forest information management system	There are public bodies for forest management Laws exist for engaging broadly across sectors and communities to gather information and conduct activities
Reforest14,000 hectares of degraded lands	Financing committed by the government is insufficient Monitoring to ensure survivability is poor.	There is high-level political support for reforestation and afforestation There is a growing donor interest in the activity.
Improve waste management infrastructure and governance processes	Infrastructure for waste management is dated. Open air burning is common, which is a major source of air pollution in cities.	Municipal councils are slowly gaining exclusive rights to waste management C40 Cities and other international partners

	Existing plans and strategies don't approach the issue from a climate change perspective	provide support to local councils to plan and improve their urban spaces in response to climate change
Promote integrated management of water resources	Data on critical water sources, demand, and supply is dated and inaccessible in most cases Water-related initiatives do not explicitly refer to adaptation goals in the NDC	There is a public body for coordinating mechanisms for water governance Donor support for research and project implementation in the field is increasing
Enhance access to sustainable transport systems	Transportation initiatives do not explicitly refer to mitigation goals in the NDC	Key public structures are part of standing committees for climate governance
Establish and manage blue carbon systems in the coastal zone	Coastal systems are poorly managed despite donor investments made so far No blue carbon assessments have been done	Much of the country's climate finance has been directed to increasing coastal adaptation and resilience
Promote climate-resilient agriculture	The focus of projects is often food security following conventional approaches Climate-proofing is limited due to poor institutional capacity in mainstreaming climate change into plans and strategies	The sector is well-funded but the linkage of outcomes to NDC priorities is quite vague Climate-resilient agriculture is widely accepted as the future approach to food productivity and security
Provide climate-resilient infrastructure and systems for the health sector.	Climate-informed one health interventions are budding, with ecosystem health (in terms of zoonoses) receiving more attention There is a poor understanding of climate risks, hazards, and impacts	Donor interest in representing climate change as a cross-cutting issue in health projects is increasing
Support the expansion of early warning systems	Early warning systems have not led to effective climate services Data translation and communication is rarely	More donor support towards expanding early warning infrastructure Ways to engage audiences with climate data are being explored

	done by end users at the local level	
Operationalize the coastal zone management plan	Efforts to implement the plan are fragmented and mainly hosted by the fisheries sector	Coastal committees formed and additional management areas (in the bothe-sherbro estuary) have been identified
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	The only available vulnerability assessment is for coastal areas done in 2017	The need to perform a sector-based vulnerability and capacity analyses is noted in the NDC
Increase the resilience of the fisheries sector	Interventions by the sector do not explicitly account for adaptation goals in the NDC	Ongoing and pipelined coastal zone management projects will benefit the sector
Improve land governance and SDG15.3 reporting	No field-level action to address land degradation has been taken Assessments of land degradation are based on externally produced (default) data	An assessment of land degradation has been done and a neutrality target for 2030 have been set Bankable projects are being developed by UNCCD and the Ministry of the Environment

4.3. Potential Collaborators and boundary partners

Another outcome of the consultations was the identification of potential collaborators and boundary partners. Many local and international organisations and bodies were thought to be critical to the effective implementation of the NDC, either through direct technical and financial support, or through strategic partnerships and deliberate networking efforts that enhance learning and reflection. Boundary partners are distinguished here in the sense that there are specific persons and groups within the government, communities, and elsewhere whose capacities need to be built, whose relationships need to improve, and whose behaviours need to change to achieve the targets set for adaptation and mitigation. A list of potential partners is provided in the table below.

Table 12: Proposed list of potential collaborators and boundary partners

Activities	Potential collaborators	Boundary partners
Increase access to sustainable and clean energy systems	Ministry of Energy Renewable Energy Association of Sierra Leone UNIDO UNSE4ALL	Women entrepreneurs Farmers Health practitioners Energy providers

	Millennium Challenge Corporation USAID FCDO UNOPS	
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	Ministry of Mines and Mineral Resources National Minerals Agency SLEITI	Artisanal miners Communiry-based organisations
Develop a national forest inventory and forest management information system	Ministry of the Environment Forestry Division National Protected Area Authority UN Development Programme Food and Agriculture Organisation	Loggers Hunters Artisanal miners
Reforest14,000 hectares of degraded lands	Ministry of the Environment Forestry Division National Protected Area Authority UN Development Programme Food and Agriculture Organisation	Loggers
Improve waste management infrastructure and governance processes	Ministry of Local Government Ministry of Transport and Aviation Municipal and District Councils World Bank Group C40 Cities Group	Waste collectors Waste entrepreneurs
Promote integrated management of water resources	Ministry of Water Resources NWRMA Guma Valley Water Company SALWACO Water Aid MCC UKAID Save the Children Goal Ireland	Water providers
Enhance access to sustainable transport systems	Ministry of Transport and Aviation SLRA RMFA UNIDO World Bank Group	Motorbike riders Taxi drivers Pedestrians
Establish and manage blue carbon systems in the coastal zone	Ministry of Fisheries and Marine Resources	Fishers Tour guides

	National Protected Area Authority Environment Protection Agency FAO UNDP USAID	Fish vendors Fish smokers Wood cutters Charcoal burners
Promote climate-resilient agriculture	Ministry of Agriculture FAO IFAD	Farmers Food processors Food transporters Traders
Provide climate-resilient infrastructure and systems for the health sector.	Ministry of Health and Sanitation Global Fund World Bank Group	Health practitioners
Support the expansion of early warning systems	Ministry of the Environment SLMet NDMA	Farmers Health practitioners Community Disaster Management Committees
Operationalize the coastal zone management plan	Ministry of Fisheries and Marine Resources National Protected Area Authority Environment Protection Agency FAO UNDP USAID	
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	Ministry of the Environment Environment Protection Agency UNDP FAO	
Increase the resilience of the fisheries sector	Ministry of Fisheries and Marine Resources National Protected Area Authority Environment Protection Agency FAO UNDP USAID	Fishers
Improve land governance and SDG15.3 reporting	Ministry of the Environment Environment Protection Agency UNDP UNCCD	Farmers Commercial loggers Livestock herders Artisanal farmers

4.4. Outcome targets and Progress Markers

Also emergent from the consultations was the delineation of outcome targets and progress markers. Stakeholders outlined targets for NDC performance and markers for tracking such a performance. These suggestions are proposed in table 13 below.

Table 13: Proposed outcome targets and progress markers

Activities	Outcome targets	Progress markers
Increase access to sustainable and clean energy systems	30% of the rural population have access to clean energy 200 rural communities have solar-powered businesses owned by women Enrolment rate in primary schools increases due to access to energy Provide a national emissions profile for new and renewable forms of energy	Number of rural households with access to clean energy Number of connected women-led or -owned businesses within mini-grid locations Percentage increase in the enrolment of children in primary schools within mini-grid locations Extent of emissions from the energy sector
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	Database for emissions monitoring in the extractive sector is established by 2025 Guidelines and rules for emissions reduction in the extractive and manufacturing sectors are developed by 2024	Functioning database for monitoring emissions in the sector Level of integration of climate mitigation options into existing laws, policies, and strategies
Develop a national forest inventory and forest management information system	Develop a national forest management information system and database Provide a comprehensive national forest carbon inventory by 2025 Empower staff of the Forestry Division with skills in forest inventory development and forest carbon monitoring	Existence of a functional forest management information system Existence of a forest carbon inventory Number of personnel trained (disaggregated by gender)
Reforest 14,000 hectares of degraded lands	Reforest large swathes of degraded lands in protected and designed areas	Number of hectares of degraded land reforested (or applying climate-proofing measures)

	Develop a community carbon monitoring project to increase tree survivability	Number of communities involved in carbon moniroting project Percentage of tree survival after reforestation or afforestation
Improve waste management infrastructure and governance processes	Produce climate-informed waste management strategies and plans for all municipal councils Provide a national emissions profile for waste and develop regulations for extended producer responsibility Support waste-derived businesses in Western Rural communities and neighbourhood upgrading across informal settlements in the Freetown municipality	Number of strategies or plans developed Number of local councils mainstreaming climate change into their development plans Extent of emissions from the waste sector Number of youth and women involved in waste-derived businesses Number of households in informal settlements benefiting from neighbourhood upgrading
Promote integrated management of water resources	Provide water demand and quality data for all the important basins in the country Protect water catchment areas by developing climate-informed policies and projects Train personnel in the water sector in climate-proofing investments and developing strategies for infrastructure and community resilience Undertake a detailed study of climate impacts on the WASH sector and assess opportunities for investment	Report on water demand and quality Number of policies and projects in favour of water catchment protection Number of personnel trained (disaggregated by gender) Report on climate impacts on the WASH sector
Enhance access to sustainable transport systems	Pilot sustainable transport systems in Freetown Provide a national emissions profile of the transport sector	Number of innovative technologies or systems supporting the adoption of sustainable transport practices Extent of emissions from the transport sector

Establish and manage blue carbon systems in the coastal zone	Estimate the blue carbon sequestration potential of the coastal zone Increase coastal resilience through adaptation activities in 40 inland and wetland communities	Extent and sources of blue carbon in the coastal zone Number of men, women, and children benefiting directly and indirectly from coastal adaptation initiatives
Promote climate-resilient agriculture	Introduce climate-resilient agriculture tools and approaches to 500 farmers across the country Train personnel in the agriculture sector in planning, implementing, and tracking climate-resilient farming and livestock management initiatives Provide a national emissions profile of food waste and livestock waste	Number of farmers applying climate-resilient agriculture practices Number of personnel trained (disaggregated by gender) Extent of emissions from the agriculture sector
Provide climate-resilient infrastructure and systems for the health sector.	Increase support to one health projects focused on strengthening human, animal, and ecosystems health Provide a national emissions profile of the health sector Assess capacity needs for climate-proofing health investments and train personnel in such processes and tools	Number of one health projects with a climate change focus Extent of emissions from the health sector Report on the climate governance capacity needs of the health sector Number of personnel trained (disaggregated by gender)
Support the expansion of early warning systems	Increase access to climate services in the health, agriculture, energy, and disaster risk reduction sectors Assess the uptake of EWS (climate services generally) in those sectors and evaluate the pathways to data integration into decision-making Develop guidelines for the co-production, translation, and	Number of health posts, energy installations, farms, and disaster events receiving climate services from the SLMet Number of end users in the EWS value chain Extent of use of climate services information in sectoral decision-making

	communication of EWS data for effective decision-making	Number of guidelines on EWS data sharing and integration into decision-making
Operationalize the coastal zone management plan	Implement coastal adaptation recommendations in the Coastal Climate Change Adaptation Plan Train and support the Coastal Chiefs Natural Resource Management Network in developing and implementing bankable projects	Number of personnel trained (disaggregated by gender)
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	Conduct sector specific CVCAs to assess risks, hazards, and capacity needs across government Train personnel in adaptation options analysis and the design of bankable climate-informed development projects	Number of sector specific CVCAs produced Number of personnel trained (disaggregated by gender)
Increase the resilience of the fisheries sector	Provide a geospatial assessment of fisheries abundance and diversity and conditions affecting fisheries recruitment in delineated zones by 2025 Train personnel in the fisheries sector in climate-proofing investments and building community resilience	Existence of a geospatial profile of fisheries abundance, diversity, and climate impacts Number of personnel trained (disaggregated by gender)
Improve land governance and SDG15.3 reporting	Produce annual SDG 15.3 reports to assess changes in land productivity, land cover, and soil organic carbon across hotspots Identify opportunities for natural climate solutions in the land sector and develop 5 bankable projects by 2024 Train personnel in sustainable land management processes and tools Achieve all land degradation neutrality targets by 2030	Number of annual SDG 15.3 reports Number of projects funded Number of personnel trained (disaggregated by gender) Number of LDN targets achieved

4.5. Timelines and Costs

The final consideration at the workshop was timelines and budgets for the adaptation and mitigation activities prioritised earlier by the CCS. Each activitiy was discussed in terms of the realistic time it will take to implement, and the cost to be incurred to deliver results. Additionally, responsibilities for implementing each activity were delineated and assigned across sectors of government to demonstrate how ownership will be fostered and results tracked over time. The specific details can be found in table 14 below.

Table 14: Activity and cost scheduling of priority NDC actions

Activities	Proposed budget	Timeline (2023-2030)	Responsible
Increase access to sustainable and clean energy systems	15	2023-2030	Ministry of Energy
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	0.5	2023-2025	Ministry of Mines and Mineral Resource
Develop a national forest inventory and forest management information system	2.5	2023-2025	Forestry Division
Reforest14,000 hectares of degraded lands	2.5	2023-2028	Ministry of the Environment
Improve waste management infrastructure and governance processes	2.5	2023-2025	Ministry of Local Government Municipal and District Councils
Promote integrated management of water resources	8	2023-2028	Ministry of Water Resources NWRMA
Enhance access to sustainable transport systems	10	2023-2030	Ministry of Transport and Aviation
Establish and manage blue carbon systems in the coastal zone	6	2023-2028	Ministry of Fisheries and Marine Resources
Promote climate-resilient agriculture	20	2023-2028	Ministry of Agriculture

Provide climate-resilient infrastructure and systems for the health sector.	2.5	2023-2028	Ministry of Health and Sanitation
Support the expansion of early warning systems	10	2023-2030	SLMet
Operationalize the coastal zone management plan	5	2023-2028	Ministry of Fisheries and Marine Resources
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	3	2023-2025	Environment Protection Agency
Increase the resilience of the fisheries sector	4.5	2023-2028	Ministry of Fisheries and Marine Resources
Improve land governance and SDG15.3 reporting	5	2023-2030	Ministry of the Environment
Total budget	**97**		

Pulling the different strands together results in the comprehensive Implementation Plan presented in table 15 below.

Table 15: NDC Implementation Plan (2023-2030)

Activities	Responsible	Potential collaborators	Outcome targets	Progress markers	Proposed budget (million USD)	Timeline		
						2023-2025	2026-2028	2029-2030
Increase access to sustainable and clean energy systems	Ministry of Energy	Renewable Energy Association of Sierra Leone UNIDO UNSE4ALL Millennium Challenge Corporation USAID FCDO UNOPS	30% of the rural population have access to clean energy 200 rural communities have solar-powered businesses owned by women Enrolment rate in primary schools increases due to access to energy Provide a national emissions profile for new and renewable forms of energy	Number of rural households with access to clean energy Number of connected women-led or -owned businesses within mini-grid locations Percentage increase in the enrolment of children in primary schools within mini-grid locations Extent of emissions from the energy sector	15			
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	Ministry of Mines and Mineral Resources	National Minerals Agency SLEITI	Database for emissions monitoring in the extractive sector is established by 2025	Functioning database for monitoring emissions in the sector	0.5			

			Guidelines and rules for emissions reduction in the extractive and manufacturing sectors are developed by 2024	Level of integration of climate mitigation options into existing laws, policies, and strategies				
Develop a national forest inventory and forest management information system	Forestry Division	Ministry of the Environment National Protected Area Authority UN Development Programme Food and Agriculture Organisation	Develop a national forest management information system and database Provide a comprehensive national forest carbon inventory by 2025 Empower staff of the Forestry Division with skills in forest inventory development and forest carbon monitoring	Existence of a functional forest management information system Existence of a forest carbon inventory Number of personnel trained (disaggregated by gender)	2.5			
Reforest14,000 hectares of degraded lands	Ministry of the Environment	Forestry Division National Protected Area Authority UN Development Programme	Reforest large swathes of degraded lands in protected and designed areas	Number of hectares of degraded land reforested (or applying climate-proofing measures)	2.5			

		Food and Agriculture Organisation	Develop a community carbon monitoring project to increase tree survivability	Number of communities involved in carbon moniroting project Percentage of tree survival after reforestation or afforestation				
Improve waste management infrastructure and governance processes	Ministry of Local Government Municipal and District Councils	Ministry of Transport and Aviation World Bank Group C40 Cities Group	Produce climate-informed waste management strategies and plans for all municipal councils Provide a national emissions profile for waste and develop regulations for extended producer responsibility Support waste-derived businesses in Western Rural communities and neighbourhood upgrading across	Number of strategies or plans developed Number of local councils mainstreaming climate change into their development plans Extent of emissions from the waste sector Number of youth and women involved in waste-derived businesses Number of households in informal	2.5			

			informal settlements in the Freetown municipality	settlements benefiting from neighbourhood upgrading				
Promote integrated management of water resources	Ministry of Water Resources NWRMA	Guma Valley Water Company SALWACO Water Aid MCC UKAID Save the Children Goal Ireland	Provide water demand and quality data for all the important basins in the country Protect water catchment areas by developing climate-informed policies and projects Train personnel in the water sector in climate-proofing investments and developing strategies for infrastructure and community resilience Undertake a detailed study of climate impacts on the WASH sector and assess	Report on water demand and quality Number of policies and projects in favour of water catchment protection Number of personnel trained (disaggregated by gender) Report on climate impacts on the WASH sector	8			

			opportunities for investment					
Enhance access to sustainable transport systems	Ministry of Transport and Aviation	SLRA RMFA UNIDO World Bank Group	Pilot sustainable transport systems in Freetown Provide a national emissions profile of the transport sector	Number of innovative technologies or systems supporting the adoption of sustainable transport practices Extent of emissions from the transport sector	10			
Establish and manage blue carbon systems in the coastal zone	Ministry of Fisheries and Marine Resources	National Protected Area Authority Environment Protection Agency FAO UNDP USAID	Estimate the blue carbon sequestration potential of the coastal zone Increase coastal resilience through adaptation activities in 40 inland and wetland communities	Extent and sources of blue carbon in the coastal zone Number of men, women, and children benefiting directly and indirectly from coastal adaptation initiatives	6			
Promote climate-resilient agriculture	Ministry of Agriculture	FAO IFAD	Introduce climate-resilient agriculture tools and approaches to 500 farmers across the country	Number of farmers applying climate-resilient agriculture practices	20			

			Train personnel in the agriculture sector in planning, implementing, and tracking climate-resilient farming and livestock management initiatives Provide a national emissions profile of food waste and livestock waste	Number of personnel trained (disaggregated by gender) Extent of emissions from the agriculture sector				
Provide climate-resilient infrastructure and systems for the health sector.	Ministry of Health and Sanitation	Global Fund World Bank Group	Increase support to one health projects focused on strengthening human, animal, and ecosystems health Provide a national emissions profile of the health sector Assess capacity needs for climate-proofing health investments and train personnel in	Number of one health projects with a climate change focus Extent of emissions from the health sector Report on the climate governance capacity needs of the health sector Number of personnel trained	2.5			

			such processes and tools	(disaggregated by gender)				
Support the expansion of early warning systems	SLMet	Ministry of the Environment NDMA	Increase access to climate services in the health, agriculture, energy, and disaster risk reduction sectors Assess the uptake of EWS (climate services generally) in those sectors and evaluate the pathways to data integration into decision-making Develop guidelines for the co-production, translation, and communication of EWS data for effective decision-making	Number of health posts, energy installations, farms, and disaster events receiving climate services from the SLMet Number of end users in the EWS value chain Extent of use of climate services information in sectoral decision-making Number of guidelines on EWS data sharing and integration into decision-making	10			
Operationalize the coastal zone management plan	Ministry of Fisheries and Marine Resources	National Protected Area Authority Environment Protection Agency FAO UNDP	Implement coastal adaptation recommendations in the Coastal Climate Change Adaptation Plan	Number of personnel trained (disaggregated by gender)	5			

		USAID	Train and support the Coastal Chiefs Natural Resource Management Network in developing and implementing bankable projects					
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	Environment Protection Agency	Ministry of the Environment UNDP FAO	Conduct sector specific CVCAs to assess risks, hazards, and capacity needs across government Train personnel in adaptation options analysis and the design of bankable climate-informed development projects	Number of sector specific CVCAs produced Number of personnel trained (disaggregated by gender)	3			
Increase the resilience of the fisheries sector	Ministry of Fisheries and Marine Resources	National Protected Area Authority Environment Protection Agency FAO UNDP USAID	Provide a geospatial assessment of fisheries abundance and diversity and conditions affecting fisheries	Existence of a geospatial profile of fisheries abundance, diversity, and climate impacts	4.5			

			recruitment in delineated zones by 2025 Train personnel in the fisheries sector in climate-proofing investments and building community resilience	Number of personnel trained (disaggregated by gender)				
Improve land governance and SDG15.3 reporting	Ministry of the Environment	Environment Protection Agency UNDP UNCCD	Produce annual SDG 15.3 reports to assess changes in land productivity, land cover, and soil organic carbon across hotspots Identify opportunities for natural climate solutions in the land sector and develop 5 bankable projects by 2024 Train personnel in sustainable land management	Number of annual SDG 15.3 reports Number of projects funded Number of personnel trained (disaggregated by gender) Number of LDN targets achieved	5			

			processes and tools Achieve all land degradation neutrality targets by 2030					

5. NDC Financing Plan

5.1. State of Play

A section on finance was provided in the updated NDC to indicate that various domestic and international vehicles will be explored for resource mobilisation, because international public financing sources like the Green Climate Fund (GCF) cannot provide all that is needed for a large-scale investment in addressing climate change. To understand the state of play for climate finance in the country, it is essential to review funds mobilised and committed to NDC-related projects and programmes so far. Although the analysis does not place a tab on the exact amount committed so far, and the gap in climate finance, it is crucial to further identifying vehicles for implementing the financing plan proposed in this section.

Table 16: Funds mobilised for various climate change projects

Name of project	Objective(s)	Value (million)	Agent	Funder	Duration
National early warning system on food and nutrition security in Sierra Leone	Enhance the capacity of government and its partners to establish and operationalize a Food Security and Nutrition National Early Warning System (NEWS) both at national and district level	€0.65	FAO	Irish Aid	2013-2017
Linking agriculture, natural resource management and nutrition	Leverage agriculture, natural resource management, income-generating activities, and empowerment of women for better nutrition.	€0.46	WHH	Irish Aid	
Increasing community access to and quality of water, sanitation and improved hygiene practices in Freetown and Kenema	Increase community access to water and water quality, and to improve sanitation and hygiene practices in Freetown and Kenema	€0.55	Goal	Irish Aid	
Increasing the resilience to hazards of the extremely poor and vulnerable in	Increase the resilience of the extreme poor/vulnerable to hazards	€0.16	Concern Worldwide	Irish Aid	

Freetown and Tonkolili					
Strengthening Climate information and Early Warning Systems for Climate-resilient Development	Improve climate monitoring and early warning systems through a series of targeted interventions.	$3.9	UNDP	GEF	2013-2018
Energy efficient production and utilization of charcoal through innovative technologies and private sector involvement	Bring economic, social, and environmental benefits through the production of charcoal from sustainably sourced feedstock and promotion of improved cookstoves to reduce fuelwood demand, improve health, and reduce GHG emissions.	$2.1	UNDP	UNDP and GEF	2014-2020
Building adaptive capacity of water supply services to climate change in Sierra Leone	Enhance the capacity for climate-resilient decision-making in the water sector through policy reforms, technical capacity development activities, and informed public and private sector dialogues	$3.4	UNDP	UNDP and GEF	2013-2019
Adapting to climate change induced coastal risks in Sierra Leone	Strengthen the ability of government institutions and coastal communities to systematically manage climate change risks and impacts on physical infrastructure and socio-economic development.	$9.9	UNDP	GEF	2016 to date
Environment and natural disaster management project	Support natural resource governance in the key areas of natural resource management, environment protection, policy and legal frameworks within the extractives sector, land tenure policy and adapting to the impacts of climate change and other man-made and natural disasters.	$0.8	UNDP	UNDP	2016 to date

Sustainable livelihoods through improved natural resources management	Address challenges related to poor governance of natural resources by improving transparency processes, promoting constructive dialogue between civil society and key actors from the private sector and government, as well as by supporting activities that strengthen livelihoods for vulnerable youth.	$1.5	UNDP and FAO	SDG Fund	2015 to 2017
Voluntary guidelines on the governance of tenure of land, fisheries, and forests in the context of national food security	Collaborate across all VGGT relevant sectors (land, fisheries, and forests) in an institutional framework to implement the guidelines and improve responsible tenure governance in the country		FAO	Federal Republic of Germany	2014 to 2016
Agricultural Value Chain Development Project	Strengthen climate-proof rural infrastructure through the rehabilitation of feeder roads and warehouses to improve product drying and storage capacity. It will also build the capacity of smallholder farmers through farmer field schools and provide them with credit for their investments in smallholder farms	$0.1	Ministry of Agriculture and Forestry	IFAD, OPEC Fund, and GoSL	2018-2025
Rural finance and community improvement programme phase 2	Strengthen and expand the rural finance system, and support gender mainstreaming, women's empowerment, and youth engagement.	$47.15	Ministry of Agriculture and Forestry	IFAD, IFC, and GoSL	2013-2022
Smallholder Commercialization Programme	Empower the rural poor to increase their food security and incomes on a sustainable basis	$56.4	Ministry of Agriculture and Forestry	GAFSP and GoSL	2011-2019

Biodiversity Conservation Programme	Improve the management of selected priority biodiversity conservation sites (CSs) and enhancing its capacity for replication of best biodiversity conservation practices.	$23.8	National Protected Area Authority	World Bank and GEF	2010-2015
West African Peninsula Forest Conservation Project		€13	WHH	EU	2010-2013
Freetown Emergency Recovery Project	Rehabilitate selected critical infrastructure and to strengthen government capacity for managing disaster risk	$10	Ministry of Finance	World Bank and GoSL	2018-2021
Resilient Urban Sierra Leone Project	Improve integrated urban management, service delivery, and disaster emergency management in Freetown and select cities of Sierra Leone	$56.7	Ministry of Finance and select municipal councils	World Bank and GoSL	2020-2025
Integrated Resilient Urban Mobility Project	Improve the quality of public transport, address climate resilience, improve road safety in selected areas, and enhance institutional capacity in the transport sector	$50	Ministry of Transport and Aviation	World Bank and GoSL	2019-2024
West Africa Biodiversity and Climate Change Programme (WABiCC)	Improve conservation and climate-resilient, low-emissions growth across West Africa	$46	Tetra Tech ARD and various international partners	USAID	2015-2020
Sustainable and Thriving Environments for West African Regional Development (STEWARD)	Promote sustainable livelihoods and forest management plans; develop climate-resilient water, sanitation and hygiene systems and services; monitor program impact on land and improving policy and legal frameworks; and develop viable payment for ecosystem service models, and	$18	US Forest Service-International Programs	USAID	2008-2016

	viable and sustainable non-timber forest product value chains.				
Promoting Agriculture Governance and the Environment (PAGE)	Increase productivity while supporting sustainable natural resources management and promoting transparent and participatory democratic governance.		ACDI VOCA	USAID	2008-2012
Building biocarbon and rural development in West Africa (BIODEV)			CIFOR	Government of Finland	2013-2017
Supporting community based DRR	Build the capacity of targeted communities to implement community-based DRM, and by providing technical assistance to district and national institutions to integrate DRR and CCA in development planning.	$0.69	Office of National Security	World Bank and EU	
Energy Sector Utility Reform Project	Further strengthen the commercial management of the Electricity Distribution and Supply Authority (EDSA). Scale-up investment activities at the utility to increase the capacity, efficiency, and reliability of the distribution network and connect new residential, commercial, and industrial users. Build human capital for the Ministry of Energy and other agencies for sector planning and policy formulation.	$40	Ministry of Energy	World Bank	2019-
Sierra Leone Energy Access Project	Help mitigate the most critical bottlenecks that prevent power services from being adequately expanded. Bottlenecks include losses in	$52	Ministry of Energy	World Bank	2021-2021

	electricity supply in Freetown, poor commercial performance of EDSA, and limited rural access to electricity.				
Africa Clean Energy Technical Assistance Facility (ACE TAF).	Catalyse a market-based approach for private sector delivery of renewable energy electrification technologies, with a focus on high quality stand-alone solar systems.	£43.3	Tetra Tech International Development	UKAID	2016-2020
Power for All	Add at least 30,000 megawatts (MW) of cleaner and more reliable electricity generation capacity and 60 million new home and business connections by 2030			USAID	
Promoting Renewable Energy for Sustainable Development project (PRESSD)	Contribute to poverty alleviation through renewable energy services while promoting low-carbon development.	€7	WHH, ENFO, OXFAM-IBIS, COOPI	EU	2014-2018
Power Africa		US$44			
Rural Renewable Energy Project (RREP)	Provide access to clean energy for sustainable growth of the country's energy capacity.	£37	UNOPS and Ministry of Energy	UKAID	2016-2022
Energizing Development Project	Achieve a long-term improvement in the lives of people who are most at risk of poverty. For example, it strives to create economic opportunities and jobs by building up markets for renewable energy.			GIZ	2015-2025
Regional Off-grid Electrification Project (ROGEP).			ECOWAS	IDA	
Power Interconnection Project for Côte d'Ivoire, Liberia, Sierra Leone, and		US$ 122.38	Transco CLSG	ECOWAS	

Guinea West African Power Pool (WAPP)					
SPWA-CC Promoting Mini Grids Based on Small Hydropower for Productive Uses in Sierra Leone	Develop a market-based approach through public private partnerships for promoting small hydropower-based mini-grids to stimulate productive capacities in the country	$31.8	UNIDO, Ministry of Energy, Ministry of Lands and Country Planning	Global Environment Facility (GEF)	
Promotion of Climate Adaptation Technology and Business Model Innovations and Entrepreneurship in Sierra Leone	Reduce vulnerability and increase resilience of vulnerable populations by supporting MSME-driven innovation, transfer, and large-scale deployment of adaptation technologies, products and services in the water, agriculture, and energy sectors in Sierra Leone	$8.9	UNIDO	GEF	
Sierra Leone Threshold Programme	The threshold Program drove institutional reforms and invested in critical infrastructure to improve the water and electricity sectors and encourage sustainable economic growth.	$44.4	MCCU, Ministry of Energy	MCC	2016-2021

5.2. Resource Mobilisation Vehicles and Strategy

The main sources of funding for the priority activities or measures presented in the preceding sections include grants, special events, direct requests, earned income, and partnership agreements. Most viable among these options is grants, the potential sources of which are presented in table 17 below. Some grants are solicited, requiring competitive or non-competitive proposals, or unsolicited, with funds guaranteed and proposals only fulfilling paper trail requirements. The competitive nature of grants requires the CCS to be more creative in how they conceptualize, justify, and use funding for climate adaptation and mitigation. Also, the increased focus on climate governance and sustainable development by the international community (including the private sector) presents an opportunity for securing broader donor support for mobilising resources for NDC implementation. What this requires is placing the vehicles proposed here within a

larger sustainable development context to create the conditions necessary for financial adequacy and sustainability.

Table 17: Potential sources of NDC-related grants

Grant source	Description	Potential donors
National government	Domestic resources (encompassing funds from national and local government MDAs) could be provided to implement NDC activities. Competition for public funding is increasing and new directions in public spending, especially a renewed focus on basic education and human health, which could inevitably affect the amount of funding available for local climate action.	Ministry of Fisheries and Marine Resources, Environment Protection Agency, National Protected Area Authority, Ministry of local Government and Rural development, Ministry of Lands and Country Planning, Ministry of Agriculture and Forestry
Local government		Municipal and District Councils
Bilateral donors	Include government agencies set up to channel assistance to other countries, often directly to the national government or NGOs through competitive funding programmes.	United States Agency for International Development (USAID) United Kingdom Agency for International Development (UKAID) Canadian International Development Agency (CIDA) Japan International Cooperation Agency (JICA) Australian Agency for International Development (AusAID)
Multilateral donors	Are composed of member agencies governments established by an international treaty or convention. These agencies have a wide variety of objectives and interests of which climate adaptation and mitigation (or NDC financing generally) may or may not be one.	United Nations agencies (e.g., United Nations Development Programme (UNDP), Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD) etc; African Development Bank (AfDB) European Union (EU) Global Environment Facility (GEF) Mano River Union (MRU) Abidjan Convention ECOWAS African Union World Bank Group Islamic Development Bank
International NGOs	Have a dual role in the funding landscape. They can serve as a potential donor by providing grants or subcontracts, or they may serve as a potential partner or collaborator.	Wetlands International Africa Media Impact Fauna and Flora International Birdlife International Environmental Justice Foundation
Local NGOs	Include well-established local organizations that may also make sub-grants with funds from national or international partners.	Environmental Foundation for Africa Green Growth Facility Green Scenery

	Local NGOs who receive climate management sub-grants often seek partners to implement activities because they do not have the capacity or experience.	WONES Reptile and Amphibian Sierra Leone Conservation Society of Sierra Leone (CSSL) Climate Change Environment & Forest Conservation Consortium (CEFCON)
Private sector (businesses/trust funds)	May operate at international, national, and local levels. They include companies, trust funds, banks etc that have established special funds or programmes for climate change. Some of these funds are open to competitive application for projects anywhere, while other funds focus on sites, sectors, or countries where the business operates.	World Wildlife Fund Solon Foundation Local banks Total Sierra Leone NP Sierra Leone Milla Group of Plastics Sierra Leone Brewery Ltd Equatorial Coca-Cola Bottling Company Illuka Resources
Corporate foundations	Include private foundations that derive their grant-making funds primarily from the contributions of a profit-making business. This type of support is motivated by a combination of philanthropy and business interests.	Bill & Melinda Gates Foundation Mo Ibrahim Foundation Coca-Cola Foundation Ford Foundation Rockefeller Foundation United Nations Foundation Gordon and Betty Moore Foundation
Faith-based organizations	Otherwise known as religious communities, are frequent supporters of small, grass-roots organizations. Such partnerships typically have a spiritual as well as financial dimension and, as with private sector support, often come with fewer compliance requirements, making them easier to manage.	Catholic Relief Services Christian Aid

Now, turning briefly to the other strategies for mobilising climate finance, specifically special events, direct requests, earned income, and partnership agreements, the following points need to be noted:

a) A special event is an effective way to acquire the names and contact information of potential donors. It provides the opportunity to build a database of individuals and organizations that may later be used as the basis for a direct mail campaign. A signature event organised by the CCS, for instance, can help to acquire new donors, build loyalty among current funders, and give public exposure to various activities and outcomes.

b) A direct request represents an opportunity to develop a dependable source of financial and technical capital, pull donors to the core of the constituency map, or push them up the resource mobilization pyramid. This approach is ideal for raising funds from unsolicited sources such as foundations and corporations.

c) Earned income is income generated from revenue sources (such as EIA licenses) that can be used to roll-out NDC marketing strategies, reach out to new donors and partners, and promote relevant knowledge materials. Earned income can provide a reliable stream of funds for the long-term, as funds are expected to be available on a rolling basis from clients who look to invest in various businesses across the country.
d) A partnership agreement, such as a Memorandum of Understanding (MOA), Memorandum of Agreement (MOA), or a Letter of Intent (LoI) can be signed with an MDA or international or local organisation, for instance, to receive technical and financial support during the implementation of NDC activities.

Table 18: Potential vehicles of and strategies for resource mobilisation

Vehicles	Potential sources	Mobilisation strategy
Domestic budget	Government of Sierra Leone	Annual allocations New tax levies
Private sector	Africa, Latin America, and the Caribbean Fund (AFLAC) Africa Capitalization Fund, which invests in banks in Africa Green for Growth Fund (GGF) Climate Catalyst Fund Africa Climate Change Fund hosted by AfDB EU's Emissions Trading Scheme and World Bank's Community Development Carbon Fund (CDCF).	Partnership agreements Loan agreements Grant proposals
International climate finance	AFD French Development Agency Australia AID (AUSAID) Canadian International Development Agency (CIDA), CCCFL China Climate Change Framework Loan (of EIB) CCPL Climate Change Program Loan (of AFD and JICA) DANIDA DFID European Investment Bank (EIB), European Union Emission Trading Scheme European Commission Global Climate Change Alliance FGEF French Global Environment Facility (of AFD) GEEREF Global Energy Efficiency and Renewable Energy Fund (advised by EIB) German International Climate Initiative Green Climate Fund Adaptation Fund	Grant proposals Loan agreements Technical support frameworks

The broader goals for which the above resource mobilisation strategies and vehicles are deployed include to strengthen the capacities of the NDC implementing institution, engage a wider group of donor institutions, develop and disseminate communication products, and monitor and evaluate performance at different levels. More specifically, any of the above strategies and vehicles will help the CCS to (i) give the NDC and its implementation plan wider donor exposure and public visibility, which, in turn will provide potential donors with a clear picture of needs and priorities; (ii) develop and disseminate evidence-based information to increase local buy-in; and (iii) partner with both public and private sectors to scale-up outreach actions and seek broader stakeholder support. Put differently, the resource mobilisation strategies proposed, whether mixed or applied separately, the CCS in establishing and/or improving conditions for implementing the NDC, increase donor awareness, identify resource mobilisation targets for different donors, and delineate roles and responsibilities for a synchronised resource mobilisation action.

Table 19: NDC Financing Plan (2023-2030)

Activities	Outcome targets (subactivities)	Proposed budget	Potential funding source(s)	Potential vehicles (mobilisation strategy)	Timeline		
					2023-2025	2026-2028	2029-2030
Increase access to sustainable and clean energy systems	30% of the rural population have access to clean energy 200 rural communities have solar-powered businesses owned by women Enrolment rate in primary schools increases due to access to energy Provide a national emissions profile for new and renewable forms of energy	15	National government Local government Bilateral donors Multilateral donors International NGOs Private sector	Annual allocations New tax levies Loan agreements Grants Partnership frameworks			
Improve governance and process systems for monitoring emissions from the extractive and manufacturing sectors	Database for emissions monitoring in the extractive sector is established by 2025 Guidelines and rules for emissions reduction in the extractive and manufacturing sectors are developed by 2024	0.5	National government Bilateral donors Multilateral donors Private sector	Annual allocations Loan agreements Grants Direct requests			

Develop a national forest inventory and forest management information system	Develop a national forest management information system and database Provide a comprehensive national forest carbon inventory by 2025 Empower staff of the Forestry Division with skills in forest inventory development and forest carbon monitoring	2.5	National government Bilateral donors Multilateral donors	Annual allocations Loan agreements Grants Partnership frameworks			
Reforest14,000 hectares of degraded lands	Reforest large swathes of degraded lands in protected and designed areas Develop a community carbon monitoring project to increase tree survivability	2.5	National government Bilateral donors Multilateral donors International NGOs Private sector	Annual allocations Loan agreements Grants Special events Partnership frameworks			
Improve waste management infrastructure and governance processes	Produce climate-informed waste management strategies and plans for all municipal councils Provide a national emissions profile for waste and develop	2.5	National government Local government Bilateral donors	Annual allocations New tax levies Loan agreements			

	regulations for extended producer responsibility Support waste-derived businesses in Western Rural communities and neighbourhood upgrading across informal settlements in the Freetown municipality		Multilateral donors Private sector	Grants Partnership frameworks			
Promote integrated management of water resources	Provide water demand and quality data for all the important basins in the country Protect water catchment areas by developing climate-informed policies and projects Train personnel in the water sector in climate-proofing investments and developing strategies for infrastructure and community resilience Undertake a detailed study of climate impacts on the WASH sector and assess opportunities for investment	8	National government Bilateral donors Multilateral donors International NGOs Private sector	Annual allocations Loan agreements Grants Partnership frameworks Direct requests			
Enhance access to sustainable transport systems	Pilot sustainable transport systems in Freetown Provide a national emissions profile of the transport sector	10	National government Local government	Annual allocations New tax levies			

			Bilateral donors Multilateral donors International NGOs Local NGOs Private sector	Loan agreements Grants Special events Partnership frameworks Direct requests			
Establish and manage blue carbon systems in the coastal zone	Estimate the blue carbon sequestration potential of the coastal zone Increase coastal resilience through adaptation activities in 40 inland and wetland communities	6	Bilateral donors Multilateral donors International NGOs	Loan agreements Grants Partnership frameworks			
Promote climate-resilient agriculture	Introduce climate-resilient agriculture tools and approaches to 500 farmers across the country Train personnel in the agriculture sector in planning, implementing, and tracking climate-resilient farming and livestock management initiatives	20	National government Bilateral donors Multilateral donors International NGOs Local NGOs	Annual allocations Loan agreements Grants Partnership frameworks Direct requests			

	Provide a national emissions profile of food waste and livestock waste		Private sector				
Provide climate-resilient infrastructure and systems for the health sector.	Increase support to one health projects focused on strengthening human, animal, and ecosystems health Provide a national emissions profile of the health sector Assess capacity needs for climate-proofing health investments and train personnel in such processes and tools	2.5	National government Bilateral donors Multilateral donors International NGOs	Annual allocations Loan agreements Grants Partnership frameworks			
Support the expansion of early warning systems	Increase access to climate services in the health, agriculture, energy, and disaster risk reduction sectors Assess the uptake of EWS (climate services generally) in those sectors and evaluate the pathways to data integration into decision-making Develop guidelines for the co-production, translation, and communication of EWS data for effective decision-making	10	Bilateral donors Multilateral donors International NGOs	New tax levies Loan agreements Grants Partnership frameworks			
Operationalize the coastal zone management plan	Implement coastal adaptation recommendations in the	5	National government	Annual allocations			

	Coastal Climate Change Adaptation Plan Train and support the Coastal Chiefs Natural Resource Management Network in developing and implementing bankable projects		Local government Bilateral donors Multilateral donors International NGOs Local NGOs Private sector	New tax levies Loan agreements Grants			
Develop sector-specific climate vulnerability and Capacity Analyses (CVCA)	Conduct sector specific CVCAs to assess risks, hazards, and capacity needs across government Train personnel in adaptation options analysis and the design of bankable climate-informed development projects	3	National government Bilateral donors Multilateral donors International NGOs	Annual allocations Loan agreements Grants Special events			
Increase the resilience of the fisheries sector	Provide a geospatial assessment of fisheries abundance and diversity and conditions affecting fisheries recruitment in delineated zones by 2025	4.5	National government Local government Bilateral donors	Annual allocations New tax levies Loan agreements			

	Train personnel in the fisheries sector in climate-proofing investments and building community resilience		Multilateral donors International NGOs Private sector	Grants Partnership frameworks			
Improve land governance and SDG15.3 reporting	Produce annual SDG 15.3 reports to assess changes in land productivity, land cover, and soil organic carbon across hotspots Identify opportunities for natural climate solutions in the land sector and develop 5 bankable projects by 2024 Train personnel in sustainable land management processes and tools Achieve all land degradation neutrality targets by 2030	5	National government Bilateral donors Multilateral donors International NGOs Private sector	Annual allocations New tax levies Loan agreements Grants			

6. Conclusion

This plan provides a pathway to implementing and financing the NDC (updated in 2021) by indicating where investments need to be directed to reduce the impacts of climate change in Sierra Leone. It offers an overview of the key dedicated national and international climate funding opportunities and describes the vehicles to support the mobilisation of climate finance. The focus of the plan is to support effective governance, adaptation, and mitigation with a foundation of sound science to identify risks to communities and ecosystems across the country. Based on a literature review and synthesis, and an outcome mapping process conducted in all the regions of the country, the plan provides targeted tools and actions to inform on-the-ground management of shocks, stresses, and disturbances. The plan will implement these actions over the next seven (7) years focusing on: (i) supporting sectors and institutions to evaluate and understand the vulnerability and resilience of specific systems; (ii) raising awareness about climate change risks and impacts and the benefits and potential for sound ecosystem-based management; (iii) building the capacities of institutions and individuals to integrate climate science and local knowledge into decision-making; and (iv) mobilising finance for delivering sustainable climate solutions.

In these contexts, this plan will be used by the Climate Change Secretariat (CCS) at the EPA and other key institutions working on climate change in the country to better understand national priorities as they work together to tackle changing circumstances and meet evolving needs for adaptation and mitigation. It will, therefore, support the operationalisation of the adaptation and mitigation goals within the updated NDC during the period 2023-2030, and thus, lead to the development of bankable projects that will be structured around the operational goals of various MDAs and key organisational structures and instruments to deliver transformative results that also support the implementation of SDGs.

Annexes
Annex 1: Terms of Reference

Annex 2: Work Methodology

Activity	Process	Guiding questions
Discussion session to identify key challenges, successes, and potential collaborators	The consultant will explain the key challenges, successes, and stakeholders identified to date, and ask participants to do the following: - List current interventions - Define how the CCS should work with these current partners and stakeholders to ensure synergies and complementarity - Propose new interventions that the CCS should support to overcome key challenges and leverage successes to date.	-How should the CCS intervene to effectively and efficiently implement the NDC plan? What should they NOT do? -What is the best way to coordinate locally? -What niche can the CCS fill in NDC implementation? -What critical questions can stakeholders answer together?
Discussion session to propose boundary partners and define outcome challenges	The consultant will explain the process of identifying boundary partners and ask participants to do the following: - Identify all individuals, groups, and organizations that might hold a stake in proposed activities - Narrow the list down to 10 core (critical) partners and list their key interests, needs, and activities - List changes (in behaviour, actions, relationships) each partner will need to make to contribute to achieving the NDC vision.	-Who will be the most important actors to work with at the national and subnational levels? -Where should the CCS/EPA put most of its efforts and resources? -Who are the ultimate beneficiaries (who can the project influence directly and indirectly)? Who can they influence directly or indirectly? -To contribute to the vision, will the boundary partner need to behave or act differently?
Discussion session to develop progress markers for each boundary partner	The consultant will explain process of defining progress markers, costs, and timelines and ask participants to do the following: - List all changes they would like to see in each partner (that might be a gap or hindrance currently) - State how best might the changes be measured or evaluated - Assign costs and budgets to each intervention and outcome.	-What change in the behaviour of each partner would you love to see because of NDC implementation?

Annex 3: Data Collection Tools

Worksheet 1 (barriers and triggers)

Vision for NDC implementation		
Proposed interventions	**Barriers to implementation**	**Triggers to implementation**

Worksheet 2 (boundary partners)

Vision for NDC implementation			
Proposed interventions	**Stakeholders**	**Boundary partners**	**Rationale for selection**

Worksheet 3 (outcome targets)

Vision for NDC implementation		
Proposed interventions	**Boundary partners**	**Outcome targets**

Worksheet 4 (progress markers)

Vision for NDC implementation				
Proposed interventions	**Outcome targets**	**Progress markers**	**Verification approach**	**Frequency**

Worksheet 5 (timelines, costs, and funding vehicles)

Vision for NDC implementation				
Proposed interventions	**Timeline**	**Budget**	**Funding vehicles**	**Potential sources**

Annex 4: Field Mission Schedule

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Annex 5: Stakeholders consulted

Annex 6: Bibliography

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