

FINAL REPORT STOCKTAKE OF LIBERIA'S 2021 NATIONALLY DETERMINED CONTRIBUTIONS (NDC 2.0)







26 February 2025

Acknowledgement

The Environmental Protection Agency (EPA), on behalf of the Government of Liberia, extends its gratitude to the NDC Partnership for facilitating funding support through the United Nations Development Programme (UNDP) to help Liberia develop its Stock-take report on Liberia's Nationally Determined Contributions (NDC 2.0). Appreciation is also extended to the representatives from line ministries, agencies, and sectors, as well as the experts and coordinators from the EPA including other development partners for their significant contributions to this report.

Special recognition is given to a cross-sectional representation of various groups such as, gender focal points from the 15 counties, youth representatives, private sector, and key women leaders in the country, along with civil society organizations (CSOs) for their active participation and involvement in the stakeholder consultation process that generated the report. The exclusive roundtable dialogue undertaken by the National Civil Society Council of Liberia (NCSCL) to bring CSOs together to take stock of CSOs participation and involvement in the implementation of NDC 2.0 is as well acknowledged.

Foreword

Liberia's Environmental Protection Agency (EPA) is proud to present this comprehensive report evaluating Liberia's progress and efforts in implementing its Nationally Determined Contributions (NDC 2.0) under the Paris Climate Agreement. This report reflects our commitment to climate action and sustainable development, underscoring the strides made and the challenges we must overcome to achieve our national and global climate goals.

As a nation contributing only 0.03% of global greenhouse gas (GHG) emissions, Liberia remains disproportionately vulnerable to the adverse effects of climate change. Despite our limited contribution to the problem, we have demonstrated leadership in the fight against climate change by submitting our Intended Nationally Determined Contribution (INDC) in 2015, and ratified the Paris Agreement in 2018, and updated our NDC in 2021. Our revised NDC (NDC 2.0) set an ambitious target of reducing GHG emissions by 64% below the projected business-as-usual levels by 2030, with a significant portion of this commitment dependent on international support.

This report provides a stocktaking assessment of the progress made in implementing Liberia's NDC 2.0, highlighting key achievements in energy, transport, and forestry sectors. Notably, our efforts have resulted in significant GHG reductions, with progress amounting to 20.47% of the targeted reductions by 2030. The expansion of renewable energy sources, gradual increase adoption of electric vehicles, and reforestation and forest regeneration of 45,814 hectares demonstrate tangible steps towards our mitigation goals. However, the findings also reveal critical gaps, particularly in financing, gender responsiveness, and integration of vulnerable communities in climate action.

The insights from this assessment are crucial as we prepare for the next phase—NDC 3.0. This process provides an opportunity to refine our targets, enhance sectoral commitments, and ensure that our climate strategies align with national development priorities and the Sustainable Development Goals (SDGs). The recommendations outlined in this report emphasize the need for a long-term vision, stronger financial mobilization strategies, and inclusive, gender-responsive policies to ensure that all Liberians benefit equitably from climate action.

Liberia cannot tackle these challenges alone. The principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) must guide our approach, as international support remains critical in helping us meet our climate commitments. We call on our global partners to honor their climate finance commitments, support technology transfer, and invest in capacity building to enable Liberia's transition to a low-carbon and climateresilient future.

I extend my deepest appreciation to all stakeholders, including government agencies, civil society organizations, private sector partners, and development partners, whose contributions have made this report possible. As we move forward, let us work together to turn these insights into action, ensuring that Liberia remains a leader in climate resilience and sustainable development.

TECTIO

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Executive Summary

This report evaluates Liberia's progress and efforts toward climate action within the framework of the Paris Climate Agreement. Ratified by 195 nations at COP21, the Paris Agreement sets a long-term objective to limit global temperature increases to below 2°C, with efforts to cap it at 1.5°C above pre-industrial levels. As part of this global effort, Liberia has submitted its Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC).

Liberia, contributing only 0.03% of global greenhouse gas (GHG) emissions, remains highly vulnerable to climate change impacts. Despite its negligible contribution to climate change, the government demonstrated leadership by submitting its Intended Nationally Determined Contribution (INDC) in 2015 and ratifying the Paris Agreement in 2018. The country committed to reducing GHG emissions by 15% below business-as-usual levels by 2030, with the aim of achieving carbon neutrality by 2050, conditional upon international support. In 2021, Liberia revised its NDC, pledging to reduce economy-wide GHG emissions by 64% below the projected business-as-usual level by 2030, with a significant portion contingent on international support.

The Government of Liberia, with support from UNDP and other partners, is now preparing to update its 2021 NDC (NDC 2.0) and submit NDC 3.0 by the second quarter of 2025. This report provides a comprehensive assessment of the progress made in implementing Liberia's NDC 2.0, identifies gaps and areas for improvement, and evaluates the gender responsiveness of NDC efforts.

The stocktake assessment revealed significant GHG emission reductions in the energy, transport, and forestry sectors, achieving 20.47% of the targeted GHG reduction by 2024. This assessment included detailed consultations with key stakeholders such as NDC Focal Points and GHG Data Analysts. The energy sector saw notable advancements, with cumulative hydropower generation amounting to 105 MW and solar energy production totaling 5.6 MW between 2021 and 2024. The transport sector experienced the adoption of electric vehicles, including two-wheelers, three-wheelers, and four-wheelers, with a total of 175 electric vehicles in use. The forestry sector achieved afforestation of 45,814 hectares, primarily through natural regeneration.

The estimated GHG emission reductions from all the efforts totaled 848.34 Gg CO2e per year, with energy and forestry sectors contributing the most significant reductions. Despite these achievements, the financial support required to meet the mitigation and adaptation goals remains insufficient, with 87% of the NDC unsupported.

The gap analysis highlighted that while the NDC 2.0 includes ambitious targets and covers all relevant sectors, it lacks detailed information on new climate risks, vulnerabilities, and socio-economic impacts. The financial strategy outlined in the NDC is also limited, with insufficient details on how funding will be mobilized from both domestic and international sources. Additionally, the NDC needs to strengthen its focus on gender responsiveness and inclusiveness, with clearer strategies and targets for women, children, and vulnerable groups.

The gender responsiveness assessment revealed limited integration of gender issues within the NDC. Although some gender-responsive actions are included, there are no specific sectoral targets, and the roles of women in decision-making and leadership are not sufficiently recognized. The assessment recommends enhancing gender-specific targets, strengthening capacity-building initiatives, and introducing gender-sensitive monitoring frameworks.

Based on these findings, the report provides the following key recommendations for NDC 3.0:

1. Include long-term goals aligned with net-zero goal of the Paris Agreement.

- 2. Enhance sectoral focus by including sectoral mitigation commitments, particularly in renewable energy and energy efficiency, and adopting the IPCC categories for sectoral reporting.
- 3. Prioritize adaptation over mitigation considering Liberia's vulnerable position and disproportionate climate risks to its population
- 4. Align NDC targets with national development strategies and SDGs
- 5. Integrate vulnerable groups (women, children, youth, and other vulnerable groups) into NDC, with clear targets and strategies for gender equality and empowerment.
- 6. Strengthen financial mobilization by developing a clear financial plan, outlining public and private investment mechanisms to meet Liberia's climate targets.
- 7. Leverage international carbon markets to support emissions reductions and contribute to SDGs.
- 8. Communicate support needs for technology transfer and capacity building to seek international support for transition to a low-carbon, climate-resilient economy.
- 9. Ensure a just and equitable transition by addressing workforce implications, and ensuring that marginalized communities benefit from climate action.
- 10. Ensure inclusivity in the NDC process: The NDC process should be inclusive, ensuring participation from all sectors of society, including women, youth, and vulnerable groups.

It is important to note that not all gaps need immediate action. Addressing the gaps in Liberia's NDC requires prioritizing actions based on available time and resources. Quick wins can be targeted for immediate progress, while others may require further technical studies or policy development before being fully addressed. Such actions can be included as future measures in the NDC. The principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) should guide the NDC 3.0 process, ensuring that actions are tailored to Liberia's national context. This is critical, as meeting unconditional targets will be challenging, particularly without increased climate finance from developed countries.

1. Introduction

The Paris Climate Agreement, ratified by 195 nations at COP21, came into force on November 4, 2016. The agreement sets a long-term temperature goal to hold the global temperature increase to well below 2°C, with efforts to limit it to 1.5°C above pre-industrial levels. The agreement also aims to increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions (GHG) development, in a manner that does not threaten food production; and making finance flows consistent with low carbon and climate-resilient development.¹

Article 4.2 of the agreement requires ratifying countries to submit successive Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC). These NDCs should communicate each country's climate goals, actions as well as other arrangements for meeting the goals. Further, Article 4.3 stipulates the countries to communicate enhanced NDCs every five years reflecting its highest possible ambition, and its Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC), in the light of different national circumstances. These NDCs are to be informed by the outcomes of the global stocktake referred to in Article 14 of the Paris Agreement which will periodically assess the global progress on achieving the goals of the agreement.

The first NDCs of the countries were submitted to the UNFCCC in 2015/2016, and the second NDCs or updated NDCs in 2020/2021. The next round of NDCs detailing countries' intended climate actions through 2035 – "NDCs 3.0" – are due in early 2025. NDC 3.0 will take into account the first Global Stocktake (GST) happened in 2023 which found that despite the progress made towards the climate goals, the efforts were insufficient. The GST notes that the world is not on track to meet the long-term goals and has a narrowing window of opportunity to get back on track.²

1.1 Context of this assignment

Liberia contributes 0.03% to the global GHG emissions.³ The country is highly vulnerable to climate change impacts. In the 2022 Notre Dame-Global Adaptation Initiative Index (ND-GAIN Index), Liberia ranks 167 out of 187 countries.⁴ The vulnerability of the country is attributed to a combination of political, geographic, and social factors.⁵

Despite the negligible contribution to climate change, the government of Liberia demonstrated leadership by submitting its Intended Nationally Determined Contribution (INDC) in 2015 and ratifying the Paris Agreement in 2018. The 2015 NDC aimed to reduce GHG emissions by 15% below business-as-usual levels by 2030 with a long-term goal of carbon neutrality by 2050, conditional upon international support. It also highlighted the need for adaptation to ensure the resilience of the people of the country and its natural systems. Subsequently, the country submitted its revised NDC in 2021.

The 2021 NDC (NDC 2.0) commits to reducing its economy-wide GHG emissions by 64% below the projected Business As Usual (BAU) level by 2030. Of this, 54% reduction below BAU level is a

¹ UNFCCC. (2015). Paris Agreement. Retrieved from

https://unfccc.int/files/meetings/paris nov 2015/application/pdf/paris agreement english .pdf

² UNFCCC. (n. d.). Outcome of the first global stocktake. Retrieved from UNFCCC: <u>https://unfccc.int/topics/global-stocktake/about-the-global-stocktake/outcome-of-the-first-global-stocktake</u>

³ UNDP. (n. d.). Liberia. Retrieved from UNDP Climate Promise: <u>https://climatepromise.undp.org/what-we-do/where-we-work/liberia</u>

⁴ University of Notre Dame. (n. d.). ND-Gain. Retrieved from University of Notre Dame: <u>https://gain.nd.edu/our-work/country-index/rankings/</u>

⁵ The World Bank Group. (2021). Climate Risk Profile: Liberia. Retrieved from

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-07/15917-WB Liberia%20Country%20Profile-WEB%20%281%29.pdf

conditional target that will be achieved with international support. Mitigation actions identified to meet the target spans nine key sectors: (i) Agriculture, (ii) Coastal Zone, (iii) Energy, (iv) Fisheries, (v) Forestry, (vi) Health, (vii) Industry, (viii) Transport, and (ix) Waste. In addition, NDC 2.0 also lists adaptation Targets, actions and policy measures in the above-mentioned sectors.

The Government of Liberia is planning to update its NDC 2.0 and submit NDC 3.0 to the UNFCCC by the second quarter of 2025 as per the requirements of the Paris Agreement. UNDP through the Climate Promise supported by the partners, including the United Kingdom and Embassy of Sweden is supporting the government in undertaking a holistic stocktake of Liberia's NDC implementation to inform the NDC 3.0 development process.

1.2 Objective

The goal of this engagement is to provide an overall assessment of Liberia's NDC implementation with three specific objectives:

- 11. assessing the progress made by Liberia in implementing its 2021 NDC
- 12. identifying gaps and areas for improvement related to NDC to inform Liberia's 3.0 update and implementation
- 13. assessing the gender-responsiveness of NDC document as well as the NDC implementation efforts

UNDP and EPA envisage the outcomes of this engagement to encourage higher ambition by the country and enhance the quality of NDC 3.0 using an inclusive approach. It is expected that this approach recognizes and promotes a human rights-based approach, advances gender equality and women's empowerment, enhances intergenerational equity, strengthens effective participation and leadership, increases capacities and knowledge to drive implementation and strengthens access to and control over resources such as finance, information, and technology of underrepresented groups typically excluded from the NDC planning and implementation process.

1.3 Scope of work and methodology

The scope of work for this engagement can be split into three research questions as illustrated below:

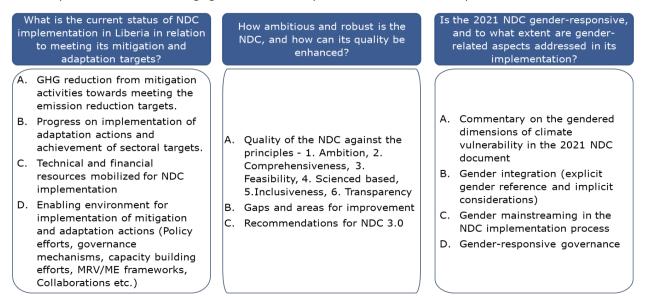


Figure 1: Research questions, and components of analysis

To meet the assignment's goals and objectives, a step-wise methodology was followed to prepare this report. The steps are presented in Figure 2.

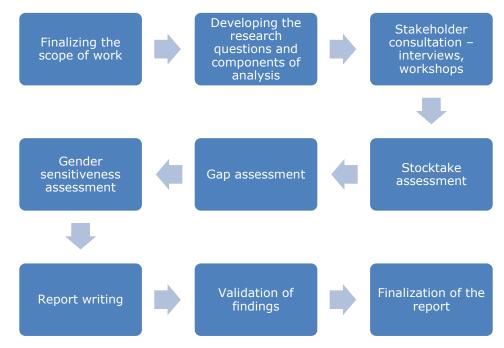


Figure 2: Methodological steps

A detailed methodology fully aligned with the Terms of Reference (ToR) was developed for each of the three components illustrated in Figure 1. The component specific methodological steps are discussed in the respective sections for each of the components.

1.3.1. Stakeholder consultation/engagement

Stakeholder consultations underpinned the execution of this study. As required in the ToR, this study adopted an inclusive and rights-based approach. The intent is to engender a process that escalates the views and aspirations of critical voices within the society during the stocktake which could trigger an inclusive approach during the development of the NDC 3.0. In addition to tracking and collecting data for the stocktaking component of this report, other pertinent information was solicited from key stakeholders whose work facilitates or is directly impacted by the implementation of the NDC 2.0.

The following consultations were conducted by UNDP and the team.

a. Government stakeholders

Consultative meetings and workshop were held to seek information for this report and validate findings. NDC focal points based in the ministries and agencies participated in these meetings/workshop.

b. Youth

Young people are the beacon of hope for any society. As NDC addresses current and future emissions, it was prudent to hold a session with key youth actors and leaders within the country. This was intended to understand the progress that has been made towards promoting youth issues in the NDC. During the meeting, delegates provided updates on activities that have been carried out under the NDC that underpin youth issues or integrate young people. Several recommendations were made for improving NDC 3.0 by integrating youth-focused indicators and developing important targets to include youth issues.

c. Gender

Understanding the level of interventions under the NDC that have impacted women was important for this stocktake process. As a result, a gender-specific workshop was held, bringing all gender focal points from the 15 counties, representatives from women organizations, and key women leaders in the country. The meeting unearthed key interventions targeting women under the NDC, the inclusion of gender in target programs, and the need to accelerate actions on gender mainstreaming during implementation rather than setting targets in the NDC.

d. CSOs

A national dialogue with CSOs was held in Monrovia. Organized by the National Civil Society Council of Liberia (NCSCL), an umbrella group of CSOs, the meeting focused on assessing the participation of local organizations during the implementation of programs and activities related to NDC. With a mention of only 5 times in the NDC 2.0, CSOs argued that a stand-alone target or a clear description of their role in promoting and delivering success under the NDC must be defined.

1.4 Structure of the report

In alignment with the approach followed for the study, the report is divided into seven chapters.

- Chapter 1 discusses the context and objectives of this study and details the broad methodology followed by the consultants
- Chapter 2 covers the stocktake assessment component of this study. This chapter presents findings related to the progress on the NDC implementation in Liberia.
- Chapter 3 assesses the NDC 2.0 and discusses the gaps in terms of its comprehensiveness, ambition, feasibility, inclusiveness, transparency, and contribution to just transition and sustainable development.
- Chapter 4 discusses the gender responsiveness of the NDC 2.0 and identifies gaps and areas for improvement.
- Chapter 5 summarizes the key findings of the stocktake assessment, gap assessment and the gender responsiveness assessment. The chapter also captures the perspectives of the different stakeholder group consulted during the study.
- Chapter 6 provides recommendations for an enhanced NDC 3.0.

2. Component 1 – Stocktake assessment

This section of the report presents the methodology followed for stocktake assessment and the findings.

2.1 Methodology

This component included identifying, compiling, analyzing, and synthesizing information on the below aspects:

- i) GHG emission reduction achievement (GHG reduction achieved from implementation of mitigation activities towards meeting the national and sectoral emission reduction targets)
- ii) Progress on implementation of mitigation and adaptation actions and achievement of sectoral targets
- iii) Resource mobilization for NDC implementation (Technical and financial resources mobilized for NDC implementation (both mitigation and adaptation).
- iv) Enabling environment for implementation of mitigation and adaptation actions including effectiveness of institutional effectiveness (Policy efforts, governance mechanisms, capacity building efforts, MRV/ME frameworks, Collaborations etc.)

To capture the required data and information, consultations with key stakeholders such as NDC Focal Points and GHG Data analysts were conducted by UNDP and the team. This formed the critical step in conducting the stocktake exercise as described d below.

2.1.1. Meeting with the NDC Focal Points

At the onset of the stocktake process, a two-day workshop was convened for NDC focal points based in the ministries and agencies. As individuals responsible for collecting, first hand, GHG data or tracking implementation of key targets and outputs within the NDC, the workshop allowed the consultants to collect, analyze and report on key achievements and emissions reductions over the reporting period (2021-2024). Emission data and progress on the outputs earmarked in the NDC implementation plan were discussed and finalized.

2.1.2. GHG Data Analysts

Data availability and integrity are separate and significant components of the NDC stocktake. To ensure that data collected by focal points are aligned per sector, verified, and can be analyzed, a team of GHG data analysts from government institutions and academic and private firms was brought together for a 3-day discussion on calculating emissions data for the country. Issues concerning methodology for collection, integrity, verification, and analysis were discussed. In the end, the analysts, after making a few changes to the datasets, agreed on the approach, verified the emissions data, including the methodology of collection, and the tool for analysis.

2.2 Findings

2.2.1 GHG emission reduction achievement

An assessment of mitigation measures, including targets, was conducted across all NDC mitigation sectors from 2021 to 2024. Among the nine (9) sectors, three reported ongoing activities that reduce or avoid GHG emissions and they are: Energy, Transport, and Forestry. The Energy sector accounts

for mitigation measures which included solar and hydropower production. Between 2021 and 2024, cumulative hydropower generation amounted to 105 MW, while solar energy production totaled 5.6 MW. The Transport sector experienced advancements were noted in the adoption of electric vehicles, including two-wheeler, three-wheeler, and four-wheeler EVs. A total of 175 electric vehicles were in use across Liberia during this period. The Forestry sector largest activity accounts for 45,814 hectares afforested, primarily through natural regeneration. Estimates of GHG emission reductions are based on data collected during the assessment period.

a) <u>Technical Approach and Assumptions</u>

The tool used for the estimation of Avoided GHG emission include an Excel-based Greenhouse Gas Abatement Cost (GACMO) model and verified with the Low Emissions Analysis Platform (LEAP) energy model. The baseline data used traditional energy sources such as diesel fuel and gasoline compared with the renewable energy sources such as the hydropower and solar energy sources as previously mentioned. Emission factors used included those for diesel fuel and gasoline. The forestry sector avoided GHG emission estimate used an annual carbon sequestration factor of 1.5 Tonnes C/ha.

b) <u>Result of GHG emission reduction</u>

The Energy and the Forestry sectors reported the highest annual avoided emission reduction, respectively, about 595.94 GgCO2eq and 251.98 GgCO2eq. The Transport with the lowest at 0.43 GgCO2eq annually. The estimated Business-As-Usual (BAU) GHG emission for Liberia in the target year (2030) is 12,429.81 GgCO2eq. As a result of the implementation of Liberia's NDC 2.0, the country has achieved the total emission reduction from three of the highest emitting sectors including Energy, Forestry, and Transport, which account for the avoided GHG emission per year by 848.34 Gg CO2e. This stock-take process reports that Liberia has achieved about 20.47% of GHG reduction from 2021 to 2024. See below the table 1.

Descriptions	Total Reduction	2-Wheeler EV	3-Whleer EV (Passager)	Electric Vehicles	Hydro Power	Solar Power	Forestry
Number of Technology (incl. area & energy used units (MW, ha,etc.))		105.0	69.0	4.0	102.0	5.6	45,814.0
Avoided Emissions (Emission							
reduction (Tonnes CO2eq/year)		255.00	167.00	10.00	582,359.00	13,580.00	251,977
Avoided Emissions (Emission reduction (2021-2024) (Tonnes CO2eq)		765.00	501.00	30.00	1,747,077.00	40,740.00	755,931.00
Avoided Emissions (Emission reduction (GgCO2eq/year)		0.26	0.17	0.01	582.36	13.58	251.98
Total Reduction GgCO2eq/year	848.35						
Total Reduction 2021-2024 GgCO2eq	2,545.04						

Table 1: Status of emission reduction

2.2.2 Progress on implementation of mitigation and adaptation actions and achievement of sectoral targets

Annexed to the NDC package is an implementation plan which details and describes the activities intended to meet each mitigation and adaptation target. The stock-take and evaluation of the interventions leading to the achievement of the targets in the implementation plan have been

provided in Annex I. The table evaluates the achievements and status of each earmarked activity for the 9 sectors under the NDC.

2.3.3 Resource mobilization for NDC implementation (Technical and financial resources mobilized for NDC implementation (both mitigation and adaptation).

Liberia submitted its NDC on August 4, 2021, with an implementation plan for nine key sectors (Agriculture, Coastal Zone, Energy, Fisheries, Forestry, Health, Industry, Transport, and Waste) with an estimated total investment of US\$490,590,000 dollars through 2025 needed to achieve Liberia's NDC mitigation and adaptation targets. Of this amount, US\$400,645,000 dollars was required to achieve Liberia's mitigation targets, while US\$89,945,000 dollars was required to achieve its adaptation targets. The implementation plan of Liberia's NDC highlights 19 mitigation outcomes with 100 outputs and 162 performance indicators. Through this plan, about US\$573.44 million has been committed, and US\$212.95 Million has been disbursed as of the fourth quarter in December 2024. Of the total funding committed, about 36% is unconditional through concessional loans and in-kind contributions from the Government of Liberia, while 64% is conditional through grants. This demonstrates the government's commitment to achieving the Paris Agreement through its NDC.

From the above, one would think that Liberia has received all the support it needed to implement its NDC; however, based on the data gathered and using the NDC Partnership online tool to analyze the support committed, Liberia has not received much in terms of its NDC implementation. See Figure 3 to Figure 7 below and the table in Annex III.

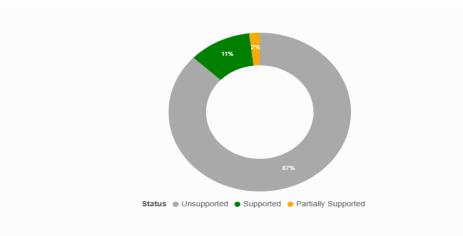
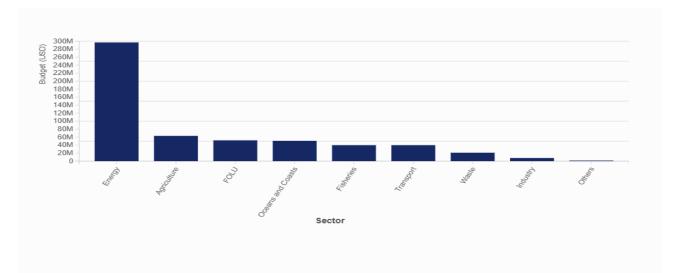


Figure 3: Status of the overall support received for Liberia's NDC Implementation

Even though there is an increase in support of over US\$491 Million estimated cost for implementing Liberia's NDC, the analysis of the support committed shows that only 11 percent of the NDC has been supported, and 2 percent is partially supported, 87 percent remains unsupported. This means that partners and the government would have to tackle specific NDC interventions, target, and or policy actions stipulated in the NDC implementation plan in order to fully achieved Liberia's NDC implementation goals.





Of the US\$573.44 million committed, the Energy sector has received more support, followed by the agriculture sector, while the FOLU and Coastal zone sectors account for the third highest areas supported. Fisheries and Transport also account for the fourth area being supported, with the Waste sector being the fifth area being supported, and with little investment in the industry sector and the health sector being partially supported through mitigation and adaptation co-benefits interventions.

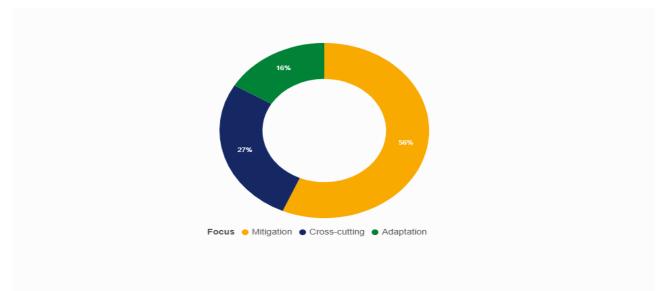


Figure 5: Areas of Intervention and Focus of the support committed

The commitment made to support Liberia's NDC between 2021 to 2025 shows that mitigation targets and actions account for 56 percent of the 11 percent fully or partially supported, while adaptation targets and action in the NDC account for 27 percent of the commitment made and 16 percent of the support towards cross-cutting (co-benefits) issues set within the NDC to be achieved.

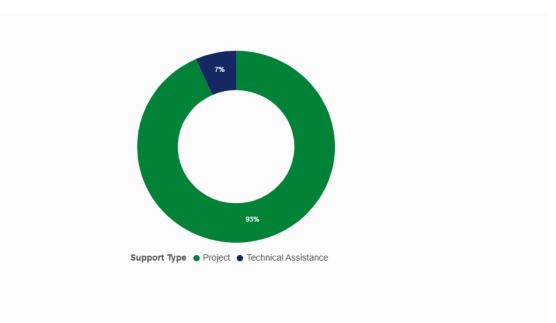


Figure 6: Type of Support Received

Liberia has received two types of support; technical Assistance which focuses on training and capacity building for some NDC implementing institutions which account for 7 percent of the support type received, and Project which focuses on mainly interventions related to Liberia's NDC mitigation, adaptation, and cross-cutting targets which account for 93 percent of the support received.

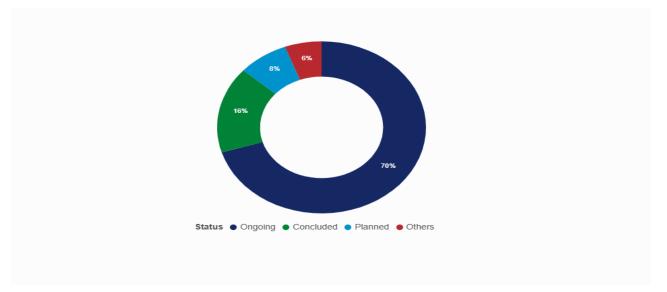


Figure 7: Status of the Technical Assistance and Projects

As of now, the commitment to Liberia's NDC implementation through project and technical assistance, about 70 percent of the interventions are ongoing. In comparison, 16 percent have been fully implemented, and 8 percent planned (that is, projects that have been approved and are yet to begin), and the "others" 6 percent that are approved started but later switched which delays, for example under the "Liberia Renewable Energy Access Project (LIRENAP) which aims to build a 2.5MW hydro, but the project halted and switched to a 5.7 MW Solar PV Project and is still pending to commence construction.

2.2.4 Enabling environment for implementation of mitigation and adaptation actions

The national effort to design cost-effective, targeted, and result-oriented mitigation and adaptation actions is one step towards the implementation of the NDC. Creating an enabling environment whereby these actions are successfully implemented is equally significant. Without the right environment, including policy, political, capacity, institutional, etc., the mitigation and adaptation actions may be wishful and theoretical.

Liberia has demonstrated leadership in the fight against climate change by supporting global as well as local mitigation and adaptation efforts. It has engaged in responsible consumption and harvest of key natural resources, particularly forests, to avoid and reduce emissions. Importantly, the country has moved towards the path of reducing its vulnerability and increasing resilience to climate change through the establishment of key institutions, the design of evidence-based policies, and enhancing national capacity.

Assessing the state of affairs for the implementation of the NDC requires a review of the enabling environment underpinning its success. We have evaluated the enabling environment for the NDC progress through 5 different areas, including the policy environment (including political will and buyin), institution effectiveness, capacity building for addressing climate change issues, monitoring reporting and verification (MRV), and collaboration (or partnerships) for implementing the NDC.

a) Laws and Policies

Prior to the design and endorsement of the NDC, the laws and policies extant in Liberia address, to a large extent, issues relating to climate change mitigation and adaptation. While these progressive laws and effective policies contain broad language and vision for addressing the climate crisis, the NDC highlighted the main issues and interventions that could establish Liberia's relevance for mitigation and strengthen the country's adaption capacity. As a result of the NDC 2.0, the Government of Liberia realized that a few policies and laws required update, development, or amendment to improve the regulatory environment for addressing climate change and meeting the country's commitment under its NDC. Some of these laws have direct impact on climate change mitigation and adaptation while others contribute indirectly. To this end, the following laws and policies were revised, updated, or developed since the launch of the NDC. 2.0:

Revised draft National Forest Policy and Implementation Strategy

In 2006, the FDA published the National Forest Policy and Implementation Strategy to guide the sustainable management and harvest of forest resources in Liberia. The policy, under its 3-C approach—commercial, conservation, and community forestry— integrated an adaptative management system whereby it is required that the policy must be reviewed and revised periodically to ensure that new issues relating to sustainable forest management are incorporated. Despite this requirement, the forest policy was never reviewed and revised until after the launch of the NDC 2.0, which highlights the importance of forest carbon and its contribution to the country's vision and commitment to climate change. To this end, the policy was revised accordingly with improvements in the language for consideration of the targets set in the NDC 2.0. Furthermore, a new component or system of forest management, including consideration for forest carbon, was integrated as the fourth "C" in the overall approach. Hence, a new chapter in the draft policy, including managing forest carbon, is now a significant consideration for Liberia's mitigation potential from forest resources. Although the policy is undergoing final review and changes for approval by the FDA Board, the current draft is a significant move in the policy environment to ensure that the NDC 2.0 targets are achieved, Liberia's commitment is realized, and the fight against climate change is within reach. It is expected that the final policy will be endorsed and launched in 2025.

Draft Restated and Amended Wildlife Conservation and Protected Area Management Law

There are a number of targets within the NDC 2.0 relating to sustainable forest management and wildlife protection. These include Protected Area (PA) establishment, conserving wildlife, conservation of agriculture, reduction in deforestation and forest degradation, avoided conversion of mangroves, etc. In 2022, the Government of Liberia commenced a process to amend and restate the Wildlife Conservation and Protected Area Management Law to increase protection of forest resources and wildlife. The main goal of the amendment was to ensure that issues related to the value of wildlife and forest conservation, including ecosystem services, climate regulation and livelihood, are protected. This was done in the amended law by incorporating new provisions for protection, increasing penalties for organized crimes and illegal or destructive harvest of forest resources, etc. This law, when enacted will accelerate the number of protected areas to be established, improve forest conservation, and position Liberia as a major carbon sink. The draft text has been submitted to the office of the President for consideration including submission to the legislature for enactment. It is anticipated that passage of the amended law will be finalized in 2025.

Draft National Conservation Strategy

As stated supra, the NDC requires forest conservation and protected area establishment as key actions in promoting mitigation. To facilitate this process, a national conservation strategy has been drafted by the FDA and its partners to guide the establishment of PAs, promote forest conservation, improve the management of existing PAs, combat illegal trade and harvest in wildlife, and minimize forest degradation. All of these actions contribute to the fight against climate change by avoiding emission, reducing emission, and enhancing Liberia forest carbon stock. The 5-year conservation strategy is undergoing its final review stages for endorsement.

ARREST Agenda for Inclusive Development (AAID)

At the time of the drafting of this report, the Government of Liberia launched a new medium-term national development plan called the ARREST Agenda for Inclusive Development (AAID). The five-year plan (2025-2029), for the first time in the country's history, has a new and stand-alone pillar on "environmental sustainability."⁶ The goal of this pillar is to "promote responsible management of natural resources, protect biodiversity, and enhance resilience to environmental and climate changes, while fulfilling the country's Nationally Determined Contributions, supporting economic growth and improving the quality of life for citizens." The pillar has one strategic policy—climate change—with the objective to "develop strategies that enhance climate resilience while reducing GHG emissions from all sources, increasing carbon sinks, and promoting sustainable development."

The AAID has a program on environmental governance, a program on Forestry, Ecosystem Conservation, and Restoration, a program on Renewable Energy, and a Program on Solid Waste Management with several interventions attached to each of these programs. These interventions are reflective of the NDC 2.0 and, if implemented, will steer the country towards meeting its target under the revised NDC 3.0, which is intended to be implemented from 2025-2030. It is extremely important that the next iteration of the NDC will be aligned with the national development plan allowing for an inclusive and well-aligned national program on climate change.

National Solid Waste Policy of Liberia

Designed in 2015, the solid waste policy took many years and iteration before being approved in October 2024 by the EPA and Ministry of Internal Affairs. The guiding principle of the policy is to recognizing that "solid waste management is an integral part of good governance and is one of the most visible community services influencing local perception of governance. Therefore, local governance authorities are required to prioritize solid waste management and ensure that a well-

organized solid waste management system is established at their respective Municipal and Local Government Entities."⁷ The policy is structured through 10 goals and several strategies. Relevant to the NDC and climate change are:

Goals 1: Access to solid waste services,

Goal 4: Ensure solid waste management incorporates public, private and people participation

Goal 5: Ensure solid waste management is conducted in a gender sensitive manner.

Goal 6: Encourage decreasing waste generation through recycling and reuse, control and regulate generation of waste materials.

Goal 9: Ensure solid waste management is conducted in an environmentally friendly and sustainable manner to protect public health, natural resources, the environment in general and global climate change.

The policy makes specific reference and consideration for carbon emission reduction during the management of solid waste across the country. It provides that "management of solid waste has the potential for environmental contamination, climate change and human health risks. Environmental protection should be prioritized in strategic planning for solid waste management to reduce greenhouse gases and black carbon emissions from landfilling and combustion activities."

National Adaptation Plan (2020-2030)

Liberia, being highly vulnerable to climate change impacts,⁸ began the development of the National Adaptation Plan (NAP) in 2015. However, due to persistent delay, the NAP was finalized after the launch of the NDC 2.0. Many believed that the completion of the NDC triggered the urgency within the government for the completion of the NAP, considering the close alignment and interconnectedness. The NAP recognizes that "adaptation requires adequate information on risks and vulnerabilities to identify needs and appropriate adaptation options to reduce risks and build capacity in framing an approach to transformation."⁹ Some of this information is provided in the NDC or is available through the MRV system developed under the NDC.

Several adaptation strategies proposed in the NAPs are similar or aligned with those provided in the NDC. This is useful because it reduces the risk of overlap but promotes complementarity. Adaptation measures, as in the NDC, are listed in the NAP for several sectors, including agriculture, coastal, energy, fisheries, forestry, and waste management. It also provided several cross-cutting actions for the water resources sector and biodiversity. In addition, institutional arrangement for adaptation is similar to the NDC with the NCCSC sitting at the top along with support from MFDP, EPA and other ministries.

The National Agriculture Development Plan (NADP) 2024-2030

One of the first actions of the Ministry of Agriculture upon the ushering in of the new regime in 2023 was to design a master plan for agriculture expansion. In the government ARREST Agenda, agriculture is the first priority, hence the action to design a National Agriculture Development Plan (NADP) for the next 6 years from 2024-2030. The development objective of the NADP is to "enable Liberia to fully exploit its agricultural potential to enhance food security, nutrition and access to affordable healthy diets for the Liberian people by promoting sustainable productivity growth in the agriculture sector through agricultural climate change adaptation technologies aimed at developing the value chains of targeted agricultural products that support national food self-sufficiency and the development of the national economy."¹⁰ The inclusion of climate change adaptation technologies is a

⁷ Solid Waste Management Policy of Liberia, 2024

⁸ National Adaptation Plan 2020-2030, Republic of Liberia

⁹ Chapter 5.1, National Adaptation Plan 2020-2030, Republic of Liberia

manifestation of the emphasis placed on reducing emission from the agriculture sector but adapting to the changes in our climate system with impact on agriculture production.

As in the other policies and strategies that proceeded the NDC, the NADP recognizes and reemphasizes the adaptation measures captured in the NDC 2.0. Under its climate change resilient approach, the NADP integrates climate change adoption through its "focus on:

- Value addition to agriculture products (rice, cassava, vegetables and fruits)
- Improved storage (drying and freezing of agriculture products), building storage facilities for seeds, grain and vegetables in agroecological zones of Liberia;
- Introducing and running soil fertility management facilities in agroecological zones of Liberia:"¹¹

Furthermore, the NADP, in line with the government priorities identified in the NDC 2.0, proposes the following adaptation strategies:

- promote sustainable fisheries investment;
- set up an enabling environment for the development of aqua-business for the growth of the sector;
- support increasing the value of artisanal fisheries through the provision of facilities for ice storage on artisanal craft;
- provide fish drying equipment to support fish processors;
- provide storage facilities that enable fishermen to preserve their catches and reduce losses; and
- support national safety and quality assurance systems to enhance the safety and quality of fish.

Finally, the NADP also recognizes the rubber sector contribution to economic growth but notes specifically that it must be done in consideration with the criteria outlined under principles 3 and 4 of the Preferred by Nature Sustainability Framework.¹²

Since the launch of the NDC 2.0, all government new policies and strategies, with implications on climate change, have referenced or primarily aligned with the NDC 2.0. This is a positive way of promoting and underpinning the implementation of the NDC. While some strides have been made in improving the policy environment towards the NDC implementation, there are still efforts underway to continue on this path. In this regard, the Ministry of Transport has commenced the update and revision of the National Transport Master Plan with a clear indication of aligning its targets with those listed in the NDC. The County Development Agendas (CDAs) are being finalized by the government. There are indications of the inclusion of a climate action plan for each county as an annex to the CDAs. These action plans will align with the NDC. Similarly, plans are underway by the Ministry of Gender, Children and Social Protection to review and revise the National Gender Policy, launched in 2009, to incorporate emerging issues, including mainstreaming gender in the NDC process.

Draft Revised Energy Policy of Liberia, 2024

Liberia developed its first energy policy in 2009. Since, many issues and circumstances have changed requiring an update and consideration of these emerg8ng issues. Top of the many new issues is the need to reduce, significantly, emission from energy production and utilization with adherence to the conditions expressed in the NDC 2.0. To this end, the government has commenced the revision of

¹¹ National Agriculture Development Plan 2024-2030, Republic of Liberia

¹² Principles 3 and 4 contain strong consideration for climate change and environmental sustainability. The principles can be found at <u>http://www.preferredbynature.org</u>

the energy policy, A working draft has been prepared. In this draft, many policy issues have been identified. Two of the issues pertaining to low-emission energy production include:

- Balancing the environmental costs and benefits of all energy programs, taking into account the collective global effort to control harmful greenhouse gases responsible for climate change;
- Maximizing energy efficiency and demand-side management (DSM) to minimize the financial and environmental costs of energy development;

One of the 4 objectives of the revised energy policy is to "...minimize economic, financial, social, and environmental costs in order to ensure a balance between the interests of investors, consumers, and the general public."¹³ The Policy requires the development of performance indicators to consider many things amongst which the assurances that "GHG emissions meet defined international threshold and with corresponding national emission goal and becoming a low-carbon economy."¹⁴ Importantly, one of the new policy targets in the revised draft is reduce greenhouse gas emissions by net zero. Finally, one of the cross-cutting issues under the revised draft policy is "Energy, Environment, and Climate Change" signifying the importance of diversifying energy sources with emphasis on low-emission energy sources.

b) Institutional Effectiveness

The institutional environment for NDC implementation centralizes the National Climate Change Steering Committee (NCCSC) as the "supreme institutional body responsible for coordinating and supervising the implementation of climate change policy and other related activities in Liberia."¹⁵ The NCCSC is supported by a National Climate Change Secretariat (NCCS). The EPA, the national designated authority for the UNFCCC, is positioned as the national agency responsible for implementing and reporting on the NDC based on its mandate to promote sustainable environmental management, including climate change.¹⁶

Despite the listing of the NCCSC and EPA, the NDC provides that EPA will carry out its mandate in close collaboration with "several key entities including the Ministry of Finance and Development Planning which serves as chair of the EPA's Board, Forestry Development Authority, Ministry of Agriculture, National Disaster Management Agency, Ministry of Mines and Energy, Ministry of Internal Affairs, among others."¹⁷ Following the launch of NDC 2.0, the government has been making efforts to improve institutional effectiveness by improving performance within existing institutions and creating new departments/sections.

National Climate Change Steering Committee (NCCSC)

Positioned as the highest-decision-making body for climate change in the country, the steering committee, prior to the NDC2.0, seldomly met due to a lack of coordination, support, and emphasis placed on the issues to be addressed. Following the launch of the NDC, the committee meets at least 4 times a year to review high-level decisions regarding programs, interventions, and policies affecting the implementation of the NDC and climate change in general. This level of efficiency is partly due to the emphasis placed on the NDC by the Government of Liberia to drive its commitment to meeting the targets set in the NDC. With a regular meeting of the NCCSC, decisions are triggered down to ministries/agencies to accelerate activities that support the overall objectives of the NDC and the country climate programs. At the time of the drafting of this report, the NCCSC, due to its regular engagement and involvement in the issue of climate change, has mandated the EPA and FDA to set

¹³ Revised Draft Energy Policy of Liberia, 2024

¹⁴ Revised Draft Energy Policy of Liberia, 2024

¹⁵ Chapter 1.3.2: Liberia's Revised Nationally Determined Contributions, Republic of Liberia, 2021

¹⁶ Chapter 1.3.2: Liberia's Revised Nationally Determined Contributions, Republic of Liberia, 2021

¹⁷ Chapter 1.3.2: Liberia's Revised Nationally Determined Contributions, Republic of Liberia, 2021

up a legal and governance framework for carbon trade and advancing Liberia's interest in the carbon markets. Similarly, the NCCSC recommended to the office of the President of Liberia a temporary moratorium on all market-based carbon trading projects until these systems are developed by the EPA and FDA. This level of effectiveness by the NCCSC is partly responsible for the level of efforts that has been put into the implementation of the NDC at the national level.

NDC Secretariat

Serving as the coordination structure for the implementation of NDC, the secretariat has undergone strategic changes improving efficiency, accountability, operationalization, and effectiveness. Headed by a coordinator, the secretariat has designated, trained, and equipped focal persons from NDC sector ministries/agencies to collect, verify, and report data on the implementation of the NDC targets. Supported by a small team, the coordinator and the secretariat have put in place a system for evaluating the data to ensure integrity and prepare regular updates of NDC implementation to the government and its partners. With support from senior management of the EPA, the secretariat has evolved as an important structure for the success of the NDC. With this leadership support by the EPA senior management team, something that was not realized previously and created an impediment, the secretariat has taken a more central role in driving the NDC progress. With this level of internal improvement and leadership support from EPA management, the secretariat will now lead a seamless process in revising, updating, and launching the NDC 3.0.

MFDP climate desk

In the midst of a national discourse about transitioning to a carbon market under article 6.2 and 6.4 of the Paris Agreement, developing green bonds, and building a sustainable climate finance model for Liberia, the government has taken a key step towards creating an enabling institutional environment for the NDC implementation. This step entails the creation of a climate desk at the Ministry of Finance and Development Planning (MFDP). The desk is strategic for many reasons. First, the ministry is responsible for the fiscal policy and the country's development agenda. Hence, building a climate-resilient national development program or integrating environmentally friendly programs in the national development plan is an essential step towards mitigating or adapting to climate change through the NDC.

The climate desk at the ministry will serve as liaison between the Minister of Finance and the EPA, FDA and other ministries involved in climate related activities. It will also ensure that all climate finance programs are in alignment with the national fiscal policy and system as well as the national development agenda for the country. As mentioned, the recently launched AAID requires around 8 billion to complete. It contains a pillar for environmental sustainability and a strategic policy on climate change. The desk will ensure that interventions and programs under the AAID are implemented in alignment with the government overall climate objective and commitment through the NDC.

FDA new department on carbon and new DMD on conservation, community and carbon

Forest carbon, inarguably, plays an important role in the climate crisis. Liberia's biggest mitigation potential, incontrovertibly, is nested in its forest estate. This is why the FDA chairs the REDD+ Technical Working Group (RTWG) and is valuable to reducing Liberia's emissions, increasing the country's capacity to sequester carbon, and building resilience. Previously, the technical manager handled the issue of conservation and forest carbon, reporting to a Deputy Managing Director in charge of commercial operations. This uniquely strange system has been reversed. In order to elevate the discussion around forest carbon and its linkages with conservation, the FDA created a new Deputy Managing Director (DMD) for Carbon, Conservation, and Community Forestry. These three portfolios are aligned with the overall NDC implementation and mitigating climate change from Liberia's forest estate.

In building an effective institutional environment, the FDA has established a new department for carbon headed by a Technical Manager. This milestone achievement not only highlights or elevates the conversation around forest carbon but potentially accelerates the implementation of the NDC and moves the country one step further to realizing its climate commitment.

Climate Change Technical Committee

The NCCSC is authorized to create sub-committees based on its need and relevance. As a result, the climate change technical committee was established with the principal mandate to advise the steering committee on issues related to carbon markets, forest carbon ownership, equitable benefit sharing related to carbon resources, and the governance as well as legal architecture required to engage in carbon trade. The technical committee engages government ministries and agencies, as well as other international and domestic partners, to devise mechanisms for promoting the NDC and the overall climate change agenda. At the time of the drafting of this report, the committee was evaluating different options for the drafting of a climate change law and governance framework that will support equitable, verified, and just carbon credits generation and trade. The NCCSC has requested the committee to develop this concept to aid its policy division regarding carbon market and carbon rights. These issues will transform the way Liberia meets its commitment under the NDC and increase support for the NDC 3.0.

Reconstitution of the EPA Policy Council

A high-level policy council is created in the Act establishing the EPA as a high-level policy committee to drive decisions regarding environmental sustainability in Liberia. Apparently, due to its comprehensive list of members, it delayed the appointment and constitution of the council. Since the establishment of the EPA in 2002, the government has not fully constituted the council, nor did it meet to issue key environmental policy decisions. As part of the institutional effectiveness under the NDC 2.0, the EPA constituted the policy council in 2024 and hosted its first meeting. High on the agenda of the first policy council meeting was the issue of addressing climate change in the development plan and also accelerating actions to achieve Liberia's commitment. The resuscitation of the policy council is a big step towards ensuring effectiveness within the EPA as the designated national authority for the UNFCCC. It is highly anticipated that the NDC3.0 with the regular engagement of the policy council will generate the needed national-level support and leadership buy-in for success.

Challenges

While the establishment of these institutions underpinned the effectiveness and created an enabling environment for the success of the NDC implementation, these actions may have undermined some of the pre-existing platforms for environmental management prior to the launch of the NDC. A classic case in the point relates to the RTWG (REDD+ Technical Working Group) inactivity since the rekindling of the NCCSC and the carbon technical committee. Prior to the NDC, the RTWG was the leading platform for decision-making regarding climate change, sustainable forest management, and benefit sharing. As the central platform for climate change and REDD+ discussion, the creation and activation of these institutions and platforms may seem to undermine the RTWG. This is also partly due to the lack of funding from the Liberia Forestry Project (LFSP)¹⁸ which supported the RTWG activities for many years. Information regarding the meetings organized by the RTWG on REDD+ or climate change is not available.

Similarly, the establishment of new committees and platforms for NDC has undermined the efficiency and viability of the Environmental Sector Working Group (ESWG). With a broader mandate than the

¹⁸ The LFSP was a Norwegian funded and World Bank coordinated sustainable forest management project. It was implemented by the FDA along with several government ministries and agencies.

RTWG, the ESWG included many stakeholders and met at least twice a year between 2015-2019. Issues concerning the linkages between environmental sustainability and economic development were discussed. Participants used the platform to share information on the new interventions around the country and how environmental considerations can be integrated into these development interventions. Again, the inactivity may not necessarily be attributed to the new committees under the NDC but may be partly due to the lack of funding from the LFSP project which supported the activities and meetings of the ESWG.

c) Capacity building

One of the significant ways to accelerate the implementation of the NDC is to build in-country capacity to ensure that activities are being driven, led, and supported by competent and qualified Liberians. To this end, several capacity-building initiatives with objectives tied to the NDC implementation, whether directly or indirectly, have been ongoing in Liberia. These initiatives, implemented by GOL and some of its partners, target small groups of technical experts within the government and at academic institutions of higher learning.

Data management training for NDC Focal Points: at the onset, introductory data collection and management training was conducted for all focal points at the different ministries and agencies of government. Thereafter, refresher training tied explicitly to the needs of the focal points has been ongoing. These are designed based on intensified gaps, especially following the submission of the quarter and annual data to draft NDC progress. Where noticeable limitations are observed during collection and submission of data, the secretariat designs a particular training in response to such needs.

UL Certificate program in climate change: the University of Liberia has launched a certificate and diploma program to address specific technical training related to climate change, GHG emissions tracking, and other sustainable development programs to build core capacity of experts who have interest in contributing to the fight against climate change but do not have the time, resources, or ability to participate in the graduate level training. These graduates can contribute to the implementation of the NDC across Liberia.

WABILED GHG training: The United States Agency for International Development (USAID)sponsored project WABILED (West Africa Biodiversity and Low Emission Development) has conducted two major GHG trainings in Liberia for government technicians representing Guinea, Sierra Leone, Liberia, and Cote-D`Ivoire. These capacity-building events centered around REDD+, including estimating GHG, reporting obligations, data verification, etc. More than 15 persons from the FDA, EPA, and Ministry of Agriculture have benefited from the program and are currently supporting the NDC implementation.

d) MRV/M&E

Evaluating and measuring emissions reduction quarterly or annually is the most effective way to track progress on the NDC and all attending support or activities being implemented. If funding is being mobilized and activities are implemented, but GHGs are not being reduced correspondingly, adjustments must be made. This is only possible where in-country monitoring, verification, and reporting are ongoing. A few national processes track GHG emissions directly, while other systems indirectly collect data that can be extrapolated to measure emissions from a particular sector. In this section, we describe the national processes collecting, analyzing, and reporting data appertaining to GHGs, which are useful for monitoring and evaluating progress.

NDC Focal Points quarterly report: The intent of organizing focal persons at the different ministries and agency coordinating sectors of the NDC is to ensure that data is collected, verified, and reported

for tracking progress. Every quarter, the focal points submit data from their sector to the secretariat. This is then analyzed to produce the national quarterly report on NDC implementation.

Biennial Transparency Report (BTR): Under the Enhanced Transparency Framework, Liberia, as a Party to the Paris Agreement, is required to submit the BTR every two years, beginning 31 December 2024. Liberia, through the national focal point based at the University of Liberia under a GEF/UNEP funded initiative, collects data using a team of experts in anticipation of submission of the first BTR in 2025. This process commenced in 2022, and information on national inventory reports (NIR), progress towards NDCs, policies, and measures, climate change impacts and adaptation, levels of financial, technology development and transfer and capacity-building support, capacity-building needs, and areas of improvement. However, Liberia uses the data collection system under the NDC to measure emission levels in the country. Through this system, data is cross-checked with what is submitted by the focal person to ensure that the national figure is in alignment. However, due to the delay in the report, this system might be useful once the first BTR is published. The BTR and the 3rd National Report are being prepared simultaneously by the same team. The information generated is cross-referenced with the emission data collected for NDC reporting purposes.

Tracking Land Degradation: Conservation International and the EPA, under the UNCCCD, are tracking land degradation across the country. This process generates emission data, particularly from land degradation. Along with a team of EPA technicians, the project considers 3 operational indicators:

- Land productivity
- Soil organic carbon
- Land cover change

The baseline year of 2000 was derived, with the final year being 2019 for the reporting period. Additional data was collected from 219-2022 and is analyzed by EPA for publication. This will provide insight into the level of land degradation in the country and the resulting emissions. Thereafter, the EPA intends to collect regular information in the future. The data already collected by the EPA is also used to calculate emission levels under the NDC.

Data on Forest Cover Change: Under the Liberia Forestry Sector Project (LFSP), the government commenced collecting data on forest cover changes. This process continues after the project expires. Data generated from the changes in forest cover can be used to extrapolate emission levels over time from the forest and may be used to cross-reference emission data collected from the FOLU (forestry and other land-use) sector. This, and the data collected from the land degradation tracking, are useful means for collecting data for tracking emission under the NDC. They are compared with the data collected from the focal persons at the Liberia Land Authority and FDA. The latest data collected from forest cover change was analyzed in 2023 and used to track emissions for that year. It mainly uses the deforestation rate against emission reference from the forest sector.

e) Collaborations

An enabling environment for the successful implementation of the NDC anchors on collaborations and partnerships. The government signed and joined the NDC partnership. This has provided immense resources, including technical guidance, training and capacity development, and funding opportunities. To date, this partnership has enabled the government to continue to track NDC progress annually.

Another useful partnership for success is the collaboration between UNDP and the Climate Promise. This is the framework for UNDP's support to developing countries to achieve their NDC priorities and deliver the Paris Agreement goals. Through technical backstopping, project delivery, capacity building, and policy advancement, UNDP and the Government, particularly EPA, have worked collaboratively to promote the implementation of then NDC.

2.2.5. Participation by CSOs

An assessment conducted by CSOs revealed limited involvement of civil society during the drafting and implementation of NDC 2.0. Below is a summary of the findings:

Table 2: Summary of findings from assessment of CSOs participation in the NDC process

Assessment Area	Findings
Consultation with CSOs	Limited consultations conducted, not inclusive of all NDC sectors.
CSO Representation in Drafting Committees	Inadequate representation, with CSOs largely excluded.
Leadership Roles	No significant leadership positions were held by CSOs in drafting and decision-making.
Participatory Mechanisms	No robust mechanisms were established to ensure meaningful participation.
Institutional Collaboration	Minimal collaboration between CSOs and policymakers, limiting input into the NDC.
Representation in Governance	CSOs are not meaningfully included in management structures, except for the newly established National Climate Change Steering Committee.
Institutional Support	Some support exists, but engagement remains minimal.
Accountability Mechanisms	Weak systems are in place for transparency and accountability in implementation.
Capacity Building Initiatives	Limited training, education, and technical support for CSOs involved in NDC implementation.

The NCSCL, demonstrating their significance to the NDC implementation have catalogued projects and programs being implemented by CSOs across the country with direct and indirect contributions to the mitigation and adaptation targets in the NDC. These includes interventions ranging from natural resource conservation (protected area establishment and management) and its contribution to avoided emissions/carbon sequestration, tree planting initiatives, sustainable cookstove, conservation agriculture, to mangrove restoration.

3. Component 2 – Gap analysis

The approach used to identify the gaps in the NDC 2.0 and the findings are presented in this section of the report.

3.1. Methodology

This component involved a thorough analysis of the country's NDC 2.0, focusing on dimensions such as ambition, comprehensiveness, feasibility, inclusiveness, and transparency. Detailed descriptions of these dimensions are provided below:

- A. **Comprehensiveness:** Does the NDC include emission reduction targets and mitigation actions for all relevant sources across sectors, as well as adaptation actions that address all key hazards and vulnerabilities? Is the NDC grounded in the best available scientific literature and best practices?
- B. **Ambition:** Does the NDC demonstrate progressive ambition to reduce emissions and enhance resilience, in line with the pathways outlined by the IPCC?
- C. **Feasibility:** Are the proposed actions in the NDC feasible for implementation within the country, considering factors such as costs and benefits, financing options, investment opportunities, and the institutional, human, and technological capacities of the government and other key stakeholders?
- D. **Inclusiveness:** Does the NDC address the climate risk vulnerabilities and adaptation needs of vulnerable groups including women, children, youth and other social groups, the impacts and benefits of the NDC for them, and the roles they can play in NDC implementation?
- E. **Transparency:** Does the NDC provide sufficient information to ensure clarity, transparency, and understanding of its content?
- F. **Just and Sustainable:** Does the NDC incorporate the principles of justice, equity and human rights to leave no one behind, while assessing and integrating socio-economic impacts and opportunities of climate action? Does the NDC capture key considerations for ensuring that NDC policies and measures are delivering sustainable development priorities?

A detailed questionnaire covering aspects to be assessed under the above dimensions was developed to evaluate the NDC. The below documents were used as reference to prepare the questionnaire:

- 1. <u>Quality Assurance Checklist for Revising Nationally Determined Contributions</u> published by UNDP in 2020
- 2. <u>Quality Assurance Checklist for Nationally Determined Contributions (NDCs) 3.0</u> published by UNDP in 2024.
- 3. <u>WWF Checklist for the NDCs We Want</u> published by World Wildlife Fund (WWF) in 2024

Based on the quality assessment, gaps and areas for improvement were identified. For these gaps, recommendations were identified based on best practice and available guidance from established organizations such as the UNDP. This task involved looking into:

- mitigation/adaptation actions in the target sectors which have incurred since the preparation of NDC 2.0
- planned mitigation/adaptation actions, including those in process of implementation
- potential/new mitigation/adaptation actions in the target sectors, and this also means that specific mitigation/adaptation actions previously identified in Liberia for possible application.

3.2. Findings

The gaps related to the dimensions discussed earlier are presented in the sub-sections below.

3.2.1. Comprehensiveness

Table 3: Assessment on the comprehensiveness of the NDC 2.0

SI. No.	Assessment question	Response	Explanation			
Mitig	Mitigation					
1.	Does the NDC cover all sectors as defined by the IPCC: energy; transport; industrial processes and product use; agriculture, forestry and other land use; and waste?	Yes	All sectors, as defined by the IPCC 2006 guidelines: Energy, Industrial Processes and Product Use (IPPU), Agriculture, Waste, Land Use, Land Use Change, and Forestry (LULUCF).			
2.	Has the NDC expanded the scope within existing sectors (i.e., cover all relevant GHG source or sink categories and/or sub- categories, as defined by the IPCC)?	Can't determine	Sub-sector or source level information on the target is not provided in the NDC.			
3.	Has the NDC increased sectoral coverage since the previous NDC?	Yes	The 2015 NDC covered energy, transport, and waste sectors. NDC 2.0 has added IPPU, Agriculture, and LULUCF to the sectoral coverage.			
4.	Does the NDC cover all greenhouse gases as defined by the IPCC (i.e. Carbon dioxide (CO2), Methane (CH4), Nitrous oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur hexafluoride (SF ₆), and Nitrogen trifluoride (NF ₃)?	Yes	Greenhouse gases covered include: CO2, CH4, N2O, HFCs. Precursor gases - nitrogen oxides (NOx), carbon monoxide (CO), non-methane organic volatile compounds (NMVOCs) and Sulphur dioxide (SO2) are also covered.			
5.	Has the NDC increased GHG coverage since the previous NDC? (i.e. adding methane, HFCs, SLCPs, etc.)?	Yes	HFCs were newly added to GHG coverage.			
6.	Does the NDC include information on strengthened or new policies/actions for mitigation, compared to the previous NDC?	Yes	The NDC 2.0 lists national policies related to development priorities and climate change mitigation.			
7.	Does the NDC increase the geographical coverage since the previous NDC and/or cover the entire geography of the country?	NA	Both 2015 NDC and NDC 2.0 cover entire geography of the country.			
Adap	otation					
1.	Does the NDC include information elements identified in Decision 9/ CMA.1 and its	No	The NDC 2.0 provides a very brief overview of country's adaptation			

	annex on elements of an adaptation communication?		and lists adaptation targets, actions and policy measures at sector level. However, the National Adaptation Plan (NAP) and First Adaptation Communication completed in 2021 include elements identified in Decision 9/ CMA.1 and its annex.
2.	Has the NDC increased the geographical coverage of adaptation activities since the previous NDC?	NA	Both 2015 NDC and NDC 2.0 cover entire geography of the country.
3.	Has the NDC increased the sectoral coverage of adaptation activities since the previous NDC?	Yes	The 2015 NDC presents targets as well as measures/actions at sector level for Agriculture, Energy, Health, Forestry, Coastal zone, Fishery, and Transport/Infrastructure sectors. The NDC 2.0 adds waste sector as well as cross sectoral targets.
4.	Does the NDC include adaptation actions in new sectors that are consistent with national and sectoral development priorities?	Can't determine	A detailed policy alignment exercise is needed to answer this question.
5.	Does the NDC include updated or new information on climate change impacts, risks, or vulnerabilities (e.g., climate and disaster risk and vulnerability assessments)?	No	-
6.	Does the NDC include updated or new information on adaptation actions and/or economic diversification plans, including those resulting in mitigation co-benefits (e.g., sectoral/thematic adaptation actions)?	No	-
7.	Has quality assurance and quality control of data, methodologies, and other relevant information been carried out when revising the adaptation components of NDC (e.g. technical review)?	Can't determine	Information not available

3.2.2. Ambition

Table 4: Assessment on the ambition of the NDC 2.0

SI. No.	-	Response	Explanation

Mitig	gation		
1.	Does the NDC strengthen and/or add a GHG target that results in less cumulative GHG emissions compared to the previous NDC?	Yes	The 2015 NDC aimed to reduce GHG emissions by 15% below business-as-usual levels by 2030 with a long-term goal of carbon neutrality by 2050. However, this target was conditional upon international support. In comparison, NDC 2.0 includes both unconditional and conditional targets. The country has committed to unconditional reduction of GHG emissions by 10% below business-as-usual levels and an additional conditional reduction of 54% GHG emissions by 2030. This demonstrates that Liberia has strengthened its NDC target on mitigation by adding an unconditional component to the target that results in less cumulative GHG emissions compared to the previous NDC.
2.	Does the NDC set specific, quantitative GHG targets in relation to a base year?	Yes	-
3.	Has the NDC set an absolute emission reduction target?	Yes	Unconditional reduction of GHG emissions by 10% below business-as-usual levels and additional conditional reduction of 54% GHG emissions by 2030 will lead to emission reductions in absolute terms.
4.	Has the NDC increased the proportion/scope of the unconditional component in relation to the conditional component of its mitigation target(s), compared to its previous NDC?	Yes	The 2015 NDC aimed to reduce GHG emissions by 15% below business-as-usual levels by 2030. However, this target was conditional upon international support. In comparison, NDC 2.0 includes both unconditional and conditional targets.
5.	Does the NDC strengthen or add sectoral non-GHG target(s) (e.g., 50% renewable energy to 80%)	Yes	The NDC 2.0 presents targets at sector level for Agriculture, Energy, Health, Forestry, Coastal zone, Fishery, Waste, and Transport sectors. In addition, cross sectoral targets are also included in the NDC.

6.	Has the NDC introduced a timeframe for	No	_
0.	peaking emissions?	110	
7.	Has the NDC strengthened or added sectoral non-GHG target(s) in response to the calls to action from the first GST (Decision 1/CMA.58)?	Partially	The NDC 2.0 discusses a number of sectoral mitigation actions/measures that are aligned with the areas outlines in the Decision 1/CMA.58.
8.	Is the NDC 1.5°C aligned?	Can't determine	While the NDCs communicate emission reduction targets, whether the targets are aligned with the objective of the Paris Agreement - to limit the global average temperature rise to 1.5°C above pre-industrial levels - is not clear. This is not a major concern given the national circumstances and negligible contribution of Liberia to global emissions.
9.	Does the NDC include long-term or net- zero targets outlined in the Long-Term Low Emission Development Strategy (LT- LEDS)?	No	While the 2015 NDC referred to a long-term goal of carbon neutrality by 2050, this was not mentioned as a commitment in the NDC 2.0. Further, Liberia has not submitted LT-LEDS.
10.	Does the NDC establish specific interim targets that act as benchmarks toward the LT-LEDS goal, ensuring a consistent trajectory toward long-term decarbonization?	No	-
11.	Does the NDC include policies and measures that directly support the objectives laid out in the LT-LEDS to avoid contradictory measures or carbon lock-ins?	No	-
12.	Does the NDC refer to harmonization of in- country reporting mechanisms to track progress against short-, medium-, and long-term targets?	No	-
Adap	otation		
1.	Does the NDC include clear adaptation objectives in line with the Paris Agreement adaptation objectives?	Yes	The sectoral adaptation targets are in line with the Paris Agreement adaptation objectives.
2.	Does the NDC include quantitative or qualitative targets on adaptation and provisions for a monitoring and evaluation system for adaptation?	Yes	The NDC 2.0 provides a very brief overview of country's adaptation and lists adaptation targets,

			actions and policy measures at sector level.
3.	Are the adaptation sectoral and thematic targets aligned with the thematic and dimensional targets of the UAE Framework for Global Climate Resilience outlined in para 63, Decision 1/CMA.5 Outcome of the first GST and Decision 2/CMA.511 on Global Goal on Adaptation?	Partially	The NDC 2.0 discusses a number of sectoral adaptation targets and actions/measures that are aligned with the areas outlines in the Decision 1/CMA.5 Outcome of the first GST and Decision 2/CMA.511 on Global Goal on Adaptation.
4.	Does the NDC reflect progress on adaptation planning and the linkages between the NDC and the NAP or other adaptation planning process or instrument?	No	-

3.2.3. Feasibility

Table 5: Assessment on the feasibility of the NDC 2.0

SI. No.	Assessment question	Response	Explanation
1.	Does the NDC include information on the costs of: achieving mitigation targets, policies and/or measures and/or achieving adaptation goals, policies and/or measures?	Yes	The NDC communicates the investment required to meet its mitigation and adaptation targets.
2.	Does the NDC include information on the investment strategy for achieving targets and/or implementing specific policies or measures (including those that are gender- transformative and socially inclusive)?	Yes	The NDC mentions that the country will mobilize approximately USD 460 million of the total investment requirement of USD 490 million from the private sector, bilateral and multilateral sources and all other sources, mechanisms, and instruments.
3.	Does the NDC include information on NDC- related financial mechanisms established or being developed (e.g., national climate funds, green bonds, carbon finance instruments, debt swaps, etc.)?	No	-
4.	Does the NDC provide information on how domestic public funding sources will be mobilized for reaching the identified unconditional targets and goals?	No	-
5.	Does the NDC provide information on how domestic private funding sources will be mobilized for reaching the identified unconditional targets and goals?	No	-

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6.	Does the NDC provide information on how international public funding sources will be mobilized for reaching the identified conditional targets and goals?	No	-
7.	Does the NDC provide information on how international private funding sources will be mobilized for reaching the identified conditional targets and goals?	No	-
8.	Does the NDC state intent to engage in international carbon markets (Article 6.2 and 6.4)	Yes	The NDC 2.0 states that the country will consider international carbon market mechanisms, including cooperative approaches under Article 6 of the Paris Agreement as a source of low-carbon and climate-resilient infrastructure investments. Liberia considers that some low carbon development options in the NDC, or additional actions, could be financed in full or in part, through the transfer of international carbon credits/assets or results-based financing, in line with the guidance to be agreed under Article 6.
9.	In terms of Article 6 readiness, does the NDC include information on how the country (plans to) set up or strengthen relevant institutional and legal/regulatory frameworks to participate in Article 6 carbon markets?	No	-
10.	Does the NDC describe measures that are planned or being implemented to reduce investor risks and/or remove barriers to attracting private sector finance?	No	-
11.	Does the NDC contain information on intent to engage in non-market approaches (i.e., Article 6.8 of the Paris Agreement) in order to implement identified NDC targets, policies, and measures?	No	Specific reference to Article 6.8 is not included in the NDC 2.0.
12.	Does the NDC identify fiscal risks and structural barriers to enable finance and capital flows for climate investments?	No	-
13.	Does the NDC include information on institutional arrangements, with clear roles and responsibilities for NDC implementation identified across priority	Yes	The NDC 2.0 presents the institutional framework for NDC implementation. Further, it is mentioned that the NDC

	sectors and different levels of government that build on existing coordination mechanisms (e.g. climate change committees, NDC coordination committees, NAP committees, disaster risk management and recovery committees, etc.)?		Implementation Plan will integrate institutional arrangements and will describe the roles and responsibilities of relevant institutions and institutional frameworks in NDC implementation, reporting, coordination, support, and finance.
14.	Does the NDC include information on a mechanism to coordinate and engage non- government stakeholders to ensure inclusive and effective NDC implementation?	No	-
15.	Does the NDC describe institutional capacity development needs and plans for public administration, as well as other key actors including the private sector?	No	-
16.	Does the NDC identify technology gaps and needs that are essential for the implementation of the NDC?	No	-
17.	Are the targets, policies and measures within the NDC supported by national legislation and/or relevant legal frameworks?	Can't determine	A detailed policy alignment exercise is needed to answer this question.
18.	Does the NDC identify policy, legal and regulatory gaps (barriers to implementing NDC actions)?	No	-
19.	Does the NDC include policy recommendations or potential solutions to address policy, legal and/or regulatory gaps?	No	-

3.2.4. Inclusiveness

Table 6: Assessment on the inclusiveness of the NDC 2.0

SI. No.	Assessment question	Response	Explanation
1.	Have the key ministries, departments and agencies of government played an active role in revising the NDC?	Yes	The NDC 2.0 was reviewed and validated by key subject-matter experts from across NDC-related sectoral institutions, including the Environmental Protection Agency, Forestry Development Authority, Ministry of Agriculture, Ministry of Mines and Energy,

			Ministry of Transport, Ministry of Health, Ministry of Internal Affairs, Ministry of Gender and Children Protection, Liberia Maritime Authority, National Fisheries and Aquaculture Authority, etc. before approval by the Office of the President of Liberia
2.	Have different government institutions from relevant sectors, at both the national and sub-national levels, been engaged and consulted on the NDC revision?	Yes	National and sub-national officials of the government were involved in the revision process.
3.	Have private sector, civil society organizations, academia, vulnerable and marginalized groups, and other relevant stakeholders, been meaningfully engaged and consulted on the NDC revision? Has this engagement taken place at both the national and sub-national levels?	Yes	Women, youth, private sector, non-governmental organizations, and civil society were involved in the NDC revision process by way of consultative meetings at national and regional levels.
4.	Does the NDC include targets, measures and policies that are gender-responsive (e.g. gender indicators, mitigation/adaptation gender actions, sectoral measures/targets)?	Partially	The cross-sectoral targets include "mainstreaming climate actions, capacity building, climate finance, and gender and youth concerns into every sector activity by 2025". Further, some of the sectors include a few gender-responsive targets in the NDC 2.0.
5.	Does the NDC include targets, measures and policies that are children and/or youth- sensitive, and that address youth-specific needs and roles?	Partially	The cross-sectoral targets include "mainstreaming climate actions, capacity building, climate finance, and gender and youth concerns into every sector activity by 2025" No children focused targets are included in the NDC.
6.	Does the NDC identify steps for an inclusive, just transition of the workforce?	No	-
7.	Does the NDC include targets, measures and policies related to vulnerable groups, i.e. those highly impacted by climate and natural hazards, elderly, and indigenous people, etc.? (e.g. co-benefits of adaptation and mitigation measures in the health sector that address the needs of vulnerable groups)	Partially	Adaptation actions for vulnerable groups are included for agriculture, forests, and coastal zones sectors. However, it is to be noted that the term "vulnerable groups" is not defined in the NDC.

8.	Are the roles and contributions of the private sector to support NDC implementation clearly articulated?	Partially	NDC 2.0 identifies private sector as source of finance for NDC implementation. Further, the document mentions that the private sector actors agreed to join the government and other partners in the NDC revision process, as well as mitigation and adaptation efforts. However, the roles and contributions are not elaborated.
9.	Does the NDC include targeted awareness- raising, advocacy and education related activities?	Partially	The NDC 2.0 lists awareness- raising, advocacy and education related activities for a few sectors.

3.2.5. Transparency

Table 7: Assessment on the transparency of the NDC 2.0

SI. No.	Assessment question	Response	Explanation
1.	Does the NDC provide information on the country's MRV system?	Yes	The NDC 2.0 includes a section on country's MRV system.
2.	Is the MRV system aligned with the Modalities, Procedures and Guidelines (MPGs) Enhanced Transparency Framework (ETF) (or on track to operationalize the ETF before the deadline for submission of the first Biennial Transparency Report (BTR))?	Can't determine	A thorough analysis of the MRV system against the MPGs is needed to assess the alignment as the NDC document doesn't discuss the MRV system in detail.
3.	Are the corresponding institutional arrangements and relevant laws and regulations in place to support the MRV system?	Yes	The NDC mentions that the country has developed a national level MRV system and that this system incorporates relevant key actors and institutions involved with climate MRV, including GHG emission inventories, GHG mitigation actions, climate finance, and climate impacts to enable tracking of climate change actions and reports.
4.	Does the NDC revision process consider the improvement of monitoring for SDGs and other cross-cutting issues? (e.g. gender- related indicators, parameters, baseline, and project targets highlight impacts on human rights, gender equality, and vulnerable or underrepresented groups	Can't determine	Information not available

	(youth/children, women, Indigenous Peoples and local communities, etc.)		
5.	Does the NDC indicate that MRV of support (finance, technology and capacity) is in place, or plan for improvements to achieve this?	Partially	The NDC mentions that the national MRV system incorporates climate finance. However, it is not clear if it tracks all forms of support (finance, technology and capacity).
6.	Does the NDC contain an annex/table outlining all key information as per the ICTU guidelines?	Yes	-
7.	Does the NDC include targets or indicators enabling monitoring and evaluation of just transition policies and measures?	No	-
8.	Does the NDC include quantitative/qualitative targets on adaptation and provisions for a monitoring and evaluation system for adaptation linked to the thematic and dimensional targets of the UAE Framework for Global Climate Resilience?	Partially	While the NDC 2.0 presents qualitative/quantitative adaptation targets, there is no information on M&E systems.
9.	Does the NDC include information on whether quality assurance and quality control of data, methodologies, and other relevant information has been carried out (e.g. technical review)?	No	-
10.	Does the NDC provide clarity on the NDC trajectory?	Partially	The NDC 2.0 provides information on the emissions in the base year and target year in the BAU scenario. However, information on the assumptions considered to model BAU emissions is not discussed in the NDC.
11.	Does the country have a plan for voluntary loss and damage reporting?	No	-

3.2.6. Contribution to just transition and sustainable development

Table 8: Assessment on the just transition and sustainable development component of theNDC 2.0

SI. No.	Assessment question	Response	Explanation
1.	Have the socio-economic impacts of NDC targets, policies and measures been assessed?	No	The NDC mentions not applicable.

2.	Does the NDC identify steps and measures for an inclusive, rights-based, just, equitable and orderly transition and economic diversifications including green skills and jobs?	No	-
3.	Does the NDC identify policies and measures that elaborate the national priorities of both achieving climate targets and the SDGs?	Yes	The NDC 2.0 refers to two national policies that focus on SDGs.
4.	Does the NDC identify activities involving vulnerable or underrepresented groups in planned mitigation and adaptation policies or measures addressing the needs and priorities of identified vulnerable groups of stakeholders?	Partially	The NDC 2.0 discusses measures for vulnerable groups for a few sectors.
5.	Have national, sectoral, and/or subnational development strategies/plans been aligned with the NDC?	Can't determine	A detailed policy alignment exercise is needed to answer this question.
6.	Has the NDC elaborated how its targets, policies and actions align with the SDG targets?	No	The NDC 2.0 refers to two national policies that focus on SDGs; however, there is no reference to how the NDC targets and actions are aligned with the SDG goals.
7.	Has the NDC elaborated how its targets, policies and actions align with the National Biodiversity Strategy and Action Plan (NBSAP) under the United Nations Convention on Biological Diversity (CBD)?	No	_
8.	Has the NDC elaborated how its targets, policies and actions align with the National Action Programme to combat desertification (NAP) or the voluntary Land Degradation Neutrality Targets under the United Nations Convention to Combat Desertification (CCD)?	No	-

4. Component 3 – Gender responsiveness assessment

This section of the report outlines the methodology used to assess gender responsiveness of the NDC 2.0 and discusses the key findings.

4.1. Methodology

The methodology for analyzing Liberia's NDC 2.0 involved a gender-sensitive review of explicit and implicit references to gender equality and women's empowerment within the NDC document. Based on established international frameworks, such as the UNFCCC Gender Action Plan and UNDP's Three-Pronged Approach, key areas of analysis were determined and an assessment questionnaire was prepared. The analytical framework for gender sensitives assessment is presented in the Figure below.

The analysis also covered gender responsiveness of NDC actions across different NDC sectors such as agriculture, coastal zones, energy, fisheries, forestry, health, industry, transport, and waste management.

Gender related commitments and strategies in the NDC	Involvement of women in the NDC drafting and policymaking process	Involvement of women in the NDC Implementation Process		
 Gender equality and women's empowerment as one of the stated objectives of climate action Acknowledgement of gendered vulnerabilities Gender-responsive mitigation and adaptation targets Role of women in decision-making, leadership, and as agents of change in climate action Gender-specific programs for access to resources, technology, and support systems Gendered impact analysis of climate policies/strategies Gender sensitive monitoring and evaluation 	 Consultation with Women's Organizations Women's representation in institutional mechanisms Leadership roles by women Gender training for policymakers Inclusive mechanisms/platforms for participation by women Inclusion of vulnerable groups Institutional collaboration 	 Gender-specific needs in planning: Gender-responsive budgeting Implementation of Gender-Inclusive Programs Representation in Governance Institutional Support Accountability Mechanisms Capacity Building in Implementation 		
Mainstreaming gender at sector level				
Gender specific vulnerabilities at sector level Adaptation measures addressing vulnerabilities of women Role of women				

Role of women

Figure 8: Analytical framework for gender sensitives assessment

4.2. Findings

The findings related to the dimensions discussed earlier are presented in the sub-sections below.

4.2.1. Overall findings

The NDC 2.0 explicitly refers to the terms "gender" 16 times and "women" 17 times. Most of these references occur in the context of stakeholder consultations held during the NDC process, with the remainder related to gender-specific mitigation and adaptation targets. However, the document lacks a focus on gender-related vulnerabilities and needs, the potential contributions of women to

mitigation and adaptation efforts, or the role of women in policymaking, planning, and implementation of NDC measures.

More specific observations related to gender responsiveness are presented in the subsequent sections.

4.2.2. Gender related commitments and strategies in the NDC document

Table 9: Assessment on the gender responsiveness of commitments and strategies

SI. No.	Assessment question	Response	Explanation
1.	Does the NDC explicitly mention gender equality and women's empowerment in the context of climate change, adaptation, and mitigation?	No	•
2.	Does the NDC acknowledge Liberia's gender-specific vulnerabilities in light of the country's socioeconomic realities, including poverty, livelihood dependence, and access to education and healthcare?	Νο	•
3.	Does the NDC identify actions/measures that address the gendered vulnerabilities?	Partially	 Agriculture and fisheries sector measures include activities that identify women as beneficiaries. These reflect the responsiveness to the gendered vulnerabilities by Examples include: Agriculture sector measure: Roll out a "Women in Agriculture" program with 4 training sessions per year (with at least 45 women trained per year) to support implementation of climate-resilient agricultural and livestock practices and increase women's access to agricultural inputs and labor-saving devices by 2025. Fisheries sector measure: Increase capacity building of women involved in marketing & smoking of fish and wider community engagement to promote conservation of mangroves (e.g., introduce alternative approaches to smoking fish) by 2025.

			•
4.	Does the NDC include specific gender- responsive mitigation and adaptation targets?	Partially	Mainstreaming gender concerns into every sector activity and climate change policies by 2025 is one of the cross sectoral targets under both mitigation and adaptation components of the NDC. However, there are no sector specific gender-responsive targets.
5.	Does the NDC discuss targeted programs to ensure access to resources, technology, and support systems by women impacted by climate change?	No	-
6.	Does the NDC discuss policies or programs that might disproportionately benefit or harm different gender groups?	No	-
7.	Does the NDC recognize women's roles in decision-making, leadership, and as agents of change in climate action?	No	-
8.	Does the NDC include plans for education, training, and leadership development for women in climate-sensitive sectors?	No	-
9.	Does the NDC outline systems to monitor and evaluate gender inclusiveness across sectors and implementation stages?	No	-

4.2.3. Involvement of women in the NDC drafting and policymaking process

SI. No.	Assessment question	Response	Explanation
1.	Were women's organizations, gender advocates, or gender experts consulted during the NDC revision process?	Yes	Civil society groups promoting gender equality and women empowerment, gender coordinators across Liberia's 15 political sub-divisions, as well as the private sector and community-based groups supporting women's empowerment were consulted during the NDC revision process. Further, women formed a key stakeholder group consulted

			during the three regional consultative meetings.
			It is worthwhile to note that during the gender dialogue commitments in the form of a declaration was drafted by the participants on women taking ownership of the NDC of the country.
2.	Was there adequate representation of women in the NDC drafting committees?	Can't determine	This information is not included in the NDC.
3.	Did women hold leadership positions in the decision-making and drafting processes?	Can't determine	This information is not included in the NDC.
4.	Were policymakers and institutions involved in the NDC drafting process trained in gender-responsive climate action?	Can't determine	This information is not included in the NDC.
5.	Were mechanisms established to ensure meaningful participation of women and marginalized gender groups?	Yes	The National Gender Dialogue was a key platform that focused on ensuring meaningful participation of women in the NDC revision process.
6.	Were the specific needs and vulnerabilities of marginalized groups, such as rural women or female-headed households, considered during consultations?	Can't determine	This information is not included in the NDC.
7.	Did gender-focused institutions collaborate with climate change policymakers in drafting the NDC?	Partially	Civil society groups, private sector and community-based groups supporting women's empowerment were consulted during the NDC revision process. However, the extent of collaboration or involvement of these institutions in NDC revision is not clear.

4.2.4. Involvement of women in the NDC implementation process

Table 11: Assessment on the gender responsiveness of NDC implementation process

SI. No.	Assessment question	Response	Explanation
1.	Does the NDC implementation plan account for the distinct needs and contributions of women?	No	While there are a few initiatives ongoing in the agriculture and fisheries sector that target women, it is not clear whether

			their distinct needs and contributions are addressed.
2.	Is there evidence of gender-responsive budgeting for climate action? Are financial resources allocated to programs targeting gender-specific outcomes?	No	•
3.	Are gender-inclusive projects or interventions being actively implemented?	Partially	 There are a few specific projects that target women or identify women also as beneficiaries. Examples include: The Emergency rice production offensive project (ERPO) project requires a minimum of 30% women participation in all interventions. The Livelihood Empowerment of Women in Small-Scale Fisheries project of the FAO provided training and provided fish processing facility to female fishmongers. The Environmental Justice Foundation (EJF) provided several trainings and organized an all-women Village Savings and Loans Associations (VSLA) in the Southeast. The Liberia Sustainable Management Fisheries Project (LSMFP) has a component for increasing women support in sustainable fishing.
4.	Are women represented in institutional arrangements and management structures responsible for NDC implementation?	No	•
5.	Is gender-focused institutions engaged in the implementation process?	Can't determine	Information not available
6.	Are there mechanisms to ensure transparency and accountability in achieving gender-responsive outcomes?	No	•
7.	Are there initiatives to empower women through education, training, or skills development during NDC implementation?	No	•

4.2.5. Gender responsiveness at sectoral level

Table 12: Assessment on the gender responsiveness of sectoral targets and strategies

SI. No.	Assessment question	Response	Explanation
Agrie	culture		
1.	Does the NDC recognize the role of women in agriculture and their contributions to climate adaptation strategies?	No	•
2.	Are climate-resilient agricultural practices tailored to women farmers explicitly mentioned?	No	-
3.	Are there programs supporting women's access to technology, climate-resilient seeds, finance, and other resources?	Partially	Some of the programs that target women focus on access to skills are resources. For example, FAO conducted training and provided fish processing facility to fishmongers on sustainable fisheries and EJF provided several trainings and organized an all-women VSLAs in the Southeast. LSMFP project has a component for increasing women support in sustainable fishing.
4.	Does the NDC address gender inequalities in land ownership and decision-making in the agriculture sector?	No	•
Coas	tal Zone		
1.	Does the NDC include gender-specific adaptation measures and capacity-building programs for women in coastal areas?	No	-
2.	Are women's vulnerabilities in coastal communities acknowledged, such as displacement risks, livelihood loss, or reduced access to natural resources?	No	-
3.	Does the NDC promote women's participation in managing coastal resources and decision-making processes?	No	-
Ener	ду		
1.	Does the NDC address women's access to clean and energy-efficient technologies, such as cooking appliances?	No	-
2.	Are there capacity-building programs to empower women as entrepreneurs or leaders in the energy sector?	No	-

3.	Does the document promote equitable access to renewable energy solutions for women in rural and underserved areas?	No	-
Heal	th		
1.	Are the health impacts of climate change on women explicitly addressed, including reproductive health, nutrition, and mental health?	No	-
2.	Is there gender-sensitive strategies to improve access to healthcare services during climate-related emergencies?	No	-
3.	Does the NDC provide targeted support for women caregivers managing health burdens exacerbated by climate change?	No	-
Fore	stry		
1.	Does the NDC promote women's involvement in reforestation, afforestation, and forest management programs?	No	-
2.	Are women's traditional knowledge and contributions in forestry conservation recognized and leveraged?	No	-
3.	Is there gender-inclusive benefit-sharing mechanisms in forestry-related programs?	No	-
Tran	sport and Industry		
1.	Does the NDC include gender-responsive strategies for sustainable transport systems, such as improving women's safety and mobility?	No	-
2.	Are there measures to increase women's participation in industrial sectors contributing to climate action?	No	-
Was	te management		
1.	Are women's roles in waste collection, recycling, and informal waste management recognized and supported?	No	•
2.	Does the NDC promote gender-sensitive approaches to sustainable waste management?	No	-
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5. Summary of key findings

A summary of the findings for the three components discussed in the earlier chapters is presented in this section. Additionally, the chapter also discusses the inputs gained from the NDC focal points, national experts, and representatives from various ministries and agencies who participated in the Technical Review Meeting and the CSO and youth representatives who participated in the consultation workshops.

5.1. Stocktake study

Liberia has made notable progress in reducing GHG emissions through the Energy, Transport, and Forestry sectors between 2021 and 2024. The Energy sector achieved 105 MW in hydropower generation and 5.6 MW in solar power. The Transport sector introduced 175 electric vehicles, and the Forestry sector managed to afforest 45,814 hectares. GHG emission reductions were measured to be 595.94 GgCO2eq from Energy, 251.98 GgCO2eq from Forestry, and 0.43 GgCO2eq from Transport. These efforts resulted in a total reduction of 848.34 GgCO2eq, representing 20.47% of the targeted GHG reduction by 2024.

In terms of implementation, Liberia's NDC focuses on nine sectors, with an estimated cost of US\$490.59 million needed to meet mitigation and adaptation goals by 2025. However, only 11% of the NDC has been fully supported, and 87% remains unsupported. The Energy sector received the most funding, followed by Agriculture and the Forestry and Coastal zones. While Liberia has committed substantial resources, the support received has been insufficient, with much of the funding still in progress or delayed, such as the LIRENAP.

The enabling environment for NDC implementation has been strengthened, with new policies and institutional capacities being developed to address climate change. However, challenges remain in ensuring the effectiveness of these measures, and additional work is required to mobilize adequate support for the full implementation of Liberia's NDC.

5.2. Gap analysis

The NDC 2.0 shows positive progress in many areas, particularly related to its comprehensiveness and ambition. It also reflects broad stakeholder consultations. However, significant gaps remain related to the feasibility, inclusivity and sustainable development related dimensions.

Comprehensiveness

- **Mitigation**: The NDC 2.0 includes all relevant sectors (energy, transport, industrial processes, agriculture, forestry, land use, and waste), with notable improvements over the 2015 NDC, which was limited to energy, transport, and waste. However, sub-sector data is absent, making full clarity on sectoral emissions challenging.
- Adaptation: There is a broad coverage of adaptation activities across multiple sectors, including agriculture, energy, health, and coastal zones, with the NDC 2.0 adding the waste sector and cross-sectoral targets. However, the document lacks detailed information on new climate risks and vulnerabilities, limiting its comprehensiveness on adaptation. This information is captured in the Adaptation Communication and NAP developed in 2021. As these documents were developed after the submission of NDC 2.0 to the UNFCCC, they are not referred to in the NDC document.

Ambition

- **Mitigation**: The NDC 2.0 includes more ambitious targets, with both unconditional (10% reduction by 2030) and conditional (54% reduction by 2030) GHG emission cuts, a significant improvement over the 2015 target. However, alignment of the targets with the objectives of the Paris Agreement is not clearly established. Timeline for peaking emissions and long-term carbon neutrality or net-zero targets are not included.
- Adaptation: While the NDC sets adaptation targets that are in line with the Paris Agreement, the linkages to risks, vulnerabilities, and adaptation needs of the country are not clear. The targets are partially aligned with the thematic and dimensional targets of the UAE Framework for Global Climate Resilience. Information on the progress on adaptation planning and the linkages between the NDC and the NAP or other adaptation planning process or instrument is not included.

Feasibility

- **Financial strategy**: The NDC outlines an investment requirement of USD 490 million, with USD 460 million expected to be mobilized from private, bilateral, and multilateral sources. However, the NDC lacks details on how domestic and international public and private funding will be mobilized for both unconditional and conditional targets. The NDC discusses interest of the country in international carbon market mechanisms, including cooperative approaches under Article 6 for climate finance. But no further information is provided.
- **Policy alignment:** Alignment of the targets, policies and measures within the NDC to national legislation and/or relevant legal frameworks could not be established. In order to do this, a detailed policy analysis will be needed.
- **Institutional support**: While institutional arrangements for implementation are described, there is no clear framework for engaging non-government stakeholders, or developing capacities needed to implement the NDC.
- **Enabling environment:** The NDC doesn't identify fiscal risks and structural barriers to enable finance and capital flows for climate investments or discuss measures to de-risk and/or remove barriers to investment. Technology gaps and needs or policy, legal, and regulatory barriers to NDC implementation as well as solutions to address these are missing.

Inclusiveness

- The NDC revision process included broad consultations with government ministries, the private sector, civil society, and vulnerable groups such as women and youth.
- There is partial attention to gender and youth concerns, with some targets in sectors like agriculture and health incorporating these aspects.
- Adaptation actions for vulnerable groups are included for agriculture, forests, and coastal zones sectors; however, the term "vulnerable groups" is not defined.
- Private sector is identified as source of finance for NDC implementation; however, their roles and contributions are not elaborated.
- The NDC lacks comprehensive strategies for a just transition for the workforce or specific provisions for marginalized groups.
- The NDC has a limited focus on awareness-raising, advocacy and education related activities.

Transparency

- The NDC 2.0 includes a country-level MRV (Measurement, Reporting, and Verification) system to track progress. However, detailed information on its alignment with the Enhanced Transparency Framework (ETF) is lacking. While the NDC mentions that the national MRV system incorporates climate finance, it is not clear if it tracks all forms of support (finance, technology and capacity)/
- While the NDC offers some information on emissions trajectories and targets, a more detailed explanation of assumptions and the methods used for emissions modeling would improve clarity.
- The NDC presents qualitative/quantitative adaptation targets; however, there is no information on M&E system for adaptation.
- A plan for voluntary loss and damage reporting is missing.

Contribution to Just Transition & Sustainable Development

- While the NDC aligns with national policies that target SDGs, it does not directly link specific targets and actions to SDGs.
- The NDC lacks an explicit focus on integrating biodiversity targets/National Biodiversity Strategy and Action Plan (NBSAP) under the United Nations Convention on Biological Diversity (CBD) and land degradation targets under the United Nations Convention to Combat Desertification (CCD).
- A detailed policy alignment exercise is needed to assess whether the NDC is aligned with the national, sectoral, and/or subnational development strategies/plans of the country.
- There is limited discussion of the socio-economic impacts of the proposed climate actions, and no clear measures for a just transition or green jobs creation.
- The NDC mentions not applicable to the question on whether the socio-economic impacts of NDC targets, policies and measures are assessed.

5.3. Gender responsiveness assessment

While Liberia's NDC 2.0 demonstrates efforts to integrate gender, the gender responsiveness assessment reveals a generally limited focus on gender issues within the broader climate change framework. Key findings are listed below:

Gender related commitments and strategies in the NDC

- The NDC does not explicitly mention gender equality or women's empowerment in relation to climate change, adaptation, or mitigation, nor does it acknowledge gender-specific vulnerabilities.
- Some measures targeting gendered vulnerabilities in the context of mitigation and adaptation sectors are included, but no sector-specific gender-responsive targets are set. Gender mainstreaming is mentioned as a cross-sectoral goal by 2025.
- No specific actions or targets are outlined to address women's needs, or targeted programs to ensure women's access to resources, technology, or support systems.
- There is no mention of policies or programs that would disproportionately benefit or harm different gender groups.

- The NDC does not recognize the role of women in leadership, decision-making, or as agents of change in climate action.
- No plans are outlined to provide education, training, or leadership development for women in climate-sensitive sectors.
- There is no mention of systems for monitoring and evaluating gender inclusiveness across sectors.

Involvement of women in the NDC drafting and policymaking process

- Women's organizations, gender advocates, and civil society groups promoting gender equality were consulted during the revision process. The National Gender Dialogue served as a platform for ensuring the meaningful participation of women.
- There is insufficient information on whether women were adequately represented in the drafting committees or held leadership positions.
- No information is available regarding whether policymakers were trained in gender-responsive climate action.
- The NDC does not provide clear evidence of whether the specific needs of marginalized groups, such as rural women or female-headed households, were considered during consultations.
- Civil society groups supporting women's empowerment were consulted, but the exact level of collaboration with gender-focused institutions in drafting the NDC remains unclear.

Involvement of women in the NDC Implementation Process

- The NDC has limited focus on the distinct needs of women.
- No evidence of gender-responsive budgeting or allocation of financial resources to genderspecific climate action programs is present.
- A few gender-inclusive projects are being implemented, but they are not widespread or central to the NDC.
- Information on whether women are adequately represented in the institutional structures responsible for NDC implementation is lacking.
- There is no information on whether gender-focused institutions are involved in the NDC implementation process.
- No mechanisms are in place to ensure transparency and accountability in achieving genderresponsive outcomes.
- No initiatives exist to empower women through education or skills development during NDC implementation.

Mainstreaming gender at sector level

- The NDC demonstrates a significant lack of gender-sensitive strategies and actions across all sectors.
- Gender-specific vulnerabilities and the role of women in climate adaptation and mitigation are largely overlooked.
- There is no targeted support for women's access to resources, technologies, or leadership opportunities in key areas such as agriculture, energy, health, and waste management.

- The NDC fails to address gender inequalities in land ownership, decision-making, and access to critical services.
- There is a noticeable absence of gender-responsive policies or programs that empower women or address their specific needs and contributions in the fight against climate change.

5.4. Stakeholder perspectives

The inputs received from the various stakeholder groups who participated in the different consultation meetings are discussed here.

The NDC focal points, national experts, and representatives from various ministries and agencies who participated in the Technical Review Meeting of the stocktake report identified three major gaps: insufficient participation of youth, women, and other vulnerable groups in the NDC drafting and implementation process; gaps in sector-level strategies; and lack of clarity in NDC financing. The following recommendations were proposed:

Ensure inclusivity in the NDC process:

- Include youth, women, and other vulnerable groups, ensuring gender-balanced representation in decision-making bodies.
- Develop explicit youth, children, and gender-responsive targets in both mitigation and adaptation strategies.
- Design actions within the NDC to address gender inequalities and empower women.
- Create indicators to measure meaningful participation and track progress, using sexdisaggregated data and gender-sensitive metrics.

Strengthen sector focus:

- Identify sectoral adaptation options and incorporate gender-sensitive measures for vulnerable groups at the sector level, including financial and capacity-building initiatives.
- Include eco-tourism as a standalone sector in the NDC to enhance its bankability.
- Integrate specific actions for agroecology in alignment with the National Agriculture Plan.
- Develop a GHG baseline, implementation roadmap, and resource mobilization strategy for decarbonizing the health sector.
- Establish a climate-informed health surveillance system and early warning system for priority climate-sensitive diseases.

Build clarity on NDC financing:

- Provide clear information on financial mechanisms, excluding loans or carbon credits.
- Develop an incentive policy to support renewable energy development.
- Ensure clarity on both unconditional and conditional goals, outlining how domestic climate finance will be mobilized and specifying which international finance sources will be included.

CSOs at the dialogue organized as part of the stakeholder consultation process recommended the following actions to improve the NDC 3.0 preparation and implementation with specific focus on civil society engagement, involvement, and activities contributions:

• enhance CSO participation in governance structures, drafting, and policymaking for NDC 3.0,

- develop a clear, transparent monitoring and accountability framework for NDC 3.0 implementation,
- increase financial support for CSO-led climate resilience and adaptation initiatives for NDC 3.0,
- ensure inclusivity by adopting a rights-based approach that integrates gender equality and intergenerational equity in NDC 3.0, and
- ensure that the established national CSO coordination platform for systematic engagement in climate policy implementation is fully supported and remains fully engaged for all NDC processes.

Youth representatives highlighted the limited involvement of youth and children in the NDC process, as well as the inadequate participation of marginalized groups like youth, women, and persons with disabilities. They recommended the following:

- strengthen youth engagement by establishing formal channels for youth participation in decision-making,
- increase funding for youth-led projects by setting up funds and micro-grants and increasing the national budget for NDC projects targeting young people,
- focus on education and capacity building by integrating climate change education into school curricula and offering specialized training programs on climate policy and project implementation,
- create employment and economic opportunities by developing green job programs and entrepreneurship opportunities focused on NDC-related activities,
- support youth innovation and technology by encouraging and funding youth-led tech initiatives and providing access to innovation hubs,
- increase access to information and resources by building platforms to provide mentorship, technical support, and the latest information on climate action for youth,
- improve data collection and monitoring by leveraging the tech-savvy skills of youth in data collection, monitoring, and reporting, and
- facilitate youth participation in international platforms, climate collaborations, exchange programs, and conferences.

6. Recommendations and way forward for NDC 3.0

In order to enhance Liberia's Nationally Determined Contributions (NDC) 3.0 and strengthen its climate resilience, several key areas for improvement are outlined below. These focus on aligning the NDC with long-term climate goals, ensuring financial sustainability, addressing social equity, and integrating sectoral priorities. Implementing these steps will position Liberia to better meet its climate commitments and contribute effectively to the global climate agenda.

6.1. Areas for improvement

These areas should guide the development of a more robust and comprehensive NDC that is responsive to Liberia's climate challenges and opportunities.

Include long-term goals aligned with net zero targets: The NDC 3.0 should consider aligning climate targets with a long-term goal of achieving net zero emissions by mid-century, as envisioned by the Paris Agreement. However, this alignment should be based on Liberia's unique national circumstances, including available resources, technological capacity, and socio-economic context.

Enhance sector focus: Liberia may present sectoral mitigation commitments in line with the outcomes of the first Global Stocktake. Targeting renewable energy and energy efficiency is particularly important in the context of ensuring energy access to the population. It is recommended that Liberia adopts the IPCC categories – Energy, Transport, IPPU, Waste, and AFOLU – for sectoral reporting, as this aligns with common practice in global climate reporting.

Prioritize adaptation over mitigation: Given its negligible contribution to global emissions and the disproportionate impacts of climate change on its vulnerable populations, Liberia may prioritize adaptation targets over mitigation. A narrative outlining economic diversification strategies could also be integrated to enhance resilience in vulnerable sectors.

Focus on the disproportionate climate risk: The NDC 3.0 should include a detailed assessment of climate risks and vulnerabilities, particularly those impacting marginalized and vulnerable populations. This analysis will guide the setting of climate-related targets and help identify appropriate adaptation and mitigation measures. It will also explain why adaptation is prioritized over mitigation and emphasize the importance of balancing development needs with climate action. To avoid redundancy, the NAP or Adaptation Communication document could be referenced to cover already identified measures.

Align targets and measures with national development strategies and SDGs: There should be stronger alignment between the NDC 3.0 and Liberia's broader national development strategies. A useful starting point would be conducting an exercise to assess the policy alignment of existing climate strategies and measures. Alternatively, a mapping exercise could be done, applying a climate lens to existing development plans and strategies to identify those that contribute to both adaptation and mitigation goals. Furthermore, clearer communication of how the NDC supports the achievement of the SDGs, particularly those related to poverty reduction, gender equality, and sustainable economic growth, will strengthen its impact. Alignment with other international commitments under various conventions should also be considered.

Integrate vulnerable groups: women, children, and youth: The NDC 3.0 should place a stronger emphasis on integrating the roles and vulnerabilities of women, children, youth, and other vulnerable groups. By developing targeted adaptation and mitigation strategies that address their specific needs,

Liberia can ensure active participation and better outcomes in climate action. These strategies should be tailored to specific vulnerabilities and aim for gender equality throughout the NDC measures.

- **Gender-responsive targets:** Although gender is mentioned in NDC 2.0, the NDC 3.0 should include more explicit gender-responsive targets in both mitigation and adaptation strategies.
- **Sectoral integration:** The NDC 3.0 should better address women's roles and vulnerabilities in key sectors such as energy, agriculture, and waste management.
- Youth-focused adaptation strategies: The NDC 3.0 could develop child- and youthfocused adaptation strategies, particularly related to education, health, and livelihoods in the face of climate change.
- **Capacity building:** Expanding training programs for women and youth in climate-sensitive sectors such as agriculture, energy, and natural resource management will empower them as agents of change. These programs should focus on skill-building and ensuring their long-term involvement in climate action.
- **Gender-sensitive monitoring tools:** The NDC 3.0 should include robust monitoring tools to track gender-sensitive outcomes, ensuring accountability and transparency in progress towards gender equality and the effectiveness of gender-responsive strategies.

Communicate a robust financing plan: The NDC 3.0 should present a clear financial plan that outlines mechanisms for both public and private investments to support climate targets. It should detail how Liberia will meet both unconditional and conditional targets, highlighting funding sources, investment strategies, and key partnerships to ensure effective implementation. Referencing the NDC Financing Strategy or the NDC Implementation Plan could be useful in this context.

Leverage international carbon markets: The NDC 3.0 could provide insights into how Liberia plans to leverage international carbon markets, such as carbon trading or climate finance mechanisms, to support emissions reductions and contribute to SDGs. Participation in Article 6 mechanisms under the Paris Agreement, particularly in sectors like agriculture and forestry, could be a beneficial strategy.

Communicate support needs: The NDC 3.0 should clearly specify Liberia's needs for technology assistance and capacity building, along with necessary policy, legal, and regulatory measures for effective climate action. International cooperation could play a key role in supporting Liberia's transition to low-carbon and climate-resilient technologies. By articulating its support needs, Liberia can signal a clear plan for what needs to be done.

Just and equitable transition: The NDC 3.0 should commit to a just and equitable transition, addressing workforce implications in climate-sensitive sectors and ensuring that marginalized communities benefit from climate actions. A socially just transition will ensure that the shift to a low-carbon economy is inclusive, fair, and leaves no one behind.

Ensure inclusivity in NDC process: The NDC process should be inclusive, ensuring the participation of women, youth, other vulnerable groups, civil society organizations (CSOs), and the private sector in drafting, implementing, and monitoring the NDC 3.0. This approach will help build ownership of the NDC among all sectors of society and contribute to better outcomes. Whole-of-society engagement will be essential for fostering societal ownership and ensuring successful implementation.

6.2. Key considerations

While addressing the gaps in Liberia's NDC, it is important to keep in mind that not all gaps need to be immediately addressed. Priority areas may be identified for further action, considering the available time and resources. Some "low-hanging fruits" can be targeted for quick wins, while more complex issues may require additional technical studies or policy formulation before they can be fully addressed.

In cases where technical studies or policy formulation are necessary, these actions may be integrated into the NDC as specific measures for future implementation. It is also essential to consider the principle of CBDR-RC and national circumstances when addressing gaps, ensuring that actions are appropriate for Liberia's context.

Meeting unconditional targets will present significant challenges, particularly unless climate finance commitments from developed countries are scaled up to support Liberia's climate goals. Additionally, to maintain the NDC's clarity and brevity, technical annexes may be considered to provide detailed information without overcrowding the main body of the NDC.

Lastly, the Adaptation Communication, NAP, NDC Financing Strategy and NDC Implementation Plan documents may be referenced within the NDC to avoid redundancy. Referencing Adaptation communication and NAP in the adaptation chapter of the NDC helps in providing a clear context for the identified targets and measures. This will help ensure that all adaptation efforts are aligned and understood within the broader framework of Liberia's climate strategy.

Annex I: List of Acronyms

Acronym	Full Form
AAID	ARREST Agenda for Inclusive Development
ADFD	Abu Dhabi Fund for Development
AfDB	African Development Bank
BAU	Business-As-Usual
BCRCR	Building Climate Resilience in the Cocoa & Rice project
BOP	Blue Ocean Project
BTR	Biennial Transparency Report
C/ha	Carbon per Hectare
CARI	Central Agriculture Research Institute
CBD	Convention on Biological Diversity
CBE	Community-based Enterprises
CBFM	Community-Based Forest Management
CCD	Convention to Combat Desertification
CF	Community Forest
CI	Conservation International
CLUS	Cheesemanburg Landfill & Urban Sanitation
CNG	Compressed Natural Gas
COC	Chain of Custody
CSO	Civil Society Organization
CW	Conservation Works
DSM	Demand-Side Management
EGP	Environmental Governance Program
EHA	Environmental Health Alliance
EJF	Environmental Justice Foundation
EPA	Environmental Protection Agency
ERF	Ecological Restoration Fund
ERPO	Emergency Rice Production Offensive Project

Acronym	Full Form
ESWG	Environmental Sector Working Group
ETF	Enhanced Transparency Framework
ETS	Emissions Trading System
EU	European Union
EU AITF	EU Africa Infrastructure Trust Fund
EU-LTTA	EU-Long Term Technical Assistance
FAO	Food and Agriculture Organization
FDA	Forestry Development Authority
FETP	Field Epidemiology Training Program
FLR	Forest Landscape Restoration
FMC	Forest Management Contract
FOLU	Forestry and Other Land Use
FOLUR	Food Systems, Land Use, and Restoration Impact Program
FSF	Financial Sector Reform and Strengthening Initiative
FTI	Forestry Training Institute
GACMO	Greenhouse Gas Abatement Cost Model
GCF	Green Climate Fund
GEF	Global Environment Facility
GEF- FOLUR	Global Environment Facility - Food Systems, Land Use, and Restoration Project
GgCO2eq.	Gigagrams of Carbon Dioxide Equivalent
GHG	Greenhouse Gas
GoL	Government of Liberia
GST	Goods and Services Tax
GWP	Global Warming Potential
HC	Hydrocarbon
HCFC	Hydrochlorofluorocarbon
HCV-HCS	High Conservation Value-High Carbon Stock
HFC	Hydrofluorocarbon

Acronym	Full Form
НРМР	Hydrofluorocarbon Phase-out Management Plan
HPP	Hydro Power Plant
HHs	Households
IDSR	Integrated Disease Surveillance and Response
INDC	Intended Nationally Determined Contribution
IPC	Infection Prevention and Control
IPPs	Independent Power Producers
IUU	Illegal, Unreported, and Unregulated (fishing)
LAA	Liberia Land Authority
LERC	Liberia Electricity Regulatory Commission
LFA	Liberia Forest Authority
LERECAP	Liberia Environmental Resources and Climate Action Project
LFA	Liberia Forest Authority
LEPDA	Liberia Economic Policy Development Activity
LEC	Liberia Electricity Corporation
LISGIS	Liberia Institute of Statistics and Geo-Information Services
LiMA	Liberia Maritime Authority
LIRENAP	Liberia Renewable Energy Access Project
LFSP	Liberia Forest Sector Project
LIRENAP	Liberia Renewable Energy National Action Plan
LITWP	Liberia Trade and Water Project
LRA	Land Rights Act
LSMFP	Liberia Sustainable Management Fisheries Project
LTCV	Long-term Low Carbon Vision
M&E	Monitoring and Evaluation
MACs	Ministries, Agencies, and Commissions
MME	Ministry of Mines and Energy
MOA	Ministry of Agriculture

Acronym	Full Form
MOCI	Ministry of Commerce and Industry
МОН	Ministry of Health
MPW	Ministry of Public Works
MRV	Measurement, Reporting, and Verification
MW	Megawatts
NADP	National Agriculture Development Plan (also added National Adaptation Plan)
NDC	Nationally Determined Contributions
NaFAA	National Fisheries and Aquaculture Authority
NAP	National Adaptation Plan
NBSAP	National Biodiversity Strategy and Action Plan
NCCS	National Climate Change Secretariat
NCCSC	National Climate Change Steering Committee
NCA	Natural Capital Accounting
NIR	National Inventory Reports
NOSCP	National Oil Spill Contingency Plan
NPHIL	National Public Health Institute of Liberia
NTA	National Transit Authority
NTF	Norwegian Trust Fund
ODS	Ozone Depleting Substances
PA	Protected Area
PADEV	Poverty and Environment Initiative
PPAs	Power Purchase Agreements
ProBio	Professional Biology Project
PV	Photovoltaic
QSIP	Quality Service Improvement Plan
REDD+	Reducing Emissions from Deforestation and Forest Degradation
REEL	Renewable Energy for Electrification in Liberia
REPPS	Rural Electrification Program prioritizing the South East

Acronym	Full Form
RESPITE	Regional Emergency Solar Power Intervention Project
RGHP	River Gee Hydropower Project
RREA	Rural and Renewable Energy Agency
RTWG	REDD+ Technical Working Group
SADFONAS	Smallholders Agriculture Development for Food and Nutrition Security
SARTLA	Strengthening Agriculture Resilience Through Livelihoods and Agroecology
SCNL	Society for the Conservation of Nature in Liberia
SDG	Sustainable Development Goals
SEEA CF	System of Environmental-Economic Accounting Central Framework
SEEA EA	System of Environmental-Economic Accounting Ecosystem Accounting
Sida	Swedish International Development Cooperation Agency
SLCP	Short-Lived Climate Pollutants
SME	Small and Medium Enterprises
STAR-P	Smallholder Agriculture Productivity Enhancement and Commercialization Project
SWM	Solid Waste Management
TCEP-1	Tree Crops Extension Project - Phase 1
T&D	Transmission and Distribution
TSC	Timber Sale Contract
TSOe	Transport Service Operator of Electricity
UL	University of Liberia
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USFS	United States Forest Service
VSLA	Village Savings and Loan Associations

Acronym	Full Form
VOSIEDA	Volunteers to Support International Efforts in Developing Africa
WABILED	West Africa Biodiversity and Illegal Wildlife Trade Program
WASH	Water, Sanitation, and Hygiene

Annex II: Projects and Interventions (2016-2029)

No	Name of Projects	Implementing Entity	Funding Source	Focus	Sector	Total Budget USD	Unconditional (Concession Loan, DBS) in percentage	Conditional (Grant) in Percentage	Performance Indicators
1	Free Fuel –efficient cook stove for every rural household in Liberia	MME	UK	Mitigation	Energy	\$17,500,000.00	-	100% Grant from the UK Government	Proportion of population with energy-saving cook stoves
2	The Liberia Renewable Energy Access Project (LIRENAP)	RREA	World Bank Group	Mitigation	Energy	\$27,000,000.00	7% loan from World Bank	93% World Bank Grant	Proportion of population connected to HPP
3	River Gee Hydropower Project (RGHP) Project Activities	RREA	AfDB	Mitigation	Energy	\$19,100,000.00	42% Loan from Abu Dhabi for Development (ADFD) Plus 39% GOL additional	19% grant from Abu Dhabi for Development (ADFD)	Number of MW RE plants installed
4	Regional Emergency Solar Power Intervention Project (RESPITE)	LEC	World Bank Group	Mitigation	Energy	\$96,000,000.00	94% GoL loan from World Bank	6% World Bank and WAPP	Proportion of Monrovia clients [re]connected to power grid
5	Enhancing The Resilience of Vulnerable Coastal Communities in Sinoe County	UNDP-EPA	GEF	Adaptation	Coastal/ Oceans	\$20,405,930.00	-	100% GEF LDCF, UNDP	Percent of vulnerable communities covered with green-gray infrastructures
6	Renewable Energy for Electrification in Liberia (REEL)	RREA	AfDB	Mitigation	Energy	\$40,020,000.00	15% Loan from AfDB plus 3% GoL in kind contribution	62% AfDB Grant	Number of HPP developed

7	Rural Electrification Program prioritizing the South East (REPPS)	RREA	EU	Cross- Cutting	Energy	\$45,413,506.00	-	100% Grant from European Union	Number of HPP developed
8	Monrovia Metropolitan Climate Resilience Project	UNDP-EPA	GCF	Adaptation	Coastal and Oceans	\$25,600,000.00	-	100% GCF Grant	Ha of restored degraded coastal wetland and mangroves ecosystems
9	Smallholder Agriculture Transformation and Agribusiness Revitalization Project (STAR-P)	ΜΟΑ	World Bank Group	Mitigation	Agricultu re	\$25,000,000.00	100% Loan from the World Bank	-	Ha of upland crop systems under sustainable cultivation
10	Energizing Development (EnDev)	GIZ	GIZ	Mitigation	Energy	\$7,460,790.00	-	100% Grant EUR	Number of PPAs with IPPs that operate large solar photovoltaic (PV) Plants
11	Climate Smart Agriculture for Resilience and Livelihood Support	VOSIEDA	Sweden	Cross- Cutting	Agricultu re	\$1,897,839.31	-	100% Sida Grant	Number of vulnerable groups trained in climate smart agriculture
12	Liberia Blue Ocean Program	CI	Sweden	Cross- Cutting	Costal and Oceans	\$4,755,687.186	-	100% Grant from Sida	Ha of restored degraded coastal wetland and mangroves ecosystems
13	Livelihood and Employment Creation in Liberia	MOCI	UNDP	Adaptation	Agricultu re/Indus try	\$7,817,000.00	-	100% Grant from UNDP	Number of extension staff trained in conservation agriculture
14	Liberia Sustainable Management of	NaFAA	World Bank Group	Cross- Cutting	Fisheries	\$40,000,000.00	50% loan from World Bank	50% World Bank Grant	Number of communities with co-

15	Fisheries (LSMFP) REDD+ Forest Project) Project	FDA	World Bank Group	Cross- Cutting	FOLU	\$36,700,000.00	-	100% World Bank Grant	managed fishery areas in coastal and aquatic ecosystem Number of Agri development projects linked
16	LEPDA Liberia	MOA	USAID-	Mitigation	Agricultu	\$17,385,474.00	-	100% Grant	to the National REDD Strategy i. Number of low
	Economic Policy Development Activity/USAID; Food and Nutrition Security Impact,		EU		re			from USAID and EU	carbon incentives promoted and adopted
	Resilience, and Sustainability and Transformation (FIRST)/EU								ii. Number/type s of low-carbon emission technologies provided
17	Delivering Climate- Resilient Solid Waste Management Services in Greater Monrovia, Liberia through Community-Based Enterprises. EU- Liberia Climate Change Alliance	Cities Alliance	EU	Cross- Cutting	Waste	\$3,559,368.00	-	100% Grant from EU	Number of healthcare facilities with improved waste management programs/practi ces
18	The Liberia Energy Efficiency Access Project (LEEAP)	LEC	GEF, ADF ADF, NTF & FSF	Mitigation	Energy	\$31,400,000.00	68% loan from ADF, NTF & FSF	32% GEF and EU AITF Grant	Proportion of Monrovia clients [re]connected to power grid.
19	Liberia Electricity Sector Strengthening and	RREA-LEC	World Bank Group	Mitigation	Energy	\$10,300,000.00	30% - World Bank IDA Credit	70% - grant from World Bank	GgCO2e emitted per year using clean energy.

	Access Project (LESSAP)								
20	Smallholders Agriculture Development for Food and Nutrition Security (SADFONAS)	ΜΟΑ	AfDB	Cross- Cutting	Agricultu re	\$18,978,874.00	-	100% AfDB Grant	Number of households adopting new technologies/co nservation practices.
21	EU-Long Term Technical Assistance (EU- LTTA) the Ministry of Mines and Energy (MME), and the Liberia Electricity Regulatory Commission (LERC)	MME-LERC	EU	Cross- Cutting	Energy	\$2,800,000.00	-	100% Grant EUR	Number of staff (of MACs and municipal authorities) trained in city planning.
22	Conservation Works Activity	EHA	USAID	Mitigation	FOLU	\$15,303,458.00	-	100% Grant from USAID	Ha of protected forest area
23	Implementation of Green Economic Recovery initiatives in Liberia	CI	NDC Partnersh ip	Cross- Cutting	Cross- Cutting	\$500,000.00	-	100% Grant from the NDC Partnership	Amount of financial support mobilized by source to sector for NDC related activities
24	Implementing Waste-To-Energy Innovative Approaches in Greater Monrovia	MCC/MIA	EU	Cross- Cutting	Waste	\$1,041,295.306	-	100% Grant from EU	Quantity (in metric ton) of composted produced from market waste
25	The Liberia Urban Resilience Project (LURP)	MPW	World Bank Group	Adaptation	Transpor t	\$40,000,000.00	50% Loan from the World Bank	50% Grant from the world Bank	Copy of national zoning act
26	Cheesemanburg Landfill & Urban Sanitation (CLUS) Project	MCC	World Bank Group	Mitigation	Waste	\$17,500,000.00	-	100% Grant from World Bank	GgCO2eemittedfromlandfillgassystembylocation.

Stocktake of Liberia's 2021 Nationally Determined Contributions (NDC 2.0)

Grand Total			100%	35.62%	64.38%	
			\$573,440,000.00	\$204,246,600.00	\$369,193,400	

Annex III: Progress on the NDC Implementation Plan

NDC Sector: Agriculture

AGRICULTURE SECTOR		Coordinated by: Ministry of Agriculture		Total Cost (2021-2030): US\$168, 285,000.00	
Output	Total cost	Short Term (2021 -2022)	Medium Term (2023-2024)	Long Term 2025- 2030)	Comments/Status
I. Assess policy models and incentives to accelerate efforts to reduce emissions from agriculture and livestock, including through the exploration of a domestic carbon pricing mechanism and international carbon market opportunities, and determine the types of incentives programs that best fits Liberia national context	N/A	2022			 Intervention has not started. However, a national carbon credit and trade mechanism is being developed for the country. This framework will include carbon market opportunities for the agriculture sector. Other national initiatives that are indirectly contributing to this output are 1) AfDB Long-term Low carbon vision (LTCV) for Liberia with a section on emission reduction from the agriculture sector, 2) the National Cocoa Policy with a description for low-emission production, 3) The national agriculture development plan 2024 already described above in this report.
II. Strengthen sector coordination unit to implement incentives-based programs with implementing entities	N/A		2023		 The sector coordination unit established by LFSP and supported by NDC secretariat through involvement in training opportunities. MOA hosts a quarterly sectoral coordination meeting. Also, each sector has separate regular meeting (cassava value chain, cocoa, rice, rubber, oil palm)

III. Roll out incentives and programs to promote low-carbon	N/A	2024	•	The project SADFONS is being implemented by MOA to promote conservation
agriculture practices, e.g. conservation agriculture, no/low till, agroforestry, improved lowland		2024		agriculture (lowland farming on about 250 ha), developing climate resilient varieties of seeds and creating seed banks in key
rice cultivation, multi-cropping, organic fertilizers, fertigation, composting, crop rotation, and			•	locations around the country. The Project GEF-FOLUR (food system and
sustainable agricultural waste management;				other land use and restoration project) is ongoing and promotes conservation through restoration of degraded areas
			•	The SARTLA (strengthening agriculture resilience) includes development of agroecological zones for fisheries and agriculture, forestry and tourism.
			•	The TCEP-1 project (tree crop extension) is ongoing and promotes the improvement of livelihood and climate change resilience of rural communities.
			•	The Leh Go Green project is ongoing and support farmers to cultivate shaded cocoa, lowland rice, livestock farming.
			•	The Liberia Agriculture Commercialization Fund currently provides matching grant to farmer for activities that have low carbon footprint
			•	Emergency rice production offensive project (ERPO) is ongoing and provides incentives to farmers to cultivate about 1,600 virgin lowland farms with the goal of boosting 2,000 metric tons of rice annually.

IV. Roll out incentives and programs to implement low- emissions livestock systems, with practices to improve pasture and manure management, reach the optimal intensity of grazing, reduce enteric fermentation, and promote bio-digesters.	N/A	2025	Not yet started and no data exist for any project with indirect contribution to this output.
V. Implement sustainable, low- carbon development of 150,000 ha of lowland crop systems, 500,000 ha of upland sedentary crop systems, and 500,000 ha of pastureland by 2030.	N/A	2025	 The Leh Go Green project is ongoing and support farmers to cultivate shaded cocoa, lowland rice, livestock farming. The project SADFONS is being implemented by MOA to promote conservation agriculture (lowland farming on about 250 ha), developing climate resilient varieties of seeds and creating seed banks in key locations around the country.
			 Emergency rice production offensive project (ERPO) is ongoing and provides incentives to farmers to cultivate about 1,600 virgin lowland farms with the goal of boosting 2,000 metric tons of rice annually.
VI. Reach 1,500 agricultural households adopting sustainable agriculture, animal husbandry, soil conservation, and waste/manure management practices by 2030.	N/A	2024	 The Project SAFDONAS is working to reach 50,000 households in Liberia. The Emergency rice production offensive project (ERPO) is working with 10,000 direct beneficiaries and 40,000 indirect beneficiaries.
VII. Dedicate \$400,000 per year in funding for research on sustainable agricultural production and GHG mitigation potential from the agriculture and livestock sector	N/A	2023	CARI or MOA has not received budgetary support from GOL regarding research on GHG mitigation from the agriculture sector.

in Liberia by 2025, conditional				
upon international support VIII. Develop policy and incentives frameworks to implement low- emissions practices in the	N/A		2025	No policy developed neither incentive program agreed.
production and processing systems of key commodity agriculture and tree crop value chains, e.g. oil palm, rubber, cocoa, rice, sugar cane, cassava, bananas by 2030.				
IX. Deploy solar water pumps and/or spring irrigation systems for crop irrigation by 2030.	N/A	2024		NOT YET STARTED
X. Develop a circular agricultural economy plan to support reuse of organic materials and soil re- carbonization by 2025.	N/A	2024		The National Agriculture Development Plan 2024-2030 contains several measures and interventions to promote the development and use of organic materials.
XI. Link agricultural development with the National REDD+ Strategy by 2025.	N/A	2023		The NADP does not specifically mention REDD+ or the REDD+ Strategy. However, it requires alignment with the NDC and many other interventions including reducing deforestation from upland farming with focus on low land farming.
XII. Increase training and capacity building for farmers and agricultural extension agents to implement climate mitigation and adaptation actions in the agriculture and livestock sectors, especially by increasing education and training support for vulnerable	N/A	2023		• The Building Climate Resilience in the Cocoa & Rice (BCRCR) project is currently ongoing with the objective of building climate information system and access roads to farmland. It has a target to provide training for over 25,000 farmers and extension agents.
groups.				 The Ecological Restoration Fund project (ERF) trains cocoa farmers on climate- smart agriculture to reduce emission.

					 There are several training activities listed under the agriculture projects stated above with the aim of reducing pressure on forested land, lowing emissions, and building resilience to climate change.
XIII. Establish 100 farmer field groups and train 2,000 farmers in low-carbon and climate-resilient agricultural and livestock practices by 2025.	N/A	2022			 The USAID Conservation Works (CW) project provided training an organized more than 300 farmers on the use of low emission farming technology. This was completed in 2024. The LLA in collaboration with LANDESA (a land management project) established 2 farmers cooperatives in 2022.
XIV. Train 15 agricultural extension agents per year to support implementation of low- carbon and climate-resilient agricultural and livestock practices, with 15 total agents receiving additional support for increased implementation with vulnerable groups by 2025.	N/A		2023		There is an ongoing spot-training for extension officers conducted once a year by the Ministry of Agriculture. Low carbon and climate resilient agriculture is included in the training program even though it focuses on general extension services.
XV. Roll out a Women in Agriculture program with 2 trainings per year to support implementation of climate-resilient agricultural and livestock practices and increase women's access to agricultural inputs and labor- saving devices by 2025.	N/A		2024		The Rural Economic Transformation Project (RETRAP) and STAR-P projects have components requiring women participation in agriculture and the project activities. Similarly, the ERPO project requires a minimum of 30% women participation in all interventions.
XVI. Roll-out livestock inventory, vaccination and integrated disease control programs to ensure that 100% of the livestock population in Liberia is inventoried and	N/A			2026	The National One Health Coordinating Platform (NOHCP) is implementing a livestock diseases surveillance program using the One Health Approach. Results from the surveillance are shared with key stakeholders on the platform.

vaccination and disease control programs reach 50% of the livestock population by 2030.			
XVII. Increase funding to \$3,000,000 in finance for agriculture and livestock diversification by 2025.	N/A		No specific data exist on the amount raised for agriculture and livestock diversification.
XVIII. Establish a knowledge sharing platform and frameworks to promote the integration of local and indigenous knowledge of climate-resilient agricultural and livestock practices by 2025.	N/A	2024	There is no Knowledge Platform exclusively to share indigenous knowledge regarding climate resilient agriculture. There EKMS (knowledge management system) for Liberia does not have a particular portal for traditional knowledge sharing.
XX. Establish or strengthen crop and livestock insurance systems by 2025.	N/A	2024	No insurance system for crop and livestock exists.
XIX. Strengthen agricultural climate services and early warning systems by 2030.	N/A	2024	No data available
XXI. Develop national dietary guidelines to support climate- resilient, food secure livelihoods by 2025.	N/A	2023	Not Available
XXII. Strengthen the Central Agriculture Research Institute (CARI) focusing on new climate smart seed varieties and improving livestock breeding by 2030.	N/A	2023	 The Smallholder Agriculture Development for Food and Nutrition Security (SADFONS) project is supporting CARI for crop varieties. The International Fund for Agricultural Development (IFAD) Tree Crop project is supporting crop diversification and research at CARI.

NDC Sector: Energy

ENERGY SE		Ministry En	Coordinated by: Ministry of Mines & Energy		Total Cost (2021-2030): US\$147, 075,000.00
Output	Total cost	Short Term (2021 - 2022)	Medium Term (2023-2024)	Long Term 2025- 2030)	Comments/Status
I. Implement measures to monitor and track emissions from the energy sector, through the establishment of SEEA Energy Accounts to be implemented by Liberia Institute of Statistics and Geo- Information Services (LISGIS), in coordination with several governmental agencies. Note: Energy accounts are part of the System of Environmental- Economic Accounts (SEEA) Central Framework and organize energy- related statistics, recording physical flows of energy between the environment and the	N/A		2023		 Conservation International has begun engaging LISGIS and sectoral MACs through the National Capital Accounting Project to develop Liberia's NCA strategy. There is no emissions tracking system from energy sector at the Ministry of Mines and Energy

economy and assets, including quantity of mineral and energy resources and changes in these resources over an accounting period. Energy accounts are important to inform policies on renewable energy use and are an input to the calculation of air emission accounts.	N1/A	2021	
II. Technical assistance in the sector of ETS – Climate Finance.	N/A	2021	No activities implemented for ETS-Climate Finance
III. Technical Assistance in data collection and MRV.	N/A	2021	 UNEP is supporting the Biennial Transparency Report. A system has been established to collected emission data on the different sector and reported via EPA/UL. The West Africa MRV for Climate Action program implemented by NovaSphere is providing technical guidance for MRV across Liberia.
IV. Development of a Full package of PPA enabling legal acts, procedures and training.	N/A	2021	The discussion around this subject has been included in the discourse for finalizing the climate change law.
V. Review and development of a new Grid Code in line with the new approached: regulated electricity sector; unbundling; TSOe – Transport	N/A	2021	The Liberia Electricity Regulatory Commission has developed a Grid Code addressing unbundling; TSOe, etc.

Service Operator of			
Electricity.			
VI. Review and expansion of the legal acts related to Electricity Regulation and Unbundling – financial resources for independent high standard Regulatory Commission "The	N/A	2021	 MME has developed a mini-grid policy for Liberia A Policy for electricity distribution was adopted in 2022
Regulator			
VII. Improvement of the legal framework for PPA – Power Purchasing Agreements, including drafting standard Agreements.	N/A	2021	No specific legal framework exists for PPA.
VIII. Assessment and auction mechanism for IPPs.	N/A	2021	There is an energy compact for Liberia that includes provisions addressing IPPs. It is being rolled out by LERC.
IX. To support the distribution of energy saving cook stoves, implement a campaign to increase awareness to promote the use of energy efficient cook stoves and regulate its use	N/A	2021	 UNDP is supporting the production of cookstove in Liberia through its energy and environment unit. Projects are supported under the small grants program and periodically support local organizations. The society for environmental conservation is running a cookstove project across Liberia impacting mainly rural communities.
X. Reduce total electricity loss to 10% by 2025 through the improvement of the distribution network	N/A	2021	On October 11, 2022, President Weah issued Executive Order No: 111 Exempting LEC from paying custom Duty. This was intended to reduce cost of electricity

(technical losses) and the implementation of a social tariff (non- technical losses)			Currently, Liberia is reporting around 27% loss of electricity.
XI. Construction of a 10 MW capacity projects developed with IPP – PPA in PV, medium size hydro.	N/A	2022	 A new solar farm for 70MW is being negotiated under IP arrangement by LEC for completion in 2026. There is a 16 million funding commitment for a 20MW solar farm at Mt. Coffee Hydro by the Government of Liberia. The Rural Energy for Electrification in Liberia (REEL) project, with funding from AfDB, has been launched for the construction of Gbedin mini-hydro averaging 9.8 MW. The Liberia Renewable Energy Access Project (LIRENAP), with funding from the World Bank, is constructing 2.5MW hydropower plant plus 1.8MW diesel facility as backup, 115km of 33kV T&D network and service connections in Lofa County
XII. Construction of a 100 MW capacity large hydro under development with IPP – PPA.	N/A	2022	Half of the funding to construct a 150MW hydro at St. Paul-2 is underway with half of the funding already committed by World Bank.
XIII. Establishment of real costs and tariffs calculated for the 3 segments of the unbundled sector: generation, transmission distribution.	N/A	2021	LERC has issued regulations on tariff calculation. This is currently being used for the 3 sectors.
XIV. Assessment and establishment of social subsidies.	N/A	2021	The 2022 social tariff approved by the LERC is currently being utilized. However, LERC has, based on LEC intention, set 31st January 2025 as the deadline for the resubmission of a new Tariff Application proposal.

XV. Review and expansion of the legal acts related to Electricity Regulation and Unbundling – financial resources for independent high standard Regulatory Commission "The Regulator"	N/A	2021	There is no plan to expand the current Electricity Law.
XVI. Completion of the reconstruction of 80% of HHs by 2025.	N/A	2021	Not Yet Started
XVII. Develop a policy to Stop Stealing Electricity.	N/A	2021	There is no specific policy on power theft. However, there is major campaign by the LEC and the enactment of a law against power theft.
XVIII. Adopt legal provisions, and law enforcement mechanisms for penal actions against electricity thefts.	N/A	2021	A new Power theft law was enacted in 2019 specifically amending section 15.88 of the penal law, thereby upgrading the crime to second degree felony.
XIX. Technical assistance to the Rural & Renewable Energy Agency for connections.	N/A	2021	All projects at the Rural Renewable Energy Agency implemented by AfDB, World Bank or the government, has a technical assistance component.
XX. 10 MW Capacity medium HPP constructed with 50% base load minimum for Rural Electricity and connected to the Grid.	N/A	2021	As described above under output XI.
XXI. 10 MW Capacity PV Plants.	N/A	2021	As described above under output XI.

XXII. Development of	N/A	2015		There is no roadmap developed to produce and distribute
a roadmap and				energy cookstove. Yet, there are on-going projects in the
implementation				country.
programme to speed				
up the programme to				
produce and distribute				
280,543 energy				
saving cook stoves				
and 308,004 solar				
lamps.				

NDC Sector: Coastal zone

COASTAL ZON	IE SECTOR	Ministry	Coordinated by: Ministry of Mines & Energy		Total Cost (2021-2030): US\$54, 855,000.00
Ουτρυτ	Total cost	Short Term (2021 - 2022)	Medium Term (2023-2024)	Long Term 2025- 2030)	Comments/Status
I. Assess existing protection and conservation measures currently in place in Liberia, including the spatial extent of these measures, with an analysis of barriers and opportunities for creating an enabling environment to uptake mangrove restoration and	N/A	2022			 The Natural Capital Accounting Project has conducted ana assessment of conservation activities in Liberia relating to mangroves restoration. Liberia is developing its target 3 under the Global Biodiversity Framework (or 30x30) national action plan. The stock-take exercise for the plan development has assessed conservation measures/interventions in Liberia. The Blue Ocean Project (BOP), implemented by CI, is conducting mangrove assessment across Liberia. An assessment has been completed for the gazettement of the Marshall wetland as a protected area.

conservation of coastal resources to identify gaps and				
areas for improvement.				
II. Expand marine and coastal ecosystem protection by establishing 2 Marine and 2 Coastal Protected Areas and	N/A	2024		 Marshall wetland is being published in the gazette as a Marine Protected Area. The 2024 update of the LPMSUR management plan is completed. There is a project activity in the MMCRP (Monrovia)
develop new or updated Protected Area management plans by 2030.				 metropolitan climate resilience project) to identify suitable MPAs. QSIP (quality service improvement plan) is being roll-out for all PAs management plan in Liberia.
III. Hold 19 trainings per year to improve capacity building for coastal managers	N/A		2025	 Several trainings have been conducted under the Blue Ocean's Project. In 2024, UL conducted Mangrove Ecology and conservation
and communities to implement coastal mitigation actions,				training by for 30 techniciansTraining on coastal ecosystem management to ecoguard
which will support uptake of best practices for climate-				from LPMSUR conducted under the ProBio project led by forestry training institute (FTI) with 60 participants.
smart coastal management, monitoring and				MMCRP conducted two trainings on mangrove protection in 2023 and 2024.
conservation and enable coastal communities to support conservation				Three Frontline conservationist trainings conducted under NCA for the Marshall gazettement project.
efforts by 2025.				

IV. Finalize the National Wetlands Policy by 2025.	N/A			2025	The wetland policy is still in its draft stage. However, it needs to be updated and validated.
V. Promote mangroves ¹⁹ within the National REDD+ Strategy by 2025.	N/A		2023		Mangrove is described within the forest definition. During the revision of the REDD+ strategy, additional target for mangrove conservation will be incorporated.
VI. Develop mechanisms for sustainable community management of mangrove areas key for local livelihoods and sustenance, including alternatives to smoking fish by 2025.	N/A	2022			 Conservation agreement signed between CI and local communities in Marshall as part of the gazettement project CI has signed a conservation agreement signed with citizens Barconi for management of the mangrove. CI signed 3 conservation agreements with Bleewein, Sarwein, and Nyangbah communities CI signed conservation agreements with citizens of Mando, Falie, and Bendu communities UNDP plans to develop energy efficient cookstove to dissuade community use of mangroves under the MMCRP project.
VII. Develop a Marine Spatial Plan and comprehensive Integrated Coastal Zone Management Plan/Strategy/Policy, and establish community-based action groups and cross-sectorial working groups to	N/A		2024		Under the Monrovia Metropolitan Climate Resilience project (MMCRP), Liberia will Develop a comprehensive Integrated Coastal Zone Management plan and strategy.

¹⁹ Mangrove conservation

implement them by			
2025.			
VIII. Develop	N/A		• The MMCRP is training communities to implement coastal
training, capacity			adaptation actions.
building, and			
strategic			• A Blue Ocean Strategy is being developed by the EPA with
communications			assistance from CI. This contains training opportunities and
plans for coastal			communication plan for coastal management.
managers and			
communities to			
implement coastal			
adaptation actions,			
especially by			
increasing support			
for education and			
training on climate			
risks and adaptation			
solutions for			
vulnerable groups,			
and establish			
research &			
innovation centres			
within coastal			
communities,			
development of			
multi-stakeholder			
platforms for			
information sharing			
with regular/timely			
updates etc. by			
2025.		 2025	
IX. Conduct 22	N/A	2025	Data not Available
trainings with coastal			
managers and			
communities on			
climate-related risks,			

adaptation colutions			
adaptation solutions,			
adaptive coastal			
management			
practices, and			
climate-smart			
infrastructure			
development, with			
strategic messaging			
for communities			
about incentives and			
opportunities to			
enhance their			
resiliency to climate			
change at the			
household and			
community level by			
2025.			
X. Invest in coastal	N/A	2024	Under UNDP New Kru Town coastal project, coastal monitoring
zone monitoring			tools were purchased and distributed.
equipment for data			
collection, research,			
and management			
purposes by 2030.			
XI. Provide	N/A	2024	About 12 acres of land already purchased for West Point
incentives to	,	-	relocation. Construction is yet to commence.
repatriate highly			
vulnerable current			
homes and			
infrastructure in			
coastal flood zones			
by 2030.			
XII. Develop and	N/A	2023	The Government of Morocco and Liberia commenced, in
support coastal and		2025	2024, the
marine research			 second fisheries stock assessment on Liberian waters. Final
project proposals,			report is yet to be published.
initiatives, and			report is yet to be published.
initiatives, allu			

activities, increase		
funding for research		There is planned research on ocean acidification in Liberia
on blue carbon and		by EPA and UL for 2025. The roadmap is already developed.
adaptive coastal		
management		Two UL professors have conducted and made a peer-
solutions, and		reviewed scientific publication of their research findings on
increase access to		change detection analysis of mangrove ecosystem in
research		Mesurado wetlands.
opportunities by		
2030.		

NDC Sector: Fisheries

FISHERIES SECTOR		Coordinated by: National Fishery and Aquaculture Authority		Total Cost (2021-2030): US\$26,700,000.00		
Ουτρυτ	Total cost	Short Term (2021 - 2022)	Medium Term (2023-2024)	Long Term 2025- 2030)	Comments	
I. Develop a program to provide trainings about and incentives for fisher- folk to adopt eco-stove fish dryers to reduce GHG emissions and discourage mangrove deforestation from usual methods by 2025 (Link to Coastal Zones and Energy sectors).	N/A		2023		 Under its Livelihood Empowerment of Women in Small-Scale Fisheries project, FAO conducted training and provided fish processing facility to fishmongers. The Environmental Justice Foundation (EJF), with funding from EU, provided several trainings and organized an all women VSLA in the Southeast. 	
II. After identifying the gaps, with national technical support, draft a	N/A		2023		• Fisheries is captured in the National Adaptation Plan as a key sector	

proposal of amendment to fully integrate fisheries in climate change adaptation and food security policies.			Fisheries and Aquaculture Value Chain Programs Developed for the NADP
III. Harnessnaturalcapitalaccountingapproachesto developandimplementmeasures to monitor andtracktrackGHGemissionsfrom the fisheries sectorby working with LISGISto establish accounts forGHG emissions, fisheriesand ecosystemsSEEACFSEEACFrelationship between theenvironmentandtheeconomicactivitiesrelated to fisheries.SEEAEAFisheriescurrentlybeingpilotedcanbeusedforthatpurpose.	N/A	2025	 Conservation International has begun engaging LISGIS, NaFAA and sectoral MACs through the National Capital Accounting Project to develop Liberia's NCA strategy. There is no tracking of GHG in fisheries sector yet.
 IV. Increase funding by \$1.5 million per year for research on climate- related pressures on fisheries and appropriate climate adaptation solutions in the fisheries sector, including on alternative 	N/A	2025	No Data Available

approaches to the traditional way of using mangroves for smoking fish by 2030 – Conditional on international support. V. Implement 20	N/A	2024		NAFAA is supporting, under the world bank project,
trainings (2 per year) for fishery managers to learn and implement adaptive management practices by 2030.				key managers to acquire graduate education abroad
VI. Invest in marine store and tracking systems for artisanal fisher communities, including the provision of training, fishing gears and alternative livelihoods	N/A		2025	 The World Bank has provided fishing gears to communities in Marshall and Robertsports NAFAA provided motors in 9 coastal counties
VII. Conduct 1 training per year with artisanal fishers, fishmongers, and fish processors, especially women, on sustainable fishery and fish handling practices by 2030.	N/A	2024		 World bank is providing support for a training program for fishmongers, processors, etc. in Liberia. EU, through the EJF, has provided several trainings to fishmongers and sustainable fishing.
VIII. Establish a net Exchange Program to replace monofilament nets with multifilament nets in order to reduce the juvenile catches and minimized ghost fishing by 2023 and support 100	N/A	2023		 NAFAA, through its Liberia Sustainable Management Fisheries Project (LSMFP), distributed Multifilament Nets or Thread Nets to about 30% of all fisherman under its Nets Exchange for local fishermen.

exchanges for fishers to exchange illegal gear with legal gear by 2025. IX. Integrate fisheries fully into climate change adaptation and food security policies at the national level by 2025 (Link to Agriculture and Health sectors).	N/A	2024	Fisheries is included in the NAP and the climate change policy and response strategy.
X. Develop and implement climate smart fishery management systems to enhance the adaptive capacity and resilience of fisher communities, including technical support and backstopping for artisanal fishing cooperatives and extension services by 2030.	N/A	2024	No data available
XI. Increase capacity building of women involved in marketing & smoking of fish and wider community engagement to promote conservation of mangroves (e.g., introduce alternative approaches to smoking fish) by 2025 (Link to Forest sector).	N/A	2024	 EJF supported, under its EU project in 2022, the establishment and training female fishmongers VSLA The Liberia Sustainable Management Fisheries Project (LSMFP) has a component for increasing women support in sustainable fishing.

XII. Develop effective early warning systems (GPS & Weather stations) to identify probable threats and risks related to fisheries by 2025.	N/A			2025	No data available
XIII. Establish a fisheries program at the University of Liberia by 2025.	N/A	2022			Implementation is ongoing through the LSMFP. About US\$1.8 has been secured. Additional support is needed to complete the hall of Centre of Excellence and development of fish ponds for practical and hands-on training in aquaculture.
XIV. Establish an artisanal fish landing and processing centre in Mesurado by 2025.	N/A		2023		Ongoing through the LSMFP. A Mapping exercise is planned for 2025.
XV. Develop an awareness program in schools within coastal counties to promote climate-smart fisheries and mangrove conservation by 2025.	N/A	2022			 EPA is conducting awareness program in Montserrado, Margibi and Cape Mount SCNL has established nature clubs in cape mount and Montserrado
XVI. Support the establishment of improved information and communication networks among and between fishing communities by launching information, education and communication campaigns and conducting public awareness on fisheries	N/A	2022			The communication strategy for NAP covers fishery sector

N/A	2023	There is an Ad-hoc committee on the Cavalla spill
		from Ivory Coast
		The Environmental Sector Working Group (ESWG)
		is established and operational.
		There is a national oil spill contingency plan
		committee (NOSCP) coordinated by LiMA.
N/A	2022	No data available
N/A	2024	No data available
	N/A N/A N/A	N/A 2022

NDC Sector: Forestry

FORESTRY SECTOR		Coordinated by: Forestry Development Authority		Total Cost (2021-2030): US\$49, 025,000.00		
Ουτρυτ	Total cost	Short Term (2021 - 2022)	Medium Term (2023- 2024)	Long Term 2025- 2030)	Comments/Status	
I. Reduce GHG emissions from avoided forest conversion by 2030 through enhanced implementation of the National REDD+ Strategy.	N/A		2024		 FDA has not issued new forest management contract/timber sale contract (FMC/TSC) since 2010. Out of the 7 FMCs, only 2 are operational currently while the 13 TSCs have been cancelled. Since 2020, FDA has suspended all new applications for community forest (CF). The new EU regulation is encouraging the government to avoid forest conversion through new concessions. The Land Rights Act (LRA) restricts government power to arbitrarily grant concession on customary land. 	
II. Reduce GHG emissions by 1,800 Gg CO2e per year by limiting Forest Management Concessions to 1.6 million ha by 2030.	N/A		2024		See above	
III. Reduce GHG emissions by 3,200 Gg CO2e per year by converting timber sales contracts into carbon concessions by 2030.	N/A		2024		Current draft regulations (chainsaw regulations) being discussed to apportion old TSC between chainsaw and carbon concession.	
IV. Improve national programs and policies to	N/A		2023			

reduce GHG emissions by incentivizing sustainable fuelwood and charcoal production and expanding use of fuel-efficient cookstoves and biogas by 2030.					
V. Reduce emissions by 1,100 Gg CO2e per year by increasing the efficiency of charcoal production and use by 2030.	N/A		2023		Same as above
VI. Establish 5 new Protected Areas to complement the existing government commitment to increase forest Protected Areas to 1.5 million ha, ensuring a 3km buffer zone, by 2030.	N/A		2023		The following proposed protected areas are being established: • Krahn Bassa PPA • Cestos-Senkwehn PPA • Grand Kru RiverGee PPA • FOYA PPA • KPO Mountaisn PPA • Wonegizi PPA • Marshall Wetlands • Kpatawee Wetlands
VII. Reduce emissions by 210 Gg CO2e per year by accelerating the designation of forest Protected Areas.	N/A	2022			Same as above
VIII. Improve national programs and policies to enhance forest carbon stocks by incentivizing and increasing agroforestry, reforestation, afforestation, and forest restoration by 2030.	N/A			2025	 There is an existing REDD+ Strategy for Liberia A Revised draft Forest Policy has been produced which includes a chapter on carbon A Draft PA regulation exists Draft Reforestation Strategy at FDA WABiLED conducted research and published a report on FLR

IX. Conserve all HCV-HCS forests within agricultural, tree crop, and commercial forestry concessions, and site new concessions on open/degraded land by 2030.	N/A	2	2023		There is an agreement by the Liberia Natural Produce, Inc. (LNPI) to include its current HCV in in the Cestos Senkwehn protected area.
X. Reduce emissions by 2,100 Gg CO2e per year by siting 100,000 ha of agricultural concessions onto degraded land by 2030.	N/A	2	2023		There has not been a new agriculture concession established since the NDC launch.
XI. Implement a net-zero deforestation mining policy by 2030.	N/A			2027	FDA/MME is working out modalities to establish a taskforce to promote deforestation-free mining UNDP is supporting an artisanal mining program under its environmental governance Program (EGP)
XII. Increase the designation of Community Forest Area to 1 million ha and promote sustainable community forest management, including guidelines for sustainable resource extraction (e.g. hunting, artisanal mining, non-timber forest products) by 2030.	N/A			2026	 A Guidelines for community forest management developed under REDD+ LFSP project. Currently, all new CF application is suspended. The total existing CF is 1.3 million hectares.
XIII. Reach 1,500 forest dependent communities with strategic messaging about incentives and opportunities to reduce their climate footprint at the	N/A	2022			 FDA conducts periodic community awareness through its Department on Awareness (LFSP and USAID-Prosper) Meanwhile there is a draft communication strategy for the revised NBSAP. Other conservation NGO are constantly conducting awareness.

household and community level by 2030.			
XIV. Hold 15 trainings per year to develop capacity with forest managers, researchers, and forest- dependent communities to implement mitigation actions in the forest sector, which will focus on developing expert manpower capacity in relevant forestry institutions, including the Forestry Development Authority and support uptake of best practices for climate smart forest management, monitoring and conservation, increase forestry research, and enable forest communities to implement improved forestry practices by 2030.	N/A	2023	There are at least 2 announcements for rangers and ecocguards training happening across the different protected areas.
XV. Increase funding for agroforestry and forestry research to \$150,000 dollars per year by 2030.	N/A	2023	 The LFSP supported agroforestry and forestry research at FTI FAO spent US\$270,000.00 for agroforestry and research in 2024 SCNL has received US\$500,000.00 to support agroforestry SCNL has also received 150,000.00 for cocoa planning with forest in Gbarpolu and Cape Mount
			 The United States Forest Service (USFS) is providing US\$70,000.00 to FTI for forest research and training

XVI. Improve transparent enforcement of forest laws, e.g. against illegal deforestation and chain sawing, by 2025.	N/A	2024		 Improvement in governance (implementation of forestry report by FDA) FDA has set-up data operating system in FDA commercial department and has strengthened the chain of custody (COC) system. There is an establishment of intersectoral taskforce FDA has increased Joint law enforcement (LE) Patrols
XVII. Develop policies and incentives to encourage urban tree planting by 2025.	N/A		2025	 The national tree planting day reflects the government policy for urban tree planting A City council beautification policy exist
XVIII. Develop training, capacity building, and strategic communications plans for forestry managers, researchers, and forest- dependent communities to implement climate adaptation action in the forest sector, especially by increasing for education and training support for vulnerable groups.	N/A	2023		This is already captured in the NAP and its communications strategy.
XIX. Conduct 20 trainings with forestry authorities and forest-dependent communities on climate- related risks, adaptation solutions and adaptive forest management practices, with strategic messaging for communities about incentives and	N/A	2023		 There is training on climate risk and adaptation solutions etc., ongoing under the following projects: UNDP Leh go green project UNDP CBFM project CI GEF FOLUR LANDESA climate-smart training PADEV climate-smart training program

opportunities to enhance their resiliency to climate change at the household and community level by 2025. XX. Implement an effective	N/A	2022		Regulations on benefit sharing exist with FDA
benefit-sharing mechanism for forest communities by 2030.	N/A	2022		 There is a Plan underway to develop a synchronized regulations for both decentralization provision and FDA benefit sharing regulations
XXI. Increase funding for research on adaptive forest management solutions by 2025.	N/A		2024	The EU budgetary support for 2025 includes triggers for research on adaptive forest management
XXII. Develop an adaptive forestry management and conservation plan to prevent fire, invasive species, and diseases, including training/capacity building by 2030.	N/A		2024	There is a Draft conservation strategy awaiting validation. A Management plan for each PA exists that includes invasive species, fires, etc.
XXIII. Encourage sustainable fuelwood/charcoal production with alternative domestic energy options by 2025.	N/A		2023	See above
Work with the University of Liberia (UL) among others educational institutions to develop a training program and/or course options for researchers interested in forest and climate topics for both mitigation and adaptation. The program should include a review of	N/A		2023	FTI has developed a tool on carbon sequestration and will commence training for its students.

identified knowledge gaps in			
the forestry sector to enable			
the researchers to support			
the continual improvement			
of strategies to implement			
mitigation and adaptation			
actions in the forest sector.			

NDC Sector: Health

HEALTH SECTOR		Coordinated by: Ministry of Health			Total Cost (2021-2030): US\$12, 195,000.00
OUTPUT	Total cost	Short Term (2021 - 2022)	Medium Term (2023- 2024)	Long Term 2025- 2030)	Comments/Status
I. Develop and implement programs to improve healthcare waste management practices and reduce GHG emissions from waste incineration by following reduce, re- use, recycle, and compost best practices by 2030 (Link to Waste sector).	N/A			2025	 Healthcare waste management Guidelines developed by the Ministry of Health (MOH) with training conducted in health facilities across the country. MOH conducts periodic monitoring of functional incinerators and repairing of damaged ones. A designated site for healthcare waste management is located in Disco Hill in Margibi County
II. Establish 425 community health clubs to improve community-level health care and disseminate information on changing health risks to enhance the response to climate- related diseases by 2030.	N/A		2023		 Last Mile Health partners with the MOH to implement the community health program across the 15 counties. Schools EcoHealth Clubs is established by MOH with the aim to empower Liberian students by fostering awareness about climate change, health and sanitation The clubs' programs are Implemented by BASA Development Initiatives and Breakthrough Action- Liberia
III. Increase funding to \$500,000 per year for research on climate-health	N/A		2024		Not yet started

nexus, including on the increased health vulnerabilities caused by climate change, the temporal, spatial and spectral aspects of meteorological data needed for healthcare purposes, and on the quality, level, and detail of healthcare data required for disease modelling to develop adequate response measures by 2030.				
IV. Promote household and community-level adoption of practices that improve air quality, improve water safety and reduce the risk of disease transmission, while also reducing fuelwood use, such as water filters and improved cookstoves (Link to Forests and Agriculture sectors.	N/A	2022		 NPHIL Has developed the Buchanan Water Safety Plan for an improved WASH sector The WASH in Healthcare Facilities Roadmap developed. There is regular water quality testing conducted across the country. (This is part of our passive surveillance initiative) FAO is supporting communities to plant trees for air quality improvement.
V. Conduct 40 trainings on health risks of using firewood and other climate-related health risks by 2030 (Link to Forest sector).	N/A		2023	Green Go Liberia project has a component on danger of firewood.
VI. Provide 170 water safety and purification kits to rural communities by 2030.	N/A		2024	Portable water testing kits distributed to the county health in the 15 counties to enhance systematic testing of community drinking water
VII. Develop climate health hazards risk mapping and area-based scenario planning for responding to climate health hazards and improve disease surveillance systems, preparedness and response capacity for the health consequences of climate change (e.g., heat-related illness, infectious diseases, malnutrition, natural disasters,	N/A	2022		 There is an ongoing epidemiological training program (FETP) of health workers across government ministries and agencies There is an Integrated Disease Surveillance and Response (IDSR) activities across the country MOH is offering certificate program in Infection Prevention and Control (IPC) to focal point from the 15 counties of Liberia.

mental health, forced migration, chronic disease) by 2025.				
VIII. Mobilize and sustain financial resources for national level engagement of the health sector that ensures project implementation by 2025.	N/A	2022		Not yet started
I. Develop and implement programs to improve healthcare waste management practices and reduce GHG emissions from waste incineration by following reduce, re- use, recycle, and compost best practices by 2030 (Link to Waste sector).	N/A		2025	 Healthcare waste management Guidelines developed by the Ministry of Health (MOH) with training conducted in health facilities across the country. Periodic monitoring of functional incinerators and repairing damage ones, A designated site for healthcare waste management located in Disco Hill in Margibi County

NDC Sector: Industry

INDUSTRY SECTOR	Coordinated by: Ministry of Commerce and Industries		Total Cost (2021-2030): US\$430,000.00		
OUTPUT	Total cost	Short Term (2021 - 2022)	Mediu m Term (2023- 2024)	Long Term 2025- 2030)	Comments
I. HFC tax for regulating the consumption of fluorinated gases in the air conditioning and refrigeration sector.	N/A		2024		No tax exists for regulating the consumption of fluorinated gases.
II. Increase the percentage of low-GWP alternatives in economy-wide uses of HFCs, consistent with the HFC phase-down level (import duty incentive).	N/A		2024		No data available

III. Provide incentives for companies and consumers to replace high-GWP HFC commercial equipment or appliances with low-GWP alternatives (reduced GST).	N/A	2024		 R-290 is now being used in commercial display freezers as a replacement for HCFC-22 because of its zero-ozone depletion potential and low global warming potential. Under the country's HPMP, technicians have been trained to convert R-22 based commercial appliances to R-290 only when some safety and technical conditions are fulfilled.
IV. Introduce a policy or legal framework that all new high-efficiency cooling equipment must use either a low-GWP HFC or an HFC alternative.	N/A		2025	In 2003, Liberia, as a signatory party to the Vienna Convention and its off-spring, the Montreal Protocol, developed regulatory and institutional framework to manage and control the importation and consumption of ozone depleting chemicals.
V. Research into the health and environmental risks of GWP-HFC in cooling and refrigeration and other industries.	N/A	2024		No data available
VI. Launch long-term GWP-HCF phase out national strategy and policy.	N/A		2025	The Ozone Depleting Substances Regulations promulgated in 2004, was revised and approved by the Policy Council in 2010. The Regulations established the ODS Import Licensing System and mechanism to monitor the import of all controlled substances. These Regulations make It mandatory for all importers of ODS, HFCs and ODS or HFC related equipment to register with the EPA prior to the import of the controlled substances and equipment.
VII. Develop and launch Communication Strategy to create awareness about health and economic risks of SLCP.	N/A		2025	Not available
VIII. Adaptation training for environmental scientists, environmental health workers, cooling and refrigeration workers, and municipal sanitation employees.	N/A	2023		 In 2015, most technicians were trained in` converting from high GWP refrigerants such as R-134a to low GWP refrigerants such as R-600a.

				 In 2013, GIZ-Proklima provided 66kgs of R-290 to turin to shall be a set of the NCofe User diag and
				to train technicians on the "Safe Handling and
				Application "of HC Refrigerants. The training led
				to the successful conversion of AC units at the
				EPA main office
IX. Surveys of appliances and equipment to	N/A	2022		No data available
determine their emission capacities.				
X. Publish phase-out guidelines and schedules for	N/A		2025	No data available
sectors/industries.				

NDC Sector: Transport

TRANSPORT SECTOR		Coordinated by: Ministry of Transport		Total Cost (2021-2030): US\$27,785,000.00	
Ουτρυτ	Total cost	Short Term (2021 - 2022)	Mediu m Term (2023- 2024)	Long Term 2025- 2030)	Comments/Status
I. Strategic study regarding a multimodal public transport system in Monrovia including all public modes: buses, railways, maritime lines and waterways shuttles.	N/A		2023		Not yet started
II. Feasibility study of an interchange hub programme and the specifications of the terminals for all interconnected modes.	N/A		2023		Data Not Available
III. Architect and design studies of the terminals for each mode.	N/A	2022			Data Not Available
IV. Development of a Mobilise Your City programme for Great Monrovia.	N/A		2023		Not yet started
V. The launch of a Sustainable Urban Mobility Plan for Monrovia.		2022			Not yet started

VI. Reduction of 16.9 GgCO2e in 2030 by the introduction of electric vehicles with focus on kehkehs (for private use)	N/A			2030	 Electric vehicle start-ups are currently scaling up activities. Currently, there is a growing number of electric 2 wheelers, 3 wheelers, and 4 wheelers operating in Liberia. The Liberia Energy Access Practitioners in collaboration with the Ministry of Transport launched the Leapfrogging to E- mobility Acceleration project, which will develop a zero- emission vehicle policy for the country.
VII. Assessment of the needs for waterway shuttles as well as new kehkehs to be purchased and old existing thermic kehkehs to be replaced at a national scale	N/A	2022			 The Ministry of Transport (MOT) and Ministry of Public Works (MPW) have completed a feasibility study on inland waterway public transport.
VIII. Explore possibility to utilize electric waterway shuttles	N/A		2024		Not yet started
X. Undertake a phased programme of electric kehkehs equipped with photovoltaic panels on the roof	N/A		2024		Emergi-Liberia, New Energy Electric Vehicle (NEEV)-Liberia and other startups/organizations have piloted solar-electric tricycles and smaller cars.
XI. Reduction of 32.3 GgCO2e in 2030 by supporting the transformation of National Transit Authority (NTA) buses and private vehicles (cars and taxis) to Compressed Natural Gas (CNG); by 2030.	N/A			2030	No data available
XII. Assessment of the number of cars running with old or bad adjusted engines likely to be replaced	N/A	2022			Not started yet
XIII. Assessment of the number of mechanics likely to be trained to adapt NGV running engines on conventional vehicles	N/A	2022			No data available
XIV. Secure partnerships with international manufacturers and investors for NGV running engines	N/A		2023		No partnership secured.
XV. Train about 200 mechanics across Liberia on the procedure and skills to replace and adapt NGV engines	N/A		2023		Not started yet
XVI. Implement the NGV engines and gas bottles	N/A		2024		Not started yet

XVII. Implementation of a vehicle labelling system which is an information system which registers the level of GHG emissions for each vehicle by 2025;	N/A	2022		The Climate and Clean Air Coalition has secured funding for Liberia to develop national Sulphur fuel standards and build the capacity of inspectors to enforce mandatory vehicle emission inspection. This project will commence in early 2025 and aims to implement a vehicle labelling system to measure the level of emissions from each vehicle.
XVIII. Implementation of a fee bate / rebate programme through which the government levies fees on relatively high GHG emitting vehicles and provides rebates on lower emitting vehicles by 2025;	N/A		2023	Not started yet
XIX. The enforcement and adaptation of registration taxes, in particular with and the enforcement of the 10% tax on luxury vehicles and the integration of a tax on transit vehicles by 2025.	N/A	2022		Regular enforcement & collection of vehicle registration taxes and fees are carried out at least twice a year with increased tariffs on luxury vehicles. However, tax mechanisms on transit vehicles are yet to be stimulated.
XX. Heighten driver awareness about better ways of driving cars through eco-driving, speed reduction and use of well-adjusted motors, electric and CNG vehicles	N/A	2022		Speed reduction, road safety awareness, and sustainable transport sensitization campaigns are periodically carried out by the MOT in collaboration with the MPW
XXI. Promote public transport through the use of bus transport network and car sharing	N/A		2023	Sustainable transport sensitization campaigns are periodically carried out by the MOT in collaboration with the MPW
XXII. Continuation of road upgrading and construction	N/A	2022		Ongoing
XXIII. Implement a road network hierarchy study ending on a classification of the road network and the identification of the transit routes and the congestion points with traffic surveys	N/A	2022		No data available
XXIV. On the basis of this study, identification of the priority sections to deal with and definition of a road improvement programme with a planning based on annual lengths of road to be improved and/or built	N/A		2023	Ongoing

XXV. Strategic study regarding a multimodal public transport system in Monrovia including all public modes: buses, railways, maritime lines and waterways shuttles	N/A	2022		 The Ministry of Transport and Ministry of Public Works conducted a multi-modal public transport study and developed a strategic plan. MOT/MPW also completed an inland waterway public transport feasibility study for Montserrado county.
XXVI. Feasibility study of a bus public transport network including the definition of routes, services and associated equipment	N/A	2022		Not yet started
XXVII. Definition of the required standards for Monrovia bus network equipment	N/A		2023	Not yet started
XXVIII. On the basis of the outputs of the above-mentioned studies, implementation of dedicated lanes, bus stops, terminals and workshops	N/A		2024	No data available
XXIX. Strategic study regarding a multimodal public transport system in Monrovia including all public modes: buses, railways, maritime lines and waterways shuttles	N/A			 The Ministry of Transport and Ministry of Public Works conducted a multi-modal public transport study and developed a strategic plan. MoT/MoPW also completed an inland waterway public transport feasibility study for Montserrado county.
XXX. Feasibility study of an interchange hub programme and the specifications of the terminals for all interconnected modes	N/A			National Transit Authority has conducted study on interchange hub programme for bus terminals
XXXI. Architect and design studies of the routes and terminals for each mode	N/A	2022		No data available
XXXII. Develop a sustainable transport policy	N/A			Not yet started
XXXII. Implement measures to monitor and track emissions through the establishment of air emission accounts, to be implemented by Liberia Institute of Statistics and Geo-Information Services (LISGIS)	N/A	2022		No data available
XXXIII. Setting transport costs responsive to distances, road conditions, seasonality,	N/A		2023	Transport costs relative to distances have been established by MOT.

mode of transport and social conditions like				
age and financial well-being XXXIV. Promote measures to reduce external costs, such as congestion, damage to health and pollution of any kind including noise and emissions;	N/A	2022		No data available
XXXV. Promote rail and water transport, safe water transport for riverine areas	N/A	2022		 The Ministry of Transport and Ministry of Public Works conducted a multi-modal public transport study and developed a strategic plan. MoT/MoPW also completed an inland waterway public transport feasibility study for Montserrado county.
XXXVI. Ensure low-income populations to reach jobs, education and healthcare services, improving their access to economic and social opportunities.	N/A			The National Transit Authority (NTA) is expanding public transport service operations to support low-income population
XXXVII. Access to learning experiences from other cities and countries	N/A	2022		MOT completed the Training of Seven (7) Road Technicians from each of the following Counties: Bong, Lofa, Nimba, Grand Gedeh, River Gee, Maryland and Grand Kru by MoPW.
XXXVIII. Install signs high above the ground that can alert pedestrians and motorists of unsafe zones, such as low- lying areas	N/A	2022		Installation of road safety traffic signs & distribution of reflective jackets were implemented in various counties across Liberia.
XXXIX. Provide traffic and road safety seminars and trainings for motorists and transport union workers	N/A	2022		Workshops, seminars, public awareness, and sensitization on road safety were conducted in various counties by the MoT and MoPW.
XL. Construct and upgrade secondary and feeder roads (farm to market roads)	N/A		2023	 Completion of Pilot Project (GoL/SIDA and Technical Support by GIZ) for the Construction of 19km of Village Track Roads in Bong County. Completion of Pilot Project (GOL/SIDA and WHH) for the Use of Road Stabilizer (Purecrete) on 12km of the Zwedru- Ziah Road.
XLI. Improve and enhance public transport services	N/A	2021		NTA has stretched out its operations/activities in 12 counties and has established a hub in Harper City to provide

			PT services to the people of Maryland and neighboring counties.
			 NTA is seeking funding to increase its bus fleet for special/express services, intending to commute employees to and from work in an organized park-and-ride system.
XLII. Strengthen early warning systems and evacuation planning for intense rainfall events/floods	N/A	2022	The Climate Information System (CIS) project has just begun, which is aimed at providing a resilient development pathway for Liberia through early warning system development operationalization.
XLIII. Maintain and upgrade roads with appropriate drainage systems to cope with flooding	N/A	2022	The Liberian Urban Resilient Project (LURP) at MoPW is currently maintaining drainages systems to cope with flooding around Montserrado

NDC Sector: Waste

WASTE SECTOR		Coordinated by: Ministry of Internal Affairs		Total Cost (2021-2030): US\$14, 875,000.00	
Ουτρυτ	Total cost	Short Term (2021 - 2022)	Medium Term (2023- 2024)	Long Term 2025- 2030)	Comments/Status
I. Review of Environmental Act, development of Solid Waste Management (SWM) Act.	N/A	2022			Not yet started
II. Adoption of National SWM Policy and Implementation.	N/A	2022			 GOL has validated the National SWM Policy There is a draft policy on plastic waste awaiting validation
III. Establishment of a Coordination Mechanism to overcome fragmented institutional landscape.	N/A	2022			There in a national waste sector working group chaired by EPA
IV. Development of a SWM Master Plan to define the general infrastructure	N/A	2022			Not yet started

needs => objectives, targets, Investment Plan.			
V. Review of Municipal Ordinances.	N/A	2022	No data available
VI. Development of Municipal SWM Plans to define the services needed, infrastructure needed, assess cost/revenues, objectives for SWM.	N/A	2022	Not yet started
VII. Clarify roles and responsibilities of public side and private services providers Community-based Enterprises (CBEs) and Small and Medium Enterprises (SMEs).	N/A	2022	No data available
VIII. Define investment needs for the waste sector	N/A	2022	Not yet started
IX. Based on SWM Master Plan and an Investment Plan the needs and requests for funding can be targeted to improve the SWM situation and achieve mitigation objectives.	N/A	2022	Investment plan for WWM has not been developed.
X. Assessment of carbon credit options such as emission trading and NAMA ²⁰ projects in the solid waste sector.	N/A	2022	Not yet started
XI. Training of municipal staff for their tasks (provide collection/transport service, operate transfer stations, waste treatment and landfill.	N/A	2022	No data available
XII. Provision of managerial support to the public side to improve service provision and supervision/enforcement capacities.	N/A	2022	No data available
XIII. Transfer of know-how for modern SWM treatment technologies and service provision.	N/A	2022	Not yet started

²⁰ Not applicable

XIV. Training to promote and stimulate engagement in service performance and utilization of recyclables.	N/A	2022		Several trainings on-going recyclables by NGOs. Government has not setup a formalized training program
XV. Education programs to be developed to involve schools, university.	N/A	2022		 EPA is conducting awareness with students in E-clubs (about 20 clubs in high schools) SCNL providing training and awareness to about 15 nature clubs across Liberia Both Stella Maris Polytechnic and the African Methodist Episcopal University (AMEU) are offering courses in sustainable waste management.
XVI. Awareness raising/public relation campaigns for the population and politicians to sensitize the public towards the challenges of SWM (separation at source, stop littering, pay for the services, etc.).	N/A	2022		 EPA working with the Liberia Media for Democratic Initiatives (LMDI) to conduct awareness on SWM Blue Ocean Program is conducting nationwide awareness program on plastic pollution.
XVII. Adoption of the proper equipment for primary collection/transport.	N/A	2022		Not yet started
XVIII. Provision of equipment for secondary collection/transport.	N/A	2022		No data available
XIX. Upgrade and development of Transfer points/Stations.	N/A	2022		There are two major transfer stations around Monrovia where garbage is collected and temporarily stored for on-wards transfer to the landfill.
XX. Development and implementation of small-scale composting, bio-digestion and sorting facilities.	N/A		2023	No data available
XXI. Upgrade and rehabilitate landfills in the country.	N/A		2024	Work is ongoing at the Cheesmanburg landfill and Whein town by MCC. These are the two landfill sites in the country.
XXII. Assessment of the landfill gas potential.	N/A	2022		An official national assessment has not been carried out.

XXIII. Technical study to design	N/A		2023		Not Yet started
the landfill gas management system.	11/ 7		2025		
	N1/A		2024		Na data availabla
XXIV. Development of a	N/A		2024		No data available
management system for operating the					
landfill gas management system.					
XXV. Procurement of the	N/A		2024		No data available
equipment.					
XXVI. Construction of gas wells	N/A			2025	Not Yet started
on the land fill surface.					
XXVII. Establishment of a gas	N/A			2025	Not Yet started
compressor station with high					
temperature flare.					
XXVIII. Set up a landfill gas	N/A			2025	Not Yet started
monitoring and verification system for	,				
capture and burning of landfill gas.					
XXIX. Assessment of the	N/A			2025	N/A
potential for utilization of the captured	,				
gas, if feasible.					
XXX. Development of a	N/A		2024		N/A
management system for operating the	11/7		2024		
landfill gas management system.					
	N1 / A	2022			No data availabla
XXXII. Development of the	N/A	2022			No data available
implementation studies for the					
establishment of separate collection of					
organic market waste and the treatment					
concept.					
XXXIII. Procurement of	N/A	2022			No data available
equipment for the construction of the					
plants; and Construction works.					
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