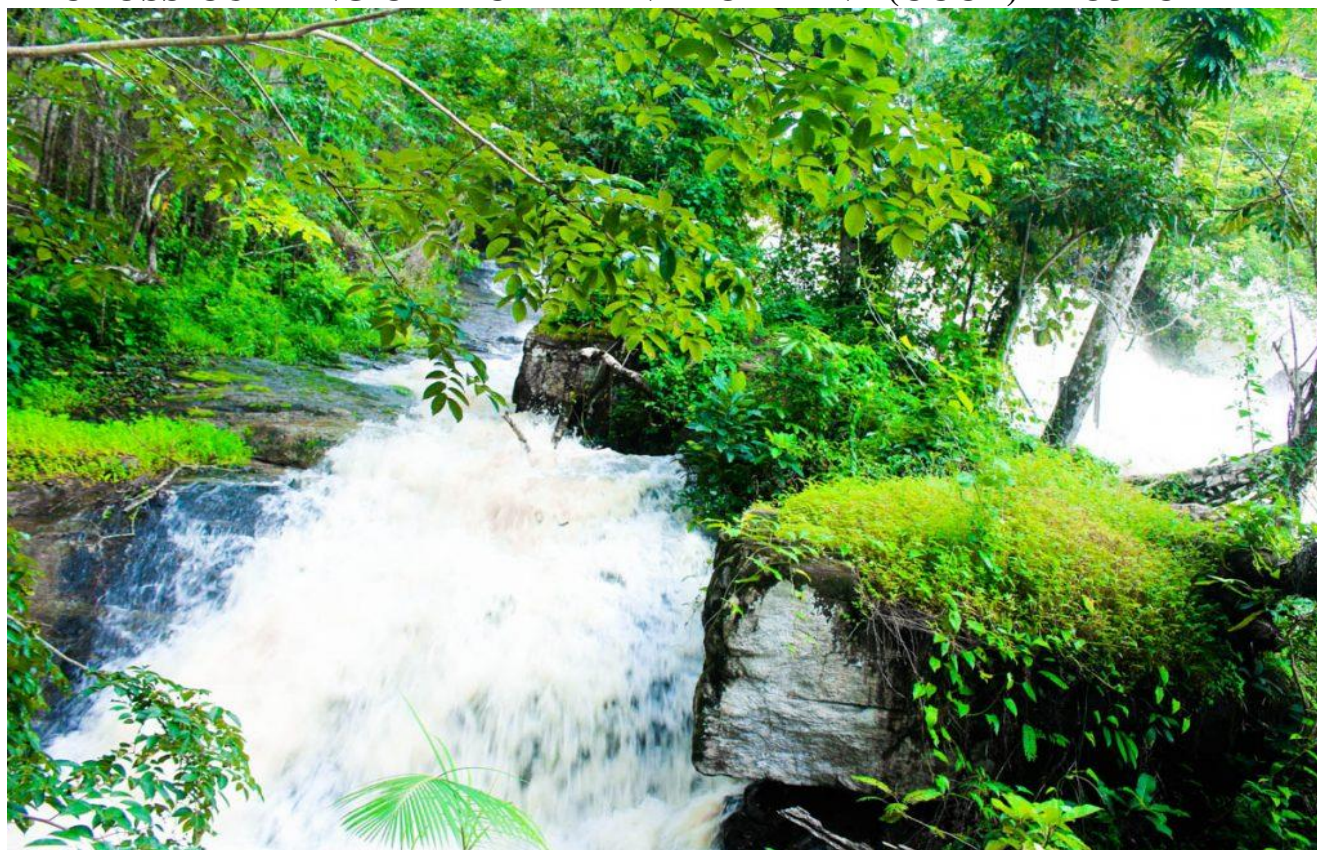




**2022 Liberia National Capacity Self-assessment
(NCSA)
UPDATED FINAL REPORT
CROSS-CUTTING CAPACITY DEVELOPMENT (CCCD) PROJECT**



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“Capacity building originally meant helping people to help themselves. Now it means required training to deliver policies” Andy Hargreaves

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III. ACRONYMS AND ABBREVIATIONS

CARI	Central Agricultural Research Institute
CCCD	Cross-Cutting Capacity Development
CSOs	Civil Society Organizations
ECOWAS	Economic Community of West African States
EKMS	Environmental Knowledge Management System
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization
FDA	Forestry Development Authority
GEF	Global Environmental Facility
GDP	Gross Domestic Product
IDI	In-depth Interview
KM	Kilometer
LASIP	Liberian Agricultural Sector Investment Plan
LDN	Land Degradation Neutrality
LISGIS	Liberia Institute for Statistics and Geo-Information Services
LERP	Liberia Economic Recovery Plan
MEAs	Multilateral Environmental Agreements
MM	Millimeter
MME	Ministry of Mine and Energy
MOA	Ministry of Agriculture
NEAP	National Environment Action Plan
NaFAA	National Fisheries and Aquaculture Authority
NAPA	National Adaptation Programme of Action
NBSAP	National Biodiversity Strategy and Action Plan
NCSA	National capacity Self-Assessment
NGO	Non-Governmental Organization
PAPD	Pro-Poor Agenda for Prosperity and Development
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SIS	Safeguard Information System
SWOT	Strengthen, Weakness, Opportunity, and Threats
UN	United Nations
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Programme
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WASH	Water, Sanitation, and Hygiene

IV. FOREWORD

Liberia continues to make progress towards achieving global environmental objectives in line with the obligations of the Rio Conventions: United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD), and United Nations Convention to Combat Desertification (UNCD). Since signing and ratifying these Conventions, the country has established a regulatory body, the Environmental Protection Agency (EPA), responsible for leading the country's environmental programs and coordinating sector stakeholders toward planning and implementing national strategies that facilitate the achievement of these obligations. Additionally, the country has also instituted several regulatory and legal frameworks that guide the transactions of an environmental business in the country, covering all Rio Conventions areas.

Over the past years, we have been working with our partners to identify our capacity gaps relative to fully implementing the obligations of the Rio Conventions; and meaningful progress has been made in closing the identified gaps.

This updated National Capacity Self-Assessment draws from two major interventions. First, a National Capacity Self-Assessment was conducted in 2006. The process identified a list of capacity gaps that could hinder or limit the country's ability to attain obligations of the Rio Conventions. As a result of such initiatives, the country has been working with its partners to close some of the capacity gaps listed in the 2006 NCSA. Second, the United Nations Development Programme (UNDP) has been working with the Liberian government through the EPA to implement the Cross-Cutting Capacity Development (CCCCD) project, which is funded by the Global Environmental Facility (GEF). The four-year project had the goal of helping Liberia to make better decisions to meet and sustain global environmental obligations. Such a goal required the country to have the capacity to coordinate efforts, as well as best practices for integrating global environmental priorities into planning, decision-making, and reporting processes. Accordingly, the project aimed to strengthen a targeted set of national capacities to deliver and sustain global environmental outcomes within the framework of sustainable development priorities.

By the formal close of the CCCD project in September 2022, we will be celebrating our achievements of the EKMS and the institutional and individual capacities developed, including our colleagues from the media and civil society organizations. Although capacity gaps remain a concern, so much has been achieved when compared to the levels recorded in 2006.

It is my pleasant duty and pleasure therefore, to present this final updated National Capacity Self-Assessment Report derived as a product of the above-stated reinforced processes. The report was developed in consultation with all key local and national stakeholders working to help Liberia achieve its obligations under the Rio Conventions. We call on all development partners to design appropriate programs geared at fulfilling the remaining gaps, as stated in this document. Additionally, we call on all government agencies that are party to this process to apply this document as appropriate to all their programming activities so as to strengthen the overall impact on the national development plan, the PAPD.

I would also like to thank the United Nations Development Program (UNDP) and the Global Environment Facility (GEF) for the strong support to this endeavor. We call on these trusted partners to continue their support while we close our capacity gaps to join other nations of the world to attain global environmental objectives jointly.

Finally, we assure you that the Liberian government, through the EPA, remains committed to increasing its oversight and coordination abilities in implementing the recommendations in this updated NCSA.

Thank you.

Prof. Wilson K. Tarpeh

Executive Director/CEO

Environmental Protection Agency of Liberia

V. ACKNOWLEDGEMENT

Preparing this final report of the National Capacity Self-Assessment of Liberia was made possible by the financial support of the Global Environmental Facility (GEF). This comes after the successful complement of a Cross-Cutting Capacity Development (CCCCD) project implemented by the Environmental Protection Agency (EPA) of Liberia in partnership with the United Nations Development Programme (UNDP). We thank these institutions for the financial and technical support that has made this work possible.

We also acknowledge the contributions of all local, national, and international partners that contributed, technically or financially, to the development and compilation of this final report of the NCSA of Liberia. Their valuable time and contributions are highly acknowledged. The Ministry of Finance and Development Planning (MFDP) of Liberia and all partner ministries and agencies are thanked for their support towards the development of this report.

We extend our thanks and appreciation to the Focal Points of Rio Conventions in Liberia, namely, the Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), and the United Nations Convention to Combat Desertification (UNCCD), as well as all other technical officers and team leads who have been supportive to this endeavor.

Special thanks go to the Forestry Development Authority (FDA), Ministry of Mines and Energy (MME), Ministry of Agriculture (MOA), National Fisheries and Aquaculture Authority, Ministry of Internal Affairs, and other ministries and agencies, including international and local NGOs for their contributions that have made this final report of the National Capacity Self-Assessment of Liberia possible. These institutions technical and financial support made huge marks on this process, and we remain grateful to them. Finally, we extend gratitude to the national consultant and his assistant for their efforts in getting this report updated – John Solunta Smith, Jr., Ph.D. and Francis F.B. Mulbah.

VI. EXECUTIVE SUMMARY

Background

In 2003, Liberia hosted three working-group sessions on the Rio Conventions through which implementation capacity barriers were identified. By 2006, the National Capacity Self-assessment (NCSA) report confirmed and validated these identified capacity barriers. In that assessment report, stakeholders identified capacity constraints and barriers at the Individual, Institution, and System levels, which they envisioned, when solved, would lead to the full implementation of the Rio Conventions in Liberia. In summary, some of the significant capacity barriers identified in the 2006 NCSA that undermined the effective and efficient implementation of the Rio Conventions were as follows:

- Human, institutional and structural inadequacies.
- Limited training and low capacity in each sector or convention area.
- Lack of modern scientific methods and techniques – That those who obtained relevant qualifications under these Conventions at the time did so between ten to twenty-five years backward, and those very knowledge holders or specialists were unable to now cope with the modern scientific methods and techniques in the twenty-first century.
- Lack of harmonization of sectorial laws and policies.
- Inadequate planning skills and resources
- Incomplete structures at all levels and budgetary constraints.
- Lack of awareness on mitigation and adaptation options of the Rio Conventions.

These barriers created gaps in the implementation of these Conventions and the overall management of the environment and natural resources of the country. However, the 2022 National Capacity Self-Assessment (NCSA) report provides comprehensive updates on the capacity mentioned above constraints identified by the 2006 NCSA. This NCSA updates Liberia's gains and achievements in resolving the identified barriers to the full implementation of the obligations of the Rio Conventions – United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD), and United Nations Convention to Combat Desertification (UNCCD). This report also identifies a new set of barriers and opportunities of the Rio Conventions. This comes from an international agreement reached by a gathering of world leaders in Rio de Janeiro in June of 1992 to deliberate on the declining state of the global environment and to take practical actions aimed at protecting the environment for

generations now and in the future. This gathering was known as the United Nations Conference on Environment and Development (UNCED) but interchangeably called the Earth Summit.

Liberia is updating and reporting on its previous capacity barriers to meet the obligations set under each convention and to meet global environmental objectives. Liberia's progress started in 2002 with the establishment of the Environmental Protection Agency (EPA), as the government agency responsible for coordinating the government's response to global environmental management and leading scientific efforts that equip the Liberian populace to make a meaningful contribution toward protecting their environment. The separation of the National Fisheries and Aquaculture Authority (NaFAA) from the Ministry of Agriculture; a total of eight (8) National Environmental Policies and legislations or laws were developed for the mainstreaming of the UNFCCC in Liberia; while a total of seven (7) National Environmental Policies and legislation or laws were developed to fully enhance the implementation of the United Nations Convention to Combat Desertification; and a total of twenty-three (23) National Environmental Policies, regulations, and legislation or laws were also developed to enhance the full implementation of the United Nations Convention on Biological Diversity in Liberia which is all detailed in this report, provide the foundation for the full implementation of the Rio Conventions in Liberia.

Methodology

The NCSA was done using a qualitative research method which greatly relied on a desk review research technique and an In-depth Interview (IDI) with key stakeholders. The IDI participants were purposively selected based on their working knowledge and experiences directly with the Rio Conventions. There were 18 participants of the IDI who participated, along with 13 members of the NCSA technical review committee of professionals who are mid and senior career officials of the government of Liberia and other stakeholders playing major roles directly or indirectly in coordinating the Rio Conventions in Liberia. Furthermore, a two days validation conference of fifty (50) participants from both the private and public sectors reviewed and validated the report in Kakata, Margibi County.

Cross-cutting issues

The Conventions share some common issues that require very similar steps and approaches to address them. This report identifies three big cross-cutting issues in the Rio Conventions: 1) The

problems underpinning the degradation of the environment, leading to worsening climatic conditions, affecting biological diversity, hampering natural existence, and resulting in pollution are interdependent on one another. An approach to address one of these things inevitably leads to addressing the others, and an attempt to ignore any of them undermines the accomplishment of goals under the others. 2) The obligations to achieve the Conventions are interrelated. Climate change, loss of biodiversity, desertification, deficiency of drinking water, degradation of woods, and social-economic problems are connected to physical, chemical, biological, and social processes. And 3) All to address any of the stated UN Conventions should be adequately coordinated to ease tracking of progress and recording constraints and the gender equity inclusiveness observed during the implementation.

Policy, legal and institutional frameworks in place

This report establishes that Liberia has made significant progress in developing its capacity to achieve its obligations of the Rio Conventions. Adequate legal and policy prescriptions have been put in place to coordinate and monitor the implementation of activities. Thirty-eight legal instruments, laws, regulations, and policies have been developed, adopted, and legislated to implement the Rio Conventions in Liberia fully. The National Environment Action Plan (NEAP), land management regulations and policies, environmental regulations and policies mainstreaming the UN Framework Convention on Climate Change, policies and regulations mainstreaming the UN Convention on Combating desertification, and policies and regulations mainstreaming the UN Conventions on Biological Diversity are just a few of these laws and policies. To a large extent, these policy prescriptions are leading Liberia's efforts to implement its global commitment to meeting the obligations of the Conventions.

Additionally, the country has built significant institutional and individual capacities too. The conglomeration of key stakeholders – national and international, and environment knowledge management systems are key triggers of progress towards achieving the obligations of the Conventions.

Cross-cutting capacity accomplishments

Liberia has made gains in developing the capacity to accomplish the obligations of the Rio Conventions. The notable cross-cutting progress includes:

- Documented and improved institutional coordination among partners in implementing activities under the Rio Conventions. The establishment of the Environmental Knowledge Management Systems (EKMS) and all other knowledge management systems like the REDD+ Safeguard Information System (SIS) and Early Warning System are all critical achievements in this regard.
- Institutional and research capacity strengthening. The creation or establishment of graduate and undergraduate programs in environmental science at major higher institutions of learning in the country and the mainstreaming of sustainable land management practices into the curriculum of the college of agriculture and forestry are great milestones. Also, the key stakeholder institutions are better reporting, sharing, and using environmental information through the EKMS mentioned above.
- Establishment of key environmental policy and regulatory frameworks.
- Public awareness about the Rio Conventions on national and local media in Liberia. The CCCD project is credited for this milestone.
- Development of institutional capacities to address climate change problems.
- The updating of the National Capacity Self-Assessment

New and emerging cross-cutting capacity gaps identified

Amidst the achievements listed, Liberia still has capacity challenges in some areas in meeting its obligations under the Rio Conventions. These capacity gaps cut across all Conventions and are summarized as follows.

- Inadequate involvement or inclusion of civil society organizations, including youth and people living with disabilities such as the physically challenged, visually impaired, and women and other interest groups, particularly national CSOs, in planning, implementing, and monitoring environmental policies and programs.
- Inadequate public awareness about the Conventions, government policies, and other related policies – international and local.
- Inadequate implementation or enforcement of national policies and regulations
- Inadequate human resource development opportunities, mostly for young people and other key populations.

- Lack of or inadequate information about the country's vulnerability to climate change and the approaches to adapt to those changes.
- Inadequate planning and prediction of environmental issues and methods to prepare and adapt
- Inadequate technical capacity at the institutional and individual levels to fully implement obligations of the Conventions due to staff retention problems.
- Inadequate financial and resource mobilization capacity to support the implementation of the obligations under the Conventions.
- Inadequate research capacity to measure gains and achievements in the sector and to develop scientific means of addressing environmental issues.
- Limited capacity for systemic observation and early warning mechanisms.
- Inadequate capacity to review and update existing policy documents related to the Conventions.
- Limited technology and transfer of knowledge
- Lack of financial support to establish the knowledge management secretariat to manage the EKMS
- limited availability of environmental lawyers/judges
- Lack of Environmental Administrative Court and Court of Appeal.

Potential for capacity enhancement

Liberia and Liberian institutions already have the willingness to adapt to changes and increase knowledge on attaining obligations of the Rio Conventions. For the most part, the below conditions are favorable indicators for capacity enhancement opportunities in the country.

- Existing supportive institutions, collaboration, and networking
- Supportive legal and policy frameworks
- Conducive environment for public awareness, education, and training
- Existence of structures to support community-level initiatives
- Available policies, institutions, and networks supporting data and information exchange
- Potential institutions to provide technical and managerial skills
- Potential for mainstreaming and tapping global resources
- Data and information management systems
- The existing bilateral scholarships negotiated by the Ministry of Foreign Affairs

- Research, scientific development, and transfer of knowledge
- The existing opportunity for an EKMS sys

CHAPTER ONE: OVERVIEW OF THE ASSESSMENT

1.1. Introduction and Background

Liberia identified a set of capacity barriers in the 2006 National Capacity Self-Assessment (NCSA) that would hinder the full implementation of the Rio Conventions. This report follow-up on those identified barriers and provides a comprehensive update on the current state of affairs about capacities development progress the country has made to attain global environmental obligations. The Global Environmental Facility (GEF), through United Nations Development Programme (UNDP), funded the Cross-Cutting Capacity Development Project and other parallel projects toward cultivating skills that would contribute to the realization of the Rio Conventions in Liberia. The primary objectives of these projects were to address the capacity barriers and challenges identified by the 2006 NCSA. The NCSA assessment in 2006 considered three levels of stakeholders: the national, county, and district. The report highlighted specific national and local issues related to climate change, biodiversity, and desertification. The assessment was done through identifying existing capacities, capacity needs, and priorities for individual, national, and institutional capacity-building needs to meet global environmental obligations. It has been 16 years since the drafting of the 2006 NCSA report and the post-funding of the Rio Conventions by GEF through UNDP. Updating the 2005 Liberia National Capacity Self-assessment report would be helpful to reflect new realities that will show the country's current capacities and capacity gaps in implementing the Rio Conventions. This will help identify new emerging capacities, barriers, and challenges. The current NCSA process in Liberia will help the countries articulate and follow the new capacity development priorities and strengthen the capacity development action plan for 2022.

1.2. Geographical LOCATION, LAND AREA, and Climate

Liberia is the oldest country in Africa. Sierra Leone borders it to the West, Guinea to the North, Ivory Coast to the East, and the Atlantic Ocean to the South. Liberia has a land mass of 96,320km² and 15,049 km² of water. The coastline is 350 miles and is characterized by mangroves, wetlands, and lagoons. Administratively, the country is divided into 15 counties, which are further divided into a total of 136 administrative districts. The country has two main seasons: the rainy season (May-October) and the dry season (November-April). The average monthly temperatures range between 24°C and 27°C. The highest average temperatures are experienced from February to

April, and August through December are the lowest. The country experiences a rainfall gradient from inland to the coast, with rainfall increasing towards the coast. Average annual rainfall exceeds 1,800 mm in northern while coastal Liberia experiences average annual rainfall above 2,800 mm. The greatest rainfall (5,200 mm) occurs at Grand Cape Mount and diminishes inland to about 1,800 mm on the central plateau.¹ There are six major rivers, namely: St. John, St. Paul, Mano, Lofa, Cavalla, and Cestos, with several tributaries emptying into those rivers, thus making their soil and environment moist all year round.

1.3. SOCIO-ECONOMIC characteristics

Liberia's population is estimated at approximately 5.3 million, with an average population growth rate of about 2.5 percent². Liberia's growing population is young and increasingly urban, and over half of the population (about 52.6%) lives in urban areas³. The maiden age of the country is 19.4 years, 63% being below 25 years and 79% below 36 years⁴. The poverty level among the youths is high, and the country is faced with several critical challenges in the youth sector. Key amongst them is youth unemployment compounded by the lack of employable skills.

The Ebola Virus Disease severely hit Liberia in 2014. The country was recovering from the economic shocks that took thousands of lives and devastated the economy when the COVID-19 pandemic entered Liberia. Even though it has abundant natural resources and favorable agroecological zones, Liberia is among the world's poorest countries. The country ranked 175 out of 189 countries in the human development index report 2020⁵. The Liberian economy is highly dependent on agriculture, forestry, and fishery, contributing about 41 percent of GDP in 2020⁶. Agriculture, including forestry and fishery, is the primary source of employment and livelihood

¹ Environmental Protection Agency (2020). Liberia's First Biennial Update Report 2020 to UNFCCC

² World Population Review (2022) : <https://worldpopulationreview.com/countries/liberia-population>

³ Worldometer (2022): <https://srv1.worldometers.info/world-population/liberia-population/#:~:text=The%20population%20density%20in%20Liberia%20is%2053%20per,the%20population%20is%20urban%20%282%2C658%2C561%20people%20in%202020%29>

⁴ LISGIS (2011). Malaria Indicator Survey Report. <https://dhsprogram.com/publications/publication-mis12-mis-final-reports.cfm>

⁵ UNDP (2021). Human Development Report. https://hdr.undp.org/data-center/human-development-index?utm_source=EN&utm_medium=GSR&utm_content=US_UNDP_PaidSearch_Brand_English&utm_campaign=CENTRAL&c_src=CENTRAL&c_src2=GSR&gclid=Cj0KCQjwzqSWBhDPAIsAK38LY8WCFU2_eOsc4grdypGRIJHo0IkZgC6KE1TyqLXgcZ0JF0zIkO3zX8aAn3eEALw_wcB#/indicies/HDI

⁶ World Bank (2020). Agriculture, forestry, and fishing, value added (% of GDP) – Liberia. Available at <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=LR>

for more than 60 percent of Liberia's population. The sector is essential in terms of food production, employment generation, and generation of foreign exchange for the country. Other essential economic sectors contributing to the Liberian economy include service, manufacturing, mining, and quarrying.

1.4. Endowment of Natural Resources

Liberia is endowed with natural resources, including vast forests, agricultural land, iron ore, gold, diamonds, timber, and rubber. The country is richly endowed with forests characterized by high rainfall, biodiversity, and abundant animal and plant species. The predominant forest is the rainforest. However, mangrove is also present but covers just about 0.5% of the country. Several types of mangroves are found in the country, including *Avicennia germinans*, *Rhizophora acemosa*, *Rhizophora harrisonii*, *Rhizophora mangle*, and *Conocarpus erectus*. About 69% percent of the land in Liberia is covered by forest, making Liberia the most forested country in West Africa.⁷ The country has one of the largest protected area networks in the region, covering about 1.4 million hectares of forestland, which is estimated to be 30% of the land area of the country⁸. There are five (5) protected areas in Liberia, including the Sapo National Park, Lake Piso Multiple Use Reserve, the East Nimba Strict Nature Reserve, the Gola Forest National Park, and the Grebo-Krahn National Park. Despite these abundant natural resources, Liberia remains a low-income country with poverty affecting 50.9% of the population⁹. It has over 2,000 flowering plant species, 225 timber trees species, 590 bird species, 125 mammal species (e.g., hawks, eagles, rats, leopards, monkeys, elephants), 74 species of reptiles and amphibians, and over 1,000 insect species¹⁰. The country has abundant surface water and six principal rivers (including Cavalla, Cestos, Lofa, Mano, Saint John, and St Paul). Together, these river basins drain approximately 65.5% of the country¹¹. These ecosystems are habitats for various species of reptiles, amphibians, fish, mollusks, worms, protozoa, and other fauna species that cannot adapt to salinity environments.

The evergreen forest ecosystems receive very high rainfall and are characterized by dense

⁷ Forestry Development Authority (2019). Liberia National Forest Inventory 2018/2019

⁸ Republic of Liberia (2019). Six National Report

⁹ Republic of Liberia. (2017). *Household Income and Expenditure Survey 2016*.

¹⁰ Fauna and Flora International, & Republic of Liberia. (2010). *Establishing the Basis for Biodiversity Conservation in Sapo National Park and South-East Liberia*.

¹¹ Republic of Liberia (2019). Six National Report

vegetation, which comprises tall trees at different heights and is mostly found in the southeast of Liberia. The moist semi-deciduous forest ecosystems also receive high rainfall but not as high as the evergreen forest ecosystem and are found in the northwest of the country. The evergreen and moist semi-deciduous forest ecosystems constitute the two main forest blocks in the country¹². Liberia also has several mountains. These mountains provide an array of habitats where a large number of animals and plants can be found. The mountains host plant and animal species that can adapt to the influence of elevation and climate of the area. There are dry land and savannah ecosystem available in Liberia. The Liberian savanna ecosystems are highly specialized places for certain plants and animals and are a perfect habitat for birds of prey.

The forest also produces essential crops and medicines. It provides numerous ecosystem services to communities, such as ecotourism, water resources, non-timber forest products, and animal species of high scientific and economic value to Liberia and the world. With these attributes, the forest of Liberia is among the few great centers of endemism and biodiversity in the ECOWAS region.

Liberia has taken actions to conserve its unique biodiversity and natural resources to ensure the provision of ecological services on a sustainable basis. The PAPD has been revised, capturing principles of sustainable development, and the Liberia Economic Recovery Plan (LERP) has been restructured, including more than 50 environment-targeted actions.¹³ (This will contribute to socio-economic development and long-term development goals. However, the gradual increase in population coupled with widespread poverty and ignorance in the country has put pressure on the country's natural resource base, which continues to increase over the years due to livelihood activities. Since the economy of Liberia is natural resource-based, sustainable management of the aforementioned is key to achieving sustainable development. Achieving the aforementioned involves a good understanding and knowledge of the resource base and the relevant capacity to manage it.

¹² Republic of Liberia (2019). Six National Report: <https://www.cbd.int/doc/nr/nr-06/lr-nr-06-en.pdf>

¹³ Liberia Economic Recovery Plan (LERP); 2 September 2021 | Readiness Support: <https://www.greenclimate.fund/sites/default/files/document/20210902-liberia.pdf>

1.5. Summary of the 2006 NCSA

The United Nations Conference on Environment and Development (UNCED), popularly known as the Earth Summit, was held in Rio de Janeiro in 1992. The conference resulted in the signing of three Conventions; United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention to Combat Desertification (UNCCD), and the United Nations Convention on Biological Diversity (UNCBD). These Conventions are collectively known as the Post Rio Conventions. The Rio Conventions introduced new development terminologies and languages, such as the Millennium Development Goals (MDGs), and Sustainable Development Goals (SDGs), all of which contribute to national development objectives in fragile and post-conflict countries like Liberia. Liberia is a signatory to the above multilateral environmental agreements (MEAs) and needs to implement its commitments.

Since the signing of the above Rio Conventions, Liberia's capacity for environmental management and practices for SDGs initiatives has been inadequate and unsatisfactory for poverty alleviation, sustainable food production, and natural resource management. This is evident by the slow pace at which the three Rio Conventions have been implemented since their adoption. A national capacity self-assessment was conducted in 2006 to identify barriers/constraints in implementing the three Rio Conventions. Below are the capacity barriers /constraints identified by the 2006 NCSA under each Rio Conventions. Under each convention, the capacity constraints/barriers were identified at three levels: individual, institutional, and system.

1.5.1 United Nations Framework Convention on Climate Change

Liberia ratified the UNFCCC in 2002 and launched the formulation of the National Adaptation Programme of Action (NAPA) in 2004, alleviating climate change effect. The institutional framework suggested for applying the UNFCCC in Liberia consists of a national climate change comprising both governmental and non-governmental entities. In 2003, the post-NCSA Climate Change working group identified the following capacity deficiencies.¹⁴ which the 2006 NCSA further confirmed as the actual capacity constraints identified for the effective implementation of the UNFCCC¹⁵. Those constraints were as follows:

¹⁴ Proposal for GEF Funding (2004) -Liberia National Capacity Self-Assessment (NCSA) for Global Environmental Management

¹⁵ National Capacity Self-assessment final report (2006)

Systemic Level Capacity Barriers identified in 2006

- Legal and regulatory issues affecting climate change.
- Lack of financial and skilled human resources and the necessary infrastructure for effective climate change management.

Institutional Level Capacity Barriers identified in 2006

- The development of a comprehensive climate change action plan and integrated implementation strategy that takes into account the capacity-building needs of the various institutions participating in climate change activities, particularly in research and training;
- Lack of education and training programmes, as well as specialized skills or expertise in scientific and technical institutions concerned with climate change issues;
- Lack of efficient climate change monitoring

Lack of explicit policy and regulatory measures that adequately consider climate change issues as sustainable development priorities.

- Inadequate national programmes aimed at reducing pressure on resources and enhancing adaptive capacity;
- Lack of adequate public awareness and education mechanism to provide opportunities for meaningful public participation;
- Lack of financial resources to provide critical equipment required to facilitate data collection, analysis, and storage.

Individual Level Capacity Barriers identified in 2006

- Inadequate trained human resources to effectively manage the climate change sector.
- Lack of awareness on mitigation and adaptation options, as well as other issues on climate change.
- Absence of training opportunities in the core disciplines of climate change such as meteorology, climatology, Conservation, and Earth Science, among others.

1.5.2 United Nations Convention on Biological Diversity

Liberia ratified the Convention on Biological Diversity in 2000. The first National Biodiversity Strategy and Action Plan (NBSAP) was launched in 2004 as an instrument for stock-taking and inventory. Moreover, the revised NBSAP of 2017-2025 was developed under the Aichi Biodiversity Target of 2011-2020 by the Government of Liberia. It presents the strategic goals and objectives for the sustainable management of Liberia's biodiversity.

The capacity constraints identified for the effective implementation of the UNCBD were¹⁶.

Systemic Level Capacity Barriers identified in 2006

- Inadequate policy and legal framework
- low level of involvement of civil society in biodiversity management
- Inappropriate and inadequate natural resource management systems

Institutional Level Capacity Barriers identified in 2006

- Lack of clearly articulated strategic plan with a concise focus on specific biodiversity issues;
- Inadequate staffing level and poor organizational structure resulting in low institutional productive capacity;
- Lack of infrastructure and the requisite equipment and supplies to adequately address pressing biodiversity problems.
- Inadequate financial resources are inadequate maintenance, operation, and efficient use of equipment/facility.

The above barriers have constrained the capacities of institutions to fulfill the important institutional functions of:

- Biodiversity assessment and monitoring in the different ecosystems.
- Conduct a taxonomic inventory.
- Carry out risk assessment and management in biotechnology.
- Develop regulation and enhance negotiation skills for ABS; and,
- Access to information for effective biodiversity conservation.

¹⁶ National Capacity Self-assessment final report (2006)

Individual Level Capacity identified in 2006

- Low and inadequate levels of education and training, especially in analytical, scientific, and technical skills and personnel.
- Ill-defined job requirements and misplacement of available human resources.
- An inadequate dedication of responsibility results in under-utilization of available skills and expertise negatively impacts productivity.
- Poor staff incentive structure results in low team spirit and productivity and inadequate networking.
- Low enforcement of performance standards and merit system results in poor staff performance.

1.5.3 United Nations Convention to Combat Desertification

. Liberia ratified the United Nations Convention to Combat Desertification (UNCCD) in 1998. The country participated in Land Degradation Neutrality (LDN) Target Setting Program. The 2003 thematic working group on Desertification identified the following capacities barriers¹⁷ which were validated and confirmed by the 2006 NCSA as the actual capacity constraints identified for the effective implementation of the UNCCD¹⁸.

Systemic Level Capacity Barriers identified in 2006

The capacity constraints at the systemic level in combating desertification/land degradation are similar to those related to biodiversity management and sustainable use. These constraints include:

Institutional Level Capacity Barriers identified in 2006

- Lack of institutional capacities for combating land degradation;
- Lack of appropriate range management programs;
- Inadequate assessment and monitoring initiatives;
- Lack of data on biological and other natural resources;
- Inadequate financial resources to operate and maintain existing infrastructure/equipment in a functional state and effectively carry out important management functions such as regular programme planning, monitoring, and evaluation;
- Lack of effective mechanism for information processing and sharing;

¹⁷ Proposal for GEF Funding (2004) -Liberia National Capacity Self-Assessment (NCSA) for Global Environmental Management

¹⁸ National Capacity Self-assessment final report (2006)

- Poor knowledge of indigenous/traditional conservation techniques/practices;
- Poor management of existing protected areas;
- Inadequate staffing levels and poor organizational structure result in low outreach programmes for essential knowledge and technology transfer.

Individual Level Capacity Barriers identified in 2006

- Inadequate trained human resources in core disciplines relative to land development.
- Lack of alternative sources of livelihood for rural dwellers to support conservation initiatives.
- Inadequate/inappropriate farming practices or technologies.
- Poor incentive structure resulting in low staff morale and motivation
- Inadequate opportunities for networking.
- Poor forest management practices.
- Inadequate public awareness and education.
- Over-exploitation and/or poor harvesting of biological resources

Policy and legal framework

- Inadequate management /accountability framework
- The poorly structured economic framework
- Low and inadequate critical mass
- Ineffective national processes and relationships in sustainable development

1.6. Context and Rationale of the NCSA 2022

The implementation of the enabling activities and obligations under the Rio Conventions are in line with the SDGs. The Conventions contribute to national development objectives in fragile and post-conflict countries like Liberia. Liberia is a signatory to the above Conventions, and it needs to implement the commitments arising from these agreements (the Rio Convention).

The 2022 NCSA aims to reflect and update what was reported against in the 2006 NCSA; identify and record any new and emerging capacity needs for the continuous implementation of the Post Rio Conventions and provide an update on the various identified challenges/barriers of the 2006 NCSA. It outlines the current Up to Date achievements and presents current challenges and emerging opportunities for Liberia. Liberia has made great progress in developing systemic, institutional, and individual capacities by implementing policies and frameworks to implement the

Post Rio Conventions and other MEAS compared to the 2006 NCSA. Since the NCSA in 2006, there has been a significant change in the environmental landscape of Liberia, impacting these various levels for which the report is commissioned to update and report on the identified barriers mentioned above. For example, since 2006, there have been significant improvements in legal and regulatory framework development and adoption.

Through this, we could determine Liberia's capacity needs and priorities. Finally, an action plan for capacity building to implement Post Rio Conventions and agreements was developed through the intervention of the CCCDs Project.

1.7. The Goal and Objectives of the 2022 NCSA

The overall goal of the NCSA 2022 is to identify, through a country-driven consultative process, priorities, and needs for capacity building, to contribute towards the protection of the global environment through implementing the Post Rio Conventions.

The specific objectives of the NCSA 2022 were to:

- Review and collect the needed information and documents and make the preliminary review of the NCSA Documents, the existing strategy, thematic reports, and action plan, and identify gaps and needs to be addressed in a future project.
- Review the underlying capacity development needs (systemic, institutional, and individual) that cut across the three Rio Conventions
- Review the scientific and technical information in the thematic assessments ensuring its scientific validity and introduce updated information where necessary, based on consultations with the Environmental Protection Agency and other stakeholders
- Develop the missing sections of the NCSA against the UNDP/GEF NCSA tool kit
- Review the outline, structure, and language of the report and introduce any modification required in terms of language, editing, and overall structure.
- Review, update and edit notes and illustrations directly in the electronic copy of the draft NCSA.

CHAPTER TWO: METHODOLOGY AND CONCEPTUAL FRAMEWORK USED FOR THE NCSA

2.1. Method and Design used for the NCSA

The report adopted a qualitative research approach to undertake this assignment. It proceeded with a review of relevant literature/documents and related program information. The desk review was conducted using the following main documents in table 1:

Table 1: Relevant Document reviewed

No.	Name of Document reviewed	Document type
1	Liberia Forest Inventory 2018/2019.	National
2	Liberia National Drought Plan;	National
3	A Synthesis of the Systemic, Institutional, and Individual Capacity Development Challenges, Priorities, and Opportunities to meet and sustain Rio Convention Obligations within the Framework of National Sustainable Development Priorities;	International
4	Synthesis of National Capacity Self-Assessment Reports in the Pacific Region; Land Degradation Neutrality Target Setting Program;	International
5	Thematic Assessments of the Challenges and Opportunities to meet Obligations under the Three Rio Conventions;	International
6	Development of Liberia REDD+ Reference level;	National
7	Using spatial analysis to support REDD+ land-use planning in Liberia;	National
8	National Capacity Self-Assessment Resource Kit;	International
9	Monitoring Guidelines of Capacity Development in GEF Operations;	International
10	National Capacity Self-Assessments: UNDP/GEF Resource Kit;	International
11	National Capacity Self-Assessments Results and Lessons Learned for Global Environmental Sustainability;	International
12	A Guide for Self-Assessment of Country Capacity Needs for Global Environmental Management;	International
13	Republic of Liberia Pro-Poor Agenda for Prosperity and Development;	National
14	Agenda For Transformation- Steps Toward Liberia Rising 2030;	National
15	Liberian Agricultural Sector Investment Plan (LASIP II).	National
16	Liberia Forest Inventory 2018/2019.	National

17	Liberia National Drought Plan;	National
18	A Synthesis of the Systemic, Institutional, and Individual Capacity Development Challenges, Priorities, and Opportunities to meet and sustain Rio Convention Obligations within the Framework of National Sustainable Development Priorities;	International
19	Synthesis of National Capacity Self-Assessment Reports in the Pacific Region; Land Degradation Neutrality Target Setting Program;	International
20	Thematic Assessments of the Challenges and Opportunities to meet Obligations under the Three Rio Conventions;	National
21	Development of Liberia REDD+ Reference level;	National

To complement the desk review, an In-depth Interview (IDI) with both governmental and non-governmental actors was carried out, coupled with a participatory stakeholder's workshop to provide further edits and inputs into the drafting and finalization of the report. Eighteen (18) participants were purposively selected for an In-depth Interview (IDI). And the selection criteria included individuals with working knowledge and experience in the implementation of Rio enabling activities, whose work contributes directly to the Rio processes, and who have participated in previous Rio national documentation, see appendix (A, B&C)

A committee of thirteen (13) senior policy technicians from the three Rio Conventions and other MEAs participated in a two-day technical review workshop to consolidate the report, see appendix (D). The validation conference was also held to generate additional comments, inputs, and familiarity with key stakeholders in the sector. Fifty (50) participants attended the two-day validation conference in Kakata, Margibi County, and inputted and validated the document, see annex E.

A multilevel analysis of the data was undertaken by combining evidence from the desk review, IDI, and stakeholder's workshop involving experts to identify the capacity needs in the three Conventions and the strategies and programmes to deal with capacity needs common to the three Conventions.

2.2. The NCSA Conceptual Framework

The conceptual framework is adapted from the Global Environment Facility (GEF) guideline of self-assessment of country capacity needs based on three levels: systemic, institutional/organizational, and individual levels, see figure 1.

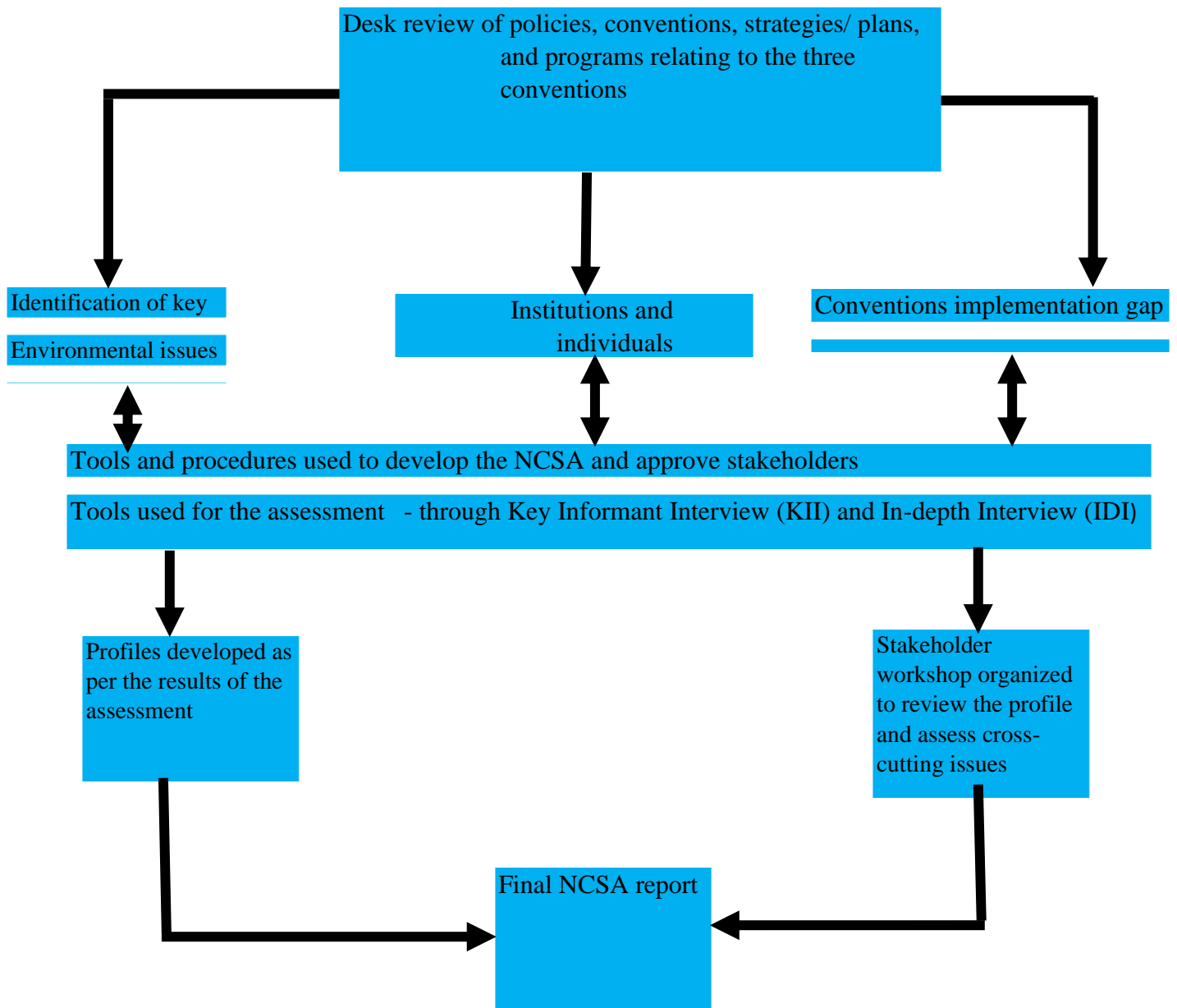


Figure 1: NCSA Process; Source: GEF (2001)

In line with the GEF NCSA Guidelines, the Liberia NCSA was carried out as a country-driven procedure considering national circumstances and constraints. A mixed approach was adopted for Liberia NCSA 2022. The approach incorporated a participatory qualitative research technique.

2.3. Limitation of the Report

The efforts were planned and budgeted to complete this final evaluation in two months, which the report noticed as short and inaccurate, leading to pressure to do the work within the timeline and other manageable limitations. Some of the challenges faced by the report are as follow-:

- i) Limitations experienced are typical of the shortcoming associated with the subjective nature of the qualitative data process because of the subjective perspective of the qualitative approach (as respondents, both beneficiaries and program implementers, gave their side of the story). Results also depend on the quality of respondents selected from the three Rio Conventions and other related projects.

CHAPTER THREE: CAPACITY AVAILABLE FOR IMPLEMENTING THE RIO CONVENTIONS

1.8. 3.1 Introduction

The Government of Liberia, through EPA, has implemented the GEF-funded Cross-Cutting Capacity Development (CCCD) project in partnership with the United Nations Development Programme (UNDP). The project was in line with GEF-6 CCCD Strategic objectives 1, 3, and 5: a) integrate global environmental needs into management information systems and monitoring, b) integrate MEAs provisions into national policy, legislative, and regulatory frameworks, and c) update NCSAs, respectively. The goal of this project was for Liberia to make better decisions to meet and sustain global environmental obligations. This requires the country to have the capacity to coordinate efforts, as well as best practices for integrating global environmental priorities into planning, decision-making, and reporting processes. To that end, the objective of this project was to strengthen a targeted set of national capacities to deliver and sustain global environmental outcomes within the framework of sustainable development priorities.¹⁹ To what extent has the country developed the capacity it needs to fully implement and meet the obligations of the three Rio Conventions? This update is provided below, assessing each Rio Conventions summarized in the matrix below.

3.2. Available Capacities for the Rio Conventions

Liberia has made some strives to achieve the obligations of the United Nations Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the United Nations Convention to Combat Desertification. The country has established many environmental policy frameworks, which are being implemented to some degree. The key among them and others' current capacity achievements are summarized in the matrix (table 2) below:

¹⁹ CCCD project document (2021)

Table 2: Available capacities for the Rio Conventions

	Available Capacity/Achievements of the UNCBD	Available Capacity/Achievements of the UNFCCC	Available Capacity/Achievements of the UNCCD.
*	Systemic Level	Systemic Level	Systemic Level
	<ul style="list-style-type: none"> Appropriate legal and policy frameworks to address biological diversity and its related issues. 	<ul style="list-style-type: none"> Awareness among the public climate change conversations 	<ul style="list-style-type: none"> A proper coordination system has been established with key actors in the sector, including governmental and non-governmental institutions.
	<ul style="list-style-type: none"> Awareness among the public about biological diversity conversations 	<ul style="list-style-type: none"> A proper coordination system has been established with key actors in the sector, including governmental and non-governmental institutions. 	<ul style="list-style-type: none"> Furthermore, since the 2006 NCSA, Liberia has been able to address the systemic and structural inadequacies through the following National Environmental Policies and legislation or laws on United Nations Convention to Combat Desertification.
	<ul style="list-style-type: none"> Liberia has attended most of the Conference of the Parties on the UNCBD. Through this, the country has gained a tremendous capacity to engage stakeholders and lobby for supporting the programs that address the UNCBD. 	<ul style="list-style-type: none"> Liberia Extractive Industries and Transparency Initiative Act 	<ul style="list-style-type: none"> Land Management Laws of Liberia
	<ul style="list-style-type: none"> The National Forestry and Wildlife Policies 	<ul style="list-style-type: none"> National Disaster Management Agency Establishment Act of 2012 	<ul style="list-style-type: none"> Act to establish the Land Rights Law of Liberia, 2018
	<ul style="list-style-type: none"> National Forestry Reform Law of Liberia 	<ul style="list-style-type: none"> New Petroleum Exploration and Production Reform Law (2014) 	<ul style="list-style-type: none"> Land Right Policy of Liberia

	<ul style="list-style-type: none"> • Lake Piso Basin Multiple Sustainable Use Reserve Act 	<ul style="list-style-type: none"> • National Disaster Management Agency Establishment Act of 2012 	<ul style="list-style-type: none"> • Food and Agriculture Policy and Strategy of Liberia
	<ul style="list-style-type: none"> • Gola Forest National Park Establishment Act 	<ul style="list-style-type: none"> • National Policy and Response Strategy on Climate Change in Liberia (2018) 	<ul style="list-style-type: none"> • National Energy Policy of Liberia
	<ul style="list-style-type: none"> • Grebo-Krahn National Park Establishment Act 	<ul style="list-style-type: none"> • National Disaster Management Policy of Liberia 	<ul style="list-style-type: none"> • Mineral Policy of Liberia
	<ul style="list-style-type: none"> • National Wildlife and Protected Area Management Law 	<ul style="list-style-type: none"> • National Integrated Water Resources Management Policy of Liberia (2007) 	<ul style="list-style-type: none"> • Preparations of national plans for each convention, such as the National Biodiversity Strategy and Action Plan (NBSAP) for the CBD (2017)
	<ul style="list-style-type: none"> • National Fisheries and Aquaculture Authority Act 	<ul style="list-style-type: none"> • Environmental Impact Assessment Procedural Guidelines 	<ul style="list-style-type: none"> • Regulations Governing Mineral Exploration
	<ul style="list-style-type: none"> • National Forestry Policy and Implementation Strategy 	<ul style="list-style-type: none"> • Climate Change and Gender Action Plan of Liberia 	<ul style="list-style-type: none"> • Establishment of Liberia land Authority Act of 2016
	<ul style="list-style-type: none"> • Fisheries and Aquaculture Policy and Strategy of Liberia 	<ul style="list-style-type: none"> • Policy Options and Analysis 	<ul style="list-style-type: none"> • National Forestry Reform Law of 2006
	<ul style="list-style-type: none"> • Code of Forest Harvesting Practices of Liberia 	<ul style="list-style-type: none"> • National Water, Sanitation and Hygiene Commission Act 	<ul style="list-style-type: none"> • Liberia Protected Areas Network Strategic Action Plan 2008-2013
	<ul style="list-style-type: none"> • Public Participation in Promulgation of Regulation and Codes 	<ul style="list-style-type: none"> • Initial Communications Report for UNFCCC (2013) 	<ul style="list-style-type: none"> • National Forestry and Wildlife Policies Mainstreaming United Nations Convention on Biological Diversity (2020)
	<ul style="list-style-type: none"> • Regulations on Forest Land Use Planning 	<ul style="list-style-type: none"> • Liberia's Second National Communications to the UNFCCC (2021) 	<ul style="list-style-type: none"> • National Fisheries and Aquaculture Authority Act of 2017
	<ul style="list-style-type: none"> • Regulations on Forestry Concession Bidding Pre-Qualification 	<ul style="list-style-type: none"> • Nationally Determined Contributions of Liberia (2021) 	<ul style="list-style-type: none"> • Six National Report for UNCBD (2019)
	<ul style="list-style-type: none"> • Tender, Award, and Administration of Timber Concessions 	<ul style="list-style-type: none"> • Environmental Impact Assessment Procedural Guidelines (2007) 	<ul style="list-style-type: none"> • National Wildlife Conservation and Protected Areas Management Law (2016)

	<ul style="list-style-type: none"> Regulations on Pre-Felling Operations of Timber Resources 	<ul style="list-style-type: none"> National Energy Policy (2009) 	
	<ul style="list-style-type: none"> Regulations on Forest Benefit Sharing 		
	<ul style="list-style-type: none"> Regulations on Certain Forest Fees 		
	<ul style="list-style-type: none"> Regulations on Establishing a Chain of Custody System 		
	<ul style="list-style-type: none"> Regulations on Forest Penalties 		
	<ul style="list-style-type: none"> National Forestry Policy and Implementation Strategy 		
	<ul style="list-style-type: none"> Fisheries and Aquaculture Policy and Strategy of Liberia 		
	<ul style="list-style-type: none"> Code of Forest Harvesting Practices of Liberia 		
	<ul style="list-style-type: none"> Regulations on Rights of Private Landowner in Forested Area 		
	<ul style="list-style-type: none"> Regulations on Extraction of Non-Timber Forest Products 		
	<ul style="list-style-type: none"> Regulations on Procedure to Access Affected Community Funds 		
	<ul style="list-style-type: none"> Regulations on Forest Product Processing and Marketing 		
	<ul style="list-style-type: none"> Regulations on Environmental Impact Assessment 		
	<ul style="list-style-type: none"> Liberia Extractive Industry Transparency Initiative Act 		
	<ul style="list-style-type: none"> Revised NBSAP 		
	<ul style="list-style-type: none"> Liberia Free, Prior, and informed consent 		
**	Institutional Level	Institutional Level	Institutional Level

	<ul style="list-style-type: none"> Improved institutional coordination among partners in the implementation of activities under the UNCBD. 	<ul style="list-style-type: none"> Improved institutional coordination among partners in the implementation of activities under the UNFCCC. 	<ul style="list-style-type: none"> Improved institutional coordination among partners in the implementation of activities under the UNCCD.
	<ul style="list-style-type: none"> The establishment of the Environmental Knowledge Management System (EKMS) signals the willingness of key stakeholders to collaborate and share information and knowledge about the environment. 	<ul style="list-style-type: none"> The establishment of the Environmental Knowledge Management System (EKMS) signals the willingness of key stakeholders to collaborate and share information and knowledge about the environment. 	<ul style="list-style-type: none"> The establishment of the Environmental Knowledge Management System (EKMS) signals the willingness of key stakeholders to collaborate and share information and knowledge about the environment.
	<ul style="list-style-type: none"> Institutional capacity strengthening. To a large extent, the capacity of key stakeholder institutions is developed to ensure the achievement of global environmental objectives. This breathed the creation of graduate and undergraduate programs in Environmental Science at the University of Liberia. Additionally, the key stakeholder institutions better report, share and use environmental information through the EKMS mentioned above. 	<ul style="list-style-type: none"> Institutional capacity strengthening for the achievement of UNFCC 	<ul style="list-style-type: none"> Institutional capacity strengthening for the coordination of UNCCD activities
	<ul style="list-style-type: none"> Developed an organizational structure and the institutional structure exist. 	<ul style="list-style-type: none"> The development of a climate change action plan and integrated implementation strategy that takes into account the capacity building needs of the various institutions participating in climate change activities 	<ul style="list-style-type: none"> Improved institutional capacities for combating land degradation

	<ul style="list-style-type: none"> Biodiversity assessment and monitoring in report 	<ul style="list-style-type: none"> The creation of policy and regulatory considering climate change measures. 	<ul style="list-style-type: none"> Strengthened range management programs;
	<ul style="list-style-type: none"> Developed regulation that enhances biodiversity-related interventions. 	<ul style="list-style-type: none"> Provision of public awareness and education opportunities for understanding climate change dynamics. 	<ul style="list-style-type: none"> Assessment and monitoring activities
	<ul style="list-style-type: none"> Access to biodiversity-related information for effective conservation 		<ul style="list-style-type: none"> Establishment of an effective mechanism for information processing and sharing.
**	Individual Level	Individual Level	Individual Level
	<ul style="list-style-type: none"> Developed individuals' capacity over the year in specific areas such as land management, forest management, and rangers 	<ul style="list-style-type: none"> Developed individual capacity in the areas of climate change-related activities 	<ul style="list-style-type: none"> Developed individuals' capacities in specific areas of combating diversification and conversation.
	<ul style="list-style-type: none"> Available skills and expertise 	<ul style="list-style-type: none"> Improve awareness of the mitigation and adaptation options of climate change activities. 	<ul style="list-style-type: none"> Improved opportunities for coordination and networking
	<ul style="list-style-type: none"> Improved and coordinated enforcement of performance standards 	<ul style="list-style-type: none"> Trained fewer individuals in core disciplines areas of climate change such as climatology, Conservation, and Earth Science, among others. 	<ul style="list-style-type: none"> Improved knowledge of forest management practices.
			<ul style="list-style-type: none"> Public awareness and education

CHAPTER FOUR: CAPACITY NEEDS PER CONVENTION AND OPPORTUNITIES FOR CAPACITY DEVELOPMENT

4.1. Introduction

The Government of Liberia is making strives to build and develop the capacities it needs to implement the obligations of the three Rio Conventions as stated above. However, key capacity constraints still underpin the holistic realization of the full implementation of the global environmental obligations. These constraints have been summarized under three levels (Systematic, Institutions, and Individual) and further cataloged below under each UN Conventions. For Liberia to adequately implement the obligations of the three Rio Conventions and meet the global targets, the country will need to emphasize these capacity needs identified at these levels mentioned.

The assessment found that individuals, institutions, and organizations currently implementing the three Rio Conventions and other MEAs in the country are greatly constrained by several new capacity barriers such as retention of trained personnel at the regulatory agencies or government implementing agencies; limited basic infrastructures, limited coordination, inadequate financing, and limited laws/regulations enforcement.²⁰ To remedy these will require considerable resources to fully implement the mandates of these Rio Conventions, which are presented below in the various levels as follow: **Systematic, Institutional, and Individual Capacity Needs**

4.2. Capacities Gaps/Needs for the Rio Conventions

Despite efforts by the CCCDs project and other projects, there exists poor coordination of climate change information and services among institutions responsible for taking climate change actions; as such optimal results are not achieved. Proper communications and coordination of Rio Conventions information among institutions need to be strengthened. Additionally, logistics coordination and implementation of Rio Conventions instruments remain among the biggest organizational capacity issues across all the institutions. This includes transportation, computers, and more particularly, funding for staffing and activities at the National, Regional and Rural, or

²⁰ Republic of Liberia (2021): Capacity Development Strategy and Action Plan Of the three Rio Conventions implementation in Liberia, December 2021

community levels. "policymakers, political leadership, administrative and technical managers agree that Liberia as a nation is 'fighting' or managing climate change impact – yet there's no national strategy that is recognized across the country or any particular institution including the academic institution that is ready to address this phenomenon"²¹. In summary, Liberia's specific capacity constraints for implementing obligations of the three Rio Conventions are identified as follows:

Table 3: Identified Capacities, Gaps/Needs for the implementation of the Rio Conventions

	Capacity Needs / Gaps UNFCCC	Recommendations
1	Systemic Level	Systemic Level
In summary, Liberia's specific capacity constraints for implementing obligations of the United Nations Framework Convention on Climate Change are identified as follows:		
	<ul style="list-style-type: none"> Inadequate involvement or inclusion of civil society organizations and interest groups, particularly national CSOs, in planning and implementing environmental policies and programs. 	<ul style="list-style-type: none"> Training of CSOs Involvement of CSOs in awareness
	<ul style="list-style-type: none"> Inadequate public awareness about the convention, government policies, and other related policies – international and local. 	<ul style="list-style-type: none"> Integrate UNFCCC awareness into government program awareness and related policies
	<ul style="list-style-type: none"> Inadequate implementation or enforcement of policies 	<ul style="list-style-type: none"> Ensure UNFCCC-related policies and regulations are enforced
	<ul style="list-style-type: none"> Inadequate human resource development opportunities, mostly for young people and other key populations. 	<ul style="list-style-type: none"> Develop key human resource interventions for young people
	<ul style="list-style-type: none"> Lack of or inadequate information about the country's vulnerability to climate change and the approaches to adapt to those changes. 	<ul style="list-style-type: none"> Develop the country's climate vulnerability report every five years
	<ul style="list-style-type: none"> Inadequate planning and prediction of environmental issues and methods to prepare and adapt 	<ul style="list-style-type: none"> Consider the development of a meteorology station.
	<ul style="list-style-type: none"> Limited legal frameworks for technology transfer, financial mechanisms, adaptation and 	Formulating legal frameworks for technology transfer, financial mechanisms, adaptation and mitigation,

²¹Republic of Liberia (2019). National Capacity assessment for managing Climate Change impact in Liberia, August 2019.

	mitigation, research and monitoring of climate change, and formulating a legal framework for climate change and the Rio Conventions focal points.	research and monitoring of climate change, and developing legal framework for climate change and the Rio Conventions focal points.
	<ul style="list-style-type: none"> Limited Training opportunities for research skills at University and at related institutions and data analysis with a proper involved methodology. 	Training required for research skills at University and related institutions and data analysis with a proper involved methodology.
**	Institutional Level Gaps/Needs	Recommendations
	<ul style="list-style-type: none"> Limited education and training programmes, as well as specialized scientific and technical skills in institutions concerned with climate change issues 	<ul style="list-style-type: none"> Strengthen training institutions such as universities to introduce more scientific and technical skills such as meteorology, climatology, Conservation, and Earth Science
	<ul style="list-style-type: none"> Inadequate national programmes aimed at reducing pressure on resources and enhancing adaptive capacity 	<ul style="list-style-type: none"> Develop national instruments to reduce pressure on the available climate change resources
	<ul style="list-style-type: none"> Limited training at the institutions such as (EPA, FDA, MME, MoA, NaFA, LISGIS, MoT, UL, County Community Colleges, etc.). 	<ul style="list-style-type: none"> Training for related institutions such as (EPA, FDA, MME, MoA, NaFA, LISGIS, MoT, UL, County Community Colleges, etc.).
	<ul style="list-style-type: none"> Weak linkages of the climate change activities into the national development plan (PAPD) 	<ul style="list-style-type: none"> Integrating climate change consideration in national development policies at sectoral institutions.
	<ul style="list-style-type: none"> Lack of coordination bodies such as the National Climate Change Secretariat (NCCS) through an Act for Regulation and its socialization to regulate the related climate change issues. 	<ul style="list-style-type: none"> Establish the National Climate Change Secretariat (NCCS) through an Act for Regulation and its socialization to regulate the related climate change issues.
	<ul style="list-style-type: none"> Limited funding for staff training, including climate change and Rio Conventions national focal points. 	<ul style="list-style-type: none"> Funding for staff training, including climate change and Rio Conventions national focal points.
	<ul style="list-style-type: none"> Lack of logistics such as computers and vehicles to coordinate activities 	<ul style="list-style-type: none"> Provision of logistics such as computers and vehicles to coordinate activities
**	<ul style="list-style-type: none"> Individual Level 	Recommendations

	<ul style="list-style-type: none"> Limited training for the national focal point and other essential convention staff in database, computer analysis operation, and other related capacities regarding its respective roles and responsibilities. 	<ul style="list-style-type: none"> Training for a national focal point is needed regarding the database, computer analysis operation, and other related capacities regarding its respective roles and responsibilities.
	<ul style="list-style-type: none"> Limited Training opportunities for enhancing the capacity of staff at related institutions to formulate legal frameworks, policies, and regulations addressing the implementation of the Rio Conventions. 	<ul style="list-style-type: none"> Training is required to enhance the capacity of staff at related institutions to formulate legal frameworks, policies, and regulations addressing the implementation of the Rio Conventions.
	<ul style="list-style-type: none"> Limited awareness of mitigation and adaptation options, as well as other issues on climate change. 	<ul style="list-style-type: none"> Involve more CSOs and other partners in aiding awareness of climate change mitigation and adoption issues
	<ul style="list-style-type: none"> Limited training opportunities in the core disciplines of climate change such as meteorology, climatology, Conservation, and Earth Science, among others. 	<ul style="list-style-type: none"> Coordinate with universities to develop skills in core climate change disciplines such as meteorology, climatology, Conservation, and Earth Science, among others.
	Capacity Needs / Gaps UNCBD	Recommendations
	Systemic Level	Systemic Level
	<ul style="list-style-type: none"> Inadequate management /accountability framework as a result of lack of resources 	<ul style="list-style-type: none"> Strengthen accountability mechanism and resource mobilization strategies
	<ul style="list-style-type: none"> Limited infrastructure and the requisite equipment and supplies to adequately address pressing biodiversity problems. 	<ul style="list-style-type: none"> Improve infrastructure and upgrade equipment for addressing biodiversity issues
	<ul style="list-style-type: none"> Limited financial resources are available for maintenance, operation, and efficient use of equipment/facility. 	<ul style="list-style-type: none"> Develop and improve sources of funding for maintenance, operation, and efficient use of equipment/facility
	<ul style="list-style-type: none"> Limited effort in mainstreaming the United Nations Convention on Biological Diversity 	<ul style="list-style-type: none"> Mainstreaming the United Nations Convention on Biological Diversity (UNCBD). Biodiversity-specific policy and strategy for Liberia are

		needed to drive sustainable biodiversity resource management.
	<ul style="list-style-type: none"> • Ineffective national processes and relationships in sustainable development. 	<ul style="list-style-type: none"> • Strengthen and improve the linkages and implement a national development plan that considers sustainable goals.
	<ul style="list-style-type: none"> • Limited capacity to enforce laws, regulations, and other national policies. 	<ul style="list-style-type: none"> • Strengthen the capacity of law enforcement agencies to enforce instruments
	<ul style="list-style-type: none"> • Limited technology and transfer of knowledge 	<ul style="list-style-type: none"> • Strengthen the country's technology capacity
	<ul style="list-style-type: none"> • Low dissemination of information at the local and national levels 	<ul style="list-style-type: none"> • Strengthen the dissemination of information through the establishment of the knowledge management secretariat
	<ul style="list-style-type: none"> • Inadequate understanding and documentation of the potential biodiversity loss and the consequences on the environment. 	<ul style="list-style-type: none"> • Improves the documentation of the potential biodiversity loss and the consequences on the environment through publication via the EKMS
	<ul style="list-style-type: none"> • Limited resources to hire and retain qualified staff at the subnational level to implement UNCBD obligations. 	<ul style="list-style-type: none"> • Providing funding to support UNCBD activities
	<ul style="list-style-type: none"> • limited or inadequate policy and plans 	<ul style="list-style-type: none"> • Develop UNCBD-specific policy
	<ul style="list-style-type: none"> • Inadequate cooperation and networking with the international community. 	<ul style="list-style-type: none"> • Establish networks with other partners and coalition abroad
	<ul style="list-style-type: none"> • Weak law enforcement and inadequate financing of institutions. 	<ul style="list-style-type: none"> • Improve financing sources
	<ul style="list-style-type: none"> • Limited up-to-date information about the state of the environment 	<ul style="list-style-type: none"> • Regular update of the EKMS with related information
	<ul style="list-style-type: none"> • Underdeveloped legislative framework. 	<ul style="list-style-type: none"> • Strengthen legislative framework.
	<ul style="list-style-type: none"> • Poor coordination and cooperation between various stakeholders 	<ul style="list-style-type: none"> • Improves coordination among stakeholders

	<ul style="list-style-type: none"> • Low public awareness and integration of relevant environmental issues into the education system. 	<ul style="list-style-type: none"> • Increase public awareness through TV and radio programs
**	Institutional Level	Recommendations
	<ul style="list-style-type: none"> • Poor access to information 	<ul style="list-style-type: none"> • Improve access and sources of information
	<ul style="list-style-type: none"> • Limited documented new knowledge, transformation, and technology in the sector 	<ul style="list-style-type: none"> • Conduct annual research to develop new knowledge in the sector
	<ul style="list-style-type: none"> • Inadequate assessment and monitoring initiatives 	<ul style="list-style-type: none"> • Conduct annual assessment and monitoring of UNCBD initiatives and indicators
	<ul style="list-style-type: none"> • Limited logistics (vehicles and computers) 	<ul style="list-style-type: none"> • Provision of logistics such as vehicles and computers
	<ul style="list-style-type: none"> • Data constraints for biological and other natural resources management 	<ul style="list-style-type: none"> • Conduct regular surveys for biological and other natural resources management
	<ul style="list-style-type: none"> • Inadequate financial resources to operate and maintain existing infrastructure/equipment in a functional state and effectively carry out essential management functions such as regular programme planning, monitoring, and evaluation 	<ul style="list-style-type: none"> • Increase funding for UNCDB activities/programs
	<ul style="list-style-type: none"> • Limited funds for the management of existing protected areas 	<ul style="list-style-type: none"> • The recommendation of enhancing the existing capacities and staff enumeration reform that seeks to strengthen staff capacities and retain them would be one of the best ways to move this forward, creating a platform for dissemination and the provision of funding.
	<ul style="list-style-type: none"> • Inadequate staffing as a result of poor incentives and staff retention. 	
	<ul style="list-style-type: none"> • Inadequate assessment and monitoring initiatives 	
	<ul style="list-style-type: none"> • An inadequate platform created for disseminating appropriate Biodiversity awareness materials 	
	<ul style="list-style-type: none"> • Poor human resource management practices. 	
	<ul style="list-style-type: none"> • Lack of a comprehensive communication and education strategy on biodiversity conservation 	<ul style="list-style-type: none"> • Development of a comprehensive communication strategy

	<ul style="list-style-type: none"> Inadequate institutional coordination. 	<ul style="list-style-type: none"> Strengthen institutional coordination among the Rio instruments
	<ul style="list-style-type: none"> Unclear or duplicated mandates, institutional management, and performance. 	<ul style="list-style-type: none"> Integrate Rio instruments
	<ul style="list-style-type: none"> Low accountability and transparency of institutions. 	<ul style="list-style-type: none"> Strengthen accountability and transparency among Rio institutions
	<ul style="list-style-type: none"> The low ability of institutions to mobilize financial resources. 	<ul style="list-style-type: none"> Develop and Improve resources mobilization strategies
**	Individual Level	Recommendations
	<ul style="list-style-type: none"> Limited alternative sources of livelihood for rural dwellers to support conservation initiatives 	<ul style="list-style-type: none"> Work with locals to alternative sources of livelihood for rural dwellers to support conservation initiatives.
	<ul style="list-style-type: none"> Poor incentive structure resulting in low staff morale and motivation 	<ul style="list-style-type: none"> Improve staff incentive structure
	<ul style="list-style-type: none"> Inadequate opportunities for networking 	<ul style="list-style-type: none"> Provide opportunities for staff to network and learn from colleagues in other settings
	<ul style="list-style-type: none"> Inadequate public awareness and education 	<ul style="list-style-type: none"> Improve public awareness and education
	<ul style="list-style-type: none"> Unsustainable farming method 	
	<ul style="list-style-type: none"> Poor harvesting of biological resources 	<ul style="list-style-type: none"> Standardize the tools for harvesting biological resources
	<ul style="list-style-type: none"> Limited experts with knowledge about incentive measures to retain staff coupled with limited managerial skills. 	<ul style="list-style-type: none"> The recommendation of enhancing the existing capacities and staff enumeration reform that seeks to strengthen staff capacities and retain them would be one of the best ways to move this forward.
	<ul style="list-style-type: none"> Poor strategic planning skills of the policy and decision makers (including skills to prioritize issues). 	<ul style="list-style-type: none"> Train staff in strategic planning and prioritization
	<ul style="list-style-type: none"> Low networking and cooperation skills experienced in conducting monitoring and evaluations. 	<ul style="list-style-type: none"> conduct training to cultivate networking skills

	<ul style="list-style-type: none"> Poor public relations and stakeholder involvement skills. 	<ul style="list-style-type: none"> Improve public relations and stakeholder involvement skills.
	<ul style="list-style-type: none"> Limited skills of researchers in articulating research results. 	<ul style="list-style-type: none"> Cultivate the skills of researchers in articulating research results.
	<ul style="list-style-type: none"> Limited experts with knowledge about incentive measures to retain staff coupled with limited managerial skills. 	<ul style="list-style-type: none"> Attract experts with the knowledge with incentive measures to retain staff
<p>Individual capacity development requires long-term training courses and plans that support the need to develop professionals—strengthening existing capacities through short-term refresher training and specialized non-degree training courses. The recent establishment of degree programs in environmental science at the University of Liberia and other national universities in Liberia provides more local training opportunities for learning.</p>		
	Capacity Needs / Gaps UNCCD	Recommendations
*	Systemic Level	Systemic Level
<p>The Liberian government has significantly improved building capacity for implementing obligations of the UNCCD. However, serious capacity needs should be addressed to fully attain global environmental outcomes in keeping with the requirements of the UNCCD. Some of these capacity constraints have been identified and summarized below at the various levels:</p>		
	<ul style="list-style-type: none"> Limited opportunities for collaboration and coordination mechanisms among key stakeholders outside of donor projects 	<ul style="list-style-type: none"> Improve collaboration and coordination mechanism
	<ul style="list-style-type: none"> A weak mechanism for information exchange among key institutions 	<ul style="list-style-type: none"> Strengthen mechanism for information exchange among key institutions
	<ul style="list-style-type: none"> Inadequate technical capacity for the implementation of policies and laws; 	<ul style="list-style-type: none"> Develop technical capacity for the implementation of policies and laws;
	<ul style="list-style-type: none"> Inadequate financial and resource mobilization capacity to support the implementation of the obligations under the UNCCD. 	<ul style="list-style-type: none"> Develop financially and resource mobilization capacity to support the implementation of the obligations under the UNCCD.
	<ul style="list-style-type: none"> Limited research capacity to measure gains and achievements in the sector and to develop scientific means of addressing environmental issues. 	<ul style="list-style-type: none"> Build research capacity to measure gains and achievements in the sector and to develop scientific means of addressing environmental issues.

	<ul style="list-style-type: none"> Limited capacity for systemic observation and early warning mechanisms. 	<ul style="list-style-type: none"> Cultivate capacity for systemic observation and early warning mechanisms.
	<ul style="list-style-type: none"> Limited capacity for youth involvement in planning and execution of national environmental agendas. 	<ul style="list-style-type: none"> Build capacity for youth involvement in the planning and executing of national environmental agendas.
**	Institutional Level	Recommendations
	<ul style="list-style-type: none"> Inadequate institutional capacities for combating land degradation 	<ul style="list-style-type: none"> Develop institutional capacities for tackling land degradation
	<ul style="list-style-type: none"> Limited institutional capacities for combating land degradation 	<ul style="list-style-type: none"> Develop institutional capacities for combating land degradation
	<ul style="list-style-type: none"> Limited financial resources to implement and monitor the land management policies and regulations 	<ul style="list-style-type: none"> Identify financial resources to implement and monitor the land management policies and regulations.
	<ul style="list-style-type: none"> Inadequate staffing level and poor staff retention scheme. 	<ul style="list-style-type: none"> Improve staff incentive scheme
	<ul style="list-style-type: none"> Limited logistics (vehicle, computer, among others) 	<ul style="list-style-type: none"> Provide logistics (vehicle, computer, among others)
	<ul style="list-style-type: none"> Limited technical personnel for institutional coordination 	<ul style="list-style-type: none"> Build technical personnel for institutional coordination
**	Individual Level	Recommendations
	<ul style="list-style-type: none"> Limited training of farmers on the modern farming practices or technologies 	<ul style="list-style-type: none"> Training of farmers in the modern farming practices or technologies
	<ul style="list-style-type: none"> Limited technical personnel 	<ul style="list-style-type: none"> Increase technical personnel
	<ul style="list-style-type: none"> Poor incentive structure resulting in low staff morale and motivation 	<ul style="list-style-type: none"> Improve incentive structure resulting in low staff morale and motivation
	<ul style="list-style-type: none"> Inadequate opportunities for networking 	<ul style="list-style-type: none"> provide opportunities for networking
	<ul style="list-style-type: none"> Limited implementation of the forest management policies 	<ul style="list-style-type: none"> Enforce implementation of the forest management policies
	<ul style="list-style-type: none"> Limited awareness and training opportunities are available. 	<ul style="list-style-type: none"> Improves awareness and training opportunities are available
	<ul style="list-style-type: none"> Weak research in the use of technologies 	<ul style="list-style-type: none"> Strengthen research in the use of technologies

	<ul style="list-style-type: none"> • Inadequate knowledge of cost/benefit analysis of using technologies and practices 	<ul style="list-style-type: none"> • Build knowledge of cost/benefit analysis of using technologies and practices
	<ul style="list-style-type: none"> • The limited capacity of UNCCD personnel to integrate national development plan changes issues into their activities. 	<ul style="list-style-type: none"> • Strengthen the capacity of UNCCD personnel to integrate national development plan changes issues into their activities.
	Cross-cutting capacity needs to be recommended.	
	<ul style="list-style-type: none"> • Establishment of a knowledge secretariat 	
	<ul style="list-style-type: none"> • Formulation of national policy for the implementation of the three conventions. 	
	<ul style="list-style-type: none"> • Reinforcement of existing national environmental policies 	
	<ul style="list-style-type: none"> • Integration of the biodiversity, climate change, and land degradation concerns within the strategic plans and overriding priorities of the country – economic and social development and the Pro-Poor Agenda for Development and Prosperity (PAPD) 	
	<ul style="list-style-type: none"> • Establishment/allocation of a national funding system for the three Rio Conventions 	
	<ul style="list-style-type: none"> • Access to the international funding mechanism system for the Rio Conventions 	
	<ul style="list-style-type: none"> • Allocation of funding from the public sector for environmental management 	
	<ul style="list-style-type: none"> • Adoption of national environmental legislation to Rio Convention obligation 	
	<ul style="list-style-type: none"> • Formulation of integrated legislation for environmental management 	
	<ul style="list-style-type: none"> • Reinforcement implementation of existing environmental and sectoral legislation 	
	<ul style="list-style-type: none"> • Promoting traditional/customary laws 	
	<ul style="list-style-type: none"> • Improvement of public awareness regarding the three conventions 	
	<ul style="list-style-type: none"> • Improvement of educational and training curricula concerning the three conventions 	
	<ul style="list-style-type: none"> • Establishment of training centers and non-formal education 	
	<ul style="list-style-type: none"> • Improvement capacity of the researcher in environmental areas 	
	<ul style="list-style-type: none"> • Improvement of research equipment/techniques 	
	<ul style="list-style-type: none"> • Enhancement of uniformity of research findings 	
	<ul style="list-style-type: none"> • Promoting integrated research between international and local researchers. 	
	<ul style="list-style-type: none"> • Establishment of the data management system at sectoral institutions 	
	<ul style="list-style-type: none"> • Improvement of monitoring and observation system 	
	<ul style="list-style-type: none"> • Capacity building for technology transfer 	
	<ul style="list-style-type: none"> • Promoting Alternative Technology 	
	<ul style="list-style-type: none"> • Establishment cooperation with countries in the regions 	

	<ul style="list-style-type: none"> • Information exchange on the early warning system
	<ul style="list-style-type: none"> • Establishment of an information exchange system for transferring technology
	<ul style="list-style-type: none"> • Formulation of national policy for the implementation of the three conventions.
	<ul style="list-style-type: none"> • Reinforcement of existing national environmental policies
	<ul style="list-style-type: none"> • Integration of the biodiversity, climate change, and land degradation concerns within the strategic plans and overriding priorities of the country – economic and social development and the Pro-Poor Agenda for Development and Prosperity (PAPD)

6.3. Opportunities for Building Capacity for each of the Rio Convention

The Republic of Liberia is a fertile ground for building the required capacity to implement the Rio Conventions and attain global environmental objectives. The country has a youthful population that can be trained in research, public awareness, and other aspects of the environment that facilitate the accomplishment of obligations of the three UN Conventions. Additionally, the country's doors are opened to international partners and key stakeholders desirous of investing in the sector. These opportunities, coupled with the development of relevant policies and regulations under each convention, place the country at a vantage point to develop capacity and attain global environmental obligations.

Given this general background of the country's readiness to develop and build the needed capacities to attain global environmental objectives, the specific capacity potentials for each of the three UN Conventions have been discussed as a cross-cutting potential for capacity improvement for attaining the obligations of the three UN Conventions.

- Existing supportive institutions, collaboration, and networking
- Supportive legal and policy frameworks
- Enabling an environment for public awareness, education, and training
- Existence of structures to support community-level initiatives
- Available policies, institutions, and networks supporting data and information exchange
- Potential institutions to provide technical and managerial skills
- Potential for mainstreaming and tapping global resources
- Data and information management systems

- Monitoring, evaluation, and learning initiatives
- Research, scientific development, and transfer of knowledge
- Establishment of a knowledge management secretariat

There exist individual, institutional, and systemic capacities. Systemic policies, standards, laws, guidelines, regulations, etc., have been established and are functional. Institutional capacities have been strengthened with more departments established to coordinate the three Rio Conventions with logistics provisions such as computers, offices, vehicles, etc. Furthermore, more capacities have been developed through graduate programs and other specialized programs at the universities, among others.

- Additionally, the existence of journalism schools in most institutions of higher learning and the growing number of mass media houses, specifically print media, radio, television, and social media like Facebook, are being used to promote the synergistic implementation of the three Rio Conventions. There are other opportunities for conducting research projects in cross-cutting areas. These interdisciplinary projects include the following: Development and application of the computer models for the research and decision-making processes, sustainable forest management, research relating to fire-interactions with topography, vegetation, water, climate, and people, sustainable energy systems: clean energy, energy savings, alternative energy carriers/transport/storage, management and use of various waste streams, and non-chemical pest, disease, and weed management.
- The government institutions such as the Liberia Institute of Statistics and Geo-information (LISGIS), Ministry of Mines and Energy, Forestry Development Authority, and Ministry of Agriculture are engaged in collecting data relevant to the three Rio Conventions. This should serve as a starting point to strengthen national reporting, develop country profiles, and harmonizing databases. Most NGOs and CBOs working on natural resource management are available to support and facilitate synergistic implementation of the three Rio Conventions at the district/community levels.
- Despite these gains, challenges such as maintaining/sustaining the institutional capacities developed, the retention of staff, and limited opportunity for refresher training are all threats to the gains achieved so far.

CHAPTER FIVE: CROSS-CUTTING ISSUES IN THE THREE RIO CONVENTIONS

5.1 Introduction

This section presents the cross-cutting challenges and opportunities for implementing the three Rio Conventions within the national sustainable development framework. As indicated in the systematic, institutional, and individual capacity development assessment report, the following capacity challenges were addressed through a consultative engagement with the cross-cutting capacity project team and key stakeholders. The report indicates similar cross-cutting challenges and opportunities to meet the Rio Conventions obligations. The following were highlighted through the thematic assessment as the main challenges in the implementation of the three Rio Conventions that are common to the three thematic areas:

- No specific national policy exists for implementing the Rio Conventions, for example, national policy on specific Rio Convention thematic areas/sustainable development.
- Low priority is given to environmental quality.
- Limited human resources in the area of all three Conventions.
- Inadequate individual skills to formulate policies, funding proposals, and programs addressing the Rio Conventions.
- Limited demonstrated political will from decision-makers, especially the National Legislature and Presidency, in terms of commitments for budgetary support to address environmental issues.
- Insufficient financing of conservation and sustainable use of natural resources by stakeholders in both public and private sectors.
- Limited national budgetary support for the management of protected areas.
- Inadequate compensation and inadequate pricing for the use of natural resources.
- Not fully exploring the opportunities for possible funding proposals to meet the obligations for the Rio Conventions
- National curriculum has not covered the implementation of the Rio Conventions.

- Mass media rarely includes environmental campaigns, especially community radio stations.
- Low level of awareness and knowledge of decision-makers and the public in general on Rio Conventions.
- Limited human resources at related institutions for public awareness, education, and information exchange regarding environmental sciences.
- Limited professionals and funds to implement the existing programs (e.g., environmental awareness campaign; low level of coordination among sectorial institutions).
- No legal framework for research, monitoring and database management.
- Lack of financial support.
- Lack of research tools and research experience causes gaps in database systems.
- Environmental research and monitoring are not part of the higher education curriculum;
- No environmental department in the existing higher education
- Reliance on donors' funding and poverty reduction against environmental policy implementation.
- Bureaucratic constraints in sectorial institutions.

5.2. Legal and Regulatory Framework

There have been many improvements in the country's legal, policy, and regulatory framework. Though, the Environmental Protection and Management Law of 2003 requires establishing an environmental administrative court and Court of Appeal to adjudicate disputes arising from natural resources management and environmental protection. However, there still exist gaps in other expertise in certain critical areas, such as environmental lawyers, judges, meteorologists, etc.

5.3. Public Awareness and Education

In 2006 before the finalization of the first NCSA, there were many limitations noted regarding public awareness in Liberia. The country has achieved a lot of sustained gain in working with the media and conducting public awareness /training and workshop for policymakers and the general citizens as well as the mass media about the three Rio Conventions. The CCCD Project has successfully trained more media practitioners, local government officials, CSOs, and CBOs,

among others,, in environmental and natural resource public awareness. Awareness materials have been available at most national media institutions at the national level and a few local levels.

Environmental issues have been incorporated into the national curricula for piloting to educate the younger generation about the harm associated with the unsustainability of natural resource management. Adequate integration of the three Rio Conventions and other environmental and natural resource issues into formal education programs and public appreciation of MEAs issues. Raising awareness of decision makers, the public at large benefits from all three Conventions. For example, integrating relevant environmental issues into the school curriculum is required by all three Conventions, and therefore, one of the opportunities for synergy is to establish an integrated multidisciplinary curriculum

5.4. Research and Data Management

In 2006, Liberia had no proven national capacity in research and data management. All the national research institutions, such as the Central Agricultural Research Institute (CARI), the National Reference Laboratory at the Ministry of Health, and many others. However, this updated report highlights that currently, there is a much better appreciable level of acceptance for Research and Data Management. In addition, to the activation and establishment of national research institutions and universities such as CARI, national reference lab, and the National universities, there exist an Environmental Knowledge Management System (EKMS) and all other knowledge management system like the Safeguard Information System, Early Warning System which are all essential for research and data management.

However, the gaps identified included sustaining the research capacity of these institutions and structures, the lack of comprehensive data sharing agreement/protocol between and among Government Ministries and Agencies, and limited digitalization of data at the moment.

5.5. National and International Funding

For the past decades, there has been a rise in environmental issues globally. However, financial resources for implementing programs and projects are limited as most Development partners did not live up to the commitments made to finance them, particularly in developing countries.

Resource mobilization has been one of the biggest challenges in Liberia, with salaries and benefits of personnel /in-kind such as office and electricity being the only contributions usually made by the Government of Liberia, with program funding largely dependent on international Agencies/Development partners.

Limited capacity to develop funding proposals, poor strategies, policies, and programs on incentive measures for environmental conservation, results in inadequate funding opportunities. This is one of the major challenges that undermine the initiatives to meet the Rio Conventions obligations. Also, the Government of Liberia has not given high priority in terms of financial allocation to environmental issues. This is probably due to other competing priorities and urgent concerns such as health and education, which must be addressed with limited resources.

Moreover, the private sector support for environmental management is little or non-existence and will need more awareness and education to buying-in private capital flow in the sector.

5.6. Technology transfer

In 2006 the country had no technology capacity. There was a lack of hard and soft ICT infrastructures such as reports, policies, frameworks, and universities/companies/limited individuals with ICT knowledge at the time. However, after a decade and some years now, this situation has changed drastically. There currently exists a full Needs Assessment report for 2018, the Technology Barrier's Analysis report for 2018, Technology Action plan Of 2018/19. The Environmental sector technology assessment and action plans were developed and implemented in three phases. Furthermore, technology and ICT-specific universities in the country have greatly contributed toward building institutions and individual capacities.

The main gap at the systemic level is to create local content policy and cyber education for technology users' protection. Additionally, there are limited resources to implement recommendations from these assessments, strengthening the coordination and financing of the existing technologies.

The important issues of capacity needs at the individual level include the need to increase the skills of policy and legal professionals on environmental and technology transfer issues, raise awareness of policy and decision-makers, businessmen, and local communities about the benefits of various technologies and their application (to generate demand). Provide them with knowledge of novel

concepts relevant to sustainable development and available technologies. Synergy in the implementation of technology transfer can be achieved by authorizing one sectorial agency to coordinate the technology transfer process for all three thematic areas.

Additionally, the country's determination to implement the obligations of the three Rio Conventions is expressed in its national development agenda, the Pro-poor Agenda for Prosperity and Development (PAPD), and the establishment of the Environmental Protection Agency (EPA) in 2002. Among other things, the Act empowers the EPA to monitor, coordinate, and supervise the sustainable management of the environment in partnership with regulated ministries and organizations and in close and responsive relationship with the Liberian people, and to provide high-quality information and advice on the state of the environment and for matters connected in addition to that.

5.7. Stakeholders Involved in the Rio Conventions Implementation

There exists huge interest from stakeholders in the implementation of the obligations of the three Rio Conventions. This report also reviewed the list of stakeholders and found that from 2006 to the time of this report, the list of interested stakeholders had increased, with the Liberian government relying strongly on partners (local, national, and international) to pull resources together for the realization of the implementation of the Rio Conventions. These stakeholders are listed below as follows:

- Wild Chimpanzee Foundation
- Sea Turtle Watch
- Youth Development Services Inc.
- Forum Syd (FS) Inc.
- Green Steward Inc.
- GIZ – German Liberia Cooperation
- Habitat for Humanity International
- Evergreen Recycling
- Society for the Conservation of Nature Liberia
- Conservation International
- Fauna and Flora International,
- UNDP / UNEP/AfDB/ECOWAS/World Bank/EU/USAID

- Academia, among others.

There also exist internal stakeholders in the range of the government who work to contribute directly/indirectly to the full implementation of the three Rio Conventions in Liberia, namely:

- Environmental Protection Agency (EPA)
- Liberia Institute for Statistics and Geo-Information Services (LISGIS)
- Forestry Development Authority (FDA)
- National Fisheries and Aquaculture Authority
- Central Agricultural Research Institute (CARI)
- Ministry of Public Works
- Liberia Airport Authority
- Ministry of Transport
- Ministry of Agriculture
- Liberia Land Authority
- Liberian National Bureau of Concessions
- Liberia Maritime Authority
- Ministry of Mines and Energy
- Ministry of Internal Affairs
- Liberian National Water, Sanitation, Hygiene – WASH Commission
- Ministry of Finance and Development Planning
- Ministry of Education,
- Ministry of Gender, Children and Social Protection and
- Local government such as Superintendents, Mayors, Commissioners, Town Chiefs, etc.

CHAPTER SIX: CAPACITY DEVELOPMENT STRATEGY TO ADDRESS PRIORITY ENVIRONMENTAL ISSUES IN THE CONVENTIONS “

6.1 Introduction

The capacity development implementation plan is in three parts. The first involves GEF focal area strategy, the second involves cross-cutting capacity development projects, and the last involves international water area strategy, international waters focal area strategy, and chemicals and waste area focal strategy. Each of the three areas consists of the objectives, priority actions, timeframe, performance indicators, and implementing institutions. Planners and project advocates should consider the recommended priority actions in the table below. The implementation plan does not rank the priority actions. One action should not be seen as more priority than others because the institutional contexts may differ. However, due to changing socio-economic and environmental landscape, for instance, the political landscape, the priority of actions may be changed. The priority actions are to be undertaken by the responsible implementing institutions.²².

²² Republic of Liberia (2021): LIBERIA NATIONAL STRATEGY AND ACTION PLAN OF THE RIO CONVENTIONS 2023 - 2030

6.2. BIODIVERSITY FOCAL AREA STRATEGY

Table 4: Biodiversity Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution	
				Lead Institution	Collaborating Institutions
1 Improved Sustainability of Protected Area Systems.					
1.1 Implement effective Protected Areas (PAs) management financial sustainability framework.	4years	1.1.1 Strategies for PAs sustainability adopted.	40,000.00	FDA	EPA, LLA, MFDP, MIA, MME, NaFAA, UL
1.2 Formulate strategies for financing the management of protected areas.		1.2.1 Financing strategies of PA management implemented.	25,000.00		
1.3 Develop framework for engaging the private sector and other stakeholders to improve protected area financial sustainability and management.		1.3.1 Framework to engage stakeholders on PA financing and management implemented.	20,000.00		
1.4 Manage coastal protected areas to increase representation of the protected areas network.		1.4.1 Strategic plan on coastal PAs establishment adopted.	100,000.00		
1.5 Increase protected areas to expand terrestrial ecosystem representation.		1.5.1 Strategy and action plan for terrestrial ecosystem expansion adopted.	200,000.00		
2 Reduced Threats to Globally Significant Biodiversity.					

2.1 Strengthen legislation and institution to reduce poaching of threatened wildlife species.	4 year	2.1.1 Policies and regulations for wildlife protection implemented.	100,000.00	FDA	EPA, LLA, MIA,, MME, MOA, MOJ, NaFAA, UL
2.2 Formulate strategies for science-based wildlife monitoring and communication.		2.1.1 Wildlife monitoring and communication strategies adopted.	20,000.00		
2.3 Formulate strategies for the prevention, early detection, control and management of Invasive Alien Species (IAS).		2.3.1 Strategies for management of IAS adopted.	20,000.00		
2.4 Implement the National Biosafety Frameworks (NBFs) and thematic projects that address objectives of the Cartagena Protocol.		2.4.1 Strategy to implement the NBFs and thematic projects adopted.	250,000.00		
3 Sustainably Use Biodiversity.					
3.1 Implement strategy to protect coral reef sites and maintain their integrity and function.	4 years	3.1.1 Coral reef protection and management Framework Adopted.	75,000.00	EPA	FDA, MFDP, MIA, MOA, MME, NaFAA, UL
3.2 Conserve and sustainably use plant and animal genetic resources through farm management.		3.2.1 Plant and animal genetic resources conservation strategies adopted.	250,000.00		
3.3 Update Access and Benefit Sharing (ABS) Act, formulate policy and strategy.		3.3.1 Updated ABS mechanisms implemented.	120,000.00		
3.4 Develop the capacity of stakeholders to facilitate negotiation between genetic resources providers and users.		3.4.1 Genetic resources negotiation capacity development strategy adopted.	30,000.00		
4 Mainstreamed Biodiversity Conservation and Sustainable Use into Production Landscapes / Seascapes and Sectors.					
4.1 Integrate biodiversity and protected area network sustainability into production landscape and seascape to secure their ecological integrity.	4 years	4.1.1 Strategies to integrate biodiversity/PAs into landscape/seascape implemented.	50,000.00	EPA	FDA, MFDP, MIA, MOA, MME, NaFAA, UL
			30,000.00		

4.2 Implement interventions which link biodiversity analysis and evaluation with development and finance planning.		4.2.1 Interventions linking biodiversity analysis and planning implemented.			
5 Addressed Direct Drivers to Protect Habitats and Species.					
5.1 Develop management plan and strategy of invasive alien species.	4 years	4.1.1 Framework for control and management of IAS adopted.	50,000.00	EPA	FDA, MFDP, MIA, MOA, MME, NaFAA, UL
5.2 Improve terrestrial ecosystem management and coverage of the protected area network.		5.2.1 Ecosystem management approach to terrestrial PAs network coverage framework adopted.	300,000.00		
5.3 Establish and manage coastal/marine protected areas.		5.1.1 Coastal and marine PAs establishment framework adopted.	50,000.00		
6 Developed Biodiversity Policy and Institutional Frameworks.					
6.1 Implement the Cartagena Protocol on Biosafety and Nagoya Protocol on Access and Benefit Sharing.	4 years	6.1.1 Frameworks for the Cartagena and Nagoya Protocols implementation adopted.	100,000.00	EPA	FDA, MFDP, MIA, MOA, MME, NaFAA, UL
Sub-total			\$2,080,000.00		

6.3. Climate Change Focal Area Strategy

Table 5: Climate Change Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution	
				Lead Institution	Collaborating Institutions
1 Promoted Innovation Technology Transfer and Supportive Policies and Strategies.					
1.1 Implement low-carbon financing technologies to mitigate climate change. 1.2 Develop and implement policies and market initiatives to foster new mitigation measures. 1.3 Develop strategy to institutional renewable energy into national power grid. 1.4 Incentivize Electric drive technologies and electric mobility.	4 years	1.1.1 Framework for low-carbon technologies adopted.	200,000.00	EPA	FDA, MFDP, MOA, MME, MOT, UL
		1.2.1 Policy and market frameworks to foster mitigation measures adopted.	75,000.00		
		1.3.1 Institutional framework to integrate renewable energy into national power grid adopted.	50,000.00		
			50,000.00		
		1.4.1 Policy framework for electric drive technologies adopted.	10,000.00		
2 Demonstrated Systemic Impacts of Mitigation Options.					
2.1 Implement strategies, policies, and regulations to help urban cities shift towards low-emission 2.2 Promote conservation and enhance carbon stocks in forest to support climate-smart agriculture. 2.3 Promote accelerated low GHG development and emissions mitigation in	4 years	2.1.1 Policy framework for cities towards low-emission adopted.	20,000	EPA	FDA, MOA, MME, MOT, UL
		2.2.1 Framework to support climate-agriculture adopted.	150,000.00		
		2.3.1 Framework to accelerate low GHG and mitigate emission adopted.	200,000.00		

policy, planning and regulatory frameworks. 2.4 Demonstrate and operationalize financial mechanisms to support GHG reductions. 2.5 Accelerate the adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration.		2.4.1 Strategies for supporting GHG reduction implemented. 2.5.1 Best practices for reduction of GHG emission implemented.	100,000.00 50,000.00		
3 Create Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies.					
3.1 Implement Nationally Determined Contributions.	4 years	3.1.1 NDC implemented.	490,000	EPA/MFDP	MAC/PARTNERS
4 Reduce the Vulnerability of People, Livelihoods, Physical Assets and Natural Systems to the Adverse Effects of Climate Change.					
4.1 Reduce the vulnerability of physical assets and natural systems. 4.2 Diversify livelihoods and sources of income of vulnerable populations. 4.3 Adopt and scale-up climate-resilient technologies and practices.	4 years	4.1.1 Strategies to reduce climate change vulnerability implemented. 4.2.1 Policy framework to diversify vulnerable livelihoods and income adopted. 4.3.1 Policy framework to increase climate-resilient adopted.	20,000.00	EPA	FDA, MME, MOA, MOT, UL
5 Strengthened Institutional and Technical Capacities for Effective Climate Change Adaptation.					
5.1 Increase awareness of climate change impacts, vulnerability and adaptation. 5.2 Improve scientific and technical knowledge for the identification, prioritization and implementation of adaptation strategies and measures.	4 years	5.1.1 Public awareness and communication strategy implemented. 5.2.1 Strategies on scientific and technical capacity	240,000.00 20,000.00	EPA	FDA, MME, MOA, MOT, UL

5.3 Enhance access to improved climate information and early-warning systems at regional, national, and local levels.		5.3.1 development implemented.	250,000.00		
5.4 Strengthen institutional and technical capacities and human skills to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures.		5.3.1 Policy on improved climate information and early-warning system adopted.	200,000.00		
		5.4.1 Strategies on institutional and technical capacities building implemented.			
6 Integrated climate change adaptation into relevant policies, plans and associated processes.					
6.1 Establish and strengthen institutional arrangements to lead, coordinate and support the integration of climate change adaptation into relevant policies, plans and associated processes.	4 years	6.1.1 Institutional framework for climate change adaptation established.	50,000.00	EPA	FDA, MOA, MME, MOT, UL
6.2 Develop and strengthen policies, plans and associated processes to identify, prioritize and integrate adaptation strategies and measures.		6.2.1 Integrated adaptation strategies implemented.	40,000.00		
6.3 Establish and strengthen systems and frameworks for the continuous monitoring, reporting and review of adaptation.		6.3.1 Policy framework for monitoring climate change adopted.	20,000.00		
Sub-total			\$2,235,000.00		

6.4. Land Degradation Focal Area Strategy

Table 6: Land Degradation Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution		
				Lead Institution	Collaborating Institutions	
1 Sustain Food Production and Livelihoods.						
1.1 Improve land and soil health and increase vegetative cover, focusing on agro-ecological methods and approaches.	4 years	1.1.1 Improved agricultural, rangeland and pastoral management.	100,000.00	MOA	EPA, LLA, MME	FDA, MIA,
1.2 Improve rangeland management and sustainable pastoralism.		1.2.1 Maintained the functionality and cover of agro-ecosystems.	75,000.00			
1.3 Strengthen community-based agricultural management.		1.3.1 Increased investments in SLM.				
1.4 Implement integrated watershed management and integrated approaches to soil fertility and water management.		1.4.1				
1.5 Improve agro-ecosystem resilience through innovative SLM approaches (such as enhancing the resilience of agricultural land management systems to drought and/or flood).						
1.6 Diversify crops and livestock production systems through SLM.						
1.7 Adopt innovative financial and market instruments to implement SLM practices that reduce GHG emissions and increase sequestration of carbon on smallholder farms.						
2 Generated Sustainable Flows of Ecosystem Services from Forests.						
2.1 Sustainably management forests and agroforestry for increased ecosystem services in agriculture.	4 years	2.1.1 Established support mechanisms for forest landscape management and restoration.	200,000.00	FDA	EPA, MIA, MOA	LLA, MME,

2.2 Regenerate landscapes through agroforestry and farmer-managed natural regeneration.		2.1.1 Improved forest management and/or restoration.	50,000.00		
2.3 Implement SLM approaches to avoid deforestation and forest degradation in production landscapes.		2.3.1 Increased investments in SFM and restoration.	100,000.00		
3 Reduce Pressures on Natural Resources by Managing Competing Land Uses in Broader Landscapes.					
3.1 Improve policies, practices, and incentives for improving production landscapes with environmental benefits,	4 years	3.1.1 Established support mechanisms for SLM in wider landscapes.	15,000.00	LLA	EPA, FDA, MIA, MME, MOA
3.2 Apply innovative tools and practices for natural resource management at scale (e.g.: innovations for improving soil health, water resource management, and vegetation cover in production landscapes systems).		3.2.1 Adopted integrated landscape management practices by local communities based on gender sensitive needs.	20,000.00		
		3.1.1 Increased investments in integrated natural resource management.			
4 Maximize Transformational Impact through Mainstreaming of SLM for Agroecosystem Services.					
4.1 Implement innovative mechanisms for multi-stakeholder planning and investment in SLM (such as the incorporation of SLM in new public-private partnership agricultural investments).	4 years	4.1.1 Mainstreamed SLM in development investments and value chains across multiple scales.	100,000.00	MOA	EPA, FDA, LLA, MIA, MFDP, MME, MOA
4.2 Adopt innovative financing mechanism based on valuation of environmental services.		4.2.1 Promoted innovative mechanisms for multi-stakeholder planning and investments in SLM at scale.	25,000.00		
4.3 Develop mechanisms to scale-up best practices for landscape regeneration.		4.3.1 Best mechanism to scale-up best practices for landscape regeneration	10,000.00		
Sub-total			\$695,000.00		

6.5. Cross-Cutting Capacity Development Focal Area Strategy

Table 7: Cross-Cutting Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution	
				Lead Institution	Collaborating Institutions
1 Strengthened Consultative and Management Structures and Mechanisms.					
1.1 Negotiate agreements among ministries and non-state stakeholders on the best consultative processes for improved decision-making on the Rio Conventions and other MEAs.	5 years	1.1.1 Consultative framework agreements for decision-making implemented.	10,000.00	EPA	FDA, LLA, MOA, MME, MOT, NaFAA
1.2 Provide training to decision-makers on the critical linkages between the objectives of the RIO Conventions and		1.3.1 Capacity development strategy and action plan implemented.	10,000.00		

other MEAs and sectoral development priorities.		1.3.2	Administrative /logistic support	500,000.00		
1.3 Support the establishment and operations of the Knowledge Management Secretariat						
2 Integrated Multilateral Environmental Agreements' Provisions within National Policy, Legislative and Regulatory Frameworks.						
2.1 Conduct an in-depth analysis of the country's environment and development policy framework.	4 year	3.1.1	Policy framework on environment and development implemented.	50,000.00	EPA	FDA, LLA, MOA, MME, MOT, NaFAA
2.2 Develop an analytical framework for the in-depth analysis of sectoral policies, plans, programs and associate legislative and regulatory instruments.		3.2.1	Analytical policy framework of sectoral agencies adopted.	15,000.00		
2.3 Pilot negotiated realignment of selected set of sectoral policies with the provisions of the Rio Convention and other MEAs.		2.3.1	Sectoral policies realigned with the Conventions implemented.	25,000.00		
3 Piloted Innovative Economic and Financial Tools for Convention Implementation.						
3.1 Develop detailed study on the applicability of innovative econometric indicators for the valuation of natural resources.	4 year	4.1.1	Econometric indicators for natural resources evaluation adopted.	20,000.00	EPA	FDA, LMA, MFDP, MOA, MME, NaFAA
3.2 Conduct detailed study of the potentially applicable best practices on environmental fiscal reforms.		2.1.1	Environmental fiscal reform implemented.	20,000.00		
3.3 Test the applicability of targeted innovative tools for the review of a proposed development project.		3.3.1	Tools for reviewing development project adopted.	10,000.00		
4 Updating of National Capacity Self Assessments.						
4.1 Prepare updated National Capacity Self Assessments (NCSA) to implement the RIO Conventions and commitments under other MEAs.	4 year	4.1.1	National capacity self-assessment report implemented.	250,000.00	EPA	FDA, LLA, LMA, MOA, MME, MOT, NaFAA

Sub-total	\$910,000.00		
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6.6. International Waters Focal Area Strategy

Table 8: International Waters Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution	
				Lead Institution	Collaborating Institutions
1 Catalyzed Sustainable Management of Transboundary Water Systems by Supporting Multistate Cooperation through Foundational Capacity Building and Research.					
1.1 Coordinate transboundary dialogue processes for participatory and cross-sectoral Transboundary Diagnostic Analyses (TDAs).	4 years	1.1.1 Joint on ecosystem-based management of transboundary water bodies adopted.	40,000.00	MME	EPA, FDA, LMA, LWSC, MIA, MOA, NaFAA
1.2 Adopt legal and institutional frameworks for coordinated or collaborative action and formulate Strategic Action Programs (SAPs).		1.2.1 Activities to enhance research implemented.	25,000.00		
1.3 Coordinate multi-stakeholder efforts to formulate and implement regional action programs that will strengthen adaptive management strategies.		1.3.1 Adaptive management strategies on water resources management in transboundary areas adopted.	100,000.00		
2 Catalyzed Investments to Balance Competing Water-uses in the Management of Transboundary Surface and Groundwater and Enhance Multi-state Cooperation.					
2.1 Improve the management and use of transboundary surface and groundwater	4 years	2.1.1 Improved water governance to increase	40,000.00	MME	EPA, FDA, LMA, LWSC.

resources and integrate climate variability and change to Transboundary Diagnostic Analyses and Strategic Action Programs.			capacity and incorporate climate variability and change.			MIA, MOA, NaFAA
2.2 Strengthen regional frameworks for water use to enhance delivery for shared environmental and socio-economic benefits and balance competing water uses across sectors and borders.		2.2.1	Increased water, food, energy, and ecosystem security.	30,000.00		
3 Enhance Multi-state Cooperation and Catalyze Investments to Foster Sustainable Fisheries, Restore and Protect Coastal Habitats, and Reduce Pollution of Marine Ecosystems.						
3.1 Reduce nutrient pollution and coastal hypoxia in marine ecosystems through innovative policy, economic and financial tools, public-private partnerships to decrease the extent of dead (hypoxic) zones.	4 years	3.1.1	Decreased dead zones in marine ecosystems.	200,000.00	NaFAA	EPA, FDA, LMA, MIA, MME, MOA
3.2 Implement measures and sustainable management tools to prevent further loss and degradation of coastal habitats.		3.2.1	Protected coastal habitats from further loss and degradation.	100,000.00		
3.3 Adopt ecosystem-based approaches to fisheries management, ranging from small scale and artisanal fisheries to that practiced by global and regional fishing fleets.		3.3.1	Introduced sustainable fishing practices into over-exploited fisheries.	150,000.00		
Sub-total				\$685,000.00		

6.7. Chemicals and Waste Focal Area Strategy

Table 9: Chemicals and Waste Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution		
				Lead Institution	Collaborating Institutions	
1 Develop the Enabling Conditions, Tools and Environment for the Sound Management of Harmful Chemicals and Wastes.						
1.1 Develop, test and demonstrate technologies, alternatives, techniques, best practices, legislative and policy tools, finance models, private sector engagement models and economic tools to control chemicals and waste.	4 years	1.1.1 National action plan of the ASGM implemented.	150,000.00	EPA	MOA, MME, NaFAA	
1.2 Develop plans and reports to meet obligations of the Stockholm Convention and the Minamata Convention, and the incorporation of their findings into national and sector level development planning.		1.2.1 Obligations of the Stockholm convention and Minamata Conventions implemented.	20,000.00			
		1.2.2 Minamata Convention adopted.	10,000.00			
2 Reduce the Prevalence of Harmful Chemicals and Waste and Support the Implementation of Clean Alternative Technologies/Substances.						
2.1 Apply technologies, techniques and approaches for eliminating stockpiles of POPs, POPs in products, and POPs containing waste.	4 years	2.1.1 Stockpiles of POP in products and wastes eliminated.	60,000.00	EPA	MOA, MME, NaFAA	
2.2 Reduce mercury in key sectors and introduce frameworks for the environmentally sound management of mercury containing wastes.		2.2.1 Framework to reduce mercury adopted.	40,000.00			
		2.3.1 Action plan to phase-out hydro chlorofluorocarbon and reduce ozone depleting substances implemented.	50,000.00			
2.3 Phase-out hydro chlorofluorocarbons and replace ozone depleting substances dependent technology.		2.4.1 Action plan to manage harmful chemicals and waste implemented.	30,000.00			
2.4 Eliminate and reduce harmful chemicals and waste by creating an enabling environment for regional and sub-						

regional cooperative action to develop and implement regional approaches.					
Sub-total			\$360,000.00		

6.8. Sustainable Forest Management Focal Area Strategy

Table 10: Sustainable Forest Management Strategy

Planned Activity	Timeframe (baseline: 2023)	Indicators	Cost (US Dollars)	Implementing Institution	
				Lead Institution	Collaborating Institutions
1 Maintained Forest Resources to Reduce the Pressures on High Conservation Value Forests by Addressing the Drivers of Deforestation.					
1.1 Integrate land use planning, identify and maintain high conservation value forests, and identify and monitor forest loss.	4 years	1.1.1 Integrated forest conservation programs implemented.	100,000.00	FDA	EPA, LLA, MIA, MME
2. Enhanced Forest Management to Maintain Flows of Forest Ecosystem Services and Improve Resilience to Climate Change through SFM.					
2.1 Develop and implement model projects for Payment for Ecosystem Services (PES).	4 years	2.1.1 Flows of ecosystem services maintained.	60,000.00	FDA	EPA, FTI, LLA, MIA, MME, UL
2.2 Develop capacity for SFM within local communities.		2.2.1 Integrated community forest management plan implemented.	50,000.00		

3 Restored Forest Ecosystems to Reverse the Loss of Ecosystem Services within Degraded Forest Landscapes.						
3.1 Develop technical and institutional capacities to identify degraded forest landscapes and monitor forest restoration.	4 years	3.1.1 Integrated forest landscape monitoring plan implemented.	150,000.00	FDA	EPA, LLA, MIA MOA, MME	
3.2 Integration of SFM in landscape restoration.		3.2.1 Integrated forest landscape restoration plan implemented.	20,000.00			
4 Increased Regional and Global Cooperation to Enhanced Regional and Global Coordination on Efforts to Maintain Forest Resources, Enhance Forest Management and Restore Forest Ecosystems through the Transfer of International Experience.						
4.1 Engage the private sector to achieve SFM and sustainable land use.	4 years	4.1.1 Collaborative forest management and land use plans implemented.	15,000.00	FDA	EPA, LLA, MIA MOA, MME	
4.2 Test cost-effective technologies for community-based natural resource monitoring.		4.2.1 Community-based natural resource monitoring plan implemented.	10,000.00			
Sub-total			\$405,000.00			
Grand Total		US\$7,370,000.00				

CHAPTER SEVEN: MONITORING AND EVALUATION PLAN AND FUTURE EVALUATION PROCESSES OF THE NCSA

7.1 Introduction

The monitoring and evaluation of the NCSA would be carried out by the monitoring and evaluation arms of the individual project under the three Rio Conventions. The process will involve using a capacity development scorecard, a checklist, or a cost-benefit analysis for the cross-cutting capacity development project. The monitoring and evaluations of the NCSA will not be limited to projects under the three Rio Conventions but also regular environmental activities undertaken by the government of Liberia's relevant agencies and ministries. The rationale for monitoring and evaluating the NCSA is to ensure that both financial and human resources are effectively and efficiently used; follow up on the action plan and assess the success over time; take necessary steps if actions proposed in the plan are not being implemented; provide information on the success, failures, and lesson learned during the implementation of the NCSA. The action plan of the NCSA will be monitored in three phases; baseline assessment / ex-ante evaluation, midterm evaluation, and ex-post evaluation, and this will be stratified at the national level, county level, and district level.

7.2. Baseline Assessment / Ex-Ante Monitoring and Evaluation

This will be done before the implementation of the action plan of the NCSA. It will assist in setting up priorities and effective and feasible plans based on available resources. During this phase, baseline capacity issues will be defined, targets will be set, assumptions specified, and indicators defined. Project staff and stakeholders will be involved in this process. The baseline assessment will provide pre-implementation impact for beneficiaries and allow them to contribute to project design and implementation.

7.3. Midterm Monitoring & Evaluation

This will be carried out during the implementation of the three Rio Conventions. It will provide information on whether a given activity should continue, be changed, or terminated. The midterm evaluations will be carried out at the national, county, and district levels. The monitoring and evaluation will be carried out by relevant government ministries and agencies such as the Forestry Development Authority and the Environmental Protection Agency in collaboration with relevant

sectoral institutions. The reports emanating from the midterm evaluation will be submitted to donors.

7.3. Ex-Post Monitoring and Evaluation

This is similar to the end of the project review. It will evaluate performance based on the targets and indicators set during the baseline assessment, quality, and relevancy at the end of the implementation of the action plan of the NCSA. It will entail interviewing stakeholders, field visitation, and a desk review of available reports and observations. Lessons learned during the action plan implementation would be incorporated in future projects designed on capacity development. Similarly, the monitoring and evaluation will be done at the three levels mentioned above. The monitoring and evaluation will be carried out by relevant government ministries and agencies such as the Forestry Development Authority and the Environmental Protection Agency in collaboration with relevant sectoral institutions. The reports emanating from the midterm evaluation will be submitted to donors.

7.4. Feedback Mechanism from the Monitoring and Evaluation Report

The periodic reviews are designed to provide essential monitoring and evaluation information to the program management, policy decision-makers, and the general public. Data provided through routine data collection must be accurate and of high quality. Additionally, it should be reflective of the realities on the ground. Thus, the overall monitoring and evaluation strategy is to provide ongoing feedback to the strategy/action plan management, concerned agencies, and policy decision-makers regarding the effectiveness of the implementation activities so that improvements can be made, and future capacity-building planning and programming exercises incorporate lessons learned from these experiences.

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APPENDICES

Appendix A: – Questionnaire

1. Capacity Self-Assessment (Respondents)

Respondent details			
Position	Junior manager	Middle manager	Senior Manager
Gender	1= Male, 0= Female		
Sector	Government	Private	NGO
Name of institution			
Official task			
1.	Institutional awareness level of the three conventions. 1=low, 2=Medium 3-high		
CBB: 1= low, 2= medium, 3= high		UNCCD: 1=low, 2= medium, 3=high	UNFCCC: 1=low, 2= medium, 3=high
2. Awareness constraints			
CBD: (1=lack of information, 2=lack interest, 3=non-core 4=other (Specify)		UNCCD: (1=lack of information, 2=lack interest, 3=non-core 4=other (Specify)	UNFCCC: (1=lack of information, 2=lack interest, 3=non-core 4=other (Specify)
3. Current or planned program projects addressing the three conventions			
Desertification			
Biodiversity			
Climate change			

2. Institutional capacity assessment

4. Is there a clear organizational structure for this institution to carry out its mandate?		1= Yes, = No, 3= planned
5. If not, what are constraints hindering the institution		
6. Within the three conventions, are the functions and responsibilities distributed/allocated		
Biodiversity	Desertification	Climate Change

1= Yes, = No, 3= planned	1= Yes, = No, 3= planned	1= Yes, = No, 3= planned
7. Are there enough infrastructure and equipment as listed below available to carry out your task		
Internet Access	1= Yes, = No, 3= planned	
Vehicles	1= Yes, = No, 3= planned	
Software packages	1= Yes, = No, 3= planned	
Computers and peripherals	1= Yes, = No, 3= planned	
Office Space	1= Yes, = No, 3= planned	
8. Which of the following activities are being implemented under the three conventions		
Biodiversity	Desertification	Climate Change
1. Supporting stakeholder access to genetic resources	1. Forming legal frameworks	1. Monitoring of GHGe
2. Identifying and monitoring genetic resources at an ecosystem level	2. Natural resource management	2. Climate change and adaptation
3. Identifying and monitoring biodiversity at the species and genetic level	3. Promotion of sustainable agriculture practices	3. Forest protection
4. Incorporating indigenous knowledge systems (IKS)	4. Finding alternative energy sources apart from charcoal	4. Mitigation of GHG emissions
5. In-situ conservation of biodiversity	5. Promoting alternative livelihoods	5. Research related to climate change
6. Ex-situ conservation of biodiversity	6. Adaptation and development of technology	6. Meteorological observations
7. Research related biodiversity	7. Research related to land degradation and Desertification	7. Hydrological observations
8. Public capacity building and awareness	8. Public capacity building and awareness	8. Public capacity building and awareness
9. Impact assessment of biodiversity projects	9. Inventory and monitoring of natural resources	9. Promoting international cooperation and negotiations on climate change
10. Promoting international cooperation & negotiations on biodiversity	Promoting international cooperation and & negotiations on land degradation & desertification	
	Promoting & incorporating indigenous knowledge systems (IKS)	

3 Organization internal capacity factor

Targeted areas	Biodiversity	Land degradation and Desertification	Climate Change
1 major strength, 2= moderate strength, 3=moderate weakness, 4=severe weakness			

Structure of the organization			
Communication and team building			
Finance Own revenue Donor support Gvt support-recurrent Gvt support-capital			
Processes Participatory Planning Strategic Planning Negotiation Project Management Monitoring and evaluation			
Marketing Product Quality Market Share Promotion Distribution			
Human Resources Productivity Communication Skilled Staff Conditions of Service Training opportunities			
Innovation R&D IT/ICT			

9. Indicate all the important capacity development programs in your institution relevant to the conventions below;

Biodiversity	
Biodiversity Desertification	
Climate Change	

10. What information is needed for the effective and efficient implementation of your activities?

Biodiversity	
Biodiversity Desertification	
Climate Change	

11. Currently, what is the information you are receiving and from whom?

Biodiversity	Information receives	Source
Biodiversity Desertification		
Climate Change		

12. Relevant technical capacity currently existing in your institution to implement activities on the below conventions.

Biodiversity	Available expertise (Eg. Remote Sensing & GIS) level	level of training (Technical, University, etc
Biodiversity Desertification		
Climate Change		

13. Under the three conventions, what is the capacity development aspect you feel strongly about or you think is needed

Climate Change	Desertification	Biodiversity

Appendix B: Questionnaire/Interview Guides for In-depth Interview (IDI) – Core stakeholders

Introduction and Background

My name is I am working with EPA and UNDP Liberia to update the National Capacity Self-assessment (NCSA) as part of the project titled - Strengthening National Capacities to Meet Global Environmental Obligations with the Framework of Sustainable Development Priorities or Cross-Cutting Capacities Development (CCCCD) project in Liberia. In this exercise, we will focus on

environmental capacities related to the three Rio conventions: Climate Change, Biodiversity, and Combat Desertification, among others. Environmental-related capacities will also be captured. We will try to quantify or document the gains you have made since the development of the NCSA in 2006 to current. We will also look at what you have put in place in sustaining the gains while noting the new challenges faced and mitigation strategies for learning purposes. Throughout the interview, please feel free to share your thoughts and experience with me and ask for clarification if the questions are not clear to you. I would like to start by asking you for some General Information:

General Information

1. Can you please introduce yourself, state your name and position and tell me a little about your role and how long you have been in this role?
2. Based on your work and background, what is your understanding of the history and development of the National Capacity Self-assessment (NCSA) in Liberia?

***Probing:** How involved were you or your department?*

3. Could you better explain to me for learning purposes the progress we have made as a country in cultivating environmental capacities?

Probing: individually, Institutionally, and Nationally?

Topic 1: Sustainable Capacity Development

To help ensure the quality of capacity development initiatives conducted were sustainable, the assessment will ask you a few questions that look at the environment for capacity development:

1. How could you explain the existing environment for capacity development in Liberia?

2. Is the capacity development strategy being used systemic?

Probe: Does it comprehensively address capacity development and holistically relations to individual, institution, and National capacity?

3. Is there political support for the capacity development agenda and program?

Probe: Is there a long-term budget to support capacity development?

4. What are the sources for capacity development in Liberia that you know about?

5. Private sector contribution to Capacity Development in your entity?

Probe: number of program training staff from the private sector? Some GOL-sponsored capacity development initiatives and staff trained? The second set of questions addresses the design of the capacity development and content:

6. Focus on those strategies that have been shown to impact the development and retention of endogenous capacity at the national, organizational, and individual levels.
7. How are the capacities developed consistently to the fundamental principles of national and organizational ownership and leadership, accountability, transparency, participation, inclusiveness, non-discrimination, equality, and empowerment?
8. How do you monitor and evaluate capacity development changes in your institution? Does this include the determination of indicators and the collection of baseline data? Can you share your data with us?
9. How about staff retention? What strategies have you developed to keep your staff? How has it worked?
10. How have women/men, girls/boys, and vulnerable groups such as people with disabilities been in your institution with relation to capacity development activities? To what extent have women benefited in particular?

Topic - 3: Lessons Learned

1. What lessons, be it good or worst practices, can you share as learn for environmental capacity design and development in your institution related to the three Rio conventions?

Topic -4: Emerging Capacity Development Challenges and barriers

1. What three most noted environmental capacity development challenges /barriers can you think of? Probing: what can be done to change these newly identified challenges/barriers?

Topic - 5: Closing questions

1. Overall, what is your impression about environmental capacity development in Liberia?
2. Is there anything you think we left out that you might want to discuss?

Appendix C: Questionnaire/Interview Guides for In-depth Interview – other Stakeholders

Introduction and Background

My name is I am working with EPA and UNDP Liberia to update the National Capacity Self-assessment (NCSA) as part of the project titled - Strengthening National Capacities to Meet Global Environmental Obligations with the Framework of Sustainable Development Priorities or Cross-Cutting Capacities Development (CCCCD) project in Liberia. In this exercise, we will focus on environmental capacities related to the three Rio conventions: Climate Change, Biodiversity, and Desertification, among others. Environmental related capacities will also be captured. We will try to quantify or document the gains you have made since the development of the NCSA in 2006 to current. We will also look at what you have placed in sustaining the gains while noting the new challenges faced and mitigation strategies for learning purposes. Throughout the interview, please feel free to share your thoughts and experience with me and ask for clarification if the questions are not straightforward to you. I would like to start by asking you for some General Information:

General Information

1. Can you please introduce yourself, state your name and position and tell me a little about your role and how long you have been in this role?
2. Based on your work and background, what is your understanding of the history and development of the National Capacity Self-assessment (NCSA) in Liberia?
Probing: How involved were you or your department?
3. Could you better explain to me for learning purposes the progress we have made as a country in cultivating environmental capacities?

Probing: individually, Institutionally, and Nationally?

Topic: Biodiversity, Desertification, and climate change

Could you better explain how the three conventions coordinate functions and responsibilities among themselves?

What are the current activities being implemented in your focus areas? Biodiversity, Desertification, and climate change?

What information are needed for the effective and efficient implementation of your activities? In Biodiversity, Desertification and climate change?

Is relevant technical capacity currently existing in your institution to implement activities on the below conventions? Biodiversity, Desertification, and climate change?

Under the three conventions, what capacity development aspect do you feel strongly about or think is needed?

Topic - 2: Lessons Learned

2. What lessons, be it good or worst practices, can you share as learn for environmental capacity design and development in your institution related to the three Rio conventions?

Topic -3: Emerging Capacity Development Challenges and barriers

2. What three most noted environmental capacity development challenges /barriers can you think of?

Probing: what can be done to change these newly identified challenges/barriers?

Topic - 4: Closing questions

3. Overall, what is your impression about environmental capacity development in Liberia?
4. Is there anything you think we left out that you might want to discuss?

Appendix D: Technical Review Committee - thirteen (13) senior policy technicians

Name of Committee Members and Role

- | | | |
|--------------------------|---|-------------------------------------|
| 1. Jefferson F. Nyandibo | = | = Head of Internal Review Committee |
| 2. John Kannah | = | =Member |
| 3. Z. Elijah Whapoe | = | =Member |
| 4. Jefferson Dahn | = | =Member |
| 5. Jerry Toe | = | =Member |
| 6. J.S, Datuama Cammue | = | = Member |
| 7. Nick Goll | = | =Member |
| 8. John Jallah | = | = Member |
| 9. Samson Chea | = | = Member |
| 10. Frances Saydou | = | =Member |
| 11. Christopher Kabah | = | =Member |
| 12. Sette Marshall | = | =Member |
| 13. Benjamin Karmorh | = | =Member |

Annex E: Attendance of the Validation Conference

Validation of the Updated National Capacity Self-Assessment Draft Report

Friday, 26 August 2022

Kakata City, Margibi County

Day one

Attendance

No.	NAME	POSITION	ENTITY	Gender (M/F)	Registered Mobile Money #	Confirm by signature	DATE
1.	Aaron S.M. Wessah	Project Manager	CCO/ EPA	M	0770059596	<i>[Signature]</i>	08/26/22
2.	Francis F.B. Mulbah	Consultant	—	M	0770420506	<i>[Signature]</i>	08/26/22
3.	Alloyious David	Communication Specialist	EPA	M	0770967350	<i>[Signature]</i>	08/26/22
4.	F.S. Datuama Camille	CBO	EPA	M	077099608	<i>[Signature]</i>	26/8/22
5.	Augustine A.S. Tackie	Inspector	UL	M	0770610303	<i>[Signature]</i>	26/8/22
6.	Jerry T. Ture	F. Policy	EPA	M	0770332763	<i>[Signature]</i>	26/8/22
7.	Charles Asamoa Sr.	Assoc. Prof	UL	M	0888917741	<i>[Signature]</i>	2022/08/26
8.	LEO E. TIAH	Executive Director	YOUNEPO	M	0775694611	<i>[Signature]</i>	26/08/22
9.	Yorvus Edwin	Legal	EPA	M	0776586601	<i>[Signature]</i>	26/08/22
10.	Frances B. Seydou	Manager	EPA	F	0776199207	<i>[Signature]</i>	26/08/22

	NAME	Position	Entity	Gender	#	Signature	Date
11	Grace K. Biah	Gender Coordinator	EPA	F	0770117623		26/08/22
12	Hawa K. Klakker	Asst. Mgr	EPA	F	0770911182		08/26/22
13	Jerome Nyenky	Asst. Pres	U.L.	M	0777678113		26-08-22
14	Anthony D. Kpandah	Consultant	LGS	M	0778164594		26-08-2022
15	Nick B. Groll, II	PAU Support	Rev-PA	M	077571719		26-08-2022
16	Jefferson Dahn	Asst. Pres	EPA	M	0779195160		26/08/22
17	Samson Chae	Foreign	EPA	M	0770106727		26/08/22
18	Seke F. Marshall	PAU	EPA	M	0886513988		26/08/22
19	Elvina Samuels	EXMS Officer	CCCD Team	F	0775006254		26/8/2022
20	Winnie D. Williams	Secretary	WDA/EPA	F	077298587		26/8/2022
21	Morris B. Camaró	Consultant	CCCD	M	0772111663		26/8/22
22	John Schatz Smith	Consultant	CCCD	M	077342876		26/08/22
23	MATTHEW O'NEILL	Community Coordinator	WACS	M	077203846		26/08/22
24	Carl A. Lavid Jr.	NRC	ENR-BIU	M	0777699711		26/08/22
25	D. Edwin Teh	Photographer		M	0776594435		26/08/22
26	D. Wopre Quelling	Administrative	MME	M	0770219276		26/08/22
27	Rachel G. Kelli	Journalist	ELBL	F	0777353274		26-08-22
28	U-JAY VAH	ICT-Tech	EPA	M	0779428410		26/8/22

29	Don Argebo George	COS	ERA	M	0776454493	Shirley	08/26/22
30	Zienyamba Kanesh	P.C	EPA	M	0880987087	Shirley	08/26/22
31	Emmanuel T. Olatunji	NTP- IPAES	EPA	M	0776044489	Shirley	08/26/22
32	Joseph G. Duglakes	Moniv	TDA	M	0770190096	Shirley	08/26/22
33	Zacaron Whapre	Conduct	EPA	M	0777524657	jenhapa	08/26/22
34	J. KOMOTY G. ZEM	Project assist	CCU	M	0777957005	Jon	08/26/22
35	Henry Y. Kessaly	Sr. O.R	Marit	M	0888595510	Shirley	08/26/22
36	Roland J. Lepol	DNRC	Riv/FDA	M	0777066818	Shirley	08/26/22
37	Barbara S. GOLL	TECHNICAL MANAGER	FDA	M	0777247254	Bar	08/26/22
38	Allen L. Tucker	Program Officer	CSO	F	0555199136	Allen	" "
39	Ernest Haylee	ED	LDC	M	0770199542	Shirley	08/26/22
40	Robert Wain	CS	CS	M	0775825790	Kibetamu	08/26/22
41	ABRAHAM KITAU	Director	EPA	M	077021-21-50	Shirley	08/26/22
42	Israel G. Tomba	Med. of Vet. Off.	EPA	M	0776005684	S. Tomba	08/26/22
43	Jefferson Ngandibo	MED COORD.	EPA	M	0770216654	J. Ngandibo	" "
44	Abraham A. Blamo	CSO		M	0777392213	Abraham	08/26/22
45	Abiana N. Surleaf	Director	MTA	F	0775687456	Abiana	08/26/22
46	Kingston J. Pyne	Budget analyst	EPA	M	0777169226	J. Pyne	08/26/22
47	Beretta Rudo	Food Point	GTA	F	0775266128	Beretta Rudo	08/26/22

48	Josephine Jayjay	Radio Editor	Reporter	F	0777422275	Josephine	08/26/22
49	Menlaidey Myers	Student	UL	M	0555503613	Men	" "
50							