



# Liberia's Perspective for Developing Implementation Strategies for NAPs

Date: June 29, 2021

NAP GSP SOUTH-SOUTH KNOWLEDGE EXCHANGE  
FORUM

Presented By:  
**Arthur R.M. Becker**

**Project Officer, Multilateral Environmental Agreements-  
Environmental Protection Agency of Liberia**



# Outline

- National Circumstance
- Liberia's NAPs At A Glance
- Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors)
- Developing adaptation strategies and action plans for key sectors based on the CVRA
- Capacity building of national experts
- Using the NAPs as a building block for NDC adaptation component, implementation strategy for Liberia's revised NDC
- Stock take of the NAPs Process



# National Circumstance



Liberia covers an area of **111,369 square km (43,000 square miles)**, with 13.5% covered by water and the remaining 86.5% consisting of land. The coastline of Liberia is estimated to be 565-km in length. It is home to some of the country's largest cities and conducive to fishing and tourism.

Despite substantial forest loss over the years, Liberia is a home to a lush rainforest containing a rich diversity of flora and fauna. Interestingly, it is good to note that Liberia holds around 40% of the remaining West African moist forest (Upper Guinean Forest).

Liberia's population was estimated at 4.5 million in 2015 by the world bank and it is projected to increase to 10.3 million by 2058, with more than 70% of the population living in coastal cities including Monrovia, the country's capital.

Liberia remains one of the least developed countries.



# Cont'd National Circumstance





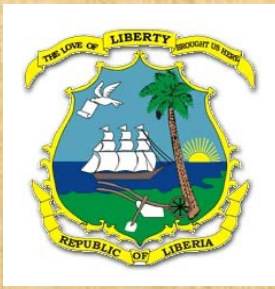
# Liberia's NAPs At A Glance



Liberia's National Adaptation Plans project supports the Government of Liberia to advance its National Adaptation Plans process in climate sensitive sectors.

The activities in this project focused on:

- (1) Strengthening institutional frameworks and coordination for implementation of the NAPs process;
- (2) Expansion of the knowledge base for scaling up adaptation;
- (3) Building capacity for mainstreaming climate change adaptation into planning, and budgeting processes and systems;
- (4) Formulation of financing mechanisms for scaling up adaptation (including public, private, national and international).



# Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors- Coastal Sector as an Example



❑ Why the Coastal Sector? It is an important sector of the country. By safeguarding the ocean and coastal biodiversity, Liberia hopes to maximize the long term ecological and socio-economic benefits for its people.

❑ The coastal communities of Liberia who are often subjected to the impacts of erosion and flooding are faced with additional hazards like:

## - Sea level rise and Climate Change

- Risk assessment in the coastal area thus Liberia took a study to understand and conduct assessment with respect to the following:

**A.** Composite hazard incidence for the coastal areas based on the individual hazards such as coastal flooding/sea level rise and erosion; **B.** Composite vulnerability of the coastal communities to these hazards; and **C.** Associated coastal composite risk mapping based on incidence of hazard, and a level of vulnerability to these hazards.



## Cont'd: Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors- Coastal Sector as an Example



**The objectives of vulnerability and risk assessment task were as follows:**

- To identify and assess the major hazards which are contributing risk to human life;
- To devise a model for assessment of the coastal vulnerability of human population, land resources and built heritage;
- To prepare a composite coastal risk-map of the project area and delineate zones of high, medium and low coastal risk. The coastal risk map will be the central link between the coastal processes and coastal management components of the overall project. The coastal risk map shall provide the basis for identification of future shoreline management policies designed to lower risk;
- To identify the areas falling within the high risk zones to pave way for providing management policies that will lower the risks of these coastal locations



## Cont'd: Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors- Coastal Sector as an Example



### Tools for Verification of Information conducted during vulnerability Assessment:

- Verification of vulnerability** – the inclusion of people’s perspective is important to ensure that the interpretation of vulnerability for the study is in complete accordance with the actual experiences of the coastal population;
- Verification of hazards and its impacts** – one of the key components of the study was to spatially map the hazards in the coastal area along with the severity of its impacts. Since the mapping was largely based on data retrieved from various sources and assumedly various level of precision, verification was necessary to ensure the findings on hazard severity on ground by actual experiences of the people;
- Verification of Risk** – the last and final check was done by site visits and informal discussion with the locals for confirming the risk zones as derived from the study. A field check was done by visits to the high risk grids (as derived from composite risk maps), observing the site conditions and getting confirmation from the people.





# Cont'd: Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors- Coastal Sector as an Example



## Framework of Risk Assessment for Liberia's Coastal Areas

The process is broadly divided into three parts:

- The first part explains the approach to comprehensive risk assessment model formulation, using quantitative and qualitative observations and future projections of hazards and vulnerabilities within the project's spatial framework;
- The second part involves quantification of hazard and vulnerability parameters considered in the model, and formulating respective indices followed by a preparation of hazard and vulnerability maps;
- Then followed by preparation of composite risk map and spatial evaluation of risk delineating the high, moderate and low risk zones. To verify the results, field verifications (model validation) and community interpretations are foreseen to ensure a rational risk assessment.



# Cont'd: Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors- Coastal Sector as an Example

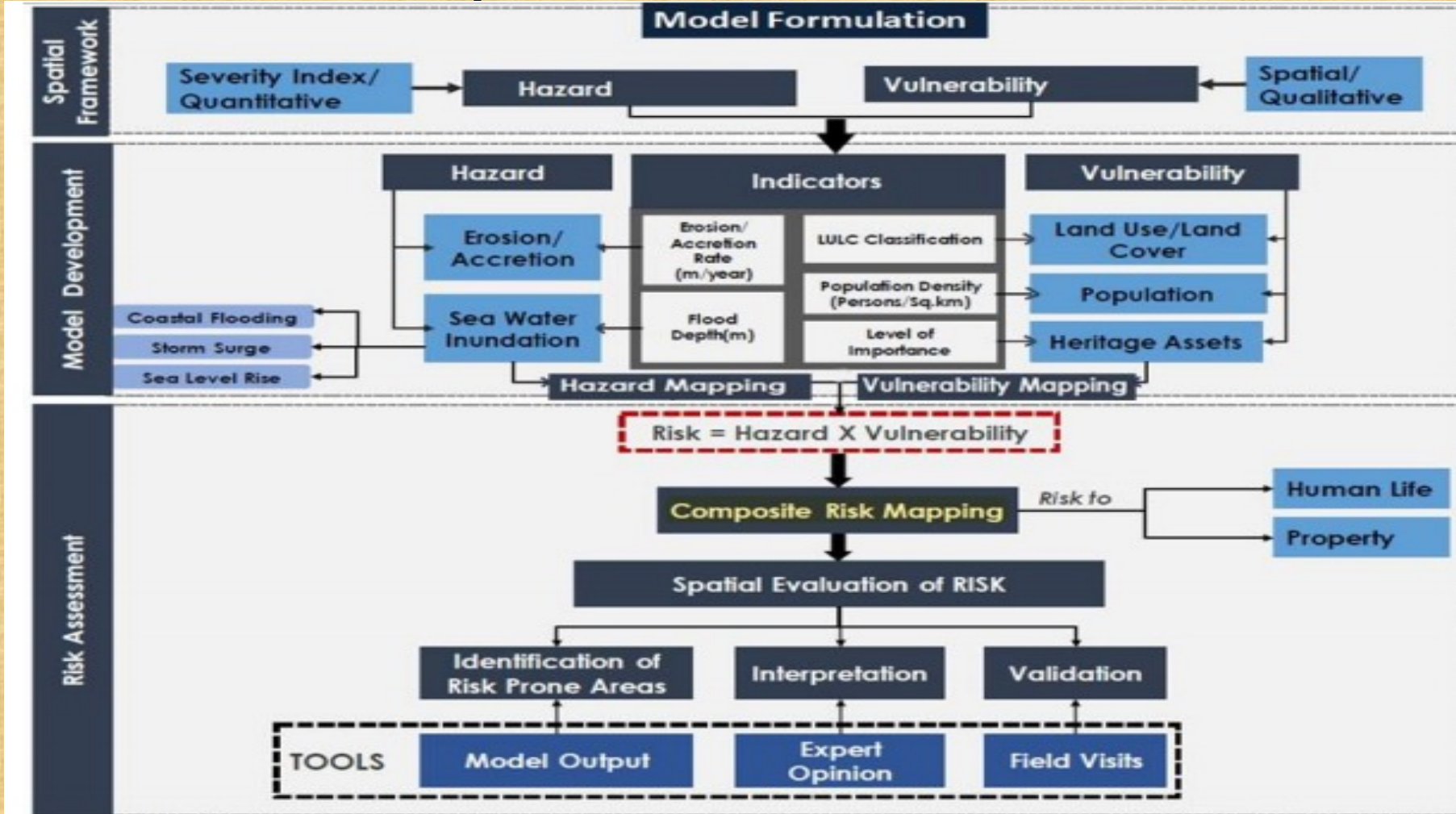


Figure 12 General framework of Risk Assessment (Source: with changes after IPE Global and Trumbic, 2018)



# Cont'd: Developing the evidence base needed to identify how climate change impacts the different sectors (climate vulnerability and risks assessment of the key sectors- Coastal Sector as an Example



## Types of Adaptation Options:

**Green Adaptation** measures use ecosystem-based (or nature-based) approach (EbA) to CC adaptation. Green adaptation measures are making use of the multiple services provided by natural ecosystems in a way that will improve resilience and adaptation capacity;

**Grey Adaptation** measures are supported by technological and engineering solutions in order to improve adaptation of land, infrastructures and people;

**Soft Adaptation** measures include all policy, legal, social, management or financial measures that can alter human behaviour and styles of governance, contributing to improve adaptation capacity and to increase awareness on CC issues.



# Developing adaptation strategies and action plans for key sectors based on the Climate Vulnerability and Risk Assessment



The exercise is intended to develop the scientific knowledge base and capacity required to conduct climate vulnerability and risk assessment for medium-term investment planning in climate-sensitive sectors (i.e. fishery, agriculture, energy, waste management, forestry and health) and coastal areas in Liberia.

It was conducted by an international climate change consultant supported by two local consultants and a multidisciplinary team of sectoral experts, with inputs from an international expert on gender.

Liberia's Initial National Communication under the United Nations Framework Convention on Climate Change (UNFCCC) notes that the impacts of climate change are expected to intensify as changes in temperature and precipitation affect economic activities.

The climate change vulnerability and risk assessment study was geared towards informing decision makers and stakeholders on sustainable and viable sector interventions, which will provide the basis for guiding coping strategies that will ensure that the sectors are managed in consideration of any climate-related risks and adaptation needs and options.



## **Cont'd: Developing adaptation strategies and action plans for key sectors based on the Climate Vulnerability and Risk Assessment**




Tools and information acquired also helped Liberia put in place its National Adaptation Planning process that builds upon existing development planning strategies and processes, implement priority adaptation actions, and facilitate the integration of climate change into planning strategies and enable sectors better plan their medium and long-term adaptation programs, policies and strategies. Out of this process the following key actions and strategies were developed:


- Launch of the National Climate Change and Response Strategy;**
- Ratification of the Paris Climate Agreement to fulfill Liberia's obligation to address Climate Change;**
- Launch of the National Disaster Risk and Respond Strategy;**
- Launch a Climate Change Vulnerability and Risk Assessment Study;**
- NAPs Community Based Adaptation Manual;**
- The Launch of an undergraduate and Graduate Programme in Environmental Science, Climate Change and Biodiversity at the University of Liberia;**
- Launch and support to Liberia's Early Warning System at the Ministry of Transport to help Liberia adapt to the negative impact of climate change in the face of economic development to ensure sustain-ability and development of Liberia's Climate Change Knowledge Management Sharing Platform**



# NAPs Interventions in Pictures



REPUBLIC OF LIBERIA



## National Policy and Response Strategy on Climate Change

August 2018





# NAPs Interventions in Pictures





# Capacity building of national experts



**In October 2018, 12 staff (5 females and 7 males) selected from government institutions are to participate in a two-week intensive training at the University of Galilee in Israel.**

**The nominated staff represented sectors at the Ministry of Agriculture, Ministry of Mines & Energy, Center for Research Agriculture Institute(CARI), Forestry Development Authority, University of Liberia, Cuttington University, and Environmental Protection Agency among others.**

**They were selected across sectors to pursue short term courses in climate resilient agriculture, climate change adaptation, coastal and flood engineering, among others.**

**The training was related to the advancement of the National Adaptation Plans (NAPs) Project with funding from the Green Climate Fund (GCF) through UNDP Environment Programme in collaboration with the Environment protection Agency (EPA).**

**They gained leadership skills necessary to support climate change adaptation planning, in an effort to reduce vulnerability to climate change and to facilitate the integration of climate change adaptation into national development planning processes.**





# Capacity building of national experts



**In September 2019:**

**□ A School of Environmental Studies and Climate Change has been inaugurated at the University of Liberia.** The School offers both undergraduate and graduate academic programs that support the United Nations Sustainable Development Goal on Climate Action. It addresses the need for research, and capacity development that will contribute significantly to solving environmental issues in Liberia and its surroundings.

These professional programs also capture climate change adaptation and vulnerability, as well as, disaster management thereby, responding to increasing labor-market demand for professionals knowledgeable about these issues in Liberia and internationally. This initiative supported by UNDP's National Adaptation Plans Project (NAPs) in partnership with the Environmental Protection Agency (EPA) is funded by the Green Climate Fund.

The two-degree granting Environmental Studies and Climate Change programme is to help promote and contribute to the National Adaptation Plan (NAP) of Liberia. The focus will be on developing a greater understanding of environmental disasters, related issues of climate change and biodiversity.



## Cont'd: Capacity building of national experts



### **Bridging the gaps related to Human Resource Capacity under Liberia's NAPs:**

**In December 2019:** The Environmental Protection Agency of Liberia working with the National Disaster Management Agency (NDMA) identified 5 competent staff, 3 females and 2 males, for the purpose of building their capacity to facilitate the implementation of disaster risk management and reduction strategies.

They were sent to Israel at the Galilee International Management Institute to attend a two-week intensive disaster management training which ran from 5-16 December 2019.

Training modules were on Emergency Management as a Profession; National Disaster Management Plan; Emergencies; Public Resilience and Behavior and Crisis Communication and Media Management.

After completing these courses and experiences, the trainees are now prepared to provide mentorship to other colleagues in the agency.



# Using the NAPs as a building block for NDC adaptation component, and implementation strategy for Liberia revised NDCs



## Why are the National Adaptation Plans(NAPs) key to NDC adaptation components Implementation strategy for Liberia's revised NDCs?

It enables parties to formulate and implement national adaptation plans (NAPs) as a means of identifying medium- and long-term adaptation needs and developing and implementing strategies and programmes to address those needs. Already Liberia's Nationally Determined Contributions(NDCs) is being revised considering additional sectors that have potentials for adaptation to the already existing sectors in Liberia's INDCs of 2015. They include: **Green Corridors, Health, Coastal Zones, and Fisheries. When finalized hopefully in July 2021, Liberia will have a revised NDCs reflecting ten(10) sectors: Mitigation( Energy, Waste and Transport) and Adaptation( Agriculture, Forestry, Health, Fisheries, Green Corridors, Coastal Zones) including SLCPs.** Clear targets and measures are being developed including clear implementation framework, sectoral costing as well as MRV System, etc.



## Stock take of the NAPs Process



On January 13, 2021 the closure meeting of the NAPs project was held and was intended to take stock of the NAP Project results, review and share experiences and lessons learnt from the project that can inform ongoing and emerging and new projects. The forum attracted over 60 participants including policy makers, project focal points, representatives from sectoral agencies and some experts who worked as consultants. Some officials of UNDP and EPA including the Agency's Executive Director, Prof. Wilson K. Tarpeh graced the occasion. Past activities and achievements of the project were showcased while a presentation on the project terminal evaluation report was also made. Participants discussed the terminal report and analyzed how Liberia can build upon and sustain the project gains.



## References



[Liberia Launches National Policy and Response Strategy on Climate Change - FrontPageAfrica \(frontpageafricaonline.com\)](#)

[Climate Risk Assessment for the Coastal Zone of Liberia FINAL \(1\).pdf](#)

[GCF National Adaptation Plans project in Liberia | UNDP Climate Change Adaptation \(adaptation-undp.org\)](#)

[Advancing the NAPs process | UNDP in Liberia](#)

[12 Liberians to benefit from intensive Climate Change training in Israel | UNDP in Liberia](#)

[Bridging the gaps related to Human Resource Capacity under the NAPs | UNDP in Liberia](#)

[UL launches new degree program on Environmental Studies | The New Dawn Liberia](#)



**The END!!!!**  
**Thanks for Listening**