

<b>Country</b>	<b>Liberia</b>
<b>Request ID#</b>	<b>2020000037</b>
<b>Title</b>	<b>The establishment of an Integrated Coastal Zone Management (ICZM) Plan to protect lives, properties and the environment</b>
<b>NDE</b>	Mr.Christopher B. Kabah TNA National Coordinator Environmental Protection Agency of Liberia Email: <a href="mailto:kabahchristopher@gmail.com">kabahchristopher@gmail.com</a>
<b>Proponent</b>	Professor Wilson K. Tarpeh Executive Director /CEO : Environmental Protection Agency of Liberia Email: <a href="mailto:wtarpeh@epa.gov.lr">wtarpeh@epa.gov.lr</a>  Mr. Jefferson Nyandibo Multilateral Environmental Agreements Coordinator Email: <a href="mailto:jnyandibo@epa.gov.lr">jnyandibo@epa.gov.lr</a>

#### **Summary of Climate Technology Centre and Network (CTCN) technical assistance**

The coastal zone is one of the nation's greatest environmental and economic assets of Liberia. However, the evolution of coastline variations is considered as one of the most dynamic processes affecting this area. Liberia has initiated its Technology Needs Assessment (TNA) in 2019. Integrated Coastal Zone Management has been identified as one of the three and the most important technologies priorities for the country along with Flood Early Warning System and Armour or Rock Revetment.

This TA will support the formulation of an Integrated Coastal Zone Management policy framework. The ICZM policy formulation will be a dynamic, multidisciplinary and iterative process to promote sustainable management of coastal zones. It seeks over the long-term, to balance environment, socio-economic, cultural and recreational objectives; reduces ecosystem degradation; and also conserves and maintains existing ecosystems from potential climate change impacts; it involves local communities or stakeholders' participation in decision of sustainable environmental management.

The objective of this TA will be to formulate an ICZM policy framework that will:

- Promote integrated planning and coordination of coastal developments across the various sectors.
- Promote sustainable economic development to secure livelihoods of coastal communities.
- Conserve the coastal and marine resources and environment for sustainable development.
- Manage environmental risks associated with changes in shoreline and climate.
- Develop capacity in research and education and enhance stakeholder awareness and participation in sustainable resource management.
- Establish effective institutional and legal frameworks for implementation of the ICZM policy.

**Agreement:**

(If possible, please use electronic signatures in Microsoft Word file format)

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**National Designated Entity to the United Nations Framework Convention on Climate Change (UNFCCC) Technology Mechanism**

Name:

**Christopher  
B. Kabah**

Title: National  
Designated  
Entity

Date: February  
10, 2021

Signature:



Name:

Title:

Date:

Signature:

Name:

Title:

Date:

Signature:

Name:

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Date:

Signature:

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**Climate Technology Centre and Network (CTCN)**

Name: Rose Mwebaza

Title: Director of CTCN

Date: 10/02/2021

Signature:



## **1. Background and context**

Currently in Liberia, the coastal zone is faced with the following climate change impacts: coastal erosion, coastal flooding and marine/ saline intrusion into fresh drinking waters. Climate Change impacts have become a national concern as they are destroying lives, property, coastal ecosystems, socio-economic activities in majority of Liberia's coastal areas<sup>1</sup>.

It is projected that about 95 km<sup>2</sup> of land in the coastal zone of Liberia will be inundated as a result of one-metre sea level rise, with about 50% (48 km<sup>2</sup>) of the total land loss due to inundation being the sheltered coast (Wiles, 2005). The inundation will be followed by shoreline retreat (Wiles, 2005); yet the population of Monrovia continues to grow. The potential rise in sea levels could add to existing trends of coastal erosion in areas like Buchanan, Monrovia and Greenville with a loss in infrastructure and land of around \$250 million apart from the social and psychological stress on the population (Tumbey, 2015; Wiles, 2005).

Hard engineering coastal defence measures are commonly used in and around Monrovia. Interestingly, during the National Coastal Vulnerability Assessment of 2019, we observed that the soft or green measures of coastal defence systems have been practiced in Maryland and Grand-Kru Counties for many years. These green measures consist of planting of coconut and almond trees along the beaches. Coconut trees or plantations along the beaches were primarily planted to be used as food or for agriculture purposes, such as a means to generate income. The trees also reduce the velocity of the ocean's wind that most often destroys the roof of homes, as well as a prevention to coastal erosion.

The Technology Needs Assessment on adaptation is being undertaken in Liberia for the first time. However, Liberia conducted vulnerability assessments and identified priority adaptation sectors and activities in the First National Communication (INC) and the National Adaptation Program of Action in 2008 (NAPA, 2008). The TNA for adaptation is an opportunity to determine the highest priority sectors and technologies for adaptation in the country. Integrated Coastal Zone Management has been listed as one of these priorities, and the lack of legal and regulatory policies and framework as one of the main barriers for its implementation (TNA – Barriers Analysis & Enabling Framework for the Diffusion of Climate Change Coastal Zone's Adaptation Technologies, April 2020).

## **2. Problem statement**

Historically in Liberia, most of the natural beaches sand dunes have been exploited for building or construction purposes. At many public beaches, human activities have also damaged the dune area which usually serves as a natural barrier between the shoreline and the land. Unregulated beach sand mining, private and public constructions on the beaches are also considered as a major problem contributing to the high rate of coastal erosion in coastal communities. Consequently, in addition to the above human induced activities,

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<sup>1</sup> TNA Liberia, Coastal Zone Management UNEP DTU.

climate change related impacts such as sea level rise and coastal flooding have accelerated the initial rate of coastal erosion in the country.

The direct impacts of coastal erosion, floods and related sea level rise impacts have become some of the alarming climate change risks currently affecting coastal cities and communities along the majority of Liberia's coastline. The impact of coastal erosion is currently disrupting livelihoods, destroying properties and leaving many residents homeless in coastal communities due to the lack of sustainable approach to mitigate or adapt to the direct threats presented to the communities. As such, the TNA's Coastal Zone has identified 3 main technologies, IZCM being the first priority.

The ICZM, if it covers the full cycle of information collection, planning, decision making, management and monitoring of implementation in the coastal zone, could regulate the above-mentioned existing problem if successfully instituted, adopted and diffused. This TA will formulate an ICZM policy framework to guide development planning and management, conservation of the environment and accommodate the social and economic needs of local communities.

**3. Logical Framework for the CTCN Technical Assistance:**

<i>Goal: Formulation of an Integrated Coastal Zone Management Policy framework</i>																																		
<i>Outcome:</i>																																		
<ul style="list-style-type: none"> <li>• Promote integrated planning and coordination of coastal developments across the various sectors.</li> <li>• Promote sustainable economic development to secure livelihoods of coastal communities.</li> <li>• Conserve the coastal and marine resources and environment for sustainable development.</li> <li>• Manage environmental risks associated with changes in shoreline and climate.</li> <li>• Develop capacity in research and education and enhance stakeholder awareness and participation in sustainable resource management.</li> <li>• Establish effective institutional and legal frameworks for implementation of the ICZM policy.</li> </ul>																																		
										<b>Month<sup>2</sup></b>																								
										1	2	3	4	5	6	7	8	9	10	11	12	13	14	15										
<b>Mandatory Output: Develop communication documents and implementation work plan</b>																																		
<p><b>Mandatory activities:</b> <i>All implementers must undertake the following activities at the beginning and at the end of the CTCN technical assistance.</i></p> <p><b>Activity i:</b> A detailed implementation plan for all activities, deliverables, outputs, deadlines and responsible persons/organizations, including a gender study and an itemized budget for implementing the Response Plan. The detailed implementation plan and budget must be based directly on this Response Plan.</p> <p><b>Activity ii:</b> Based on the work plan, a monitoring and evaluation plan with specific, measurable, achievable, relevant, and time-bound indicators should be developed to evaluate the timeliness and appropriateness of implementation. The indicators selected in the monitoring and evaluation plan should be aligned with the Closure and Data Collection Report template. This will enable the implementer to complete the CTCN Closure and Data Collection Report at the end of the technical assistance (please refer to Activity 1.4 and Section 14 of the Response Plan);</p>																																		

<sup>2</sup> The project timeline can be adjusted according to the level of development of the participating country.



<p><b>Activity 2.1 Map relevant stakeholders and establish a Steering Committee</b> The activity will identify relevant stakeholders among governmental institutions at the national and sub-national levels, private sector, civil society, academic institutions and beneficiaries. The Steering Committee shall maintain a gender balance and an adequate representation from vulnerable groups. It will provide a technical overview and a high-level guidance at every stage of the formulation of the ICZM policy framework. Please note that an ICZM Steering Committee was created for the TNA. NDE and NDA will support the implementer in the identification of main stakeholders.</p>														
<p><b>Activity 2.2: Conduct an inception meeting</b> An inception meeting will be organised to present the goals, milestones, anticipated deliverables and the role of the stakeholder working group.</p>														
<p><b>Deliverable:</b></p>														
<p><b>2.1:</b> Stakeholder mapping report containing a complete stakeholder list and the composition of the Steering Committee.</p>		X												
<p><b>2.2</b> Inception meeting report with photos, list of participants, summary of the presentations made and comments received, draft of the invitation to the meeting and explanation of how participants were invited, how long in advance, if the meeting was presential or organized online, etc.</p>		X												
<p><b>Output 3: Overview of the coastal zone and diversity of resources and their socio-economic importance</b></p>														
<p><b>Activity 3.1: Identify major coastal zone issues and challenges that the policy will seek to address</b> <b>Identify major coastal zone issues and challenges that the policy will seek to address</b></p>														
<p><b>Activity 3.2: Prioritization of major coastal issues and challenges through a participative process</b> The TA Steering Committee will prioritize, complete, review the list of major's coastal zone issues that should be addressed by the ICZM policy framework through a 2-day workshops that would be held either presential (best option) or online if restrictions (for COVID or else need to be respected). The prioritization will be made based on a qualitative and quantitative analysis taking into account the impact of the issue for the environment, the economy and the communities, as well as for the biodiversity.</p>														
<p><b>Deliverable:</b></p>														
<p><b>3.1</b> Draft report on the main issues and challenges to be addressed by the ICZM policy framework</p>						X								
<p><b>3.2</b> Report of the workshop (list of participants, photos, PWP) and a prioritization approved by the Coordination mechanisms of these issues and challenges.</p>						X								
<p><b>Output 4: 5 days workshops to define the framework policy's vision, mission, policy objectives and guiding principles</b></p>														
<p><b>Activity 4.1: Define the framework policy vision and mission (1 or 2 days – open to all stakeholders).</b></p>														

<p>In preparation of this workshop, the implementer will benchmark other countries' ICZM vision and mission, to explain with examples the importance of these concepts. After providing a definition of vision and mission, as well as the example of other countries from the region or globally, the TA coordination team will define, together and through a participative process, the definition of the vision and mission that the policy framework should adopt. The presence of youth, women, and vulnerable populations is fundamental for this workshop. The vision and mission should be agreed by the stakeholders, including public and private sectors, vulnerable populations, academical, NGOs, etc.</p>														
<p><b>Activity 4.2: Define the policy objectives through a workshop (2<sup>nd</sup> -3<sup>rd</sup> day for TA Steering Committee)</b> Once the vision and mission will be defined, the workshop will continue with the members of the Steering Committee in order to define the objective of the ICZM Policy and the goals that the policy framework will aim to achieve. The objective should be clear and concise. The implementer will play an important role in moderating the discussion in order to ensure the objectives that promote sustainable management of coastal zones, and cover the long-term, to balance environmental, socio-economic, cultural and recreational objectives; reduce ecosystem degradation; and also conserve and maintain existing ecosystems from potential climate change impacts. The objective should involve local communities or stakeholder's participation in decision of sustainable environmental management. The implementer will manage the discussion based on his experience to make sure only objectives are listed at this stage. Members of the Steering Committee might not be able to participate to all 5-day workshops. The implementer, along with the members of the Steering Committee will decide the relevant participation of each members prior to the selection of the dates for the workshop to make sure relevant representative of the Steering Committee are available for their respective workshops. For this workshop, a presence of policy makers (public institutions is required).</p>														
<p><b>Activity 4.3: Define the Guiding principles through a workshop (4<sup>th</sup> and 5<sup>th</sup> day for TA Coordination team).</b> Following the definition of a vision, a mission, and objectives, the Steering Committee will look at defining the guiding principles that will guide the implementation of the policy. Members of the Steering Committee might not be able to participate to all 5-day workshops. The implementer, along with the members of the Steering Committee will decide the relevant participation of each members prior to the selection of the dates for the workshop to make sure relevant representative of the Steering Committee are available for their respective workshops. For this workshop, a mix of policy makers and users of the framework policy should be invited.</p>														











#### 4 Resources required and itemized budget:

*Le coût d'accueil d'une réunion / d'un atelier ou d'une formation est estimé à 1 500 dollars par jour. Il comprend une journée de location, les frais de papeterie de base, de déplacement et de nourriture des participants.*

*Le coût d'un voyage comprend un vol aller-retour à 1 000 \$ et cinq jours ouvrables au Liberia à 200\$, soit 2 000 \$ par voyage pour l'expert international.*

*Les transports locaux définissent le coût des déplacements locaux en temps COVID (transport individuel).*

Outputs	Activities	Detailed Budget (In US\$)											
				Team Leader and Policy Expert (I1)	Coastal Zone Management expert (I2)	National C2M expert (N1)	Expert in capacity building and skills development (N2)	Gender Expert (N3)	Sum units	Per Unit	Total budget per component	Total budget per activity	Total Budget per output
Mandatory Output: Develop communication documents and implementation work plan	Activity I: Develop detailed Implementation Plan	Consultant - International	Days	2	0				2	500.00	1,000.00	1,000.00	4,200.00
		Consultant National	Days			0			0	200.00	-		
	Activity II: Develop a monitoring and evaluation plan	Consultant - International	Days	2					2	500.00	1,000.00	1,200.00	
		Consultant National	Days			1			1	200.00	200.00		
	Activity III: Impact description document (A two-page description of the expected impact of the CTCN technical assistance)	Consultant - International	Days	1					1	500.00	500.00		
		Consultant - Individual - Local	Days						0	200.00	-	500.00	
	Activity IV: A CTCN Closure and Data Collection report	Consultant - Individual - International	Days	1					1	500.00	500.00		
		Consultant - Individual - National	Days			5			5	200.00	1,000.00	1,500.00	
	Total days of work			8	0	8	0	0	12				
Output 1: Bibliographic analysis of relevant policies and legal instruments governing the utilization and management of the resources in Coastal Zones.	Activity 1.1: Matrix of existing legal and policy instruments	Consultant - International	Days	1	2				3	500.00	1,500.00	4,500.00	11,500.00
		Consultant - National	Days			15			15	200.00	3,000.00		
	Activity 1.2: Identification of barriers, lack of instruments, opportunities and challenges	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	7,000.00	
		Consultant - Individual - National	Days			10			10	200.00	2,000.00		
	Total days of work			8	7	25	0	0	38				
Output 2: TA coordination mechanism established, and Steering Committee formed	Activity 2.1 Map relevant stakeholders and establish a Steering Committee	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,400.00	20,300.00
		Consultant - Individual - Local	Days			20		2	22	200.00	4,400.00		
	Activity 2.2 Conduct an inception meeting	Consultant - International	Days	5	2				7	500.00	3,500.00		
		Consultant - National	Days			10	5	2	17	200.00	3,400.00	10,900.00	
		Workshop/Training/ Meeting	Days	1					1	1,500.00	1,500.00		
		Travel - International	Trip	1					1	2,000.00	2,000.00		
		Travel - Local	Trip			5			5	100.00	500.00		
	Total days of work			10	7	30	5	4	58				



<b>Output 5: Specific policy statements addressing issues on integrated planning and coordination of coastal development, community empowerment and resource use conflicts, environmental conservation, management of environmental risks, awareness creation and education.</b>	<b>Activity 5.1: Policy Statement on Integrated Planning and Coordination</b>	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,200.00	37,200.00	
		Consultant - Individual - National	Days			5		1	8	200.00	1,200.00			
	<b>Activity 5.2: Policy Statement on Sustainable Economic Development</b>	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,200.00		
		Consultant - Individual - National	Days			5		1	8	200.00	1,200.00			
	<b>Activity 5.3: Policy Statement for the Conservation of Mangrove and the Coastal and Marine Environment</b>	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,200.00		
		Consultant - Individual - National	Days			5		1	8	200.00	1,200.00			
	<b>Activity 5.4: Policy Statement on Environmental Risk Management</b>	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,200.00		
		Consultant - Individual - National	Days			5		1	8	200.00	1,200.00			
	<b>Activity 5.5: Policy Statement on Capacity Building, Education, Awareness and Research</b>	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,200.00		
		Consultant - Individual - National	Days			5		1	8	200.00	1,200.00			
	<b>Activity 5.6: Policy Statement on Institutional Arrangements and Legal Frameworks</b>	Consultant - Individual - International	Days	5	5				10	500.00	5,000.00	8,200.00		
		Consultant - Individual - National	Days			5		1	8	200.00	1,200.00			
	<b>Total days of work</b>				30	30	30	0	8	88				
	<b>Output 6: Official review of the first drafts conducted and revised ICZM framework finalised</b>	<b>Activity 6.1: Circulate first drafts of the ICZM Framework policy and collect official feedback</b>	Consultant - Individual - International	Days	2					2	500.00	1,000.00		2,000.00
Consultant - Individual - National			Days			5			5	200.00	1,000.00			
<b>Activity 6.2 Conduct an official review workshop</b>		Consultant - Individual - International	Days	5					5	500.00	2,500.00	11,500.00		
		Consultant - Individual - National	Days			10	5	2	17	200.00	3,400.00			
		Workshop/Training/ Meeting	Days	2					2	1,500.00	3,000.00			
		Travel - International	Days	1					1	2,000.00	2,000.00			
		Travel - Local	Trip			2	2	2	8	100.00	800.00			
<b>Activity 6.3 Incorporate comments and develop second drafts of ICZM Framework policy</b>		Consultant - Individual - International	Days		4				4	500.00	2,000.00	4,000.00		
		Consultant - Individual - National	Days			10			10	200.00	2,000.00			
<b>Activity 6.4 Circulate second drafts and collect official feedback</b>		Consultant - Individual - International	Days	2					2	500.00	1,000.00	2,000.00		
		Consultant - Individual - National	Days			5			5	200.00	1,000.00			
<b>Activity 6.5 Incorporate comments and develop final version of ICZM Framework policy</b>		Consultant - Individual - International	Days	2	2				4	500.00	2,000.00	4,000.00		
		Consultant - Individual - National	Days			10			10	200.00	2,000.00			
<b>Total days of work</b>				11	8	40	5	2	84					

Output 7 : Implementation framework guide	Activity 7.1 Development of an implementation guide of the ICZM framework policy	Consultant - Individual - International	Days	7	18				25	500.00	12,500.00	17,500.00	80,300.00	
		Consultant - Individual - National	Days			20		5	25	200.00	5,000.00			
	Activity 7.2 Suggested technologies for Coastal Zone Management	Consultant - Individual - International	Days	7	18				25	500.00	12,500.00	13,500.00		
		Consultant - Individual - National	Days			0		5	5	200.00	1,000.00			
	Activity 7.3 Workshop for policy makers and implementing agencies	Consultant - Individual - International	Days	4	4				8	500.00	4,000.00	12,800.00		
		Consultant - Individual - National	Days			10	3	3	18	200.00	3,200.00			
		Workshop/Training/ Meeting	Days	2					2	1,500.00	3,000.00			
		Travel - International	Days		1				1	2,000.00	2,000.00			
	Activity 7.4 Prepare and conduct an awareness raising seminar on gains from increasing ICZM	Travel - Local	Trip			2	2	2	8	100.00	800.00	18,500.00		
		Consultant - Individual - International	Days	5					5	500.00	2,500.00			
		Consultant - Individual - National	Days			5	20	20	45	200.00	9,000.00			
		Posters, radios, materials	Units	1					1	3,000.00	3,000.00			
		Travel - International	Days						0	2,000.00	-			
	Total days of work			23	40	35	23	33	154					
			Days		134	162	211	44	61			248,400.00		248,400.00



## 5 Profile and experience of experts

Experts required	Brief description of required profile
<b>International experts</b>	
<b>Team Leader and Policy Expert (I1)</b>	<ul style="list-style-type: none"> <li>• A minimum of 15 years relevant work experience in drafting environmental policies, laws, frameworks.</li> <li>• At least 5 demonstrated experience in drafting environmental laws, frameworks, policies in Africa.</li> <li>• Excellent abilities to interact with local stakeholders, collect and evaluate data and transform the information into high quality documentation tangible to the target audience.</li> <li>• Excellent written and communication skills in English..</li> </ul>
<b>Coastal Zone Management (CZM) expert (I2)</b>	<ul style="list-style-type: none"> <li>• A minimum of 8 years relevant work experience in Coastal Zone Management, water management or Climate Change.</li> <li>• At least 5 demonstrated experience in Integrated Coastal Zone Management.</li> <li>• Previous work experience in Latin America is required.</li> <li>• Excellent abilities to interact with local stakeholders, collect and evaluate data and transform the information into high quality documentation tangible to the target audience.</li> <li>• Excellent written and communication skills in English.</li> </ul>
<b>National experts</b>	
<b>National Coastal Zone Management Expert (N1)</b>	<ul style="list-style-type: none"> <li>• A minimum of 5 years of relevant work experience in drafting environmental policies.</li> <li>• Proven experience of Coastal Zone Management will be valued.</li> <li>• Proven working experience in Liberia is required. Presence in Liberia will be a plus.</li> <li>• Good communication skills.</li> </ul>
<b>Expert in Capacity building and skills development (N2)</b>	<ul style="list-style-type: none"> <li>• A minimum of 8 years of relevant work experience in implementing capacity building on environmental projects at ministry/governmental level.</li> <li>• Proven understanding, knowledge and experience of the Paris Agreement, Climate Change, sustainable development.</li> <li>• Proven working experience in Liberia is required.</li> </ul>
<b>Gender Expert (N3)</b>	<ul style="list-style-type: none"> <li>• A minimum of 5 years relevant work experience in the field of gender equality and gender mainstreaming.</li> <li>• Formal training in gender analysis and gender planning and demonstrated expertise in mainstreaming gender in projects and programmes.</li> <li>• Excellent abilities to interact with local stakeholders, collect and evaluate data and transform the information into high quality documentation tangible to the target audience.</li> <li>• Previous work experience in Africa is required.</li> <li>• Excellent written and communication skills in English.</li> </ul>

## 6 Intended contribution to the expected impact of the technical assistance

The TNA second report “Barrier Analysis and Enabling Framework on Liberia’s coastal zone defines that one of the main barriers to implement an effective ICZM is the lack and inadequate legal act or framework. Another barrier identified is the limited understanding of ICZM functions and fundamental principles.

This TA will formulate a framework policy, create a steering committee to ensure good cooperation between the institutional bodies, and thus revisit the ICZM Unit in order to create a proper framework. This will be done through capacity building and training workshops, campaign awareness and inclusion of vulnerable populations as well as gender.

## 7 Relevance to NDCs and other national priorities

The project is aligned with:

- The ongoing TNA on Coastal Zone Management
- Agenda for transformation (AfT, 2013)
- National Policy and Response Strategy on Climate Change (NRSCC,2018)
- Coastal Add-On project (CAP)
- National Environmental Policy of Liberia (2003)
- National Disaster Management Policy of Liberia (2012)
- National Adaptation programme of Action (NAPA, 2008)
- INDC
- NDMA Nation hazard contingency plan

## 8 Links to relevant parallel activities:

There are many efforts and initiatives that have been taken to address the alarming impacts of coastal erosion, coastal flooding and marine or saline intrusion into fresh drinking water that are disrupting livelihoods, destabilizing socio-economic activities and accelerating environmental degradation<sup>3</sup>:

**The Coastal Add-On project (CAP):** funded by the Global Environmental Facility (GEF) through the United Nations Development Programme (UNDP) seeks to Enhance Resilience of Liberia’s Montserrado County Vulnerable Coastal Areas to Climate Change Risks. The CAP constructed from June 2018 to June 2019, some 900 (Nine Hundred) linear meters coastal defense “Revetment” in the D-Twe Kru-town area. The project seeks to reduce the vulnerability of the community’s population and natural coastal environment to climate change risks and enhance the capacity of the community to recover from coastal erosion impacts.

**Buchanan Coastal Defence Project:** also, a CAP, supported by the UNDP and implemented by the Ministry of Mines and Energy during 2016 to 2017. This project constructed about 250 linear meters of coastal defense (revetment) in Buchanan city, Grand Bassa County, along the Fanti-town and Atlantic street area to mitigate the alarming rate of coastal erosion that was of national concern.

**Liberia Climate Change Assessment (2013)** was a project implemented by the United States Agency for International Development *USAID-Liberia Mission* to assist the Government of Liberia

<sup>3</sup> Coastal Zone Technology Needs Assessment for Climate Change Adaptation, July 17, 2019.

to develop climate data. In an effort, this project assessed and developed a climate data and future climate projections for the country. The project presented the level of coastal vulnerability identified in the coastal zone of Liberia from climate change impacts and recommended sustainable intervention. The result of this assessment for the coastal zone is an asset to be used by stakeholders to solicit funding from climate change donors in order to implement coastal mitigation and or adaptation measures projects.

**9 Anticipated follow-up activities after this technical assistance is completed:**

The TA will develop an Implementation guide at very short term (1 year) to ensure that the framework policy is endorsed and implemented. Focusing of mid-term perspective (3-5 years), the framework policy will enable the increase in the understanding and knowledge of institutions as well as citizens on the importance to protect coastal zones and ensure the conservation of the mangroves and marines' zones.

At long term perspective, the ICZM could:

- Promote integrated planning and coordination of coastal developments across the various sectors.
- Promote sustainable economic development to secure livelihoods of coastal communities.
- Conserve the coastal and marine resources and environment for sustainable development.
- Manage environmental risks associated with changes in shoreline and climate.
- Develop capacity in research and education and enhance stakeholder awareness and participation in sustainable resource management.
- Implement relevant technologies to monitor the evolution of coastal zones.

**10 Benefits in terms of gender and co-benefits:**

<p>Imbedded into the design of the activities:</p>	<p>The Women are the main actors in the fishing activities (processing and selling of fish) on the beaches in coastal communities of Liberia.</p> <p>To overcome the barrier of non-gender inclusion, create and provide mitigation and adaptation measures that will have direct positive impact or result on vulnerable women, children, youth and disable groups. As such, a timely emergency response team should be instituted to evacuate / prioritize people within such category in times of potential risk of flooding.</p> <p>The TA should include women and youth groups at local level, CBOs and Non-Governmental Organizations (NGOs) dealing with coastal zone protection issues.</p>
<p>Gender and co-benefits of the activities:</p>	<p>Loss in infrastructure and land of around \$250 million along with social and psychological stress to the population, with women and children being particularly vulnerable would be mitigate by the TA a solution to adapt to the impact of climate change will be defined.</p>

**11 Main national stakeholders in the implementation of the technical assistance activities:**

National Stakeholder	Function in the implementation of the technical assistance
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NDE	
NDA	
Environmental Protection Agency (EPA)	
Ministry of Mines and Energy (MME)	
Integrated Coastal Zone Management Unit (ICZMU)	
Energy, Environment and Climate Change Advisor to the President of Liberia	
Heads of Standing Committees on Environment and Natural Resources of the Senate and the House of Representatives	
Commissioner of Liberia Maritime Authority	
Community Youth Empowerment (CYE)	
Ministry of Gender, Children and Social Protection (MoGCSP)	
Ministry of Internal Affairs (MIA) Alliance Consulting Engineers (ACE)	
University of Liberia (UL)	
Ministry of Commerce and Industry (MoCI), Ministry of Finance & development Planning (MFDP).	
National Fishery Authority (NaFAA)	
Initiative for Youth and Children Advancement (I-IYOCA )	

**12 Contribution to the SDGs:**

<b>Goal:</b>	<b>Sustainable Development Goal</b>	<b>Direct contribution from CTCN TA</b>
1	End poverty in all its forms everywhere	
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	
3	Ensure healthy lives and promote well-being for all at all ages	
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	
5	Achieve gender equality and empower all women and girls	
6	Ensure availability and sustainable management of water and sanitation for all	
7	Ensure access to affordable, reliable, sustainable, and modern energy for all (consider adding targets for 7)	
	7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services	
	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix	

	7.3 - By 2030, double the global rate of improvement in energy efficiency	
	7.a - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	
	7.b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
10	Reduce inequality within and among countries	
11	Make cities and human settlements inclusive, safe, resilient and sustainable	The TA will try to make the coastal zone of Liberia more inclusive, safe, resilient and sustainable.
12	Ensure sustainable consumption and production patterns	
13	Take urgent action to combat climate change and its impacts	<i>All technical assistance should indicate relevance to SDG 13 and at least one of the following targets (13.1 to 13.b).</i>
	13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	This TA will formulate an ICZM policy framework that will support the adaptation to CC of Liberia, most specifically of its coastal zone.
	13.2 - Integrate climate change measures into national policies, strategies and planning	This TA will develop a framework of policy for ICZM.
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Capacity building to governmental bodies will be ensured as well as awareness campaign and workshops with communities living in coastal zones, private sector, university and academic sector, public sector NGOs etc.
	13.a - Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	

	13.b - Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	Liberia is a LDC and this TA will define a framework policy including a section on coordination, capacity building, education, etc.
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Yes, the TA will protect and restore the coastal zones of Liberia.
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	

### 13 Classification of technical assistance:

<i>Please tick the relevant boxes below</i>	Primary	Secondary
<input type="checkbox"/> 1. Decision-making tools and/or information provision	x	
<input type="checkbox"/> 2. Sectoral road maps and strategies		x
<input type="checkbox"/> 3. Recommendations for legal reforms, policies and regulations	x	
<input type="checkbox"/> 4. Financing facilitation	x	
<input type="checkbox"/> 5. Private sector engagement and market creation		x
<input type="checkbox"/> 6. Research and development of new technologies	x	
<input type="checkbox"/> 7. Feasibility of technology options		x
<input type="checkbox"/> 8. Piloting and deployment of technologies in local conditions		
<input type="checkbox"/> 9. Technology identification and prioritization		x

***Please note that all CTCN technical assistance contributes to strengthening the capacity of in-country actors.***

### 14 Monitoring and evaluation process

*Upon contracting the implementing partners to implement this Response Plan, the lead implementer will produce a monitoring and evaluation plan for the technical assistance. This monitoring and evaluation plan must include specific, measurable, achievable, relevant, and time-bound indicators that will be used to monitor and evaluate the timeliness and appropriateness of the implementation. The CTCN Technology Manager responsible for the technical assistance will monitor the timeliness and appropriateness of the Response Plan implementation. Upon completion of all activities and outputs, evaluation forms will be completed by the (i) THE COUNTRY on overall satisfaction level with the technical assistance service provided; (ii) the Lead Implementer on the experience and knowledge gained through the technical assistance; and (iii) the CTCN Director on the timeliness and appropriateness of the activities and outputs.*

*Abbreviations and acronyms*

CFC	Climate Finance Centre
CIS	Commonwealth of Independent States
CTCN	Climate Technology Centre and Network
EBRD	European Bank for Reconstruction and Development
EU	European Union
GCF	Green Climate Fund
GHG	Greenhouse Gases
HVAC	Heating, Ventilation and Air Conditioning
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NDE	National Designated Entity
SNiP	Construction Norms and Regulations of the Soviet Union
TA	Technical Assistance