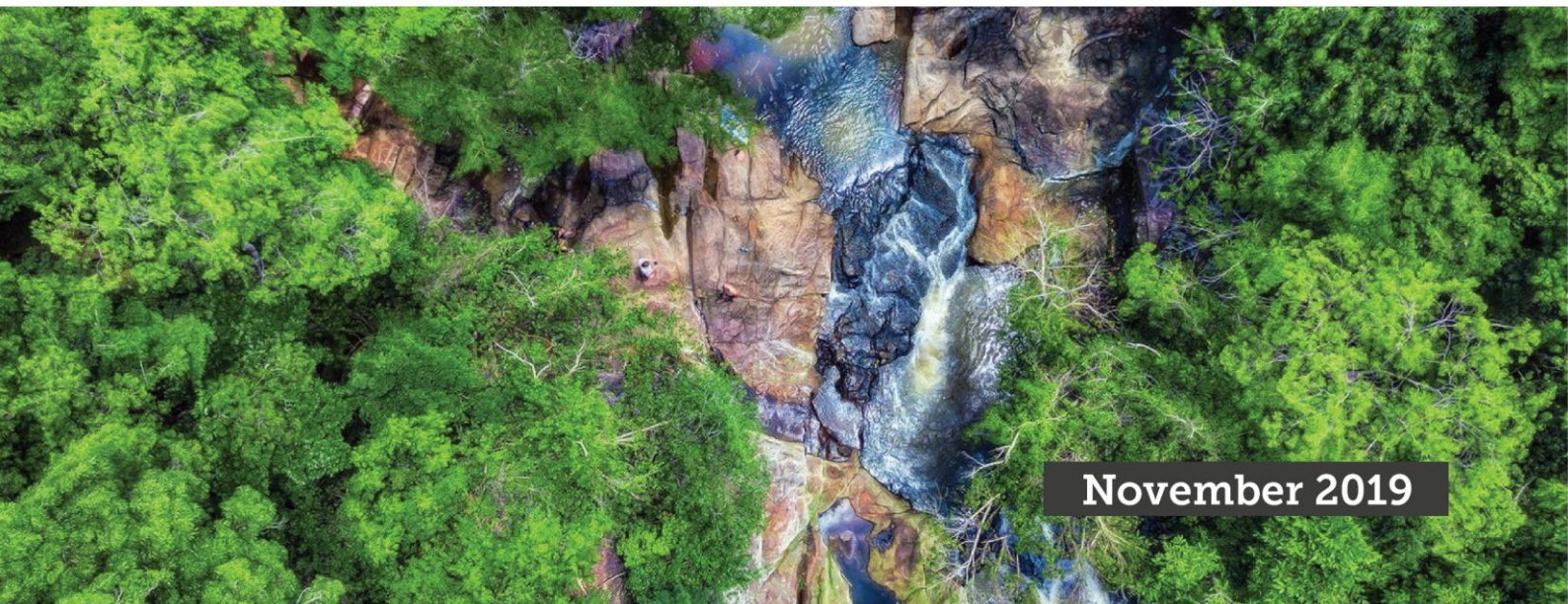


READINESS & PREPARATORY SUPPORT

PROPOSAL TEMPLATE



Proposal title:	Develop a renewable energy investment framework to increase the share of renewable energy-based electricity generation to achieve Liberia's NDC commitments
Country:	Liberia
National designated authority:	Professor Wilson K. Tarpeh, Executive Director/CEO, Environmental Protection Agency
Implementing Institution:	UNEP – The Climate Technology Centre and Network (CTCN)
Date of first submission:	31 August 2020
Date of current submission / version number	10 Aug 202 V.4



November 2019

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Download the guidebook:
<https://g.cf/xxxxx>



How to complete this document?

This document should be completed by National Designated Authorities (NDA) or focal points with support from their Delivery Partners where relevant. Once completed, this document should be submitted to the GCF by the NDA or focal point via the **online submission system**, accessible through the Country Portal of the GCF website.

Please be concise. If you need to include any additional information, please attach it to the proposal.

If the Delivery Partner implementing the Readiness support is not a GCF Accredited Entity for project Funding Proposals, please complete the Financial Management Capacity Assessment (FMCA) questionnaire and submit it prior to or with this Readiness proposal. The FMCA is available for download at the [Library](#) page of the GCF website.

Where to get support?

If you are not sure how to complete this document, or require support, please send an e-mail to countries@gcfund.org.

You can also complete as much of this document as you can and then send it to countries@gcfund.org, copying both the Readiness Delivery Partner and the relevant GCF Regional Desks. Please refer to the [Country Profiles](#) page of the GCF website to identify the relevant GCF Country Dialogue Specialist and Regional Advisor.

We will get back to you within five (5) working days to acknowledge receipt of your submission and discuss the way forward.

Note: Environmental and Social Safeguards and Gender

Throughout this document, when answering questions and providing details, please make sure to pay special attention to environmental, social and gender issues, particularly to the situation of vulnerable populations, including women and men. Please be specific about proposed actions to address these issues. Consult Annex IV of the Readiness Guidebook for more information.

Please visit the Country Portal on the GCF website to submit this proposal via the **online system**.

When submitting the proposal, please name the file:
GCF Readiness -[Country]-[yyymmdd]

1. SUMMARY

<p>1.1 Country submitting the proposal</p>	<p>Country name:</p> <p>Name of institution representing NDA or Focal Point:</p> <p>Name of contact person:</p> <p>Contact person's position:</p> <p>Telephone number:</p> <p>Email:</p> <p>Full office address:</p> <p>Additional email addresses that need to be copied on correspondences:</p>	<p>Liberia</p> <p>Environmental Protection Agency</p> <p>Wilson K. Tarpeh</p> <p>Executive Director/CEO</p> <p>+231888111777</p> <p>wtarpeh@epa.gov.lr</p> <p>4th Street, Sinkor, Tubman Boulevard, Monrovia, Liberia</p> <p>Christopher B. Kabah kabahchristopher@gmail.com</p> <p>Jefferson K. Nyandibo jnyandibo@epa.gov.lr</p>
<p>1.2 Date of initial submission</p>	<p>31 August 2020</p>	
<p>1.3 Last date of resubmission</p>	<p>10 December 2021</p>	<p>Version number V.4</p>
<p>1.4 Which institution will implement the Readiness and Preparatory Support project?</p>	<p><input type="checkbox"/> National designated authority</p> <p><input checked="" type="checkbox"/> Accredited entity</p> <p><input type="checkbox"/> Delivery partner</p> <p>Please provide contact information if the implementing partner is not the NDA/focal point</p> <p>Name of institution:</p> <p>Name of official:</p> <p>Position:</p> <p>Telephone number:</p> <p>Email:</p> <p>Full office address:</p> <p>Additional email addresses that need to be copied on correspondences:</p>	<p>United Nations Environment Programme (UNEP) on behalf of The Climate Technology Centre and Network (CTCN)</p> <p>Henrik Slotte</p> <p>GCF AE Focal Point</p> <p>+254-20 76 24147</p> <p>henrik.slotte@un.org</p> <p>UN Environment Programme</p> <p>United Nations Avenue, NFO Block 2-3 NW P.O. Box 30552-00100 Nairobi, Kenya</p> <p>Rose Mwebaza, Director CTCN, mwebaza@un.org</p> <p>gargr@un.org hemini.vrontamitis@un.org unep-gcf@un.org</p>
<p>1.5 Title of the Readiness support proposal</p>	<p>Develop a renewable energy investment framework to increase the share of renewable electricity technologies to achieve Liberia's NDC commitments</p>	

1.6 Type of Readiness support sought

Please select the relevant GCF Readiness objective(s) below (click on the box – please refer to Annex I and II in the Guidebook):

- I. Capacity building
- II. Strategic frameworks
- III. Adaptation planning
- IV. Pipeline development
- V. Knowledge sharing and learning

1.7 Brief summary of the request

Liberia needs to attract national and international investments in renewable electricity to achieve its 30% by 2030 and carbon neutrality by 2050 commitments in the NDC. The proposed readiness support aims to establish an investment framework for renewable energy, implement a de-risking mechanism and develop and submit a high-quality Project Concept Note to GCF.

This readiness support will contribute to national climate change strategies, the National Rural Energy Master Plan and the Liberian Agenda for Transformation 2030. The impacts of the readiness support will be evidenced by the subsequent availability of GCF support for a renewable energy project in Liberia. The impacts will also be measurable in 2030 as the share of renewable electricity in the Liberian electrical system that can be attributed to this readiness support.

The beneficiaries of the readiness support will be the Rural and Renewable Energy Agency, Liberia Electricity Regulatory Commission, Liberia Electricity Corporation, public and private renewable energy investors and banking and financial institutions. Importantly a significant share of the 79% of the population of Liberia which does not currently have access to electricity will also benefit from electricity access as a result of increased renewable electricity capacity additions coupled with electrification efforts.

Liberia estimates that a total of 100 MW of renewable energy generation (solar, biomass and small hydro) and investments of about \$ 242 million will need to be made by independent Power Producers (IPP) to achieve the national climate change and energy targets. Liberia has not yet been successful in attracting private IPP investments to achieve the renewable energy IPP programme because of the absence of the necessary regulatory and policy framework and associated institutional capacity, the lack of an appropriate de-risking mechanism and the absence of a paradigm shifting pipeline development.

The central aim of this readiness support is to put in place the much needed policy, regulatory, and investment frameworks, and procedures to implement the renewable IPP programme and to carry out the necessary steps to develop a transformative project concept note in partnership with an accredited entity. In the absence of the Readiness Proposal, the lack of investment frameworks and high-risk perceptions of renewable energy interventions would constrain renewable IPP investments and challenge Liberia's pathway towards achieving its NDCs.

1.8 Total requested amount and currency

USD 602,387

1.9 Implementation period

30 months

1.10 Is this request a multiple-year strategic Readiness implementation request?

- Yes
- No

For more information on how a country may be eligible to access Readiness support through this modality, please refer to **Annex III of the Readiness Guidebook**.

1.11 Complementarity and coherence of existing readiness support

Yes

No

Liberia has received 3 readiness grants (including adaptation planning) from GCF totalling US\$ 3.291 million.

The first readiness grant was approved in 2015 with UNDP as the Delivery Partner (DP) and the implementation was completed in 2019. This initial readiness support focused on NDA strengthening and development of the Liberia Country Programme 2019.

The second readiness support was for adaptation planning and was again routed through UNDP as the DP and was approved in 2016 as the first adaptation planning proposal approved by GCF. This adaptation planning readiness support is currently under implementation and envisage outcomes relating to strengthening institutions and coordination frameworks for implementation of the NAP process; expansion of the knowledge base in the country for scaling up adaptation; building capacity for mainstreaming adaptation into planning, and budgeting processes and systems and formulation of mechanisms for scaling up of prioritised adaptation investments and addressing financial gaps.

Third and the most recent readiness proposal was approved in late 2019 with the NDA – EPA as the delivery partner. This readiness support will strengthen NDA capacity through training and capacity building, implementation of a strategic framework for climate information services, pipeline development and knowledge sharing and learning.

This proposed readiness support builds in the initial readiness grant implemented by UNDP during 2015-2019 by focusing on the energy sector priorities articulated in the Liberia Country Programme of 2019. The current proposal is also aligned with the new readiness grant to be implemented by the NDA/EPA which plans to develop 3 bankable project concept notes including one on renewable energy. The activity on project concept notes to be developed under the already approved readiness grant focuses on training of expert group members on climate change, project preparation and approval. The current proposal will directly support the renewable energy project concept development and synergise with the approved readiness grant to train expert group members on renewable energy on project preparation and implementation during the pipeline development process.

In Liberia there are other energy sector initiatives that are funded by World Bank, African Development Bank, European Union and Millennium Challenge Corporation (MCC). Most of these initiatives are for specific projects in electrical system development, interconnection or energy generation with associated technical assistance without overlap with the objectives of GCF readiness programme. There may however be an opportunity to collaborate with MCC on the support being provided to establish Liberia Electricity Regulatory Commission (LERC) to ensure that LERC will be engaged during the implementation of the readiness proposal.

2. SITUATION ANALYSIS

Background

Liberia is a Least Developed Country (LDC) situated in West Africa occupying 111,369 km² with a population of 4.93 million. The Gross Domestic Product (GDP) of Liberia is US\$ 2.76 billion with a relatively low GDP per capita of US\$ 583.8. The country is ranked 176 out of 189 countries in the Human Development Index and also been ranked 175 out of 190 countries in ease of doing business. These low levels of development are a direct result of the fourteen-year civil war (1989-2003) which destroyed government institutions, decimated infrastructure, forced the flight of thousands, and caused significant loss of life. The war also destroyed critical industries such as manufacturing, iron mining, cultivation of rice, and rubber and reduced Liberia's GDP by 50 %. The country is currently in the phase of post-war rehabilitation and reconstruction.

Liberia has a predominantly equatorial climate and historical climate trends since the 1960s indicate increased average annual temperatures of 0.8°C throughout the country, increased frequency and unpredictability of intense rainfall events as well as rising sea levels. Projected climate change impacts include increase in annual temperatures between 0.9°–2.6°C by the 2060s, with rate of warming most rapid in the northern inland regions, overall increase in average annual rainfall, with an increase in wet season rainfall of 3 percent by 2050 with the dry season rainfall in the south declining by 2050. It is also projected that there will be a rise in sea level of 0.13–0.56 meters by 2100. Agriculture – the major economic sector contributing over 72% to the economy is likely to be impacted significantly by increased temperatures and increased frequency of intense precipitation. These climate change impacts are expected to result in crop loss and yield reductions, reduced growing season, maturation and drying period for crops as well as increased incidence of pests. The Greenhouse Gas (GHG) inventory for Liberia without Land-use change and forestry is 8,022 Gg. The major contribution to Liberia's GHG emissions is from energy sector which contributes 67.5% followed by agriculture which contributes 31.9% and waste which has a relatively small share of 0.6%.

Policy and institutional context

The national institutional framework for Climate Change in Liberia consists of the National Climate Change Steering Committee (NCCSC) and Secretariat, established in 2010, and is responsible for ensuring an intergovernmental framework for combatting climate change in Liberia. The Environmental Protection Agency (EPA) of Liberia is the Secretariat for NCCSC and primary agency responsible for climate change in the country. EPA is also the Climate Change Focal point to the United Nations Framework Convention on Climate Change (UNFCCC) and the National Designated Authority (NDA) to GCF and the National Designated Entity (NDE) for the Climate Technology Centre and Network (CTCN). Similar to many LDCs, the human and institutional capacities for climate change governance in Liberia remain relatively weak compared to the challenge and demands being posed by climate change and climate finance.

As mentioned in section 1, with respect to complementarity and coherence, Liberia has already accessed GCF readiness funds for NDA strengthening in 2015 and this support has now led the EPA and the NDA in clearing the Financial and Management Capacity Assessment (FMCA) process by GC. The new readiness support is being delivered directly by the NDA. However, Liberia does not yet have any GCF accredited Direct Access Entities (DAEs). The capabilities, track-record and scale of national institutions are still developing and is being supported by a number of key international institutions including the GCF. Liberia is currently making efforts to access international climate finance through international accredited entities.

Against this national context, the current readiness proposal seeks support for Liberia to strategically develop one of the key NDC commitments into a GCF project concept. As mentioned above, the energy sector is the largest contributor of GHG in the country, accounting for over 67% of national GHG emissions, primarily due to the intensive use of gasoline and diesel in power generation. Liberia's NDC articulates a vision of making Liberia carbon neutral by 2050 and also lays out a scenario of increasing the share of renewable electricity in the country to 30% by 2030. The Rural Energy Strategy and Master Plan (RESMP) for Liberia provides a roadmap for increasing energy access and increasing the share of renewable energy achieving this penetration of renewable energy by 2030.

National Climate priorities

This NDC ambition is based on the strong renewable energy resource that Liberia possesses- solar, hydro and biomass resources. Solar energy is one of the most promising and abundant energy sources in Liberia especially in the central and northern parts of the country and Liberia's location near to the equator (between latitudes 15°S and 15°N) provides good prospects for the utilisation of its high solar irradiation of about 4 – 6 kWh/m²/day for the generation of energy. On average, the solar potential of Liberia ranges between 1,665 and 1,771 kWh/m²/year. Liberia is also endowed with an abundance of biomass resources such as dense forests, oil palm and rubber plantations as well as cassava, sugarcane, rice, and other crop residues and it is estimated that an energy production potential of 27,452 GWh per year in Liberia from biomass resources including agro-residues could be

generated. Liberia also has abundance of well-distributed precipitation, rivers and streams across its land area and the hydro power potential of the country is estimated to be 2300 MW.

Problem statement and barriers analysis

The country requires more energy to satisfy its increasing demand due to population growth, food production, accelerated industrialization and better living standards for its citizens. While the country needs to rebuild its entire infrastructure for generation and distribution of electricity which was destroyed during a civil war that lasted from 1989 to 2003 (Government of Liberia 2013).

RESMP estimates that a total of 100 MW of renewable energy generation (solar, biomass and small hydro) will need to be developed to achieve these plans. Based on the recent TNA (December 2020)¹, 3 technologies have been identified and prioritised, by a stakeholder group using a Multi-Criteria Analysis (MCA), for mitigating Liberia's energy sector which are 1/solar PV home system, 2/solar PV mini-grid system, 3/small hydropower system. All three prioritized technologies have common barriers which includes:

- High upfront initial capital or investment cost, cumulated with a limited access to finance and long-term capital, the absence of adequate subsidies and financial incentives, a low ability and willingness to pay for technologies by end users, high interest rate charge
- Weak legal, regulatory and institutional framework: which leads to the use of cheap and sub-standard equipment, and requires the development of certification procedures, and clear regulatory guidelines for renewable energy
- Technical barriers with inadequate trained local technical expertise to install, operate and maintain renewable energy projects
- Information and awareness: Inadequate and limited information sharing about the technologies among stakeholders at local and national level
- Cultural, social and gender barriers: with the absence of inclusive gender participation in renewable energy projects, the absence of well-developed and targeted engagement plan to engage with potential beneficiaries, leaders or other influential members in the targeted areas.

It is envisaged that investments of about \$ 242 million will need to be made by independent Power Producers (IPP) to achieve the national targets.

Liberia has not yet been successful in attracting private IPP investments to achieve the renewable energy IPP programme which is threatening the achievement its NDC targets. In contrast, a large number of developing countries, including in West Africa, have had successful renewable IPP programmes awarded through public procurement and reverse auctions. While this model is also relevant to Liberia, considering good renewable energy resources and high electricity tariffs, an absence of investment frameworks and higher risk perceptions have constrained renewable IPP investments. Indeed, the current experience with the local IPP's biased the perception as they operate in a kind of captive market without proper competition or enforced rules². Thus, appropriate rules and monitoring systems is one of the measures that could create an enabling environment.

Also, the following gaps and challenges that are constraining progress on the 100 MW renewable IPP programme in Liberia:

- Absence of the necessary regulatory and policy framework and associated institutional capacity and the necessary procedures to implement the renewable energy IPP programme in Liberia.
- Higher levels of investment risk associated with the renewable IPP investments in Liberia and absence of an appropriate de-risking mechanism.
- Absence of building blocks such as accredited entity commitment, pre-feasibility, financial modelling, environmental and social screening etc. to develop a paradigm shifting pipeline development for the renewable energy IPP programme for Liberia.

To overcome the barrier of weak legal, regulatory and institutional framework, the following measures have been defined in the recently finalized TNA (2020)

- Establish an independent and transparent regulatory process.
- Establish quality standards for all energy products and services.
- Empower the Liberia Electricity Regulatory Commission (LERC) and the Bureau of Standards to monitor and enforce quality standards on all solar PV components and spare parts imported into the country.
- Empower the RREA to enforce safety standards, minimum technical standards for mini grids, as well as licensing or certification procedures of SHS installers, and other professionals to ensure that firms active in the sector have the required technical skills and are insured.

¹ <https://tech-action.unepdtu.org/wp-content/uploads/sites/2/2020/12/liberia-energy-sector-mitigation-baef.pdf>

² https://www.se4all-africa.org/fileadmin/uploads/se4all/Documents/Country_RAGAs/Liberia_RAGA_EN_Released.pdf

- Improve policy and regulatory framework to provide adequate incentives for investment by the private sector to accelerate the development of the off-grid solar market.
- Establish the appropriate policy and legal framework that will allow solar PV technologies to grow and compete with the conventional energy sources.
- Introduce relevant provisions in funding agreements, technical assistance programs and consultancy services contracts imposing contractors' commitments and obligations to transfer skills and knowledge to local personnel

Challenges to raising initial private capital

According to the US Department of State, in Liberia, the risks to financial environments remain challenging; corruption is endemic and a hindrance to investment. Liberia lags in important measures such as contract enforcement. After what can be lengthy negotiations with the government, investors seeking long-term agreements or concessions frequently face resistance from local communities which claim that the government did not consult them before finalising agreements. Concessionaires and other private investors are often expected to provide employees and surrounding communities with a wide range of basic services not provided by the government, including education, healthcare, and housing. In 2018, a number of large foreign investors were subject to a high level of public criticism and review by the Legislature. Despite systemic challenges, the government continues to expand and increase access to electricity throughout Liberia. They have achieved this through use of power supplied to the national grid from the Mount Coffee Hydropower Plant, the West Africa Power Pool's cross border electrification projects, and other internationally supported energy projects.³

It is believed that an initial set of investments will be pivotal in shifting the paradigm and will catalyse additional investments to meet the NDC target of 30% electricity by 2030. These challenges were considered during the stakeholder consultations carried out during the development of the Liberia country programme of GCF and increasing the renewable energy mix and strengthening private sector participation were identified as national priorities in the energy sector. The proposal is the opportunity to develop a transformational project concept addressing barriers to achieving the NDC commitment using GCF readiness resources⁴.

It is expected that the readiness support from GCF will empower Liberia to attract investments and meet its NDC commitment to increase the share of renewable electricity to 30% and achieve carbon neutrality by 2030. Indeed, the challenges faced by Liberia in achieving the 30% renewable electricity by 2030 through IPPs can be addressed through the development of a paradigm shifting project conceptualisation, the establishment of a conducive investment framework for renewable energy and the development of high-quality project concept notes.

Objective of the proposal

The central aim of this readiness support is to put in place the necessary elements in terms of policy and regulatory frameworks, investment frameworks and procedures to implement the renewable IPP programme and to carry out the necessary steps to develop a transformative project concept note in partnership with an accredited entity and submit it to GCF. The readiness proposal will be addressing the following identified outcomes of the GCF readiness programme.

Summary of the outcomes

Outcome 1.3:

Relevant country stakeholders (which may include executing entities, civil society organizations and private sector) have established adequate capacity, systems and networks to support the planning, programming and implementation of GCF-funded activities.

Outcome 2.2:

GCF recipient countries have developed or enhanced strategic frameworks to address policy gaps, improve sectoral expertise, and enhance enabling environments for GCF programming in low-emission investment

Outcome 4.3

An increase in the number of quality project concept notes developed and submitted that target SIDS, LDCs and African states

The anticipated deliverables under these outcomes that will address the gaps and challenges to the renewable energy IPP programme would be:

- i) Steering Committee established and operationalised.
- ii) Stakeholder mapping and Sectoral working groups established and operationalised.
- iii) Transfer of skills and knowledge to local personnel completed.

³ <https://www.state.gov/reports/2019-investment-climate-statements/liberia/>

⁴ Discussions have happened between the Liberian NDA and the GCF delegation in February 2020.

- iv) Assessment of institutional, policy and regulatory gaps for investments in renewable IPP developed and validated.
- v) De-risking mechanism formulated.
- vi) Investment framework for renewable energy IPP programme, and a roadmap to create an enabling environment in Liberia developed and validated by the Steering Committee and by the technical working group.
- vii) Financial model for the 100 MW Renewable Energy IPP programme established, financing arrangements developed and validated.
- viii) Environmental and social impact assessment study completed, and management plan developed.
- ix) Project Concept Note for the 100 MW renewable IPP programme for Liberia developed.
- x) Engagement plan to empower leaders or other influential members designed.

Complementary, coherence and synergies with previous/ongoing readiness interventions

The proposed readiness support is directly aligned with the Liberian government's commitment to be carbon neutral by 2050 and to increase the share of renewable electricity in the electricity mix to 30%. The outputs of the readiness support will result in development of a Project Concept Note for the 100 MW renewable IPP programme. The Technology Needs Assessment for Liberia developed during 2019 has also prioritised solar and small hydropower energy as the priority mitigation sector. Solar PV Grid-tied System and Small Hydropower will be supported within the 100MW renewable IPP programme. The Initial National Communications (INC) of Liberia also documented that about 67% of domestic GHG emissions are from the energy sector. Therefore, the proposed readiness proposal is directly relevant to NDC achievement by Liberia and is consistent with the priorities of TNAs. The alignment of this readiness proposal with other strategic documentation under the UNFCCC such as NDC and TNA has been ensured. The proposed readiness support is also addressing the 2019 Liberia GCF Country programme priorities of increasing the share of renewable energy and increasing the participation of private sector.

The proposed readiness project will contribute towards national level adaptation and mitigation targets and priorities. The complementarity with other readiness proposals is summarized below:

Project/initiative	Focus	Complementarity and entry points for building on previous interventions
NDA strengthening and Country Programming support for Liberia through UNDP	The Environmental Protection Agency of Liberia (EPA), as National Designated Authority, requested readiness support to develop responsive readiness interventions that help Liberia's effectively mobilize long-term resources from the Green Climate Fund. This can only be achieved with the knowledge of procedures and approaches for implementation required for the financing opportunities adequately accessed.	This readiness proposal builds on the NDA strengthening and development of the Liberia Country Programme grant delivered through UNDP by addressing the logical next steps on the mitigation priorities identified in the GCF Liberia Country Programme finalised in 2019.
Adaptation Planning support for Liberia through UNDP	The proposed project supports the Government of Liberia to advance its National Adaptation Plans process in climate sensitive sectors. The activities in this proposal focus on four outputs: <ul style="list-style-type: none"> • Strengthening institutional frameworks and coordination for implementation of the NAPs process • Expansion of the knowledge base for scaling up adaptation • Building capacity for mainstreaming climate change adaptation into 	The NAP grant will define medium term investment planning in climate sensitive sectors including energy. It will elaborate detailed economic assessments of adaptation studies undertaken in energy sector, and it will enhance the role of private sector in the provision and sales of climate-sensible technologies and services. This Readiness Proposal will be complementary to this GCF grant as it will also involve the private sector in participating in the deployment of low climate technologies. This Readiness Proposal will be focusing on mitigation options, and more specifically on renewable energy.

	<p>planning, and budgeting processes and systems</p> <ul style="list-style-type: none"> • Formulation of financing mechanisms for scaling up adaptation (including public, private, national and international) 	
<p>NDA strengthening and strategic frameworks support for Liberia through EPA</p>	<p>The Environmental Protection Agency of Liberia (EPA), as National Designated Authority, is requesting readiness supports to develop responsive readiness interventions that help Liberia’s effectively mobilize long-term resources from the Green Climate Fund. This can only be achieved with the knowledge of procedures and approaches for implementation required for the financing opportunities adequately accessed.</p>	<p>The grant “NDA strengthening and Country Programme support for Liberia through EPA “plans to develop 3 bankable project concept notes including one on renewable energy with a focus on training of expert group members on climate change, project preparation and approval. This readiness proposal will involve expert stakeholders from all the key climate change and energy institutions in the coordination of the development of the strategic investment framework and the project concept note including the various workshops planned to complement the training and capacity building efforts of the EPA implemented readiness support.</p>

The first readiness grant developed through UNDP, helped Liberia/NDA in developing an initial country programme and investment programme which would need to be updated and reviewed; it also helped Liberia in identifying capacity gaps that need to be further addressed to enable the NDA to efficiently and effectively carry out its responsibilities. The remaining critical gaps include: a) poor inter-governmental agency coordination on climate change, energy, finance and investment, b) inadequate human skillset/knowledge to originate development of bankable concept notes and funding proposals, and c) lack of private sector involvement in climate related activities in Liberia as a result of limited knowledge on climate change and GCF. These constraints persist although the foundation capacity for climate change and energy planning were initiated under early readiness support. The continued prevalence of these capacity gaps within the NDA’s has resulted from dedicated funding to engage on climate change issues and convene stakeholder consultations, as well as from the change in government (political transition) in Liberia resulting in departure of staff, champions and focal persons trained under early readiness initiatives⁵. The second readiness approved in 2019 will try to overcome these gaps, which will support the implementation of this readiness proposal if approved.

⁵ https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-liberia-epa-nda-strengthening-strategic-frameworks_1.pdf

3. LOGICAL FRAMEWORK

Outcomes	Baseline ⁶	Targets	Outputs	Activities (brief description)	Deliverables ⁷
<p>Outcome 1.3: Relevant country stakeholders (which may include executing entities, civil society organizations and private sector) have established adequate capacity, systems and networks to support the planning, programming and implementation of GCF-funded activities.</p>	<p>Limited coordination mechanisms exist between climate change department, energy sector and finance & investment stakeholders. Limited capacity to plan, program and implement GCF funded activities to meet NDC commitments.</p>	<p>Stakeholder coordination mechanism is established, engaging key climate change, energy, finance and investment stakeholders and capacity mobilised to plan, programme and implement GCF funded activities and meet NDC commitments.</p>	<p>Output 1.3.1:Steering Committee established and operationalised.</p>	<p>Activity 1.3.1a: Establish a Steering Committee (SC)</p> <p><i>Description:</i> A steering committee will be created. This steering committee will have the responsibility to implement the readiness support, to define the conceptualization and implementation of the GCF funded activity. The Steering Committee will involve, at least, the Ministry of Mines and Energy (MME), Rural and Renewable Energy Agency (RREA), EPA (as UNFCCC FP and NDA representative), Liberia Electricity Corporation (LEC), Liberia Electricity Regulatory Commission (LERC), Ministry of Finance and Development Planning, (MFDP),Liberia National Investment Commission (LNIC), Central Bank of Liberia (CBL), GCF Accredited Entity⁸.</p> <p>This activity of the GFC Readiness Program will create synergies with the Millennium Challenge Corporation (MCC) ongoing initiative, to ensure that the Liberia Electricity Regulatory Commission (LERC) that MCC is establishing will be engaged during the implementation of the readiness proposal.</p>	<p>Deliverable 1.3.1a: (i) Validated list of Steering Committee members including a list of individual members (ii) Steering Committee Terms of Reference</p>

⁶ Please briefly elaborate on current baselines on which the proposed activities can be built on, processes that are in place that the current Readiness proposal can strengthen, or any gaps that the proposed activities would fill in. If more space is needed, please elaborate this in Section 4.

⁷ Please include tangible and specific deliverables for each activity proposed, Please note that during implementation all deliverables should be included within the implementation reports for GCF consideration.

⁸ Will be identified under activity 4.3.2.

				<p>Activity 1.3.1b Organize an inception meeting</p> <p><u>Description:</u> The definition of the coordination mechanism and the mapping of the members of Steering Committee will be discussed during an inception workshop (1 day estimated). A list of the members (it is estimated that the Steering Committee should be composed of 8 to 10 persons) and respective role, responsibility and commitment to the implementation of the readiness proposal will be defined. The members and their respective role and responsibility will be validated by the NDA and/or relevant government agency.</p>	<p>Deliverable 1.3.1b</p> <p>(i) Report of the inception workshop including a list of participants desegregated by gender. (ii) pre- and post-surveys providing feedback on the workshop.</p>
				<p>Activity 1.3.1c: Define the work plan of the Steering committee</p> <p><u>Description:</u> It is expected that at least 6 meetings will be held in presence of the Steering Committee to guide the implementation of GCF readiness support and the development of the GCF project concept note. The work plan of the Steering committee will be defined during this activity.</p>	<p>Deliverable 1.3.1c:</p> <p>(i) 1 Workplan of Steering Committee approved.. (ii) Minutes of the meetings (at least 6) including an updated workplan and describing the actions to be taken by each members of the Steering Committee.</p>

				<p>The network member will participate in these quarterly meetings (virtually) and will provide the Steering Committee with updates on the outputs, activities, deviations, remedial actions and activity plan for the remainder of the project duration. Based on this updated workplan, details of the actions to be taken on a monthly basis and by each member of the SC, will be defined.</p>	
			<p>Output 1.3.2: Stakeholder mapping and sectoral working groups established and operationalised.</p>	<p>Activity 1.3.2a: Map stakeholders and establish sectoral working groups to actively contribute to readiness proposal</p> <p><i>Description:</i> The readiness proposal will analyse barriers to implement the prioritized renewable energy technologies, develop and validate a programme to implement a 100 MW of renewable energy in Liberia through IPP, and set up an enabling environment for the deployment of this programme. To successfully execute this work, it will engage all key stakeholders that represent the renewable energy and IPP sectors. To ensure extensive stakeholder participation, 4 sectoral working groups will be established:</p> <ul style="list-style-type: none"> • A solar PV mini grid working group. • A small hydropower working group. • An investment working group. • A private sector working group. <p>To facilitate strategic decision making and cross-sectoral cooperation, the four sectoral working groups will be</p>	<p>Deliverable 1.3.2a:</p> <p>(i) Stakeholder mapping report, including roles and responsibilities of working groups, list of stakeholders. (ii) 1 Workplan for each technical working group .</p>

				<p>established under a Technical working group. It is expected that each sectoral working groups should be composed by 3 to 5 national experts. Thus, the technical working group should not exceed 20 persons (4 sectoral working groups with a maximum of 5 persons each).</p> <p>The network member will closely work with this technical working group throughout the process to ensure all stakeholders have contributed to it. The stakeholder's input will be critical to defining the de-risking mechanism, elaborating the renewable energy IPP framework, formulating a roadmap which will result in the preparation of a robust project concept note .</p> <p>Activity 1.3.2b Define the work plan for the 5 workshops of the Technical Committee and organize the workshops.</p> <p><u>Description:</u> At least 5 technical workshops, 1 for each output 2.2.2; 2.2.3 a, b, c and 4.3,1 will be implemented.</p> <p>The Steering Committee will validate the technical working group and facilitate it active engagement throughout the readiness proposal.</p>	<p>Deliverable 1.3.2b (i) 5 Technical working group's meeting reports with list of participants desegregated by gender. (ii) pre and post surveys to receive feedback on the workshop.</p>
			<p>Output 1.3.3: Transfer of skills and knowledge to local personnel completed.</p>	<p>Activity 1.3.3: Organize one capacity building workshop on readiness proposal preparation.</p> <p><u>Description:</u></p>	<p>Deliverable 1.3.3 (i) One capacity building workshop report (including list of participants desegregated by gender, photo and other relevant documentation)</p>

				<p>This set will be dedicated to the technical working group engaged in the completion of the Activity 1.3.1b and will include two parts:</p> <ul style="list-style-type: none"> • The opening part will bring together the Steering Committee and Technical working group. It will cover the readiness proposal process objectives, targets, deliverables, timeline and coordination mechanisms. An important component of this part of the workshop will be to facilitate interaction between the Technical working group and Steering Committee with the view of establishing a favourable working climate between them. • The working part will target stakeholders from the sectoral working groups and will focus on technical details of the work to be implemented through the readiness proposal process. It will outline support and inputs anticipated from stakeholders, showcase technical tools to be utilized during the process, share case studies from work conducted in other countries with similar conditions and address participants' questions. <p>The workshop will engage the Steering Committee (8 to 10 persons) and the 4 sectoral working groups (of 3-5 experts each), with a maximum participation of 30 stakeholders.</p>	<p>(ii) Pre and post training surveys to assess the impact of the training sessions completed</p>
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<p>Outcome 2.2: GCF recipient countries have developed or enhanced strategic frameworks to address policy gaps, improve sectoral expertise, and enhance enabling environments for GCF programming in low-emission investment</p>	<p>Weak legal, regulatory and institutional framework is a barrier to the deployment of priority energy technologies identified in the TNA and the deployment of IPP investments in renewable energy in Liberia.</p>	<p>A renewable energy IPP investment framework and roadmap is in place in Liberia.</p>	<p>Output 2.2.1: Assessment of institutional, policy and regulatory gaps for investments in renewable IPP developed and validated.</p>	<p>Activity 2.2.1a: Conduct one assessment of institutional policy and regulatory gaps for IPP investments in renewable energy</p> <p><i>Description:</i> During this activity, up to 10 bilateral or virtual meetings with the Steering Committee and the technical working group will be carried out. Also, other stakeholders such as, but not be limited to— governmental agencies such as MME, RREA, LERC, LEC, MFDP, LCB, LNIC, development finance institutions/MDBs, private sector and civil society will be consulted. It is planned that additional 20 bilateral or virtual meetings will be held with these stakeholders. The purpose of this activity will be to identify institutional, policy and regulatory gaps to be bridged for establishing a competitive renewable energy IPP investment framework for Liberia.</p> <p>This analysis will also identify recommendations and propose a number of technical assistance activities to address the gaps in institutional arrangements/capacity, policy and regulation. These recommendations will be considered in the formulation of the framework for IPP in renewable energy.</p>	<p>Deliverable 2.2.1a:</p> <p>(i) One draft report on assessment of institutional, policy and regulatory gaps for investments in renewable IPP and recommendations on activities and outputs to address institutional, policy and regulatory gaps. (ii) Minutes of up to 30 bilateral or virtual meetings desegregated by gender.</p>
				<p>Activity 2.2.1 b: Organise a Steering Committee workshop and validate the assessment of institutional, policy and regulatory gaps</p>	<p>Deliverable 2.2.1b</p> <p>(i) One consultative workshop report (including list of participants desegregated by gender, photo and other relevant documentation)</p>

				<p>Description: A consultative workshop will be held to present the conclusions and recommendations described in the report 2.2.1a (i) in presence of the Steering Committee (8-10 persons) Following the workshop, the requested modifications will be made to the report and a final version will be published.</p>	<p>(ii) Pre and post training surveys to assess the impact of the training sessions completed (iii) Final version of the report on the assessment of institutional, policy and regulatory gaps produced.</p>
			<p>Output 2.2.2: De-risking mechanism formulated.</p>	<p>Activity 2.2.2a: Develop proposals on de-risking options</p> <p>Description: In consultation with the technical working group an assessment of risks that have negatively affected renewable IPP investments will be made. It will consider various de-risking options such as guarantees, insurance, Put and Call Option Agreements (PCOAs), adequate subsidies and financial incentives and suggest an appropriate risk mitigation/allocation/transfer mechanism.</p> <p>Activity 2.2.2b: Validate the de-risking options through a workshop with the Technical group.</p> <p>Description: It is considered that 1 workshop should be held in presence of the 4 sectoral working groups (max 20 persons). The objective of this workshop will be to identify the risks, the barriers, the bottleneck of the financial stakeholder with regards to the creation of a IPP market for renewable energy.</p>	<p>Deliverable 2.2.2a (i) A report describing the de-risking mechanism</p> <p>Deliverable 2.2.2b (ii) A workshop report on the de-risking options with a list of persons consulted desegregated by gender, (ii) pre- and post-training surveys to assess the impact of the workshop is completed</p>

			<p>Output 2.2.3: Investment framework for renewable energy IPP programme, and a roadmap to create an enabling environment in Liberia developed and validated by the Steering Committee and by the technical working group.</p>	<p>Activity 2.2.3a: Develop a renewable energy IPP investment framework for Liberia.</p> <p><i>Description:</i> This report will aim to define an investment framework for the 100 MW renewable IPP programme for Liberia. It will contain a reverse e-tendering process for the renewable IPP programme, that includes a de-risking mechanism and the necessary policies and regulations.</p> <p>Additionally, a technical assistance plan describing the best way to implement the Put and Call Option Agreements (PCOAs) will be designed. This plan will include measures to address the policy and regulatory gaps, institutional gaps, establishing the de-risking facility and implementing the renewable IPP tendering process.</p> <p>It will also be necessary to identify capacity required to successfully implement the framework, assess existing capacities and design capacity building activities to ensure required capacity is timely built.</p> <p>Also, an estimation of the cost of the identified actions and activities should be formulated as part of a budget plan.</p>	<p>Deliverable 2.2.3a: (i) One draft report describing the IPP investment framework for Liberia.</p>
				<p>Activity 2.2.3b: Formulate a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</p> <p><i>Description:</i></p>	<p>Deliverable 2.2.3b: (i) Roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia.</p>

				<p>In particular, the following 3 areas will be looked at in detail:</p> <ul style="list-style-type: none"> • Incentivizing and penalizing mechanisms to introduce a policy and regulatory framework to foster transition towards the use of renewable energy technologies. • Support import of renewable energy that are not available within the region by lowering duties and taxes. • Raise quality standards of the Renewable energy (RE) equipment by the development of certification procedures, and clear regulatory guidelines for renewable energy as defined in the TNA (2020). To develop this part, the Bureau of Standards should be involved. 	
				<p>Activity 2.2.3c: Organise a four-days' workshop to introduce the draft framework and roadmap to the Steering Committee and technical working group.</p> <p><i>Description:</i> The four-days' workshop will be organised as follows:</p> <ul style="list-style-type: none"> • Day 1: the draft framework will be introduced to the Technical working group (20 persons max) • Day 2: the draft framework is presented to the steering Committee (max 10 persons) • Day 3: the draft roadmap will be introduced to the Technical working group (20 persons max) 	<p>Deliverable 2.2.3c:</p> <ul style="list-style-type: none"> (i) A workshop report including with list of participants desegregated by gender, pictures, conclusions, and pre and post surveys. (ii) Final Framework report (iii) Final roadmap report

				<ul style="list-style-type: none"> • Day 4: the draft roadmap is presented to the steering Committee (max 10 persons) <p>Following the workshops, the final reports will be published, considering the stakeholder feedback.</p>	
<p>Outcome 4.3: An increase in the number of quality project concept notes developed and submitted that target SIDS, LDCs and African states</p>	<p>No quality project concept notes on renewable energy submitted for Liberia.</p> <p>No national Accredited Entity in Liberia.</p> <p>The grant “NDA strengthening and Country Programme support for Liberia through EPA “plans to develop 3 bankable project concept notes including one on renewable energy.</p> <p>The NAP grant will enhance the role of private sector in the provision and sales of climate-sensible technologies.</p>	<p>A paradigm shifting renewable IPP project concept note is developed for GCF pipeline by NDA, inclusive of a stakeholder engagement plan to garner support for the concept.</p>	<p>Output 4.3.1: Financial model for the 100 MW Renewable Energy IPP programme established, financing arrangements developed and validated.</p>	<p>Activity 4.3.1a: Develop a financial model for the 100 MW renewable IPP Programme for Liberia.</p> <p><u>Description:</u> This financial model will consider the price trends from recent IPP tenders, considering approved GCF project details and term sheets and considering combinations/options of various financial instruments such as grants, debt, guarantee and equity. The financial model will be presented to the Steering Committee through a full day of workshop (see Activity 4.3.1b) and revised based on the comments received by the Steering Committee. Final financial model will be circulated to the Steering Committee for review, comment, and final approval.</p>	<p>Deliverable 4.3.1a: (i) Draft, revised and final report detailing a financial model for the implementation of the 100 MW renewable IPP Programme for Liberia developed.</p>
				<p>Activity 4.3.1b: Organize a consultative workshop to discuss and validate the financial model.</p> <p><u>Description:</u> A three-day workshop will be held to present the financial model to the Technical working group (first day), to the Steering Committee (second day) and to the estimated number of 20 investors (third day). Following these</p>	<p>Deliverable 4.3.1 b: (i) Final Financial model for the implementation of the 100 MW renewable IPP Programme for Liberia developed. (ii) A report of the three-day workshop, including a list of participants, desegregated by gender, pictures, conclusions, and pre- and post-surveys of the workshop.</p>

				workshops, the financial model will be finalised.	
				<p>Activity 4.3.1c: Identify an accredited entity to develop and implement the 100 MW renewable IPP Programme for Liberia.</p> <p><i>Description:</i> Based on a short-list of regional and international accredited agencies of GCF with relevant accreditation scope (with specialised fiduciary standard for on-lending/blending) and regional/technology track-record, carry out discussions with involvement of the NDA, involving the coordination committee and senior management of key institutions. Identify the most appropriate accredited entity to develop and implement the GCF project on the 100 MW renewable IPP programme for Liberia..</p>	<p>Deliverable 4.3.1c: (i) A report shortlisting accredited entities relevant to the project scope (ii) A letter of intent or equivalent for Accredited Entity</p>
			<p>Output 4.3.2: Environmental and social impact assessment study completed, and management plan developed.</p>	<p>Activity 4.3.2: Undertake an Environmental and Social Impact assessment of the 100 MW programme.</p> <p><i>Description:</i> Conduct an environmental and social impact assessment study based on latest GCF guidance including consideration of GCF Gender Policy and Action Plan and Indigenous Peoples policy. Suggest possible environmental and social management plan for inclusion in the project concept.</p>	<p>Deliverable 4.3.2: (i)A report on Environmental and social impact assessment study and management plan</p>
			<p>Output 4.3.3: One project Concept Note for the 100 MW renewable IPP programme for Liberia developed.</p>	<p>Activity 4.3.3: Develop a draft concept note</p> <p><i>Description:</i></p>	<p>Deliverable 4.3.3: (i)A final draft Concept Note for the 100 MW renewable IPP programme for Liberia</p>

				<p>This activity will support the development of a Concept Note (CN) for the 100 MW renewable IPP programme for Liberia. An internal due diligence at the country level and AE level will be carried out through a workshop in presence of the steering committee. Based on the comments received, improvements will be made to the CN. This CN will also receive technical feedback from the Secretariat and will be revised accordingly. This CN will complement the CN developed under the grant "NDA strengthening and Country Programme support for Liberia through EPA" on renewable energy.</p>	<p>submitted to the Secretariat for technical feedback.</p> <p>(ii) Final draft revised based on the comments received from the technical Secretariat for future submission by NDA to the GCF.</p> <p>(iii) Report of the workshop on CN consultations with the Steering Committee, including a list of participants, desegregated by gender, pictures, conclusions, and pre- and post-surveys to receive feedback on the workshop.</p>
			<p>Output 4.3.4: Engagement plan to empower leaders and/or other influential stakeholders designed.</p>	<p>Activity 4.3.4a: Develop Training of trainer's packages</p> <p><i>Description:</i> Up to 4 Training of trainer's packages will be developed, one for each sectoral working group. These sensibilisation supports will be developed with the objective to be used by the local leaders and other influential members after the closure of the readiness proposal. They will be made in English as well as up to 3 local languages to be defined by the Steering Committee.</p>	<p>Deliverable 4.3.4a:</p> <p>(i) Up to 4 Training and training of trainer's packages developed</p> <p>(ii) Up to 4 training of trainers translated into up to 3 local languages.</p>
				<p>Activity 4.3.4b Conduct a training of trainers on Renewable Energy, and IPP solution.</p> <p><i>Description:</i> A capacity building workshop will be organized for private sector stakeholder representatives and help:</p>	<p>Deliverable 4.3.4b</p> <p>(i) Capacity building report with a list of participants, desegregated by gender, pictures, conclusions.</p> <p>(ii) Pre-and post-training surveys to assess the impact of the training sessions completed</p>

				<ul style="list-style-type: none"> • Raise awareness on business advantages related to utilizing renewable energy versus business-as-usual technologies. • Improve the perception of IPPs. • Train trainers who will be in a position to further spread the knowledge in various localities of Liberia. <p>An average of 50 participants is expected to participate to the capacity building workshop.</p> <p>This activity will be complementary to the NAP grant. Indeed, the NAP grant will enhance the role of private sector in the provision and sales of climate-sensible technologies and services.</p> <p>This Readiness Proposal will be complementary to this GCF grant as it will also involve the private sector in participating in the deployment of low climate technologies.</p>	
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4. THEORY OF CHANGE

The activities proposed in the logical framework aim at supporting Liberia in establishing a conducive investment framework for renewable energy and develop a high-quality project concept note for the implementation of a 100 MW renewable energy programme in the country. If Liberia manages to set up a regulatory and institutional framework on renewable IPP programme, then Liberia will be able to attract renewable IPP investments and meet its NDC commitments to increase the share of renewable electricity to 30% and achieve carbon neutrality by 2030 because strategic frameworks and de-risking mechanisms will be established and GCF financing would be available.

Liberia has enjoyed nearly two decades of peace and stability since the second civil war ended in 2003. Nonetheless, it was one of the hardest-hit countries by Ebola, and Liberia was still recovering from the health crisis that took thousands of lives and devastated the economy when the COVID-19 pandemic started. Liberia has abundant natural wealth and favourable geographic location, but it is among the world's poorest countries. Despite government's responses, major weaknesses persist which prevent the country in attracting national and international investments in renewable electricity. Given the magnitude of the challenges and limited capacity to address them, Liberia seeks readiness support to address the remaining Readiness gaps. As a result of the readiness programme activities, it is expected that the country commitment to reach 30% of renewable energy by 2030 and carbon neutrality by 2050 as defined in its NDC will be achieved.

There are four major barriers to Liberia achieving this transformational change which are:

- The absence of institutional capacity and procedures,
- The absence of policy and institutional frameworks to facilitate renewable IPP investments and
- The absence of a de-risking mechanism.
- The needs for transformational pipeline development through a high-quality project concept and an associated accredited entity which is committed to developing and implementing the GCF project in Liberia.

The activities included in the readiness proposal and presented in the log-frame are expected to overcome the identified barriers, first by establishing a national coordination mechanism through the creation of a Steering Committee and a Technical working Group composed by 4 sectoral working groups of 3 to 5 persons each. Secondly, by the validation of a regulatory framework associated with an approved financial model to impulse renewable IPP in Liberia. A roadmap to create an enabling environment for the creation of an IPP market for renewable energy in Liberia will also be developed and approved by the stakeholders (including the Steering Committee and the technical working group) along with a de-risking mechanism to manage/transfer risks, addressing as such the third barrier. The final and the most important output would be the preparation of a GCF Concept Note for the 100 MW renewable IPP programme for Liberia. Finally, an engagement plan will be designed, and a workshop will be held to empower leaders and other influential members that would address the last identified barrier.

These proposed activities are based around three objectives that will support the country's GCF readiness and programming process. The objectives include:

Objective 1: Capacity building

- Relevant country stakeholders have established adequate capacity, systems and networks to support the planning, programming and implementation of GCF-funded activities.

Objective 2: Strategic frameworks

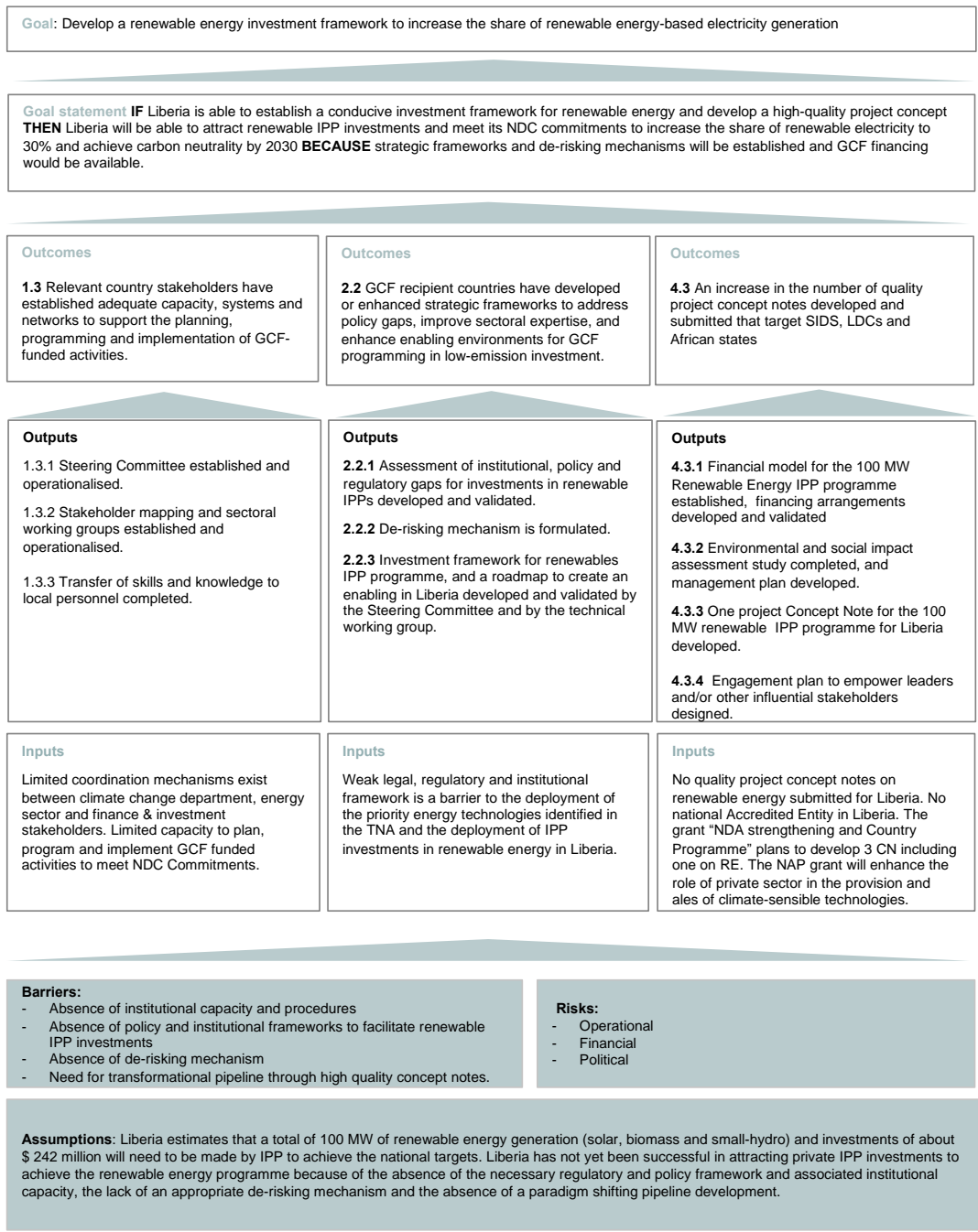
- GCF recipient countries have developed or enhanced strategic frameworks to address policy gaps, improve sectoral expertise, and enhance enabling environments for GCF programming in low-emission investment.

Objective 4: Paradigm-shifting pipeline development

An increase in the number of quality project concept notes developed and submitted that target SIDS, LDCs and African states. .

The Theory of Change diagram on the next page illustrates how this readiness proposal will address the identified barriers through activities and resultant outputs to achieve the planned goal and envisaged outcome. The theory of change diagram also indicates the inputs in terms of national climate change priorities viz NDC, TNA, RESMP and also the Liberia GCF Country Programme supported by the initial GCF readiness grant. The theory of change diagram also lists key assumptions and risks associated with the readiness proposal.

Figure 1 - Theory of Change Diagram



5. IMPLEMENTATION ARRANGEMENTS AND OTHER INFORMATION

5.1 Budget plan

Please see attached budget plan in the specified GCF format.

CTCN will be selecting the Network Member⁹ to implement the activities through a competitive tender process, evaluating complete technical and financial offers for the execution of the technical assistance. Due to the tendering process, the total budget might be different compared to the one approved by the GCF, but in no circumstances will it exceed the total budget amount approved by GCF.

Within CTCN technical assistance a minimum amount of 1% of total budget is dedicated to gender mainstreaming, assuring that the gender topic is properly embedded into the technical analysis and is assessed by a gender expert. The presence of a gender expert within the consultant's roster is a requirement within the ToR of the international tender to be published by CTCN.

- CTCN gender mainstreaming tool will be used as baseline reference to assure that gender issues will be included since the early stage of the technology prioritization of this proposal and throughout all the subsequent outputs. A description of the gender tool can be found at this link: <https://www.ctcn.org/technologies/ctcn-gender-mainstreaming-tool-response-plan-development>
- Stakeholder engagement (community representatives, government, organizations, industrial park management, private sector, financing institutions, etc.)

UNEP acknowledges the GCF request to follow the GCF DP/Accredited Entity (AE) fee calculation method and will apply this approach for future proposals.

5.2 Procurement plan

Please see the completed procurement plan developed in the specified GCF format and attached.

The overall financial management and procurement of goods and services under this readiness and preparatory support proposal will be guided by UN regulations, rules, policies and procedures and the Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement between the GCF and UNEP

UNEP will be responsible for the implementation of the readiness activities and for procurement and contractual services, as well as reporting on the progress of this implementation in close coordination and strategic guidance from the NDA/FP. The procurement actions and the operational services will be carried forward in accordance with UN policies and procurement guidelines. None of the parties involved in the preparation of this GCF readiness proposal can bid for the implementation of the project in whole or in part.

CTCN procedure for procurement: for a request that is eligible and prioritized, the Climate Technology Managers in charge of the respective request sources the appropriate expertise to develop the Terms of Reference of the assistance (called 'Response Plan' as per CTCN procedures). The response plan provides specific information on the technical assistance to be delivered, including activities, outputs, expected outcomes and impacts, timeline, indicators or measuring assistance progress and success, stakeholders to be involved, etc. The response plan, once finalized, is signed by the national focal point of the CTCN in the concerned country (National Designated Entity), the institution which originated the CTCN request for technical assistance and the CTCN Director and constitutes the basis of the assistance to be implemented and monitored upon the approval and in cooperation with the NDA. Based on the needs and expertise required in the response plan, a CTCN Network Member will be selected to implement it.

⁹ Network Member: As per the COP decision 25/CP.19; Annex I, I.1.(h), "Network" means collection of institutions and other entities established in accordance with the criteria approved by the Advisory Board for the designation of members of the Network and its structure. Network Members are integral part of the CTCN and provide support in implementation of the technical assistance to countries and other activities. Role of network is further defined in COP decision 1/CP16 Para 123 (a) – (d)

The selection of the institution from the Network of CTCN for the implementation of activities of the technical assistance is conducted through a competitive procurement process as per UNEP Rules and Regulations, in line with CTCN procedures and with UN Rules and Regulations (being UNEP the host of the CTCN, and a specialized agency established under the UN Charter). The CTCN nurtures a Network of more than 625 expert organizations in the field of low-carbon and climate resilient technologies. The CTCN network members are drawn from organization from different countries worldwide and with work experiences across different countries including conflict and post conflict zones. The procurement criteria for execution of this work with ensure procuring of organization with pre-requisite working experience in such environments. The required expertise to carry out the activities that define this intervention will be sourced from the Network. For this, the following four principles shall be given due consideration when undertaking the procurement functions of UNEP:

- i. Best value for money principle.
- ii. Fairness, accountability, integrity and transparency of the procurement process.
- iii. Effective competition.
- iv. The best interest of the UNEP.

5.3 Implementation Plan

Please see the implementation plan developed following the GCF template and attached.

Further, as per clause 3.07 of the Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement entered into between UNEP and GCF on 2 June 2020, the implementation period will be the period beginning from the date that the Fund notifies the Applicant and ending five (5) months after the expiration of the anticipated duration of the type of readiness support sought as specified in such Approved R&P Support Proposal, including any extensions approved by the Fund.

5.4 Disbursement schedule

Please specify the proposed schedule for requesting disbursements from the GCF. For periodicity, specify whether it's quarterly, bi-annually or annually only.

UNEP as the Delivery Partner for this Readiness and Preparatory Support Proposal will submit requests for disbursement for approved proposals to the GCF in accordance with the Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement entered into between GCF and UNEP on 2nd June 2020 ("Framework Agreement"). Disbursement requests will be signed by the authorized representative of the UNEP and will include details of the bank account into which the grant will be deposited. UNEP, the Delivery Partner for this R&P Support Proposal, will administer the grant disbursed by the GCF in accordance with UNEP's regulations, rules, and procedures including maintenance of records of grant, disbursements and expenditure.

Please choose one option among the two below and delete the one that does not apply to you. Please fill in information under brackets:

Readiness Proposal that falls within a Framework Agreement with the GCF

Disbursements will be made in accordance to Clause 4 "*Disbursement of Grants*" and Clause 5 "*Use of Grant Proceeds by the Delivery Partner*" of the Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement entered into between UNEP and GCF on 2 June 2020. The Delivery Partner is entitled to submit 2 request(s) for disbursement each year and is also entitled to request one interim request for disbursement within 30 days of notification of approval.

6. IMPLEMENTATION ARRANGEMENTS AND OTHER INFORMATION

6.1 Implementation arrangements

Please describe how implementation arrangements will be made and how funds will be managed by the NDA and/or the Delivery Partner.

As per UN regulations, rules, and procedures, UNEP will manage the funds for the activities under this readiness proposal. UNEP will agree on a plan with the NDA/NDE of Liberia -EPA, to monitor the implementation of the activities. However, UNEP will be responsible for the implementation, procurement of goods and services, monitoring and reporting of the activities under this readiness and preparatory support proposal in accordance with UNEP's policies and procedures and Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement entered into between GCF and UNEP on 2nd June 2020.

UNEP acknowledges the GCF request to follow the GCF DP/Accredited Entity (AE) fee calculation method and will apply this approach for future proposals.”

UNEP is the responsible party who will ensure the delivery of anticipated outputs and outcomes which must report to the Green Climate Fund on project outcomes and report to the GCF.

The 'Network Member' will report to UNEP as per their contractual arrangement and in line with UN rules and regulations. carry out the activities listed in the readiness proposal, either with internal personnel or externally recruited consultants for specialized tasks. The network member will be overall responsible (with the support from the NDA/NDE) for organizing workshops and following-up on activities to achieve the outputs of the readiness project. They will produce regular progress and financial reports and will submit deliverables to UNEP. Funds will only be released when the deliverables are satisfactory and cleared by UNEP. They will return any unspent funds within ninety days of expiry or notice of termination of the UNEP.

The UNFCCC country focal points for technology (NDE) and finance (NDA) who are both hosted at Liberia Environment Protection Agency (EPA) will provide active support to the selected Network Member in the execution of this technical assistance. Their roles as country focal points will include, but not be limited to: Ensuring the activities associated with the implementation of this technical assistance are aligned with national climate priorities; promote and engage with key stakeholders as identified by the Network Member; promote and present this technical assistance in climate change-related events; and participate in CTCN events and in national workshops affiliated with this technical assistance, if required. They will also be expected to provide guidance and review any relevant documents produced and will be kept apprised of the progress of the technical assistance. The role of the NDE and NDA is that of coordination and will play a key role in establishment of a TNA committee that will oversee the TNA process. The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.

The role of the NDE and NDA is that of coordination. They will seek inputs from the stakeholder coordination mechanism for implementing the readiness support consisting of the Ministry of Mines and Energy (MME), Rural and Renewable Energy Agency (RREA), EPA (as UNFCCC FP and NDA representative), Liberia Electricity Corporation (LEC), Liberia Electricity Regulatory Commission (LERC), Ministry of Finance and Development Planning, (MFDP), Liberia National Investment Commission (LNIC), Central Bank of Liberia (CBL), GCF Accredited Entity. This stakeholder coordination mechanism would track the progress of the project and the deliverables and provide guidance.

In terms of Governance: Climate Technology Centre and Network (CTCN) was established by Conference of the Parties (COP) in Cancun in December 2010. The CTCN was established to provide technical assistance and capacity building activities responding to requests from developing country parties. Following competitive bidding, the COP decided that the CTCN would be hosted by UNEP through a consortium to be co-led by UNIDO. This is the CTCN 'host'. CTCN also has an extensive network of organizations that can collaborate to successfully deliver this project. A network of 625+ organizations has subsequently joined the CTCN.

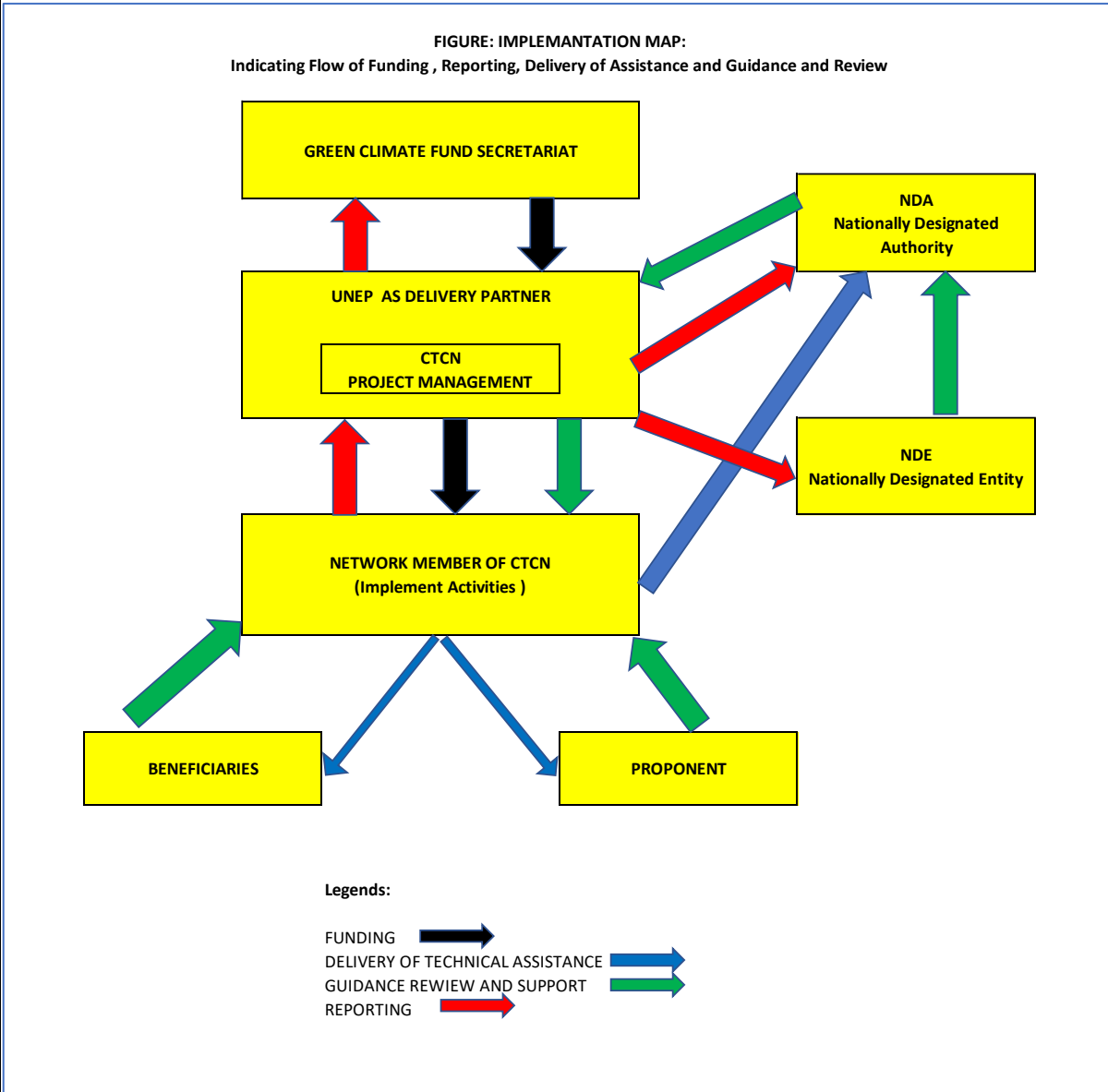
The CTCN (hosted by UNEP-UNIDO) aims to provide technical assistance to the Government of Liberia, as per its COP Mandate, and is thus supporting Liberia to develop this readiness proposal. The CTCN Engagement with the Government of the Liberia is strong with close co-operation between the NDA and NDE.

For this work in Liberia, UNEP will be responsible for the implementation of the readiness activities and for procurement and contractual services, as well as reporting on the progress of this implementation in close coordination and strategic guidance from the NDA/FP. The procurement actions and the operational services will be carried forward in accordance with UN policies and procurement guidelines. UNEP have significant

experience of delivering and supporting similar projects among other projects in developing countries. They have a wide network of local/ regional offices and expertise of the West Africa region.

The implementation map below summarizes the different interactions between the different parties involved in this technical assistance.

Figure 2 - Implementation map



6.2 Implementation and execution roles and responsibilities

Please briefly describe how the activities will be implemented and outputs delivered by project staff and consultants.

CTCN processes before the selection of the network member (described in the implementation map)

The CTCN process for managing technical assistance is the following: Requests for technical assistance can be prepared by any applicant organization from a developing country, but all requests must be submitted by the CTCN NDE (national focal point in the concerned country). Once submitted, all requests submitted by developing countries are assessed as per eligibility, balancing and prioritization criteria approved by the CTCN Advisory Board. The three eligibility criteria are the following: 1) The support provided will contribute to increased resilience and/or mitigate emissions, and is aligned with national plans; 2) The support will enhance endogenous capacities; and; 3) Processes are in place in the requesting country to monitor and evaluate any support provided (that is, project accountability is ensured). Balancing criteria are looking at inter and intra-regional a geographical balance (with a preference for requests submitted by LDCs and other highly vulnerable and low capacity countries; balance between adaptation and mitigation objectives, and balance between various types of support spanning the technology cycle. Prioritization criteria consider a number of elements that demonstrate project strength and potential for success, including the promotion of endogenous capacities and appropriate technologies, potential for scale up, for South-South cooperation, for leveraging public and private financing, for creating social, economic and social benefits, promoting gender equality etc.

Once a request is deemed eligible and prioritised, the CTCN selects the best expertise among its consortium partners to develop a response plan. The criteria for selection are: Relevant technical expertise, Experience and network in national context, Relevant language capacity, Response Planning track record, Representative use of the consortium partners in Response Planning and Feedback/ preference from the NDE.

Based on the discussion with the NDE, NDA and request proponent and feedback from the CTCN, the consortium partner develops the response plan. Once an advanced version is prepared, it is presented to CTCN's director NDE and NDA for signature. Once the response plan is signed, the Network Member will be contracted in line with UNEP operational modalities.

As per the COP mandate and the guidance of the advisory board of the CTCN, it selects the Network Member to implement the activities through a competitive bidding process amongst its registered Network Members, which are over 625 in number. The Network Members are selected provided they meet the membership criteria as defined by the COP decisions and approved by the Advisory Board of the CTCN (<https://www.ctc-n.org/network>). In the spirit of promoting country ownership, the readiness activities are planned to be performed by local consultants, with the guidance of international experts. The latter will be institutions that have a broad experience in West African countries. During the tendering process, one of the mandatory criteria for further technical evaluation of bids is that the Network Member demonstrates that they have a local presence either through its own office or a partnership agreement with a local organization/company or consultants. In addition, the bidder has to submit a statement that at least 25% and up to 50% of the budget (dependent on the budget approved by the GCF) is allocated to the local partner. This is to ensure that capacity is built at the local level and, at the same time, international expertise is brought into the country. This encourages creation of partnerships, North -South, South-South and triangular collaborations.

All the members of the network have signed the Code of Conduct as a membership condition. The objective of this Code of Conduct is to ensure that members meet the highest level of professional conduct and ethical standards in supporting the functions of the CTCN defined in paragraph 123 of decision 1/CP.16(COP decision), and that they act in the spirit of international cooperation and with commitment to fostering the development and transfer of environmentally sound technologies to developing country Parties. It applies to all members. The Code of Conduct is guided by two main principles (<https://www.ctc-n.org/network/code-conduct>):

- Adherence to the Supplier Code of Conduct of the United Nations; and,
- Professionalism and commitment to the principles of technology cooperation as described in the Cancun Agreement (1/CP.16).

The generic qualifications, skills and experience of team members in the Network Members who would be selected to implement the activities are enumerated below:

Expert title	Minim qualification requirements and necessary experience	Responsibilities of each expert
National expert (Solar PV grid connected expert) – N1	- Master's degree in project management/ solar PV/ energy engineer /masterplan	This expert will support the implementation of the following outputs:

	<ul style="list-style-type: none"> - Minimum 10 years of relevant expertise; expertise in solar PV, grid-connected solar energy, and project management, - Familiarity with the UN process, technology needs assessment methodology and technology actions planning - Working experience in the country highly desired - Language skills: excellent command of oral and written English. 	<p><u>Output 1.3.1 Steering Committee established and operationalised.</u></p> <p><u>Output 1.3.2 Stakeholder mapping and Sectoral working groups established and operationalised.</u></p> <p><u>Output 1.3.3 Transfer skills and knowledge to local personnel is completed</u></p> <p><u>Output 2.2.1 Assessment of institutional, policy and regulatory gaps for investments in renewable IPPs developed and validated</u></p> <p>Output 2.2.2 A de-risking mechanism is validated</p> <p>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</p> <p>Output 4.3.4 Engagement plan to empower leaders or other influential members designed</p>
International expert (Solar PV grid connected) – 11	<ul style="list-style-type: none"> - Master's degree in solar PV, renewable energy, grid connected solar PV, management - Minimum 10 years of relevant expertise. - expertise in solar PV, grid connected Renewable Energy - <u>Integrated solar PV management</u> - <u>Data management, statistics</u> - Language skills: excellent command of oral and written English 	<p>This expert will lead the following outputs:</p> <p><u>Output 1.3.1 Steering Committee established and operationalised.</u></p> <p><u>Output 1.3.2 Stakeholder mapping and Sectoral working groups established and operationalised.</u></p> <p><u>Output 1.3.3 Transfer skills and knowledge to local personnel is completed</u></p> <p><u>Output 2.2.1 Assessment of institutional, policy and regulatory gaps for investments in renewable IPPs developed and validated</u></p> <p><u>Output 2.2.2 A de-risking mechanism is validated</u></p> <p><u>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</u></p> <p><u>Output 4.3.2 Environmental and social impact assessment study</u></p>

		<p><u>completed and management plan developed</u></p> <p><u>Output 4.3.4 Engagement plan to empower leaders or other influential members designed</u></p>
National consultant (small hydro expert) - N2	<ul style="list-style-type: none"> - Master's degree in hydraulics and modelling - Minimum 10 years of relevant expertise; expertise in small hydro projects and project management, - Familiarity with the UN process, technology needs assessment methodology and technology actions planning - Working experience in the country highly desired - Language skills: excellent command of oral and written English. 	<p>This expert will support the implementation of the following outputs:</p> <p><u>Output 1.3.1 Steering Committee established and operationalised.</u></p> <p><u>Output 1.3.2 Stakeholder mapping and Sectoral working groups established and operationalised.</u></p> <p><u>Output 1.3.3 Transfer skills and knowledge to local personnel is completed</u></p> <p><u>Output 2.2.1 Assessment of institutional, policy and regulatory gaps for investments in renewable IPPs developed and validated</u></p> <p>Output 2.2.2 A de-risking mechanism is validated</p> <p>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</p> <p>Output 4.3.4 Engagement plan to empower leaders or other influential members designed</p>
International consultant (small hydro expert) – I2	<ul style="list-style-type: none"> - Master's degree in hydraulics and modelling - Minimum 15 years of relevant expertise. - Expertise in WD hydraulics - <u>Expertise in modelling</u> - <u>Expertise in optimization</u> - <u>Expertise in decision support systems</u> - Language skills: excellent command of oral and written English 	<p>This expert will support the implementation of the following outputs:</p> <p><u>Output 2.2.1 Assessment of institutional, policy and regulatory gaps for investments in renewable IPPs developed and validated</u></p> <p><u>Output 2.2.2 A de-risking mechanism is validated</u></p> <p><u>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</u></p>

		<u>Output 4.3.2 Environmental and social impact assessment study completed and management plan developed</u>
International expert (energy engineer) - 13	<ul style="list-style-type: none"> - Energy Engineer - Minimum 10 years of relevant skills. - <u>Expertise in energy modelling</u> - <u>Data management</u> - <u>Expertise in optimization</u> - <u>Expertise in decision support systems</u> 	<p>This expert will support the implementation of the following outputs:</p> <p><u>Output 2.2.1 Assessment of institutional, policy and regulatory gaps for investments in renewable IPPs developed and validated</u></p> <p><u>Output 2.2.2 A de-risking mechanism is validated</u></p> <p><u>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</u></p> <p><u>Output 4.3.3 Project Concept Note for the 100 MW renewable IPP programme for Liberia developed, validated and submitted to GCF.</u></p>
International expert (Power Plant expert) - 14	<ul style="list-style-type: none"> - Energy Engineer - Minimum 15 years of relevant expertise. - Expertise in grid connected renewable energy - <u>Expertise in power plant's modelling</u> - <u>Expertise in power plant's optimization</u> - <u>Expertise in power plant's decision support systems</u> 	<p>This expert will support the implementation of the following outputs:</p> <p><u>Output 2.2.1 Assessment of institutional, policy and regulatory gaps for investments in renewable IPPs developed and validated</u></p> <p>Output 2.2.2 A de-risking mechanism is validated</p> <p>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</p>
International expert (Finance expert)- 15	<ul style="list-style-type: none"> - Master's degree in economics, finance, climate finance. - Minimum 10 years of relevant expertise; expertise in defining financial models for energy projects, and project management, - Familiarity with renewable energy (solar ad hydro) - Language skills: excellent command of oral and written English. 	<p>This expert will support the implementation of the following outputs:</p> <p>Output 2.2.2 A de-risking mechanism is validated</p> <p>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia</p>

		<p>This expert will lead the following output:</p> <p>Output 4.3.1 Financial model for the 100 MW Renewable Energy IPPs programme established, financing arrangements and terms developed and validated.</p> <p>Output 4.3.3 Project Concept Note for the 100 MW renewable IPP programme for Liberia developed, validated and submitted to GCF.</p>
National consultant (socio economic specialist) – N3	<ul style="list-style-type: none"> - A university degree in socio-economy - minimum 5 years of relevant skills. - economics, statistics - sociology - <u>behavioural survey</u> - knowledge and experience of gender studies - 	<p>This expert will support the implementation of the following outputs:</p> <p><u>Output 1.3.1 Steering Committee established and operationalised.</u></p> <p><u>Output 1.3.2 Stakeholder mapping and Sectoral working groups established and operationalised.</u></p> <p><u>Output 1.3.3 Transfer skills and knowledge to local personnel is completed</u></p> <p>Output 4.3.1 Financial model for the 100 MW Renewable Energy IPPs programme established, financing arrangements and terms developed and validated.</p> <p>Output 4.3.2 Environmental and social impact assessment study completed and management plan developed</p> <p>Output 4.3.3 Project Concept Note for the 100 MW renewable IPP programme for Liberia developed, validated and submitted to GCF.</p> <p>Output 4.3.4 Engagement plan to empower leaders or other influential members designed</p>
Gender specialist (N4)	<ul style="list-style-type: none"> - Master's degree in gender studies or other discipline with focus on the field of gender issues in a developing country context - Relevant master's degree in Gender studies or other discipline with focus on the field of gender issues in a developing country context - At least 7 years working experience with gender mainstreaming issues in a developing country context - knowledge and experience of gender mainstreaming in climate change adaptation and mitigation 	<p>This expert will support the implementation of the following outputs:</p> <p>Output 2.2.2 A de-risking mechanism is validated</p> <p>Output 2.2.3 Investment framework for renewables IPP programme, and a roadmap to create an enabling environment for the</p>

		<p>creation of a IPP market for renewable energy in Liberia</p> <p>Output 4.3.2 Environmental and social impact assessment study completed and management plan developed</p>
Communications Expert (N5)	<ul style="list-style-type: none"> - A university degree in communications, journalism or other closely related field - At least 7 years professional experience in the field of communications. - Proven expertise in developing and implementing consumer awareness strategies - Excellent organizational skills and attention to detail. - Excellent computer skills using Excel and MS Office Suite. - Must be fluent in English and French 	<p>This expert will support the implementation of the following outputs:</p> <p>Output 2.2.2 A de-risking mechanism is validated</p> <p>Output 4.3.3 Project Concept Note for the 100 MW renewable IPP programme for Liberia developed, validated and submitted to GCF.</p> <p>Output 4.3.4 Engagement plan to empower leaders or other influential members designed</p>
PMC Consultant – Individual – International	<ul style="list-style-type: none"> - Master’s degree in climate change, environment, renewable energy, finance or another relevant field - This expert will be part of the UNEP / CTCN to ensure coordination and project management - Minimum 5 years of expertise in managing and implementing climate change projects in developing countries. - Experience with project design, monitoring and evaluation. - Experience with climate change mitigation, sustainable development, community-based projects/interventions. - Must be fluent in English 	<p>This expert will lead the work defined under the PMC.</p>

Apart from the individual qualifications and experiences of the proposed team members as mentioned above, the Network Member should demonstrate:

- Proven project management expertise of managing and delivering complicated multi-stakeholder projects involving surveys, data collection, capacity development programs working with national and international organizations.
- Proven expertise of engaging and mobilizing typical stakeholders from private and public sectors to design/implement national policy and regulations.
- Proven relevant experience of market assessments, technical support for policy implementation and financial mechanisms.
- Proven expertise in developing or updating national plans.
- Proven experience of writing technical reports, outreach and communication materials.
- Experience of working in respective country.

The CTCN is providing technical assistance to the Government of Liberia, as per its COP Mandate, and supporting Liberia to develop this readiness proposal. The CTCN Engagement with the Government of Liberia is advanced with close co-operation between the NDA and NDE which are both housed at the EPA. The services of network member will be procured through formal tendering procedures if the Readiness proposal is approved for implementation. The relevant COP decisions are provided below for easy reference:

(Decision 14/CP.22: Linkages between the Technology Mechanism and the Financial Mechanism of the Convention)

Para 4. Welcomes the increased engagement between the Green Climate Fund and the Climate Technology Centre and Network, particularly with respect to utilizing the Readiness and Preparatory Support Programme and the Project Preparation Facility of the fund, noting the potential of such engagement in supporting developing country Parties to build their capacity for implementing technology projects and programmes;

Para 6. Invites Green Climate Fund national designated authorities and focal points to use the support available to them under the Readiness and Preparatory Support Programme to, inter alia, conduct technology needs assessments and develop technology action plans.

Para 7. Also invites developing country Parties to develop and submit technology-related projects, including those resulting from technology needs assessments and from the technical assistance of the Climate Technology Centre and Network, to the operating entities of the Financial Mechanism for implementation, in accordance with their respective policies and processes;

(Decision 15/CP.22: Enhancing climate technology development and transfer through the Technology Mechanism)

Para 13. Underlines the importance of well-functioning and strengthened collaboration between the national designated authorities for the Green Climate Fund, the focal points for the Global Environment Facility and the national designated entities for technology development and transfer

Para 15. Welcomes the increased engagement between the Green Climate Fund and the Climate Technology Centre and Network, particularly with respect to utilizing the Readiness and Preparatory Support Programme and the Project Preparation Facility of the fund in order to respond to country-driven requests for technical assistance.

Para 16. Encourages the advancement of the engagement referred to in paragraph 15 above, including through the strengthening of collaboration between national designated authorities for the Green Climate Fund and national designated entities for technology development and transfer.

Para 17. Invites the Climate Technology Centre and Network to include the outcomes of the engagement referred to in paragraphs 15 and 16 above in its annual report to the Conference of the Parties at its twenty-third session.”

The monitoring of the GCF Readiness Proposal will be conducted in accordance with the Framework Agreement.

6.3 Risks and mitigation measures

Please include a set of identified risks and mitigation actions for each. Please utilize the risk table below that identifies the probability of a given risk occurring and the entity that will manage the risk. Please refer to Part III Section 6.3 of the Readiness Guidebook for further information on how to complete this section.

Risk category	Specific risk(s) / Risk(s) description	Probability of occurrence (low, medium, high)	Impact level (low, medium, high)	Mitigation action(s)	Entity(ies) responsible to manage the risk(s)
Operational – Delays in implementation	Delays in implementation	Low	Medium	Streamlined selection CTCN network member	UNEP-CTCN
Operational – Delays in procurement process	Procurement of consultants	Low	Medium	Large number of CTCN membership can be leveraged to avoid delays	UNEP-CTCN
Operational – Lack of involvement	Commitment by Accredited Entity	Low	High	High-level and early engagement by NDA and back-up options	NDA-EPA

Risk category	Specific risk(s) / Risk(s) description	Probability of occurrence (low, medium, high)	Impact level (low, medium, high)	Mitigation action(s)	Entity(ies) responsible to manage the risk(s)
Operational – Gaps in the PCN	Significant gaps in the PCN during GCF review	Low	High	Consider accessing Project Preparation facility (PPF) of GCF	NDA-EPA/ Accredited Entity
Financial – Cost escalation	Cost escalation	Low	Medium	Management of budget with strict cost and value controls	UNEP-CTCN
Financial-Prefeasibility	Pre-feasibility not established	Low	High	Explore use of alternative financing instruments with different risk tolerance, tenor etc.	UNEP-CTCN/NDA – EPA
Political – Impact on engagement of stakeholders	Low levels of engagement by key stakeholders	Medium	High	Establishment of a coordinating mechanism to deepen engagement	NDA-EPA
Political-Conflicts	Conflicts/ natural disasters/ Epidemics	Medium	High	Considering alternate activity schedules and minimizing travel	UNEP-CTCN
Force majeure	Conflict/ Natural disaster/ Epidemics	Low	High	Alternative working modalities adopted to ensure project continuity in a safe and suitable manner	Network Member CTCN/UNEP
Covid-19 risk	Activities delayed or repeated for inadequate data due to limited face-to-face interaction and travel restrictions	Medium	Medium	The network member will hire local consultants with previous experience with the various local stakeholders to facilitate flow of information. Data collection will be performed adhering to applicable Health & Safety rules in the country at the moment. CTCN will provide tools for remote	Network Member CTCN/UNEP

Risk category	Specific risk(s) / Risk(s) description	Probability of occurrence (low, medium, high)	Impact level (low, medium, high)	Mitigation action(s)	Entity(ies) responsible to manage the risk(s)
				<p>collaboration and engagement.</p> <p>Unused travel budget may be repurposed to complement remote collaboration tools or additional related costs stemming from Covid-19 situation.</p>	
Gender issues and representation	<p>Resistance against or lack of interest in, the project activities from stakeholders, especially with regard to the active promotion of gender equality and integration.</p> <p>Low participation rates of suitable female candidates due to lack of interest, inadequate project activity or missing qualified female population</p>	Low	Low	<p>This project will pursue thorough and gender responsive integration and ensure stakeholder involvement at all levels, with special regard to involving women and men as per the GCF ESS guidelines. Following CTCN TA requirements, CTCN gender mainstreaming tool will be applied to mitigate this risk</p>	NDA, UNEP/CTCN and Network member
Prohibited Practices money laundering or terrorist financing	Potential risks and vulnerabilities related to prohibited practices, money laundering or terrorist financing.	Low	Low	<p>The Project will be implemented in accordance with UN regulations, rules and policies including the Anti-Fraud and Anti-Corruption Framework of the United Nations Secretariat. The financial management and procurement in project will be guided by UN Financial Regulations, Rules and</p>	UNEP

Risk category	Specific risk(s) / Risk(s) description	Probability of occurrence (low, medium, high)	Impact level (low, medium, high)	Mitigation action(s)	Entity(ies) responsible to manage the risk(s)
				practices, as well as UN Environment's operations the UNEP programme manual.	

6.4 Monitoring

UNEP-CTCN will ensure that the progress of the planned activities as well as any material issues arising in the implementation are tracked throughout the project implementation through use of project management tools and scheduled calls between the network member, the office of the NDA/NDE. In addition, quarterly calls will be held between the CTCN, the NDA and the NDE to discuss main outputs of the TNA Committee meetings. The main issues arising from these meetings will be discussed, fed back to the GCF and if corrective action is needed, they will be communicated to the network member as potential updates. Besides this, UNEP will submit interim progress reports twice annually to the GCF, one for the period January through June and another for the period between July and December, in line with the reporting requirements in the Framework Readiness and Preparatory Support Grant Agreement between UNEP and GCF. The table below presents the framework of monitoring and assurances of country ownership and engagement.

Deliverable by output	Assurance regarding country ownership and engagement
<p>Output 1.3.1 Steering Committee established and operationalised. Quarterly meetings attended by the Steering Committee Inception workshop held.</p>	<p>The members and their respective role and responsibility will be officially endorsed by the NDA or any other relevant governmental agency. The CTCN engagement with the Government of Liberia is mature with close co-operation between the NDA and NDE. The definition of the coordination mechanism and the mapping of the members of Steering Committee will be done during an inception workshop (1 day estimated), in presence of the members of the Steering Committee (8 to 10 persons). The Steering Committee will meet quarterly to guide the implementation of the readiness proposal.</p>
<p>Output 1.3.2. Stakeholder mapping and Sectoral working groups established and operationalised. 5 technical working meetings are held throughout the implementation of the readiness proposal.</p>	<p>A technical working group composed by representatives of 4 sectors (solar PV, small hydro, investment and private sector working group) will be created. Each sector will be represented by 3 to 5 national experts. The role and responsibilities of each stakeholder will be defined in a Stakeholder mapping report. At least 5 technical workshops, 1 for each output 2.2.2; 2.2.3 a, b, c and 4.3,1 will be held with the Technical working group. The Steering Committee will validate technical working group and facilitate their active engagement throughout the readiness proposal. The CTCN engagement with the Government of Liberia is mature with close co-operation between the NDA and NDE. The network member will also work closely with the technical working group throughout the process to ensure all stakeholders have contributed to it.</p>

<p>Output 1.3.3</p> <p>Transfer of skills and knowledge to local personnel completed.</p> <p>Capacity building workshop organized to familiarize stakeholders with readiness proposal process.</p>	<p>The capacity building workshop will be held in presence of the Steering Committee (8 to 10 persons) and the technical working group, thus a maximum participation of 30 persons is expected.</p> <p>The role of the NDE and NDA is that of coordination.</p> <p>The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.</p>
<p>Output 2.2.1</p> <p>Assessment of institutional, policy and regulatory gaps for investments in renewable IPP are developed and validated.</p> <p>Up to 30 bilateral or virtual meetings held.</p> <p>A consultative workshop in presence of the Steering Committee will be organized to validate the report on assessment of institutional, policy and regulatory gaps for investments in renewable IPP and recommendations on activities and outputs to address the gaps.</p>	<p>During this activity, consultations (up to 10 bilateral or virtual meetings) with the Steering Committee and the technical working group will be carried out. Other stakeholders will also be contacted. This will include but will not be limited to– governmental agencies such as MME, RREA, LERC, LEC, MFDP, LCB, LNIC, development finance institutions/MDBs, private sector and civil society.</p> <p>It is planned that 20 additional bilateral or virtual meetings will be held.</p> <p>Finally, a workshop will be held in presence of the Steering Committee to validate the report on assessment of institutional, policy and regulatory gaps for investments in renewable energy IPP and recommendations on activities and outputs to address the gaps. 2 international experts will be travelling to Liberia for this workshop.</p> <p>The role of the NDE and NDA is that of coordination.</p> <p>The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.</p>
<p>Output 2.2.2</p> <p>A de-risking mechanism is formulated.</p> <p>1 workshop with the Technical working group is held.</p>	<p>The 4 sectoral working groups will be present during a workshop to identify the risks, the barriers, the bottleneck of the financial stakeholder with regards to the creation of a IPP market for renewable energy.</p> <p>The role of the NDE and NDA is that of coordination. The network member will be present for this workshop (2 international experts are planned to travel to Liberia for this output).</p> <p>The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.</p>
<p>Output 2.2.3</p> <p>Investment framework for renewable energy IPP programme, and a roadmap to create an enabling environment in Liberia is developed and validated by the Steering Committee and the technical working group during a 4 days' workshop in presence of the Technical working group and the Steering Committee.</p>	<p>The draft IPP investment framework and draft roadmap to create an enabling environment for the creation of a IPP market for renewable energy in Liberia is presented and validated by the Technical working group as well as the Steering Committee.</p> <p>The role of the NDE and NDA is that of coordination.</p> <p>The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.</p> <p>2 international experts will be travelling to Liberia for the workshop.</p>

<p>Output 4.3.1</p> <p>Financial model for the 100 MW renewable Energy IPP programme is established, financing arrangements and terms are developed and validate during a two days' workshop in presence of the Technical working group and Steering Committee.</p>	<p>The Financial model for the implementation of the 100 MW renewable IPP Programme for Liberia is validated by the Technical working group and the Steering Committee during a two days' workshop.</p> <p>The role of the NDE and NDA is that of coordination.</p> <p>The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.</p> <p>3 international experts are expected to be travelling to Liberia for this output.</p>
<p>Output 4.3.2</p> <p>Environmental and social impact assessment study is completed, and the management plan is developed</p>	<p>An environmental and social impact assessment study based on latest GCF guidance including consideration of GCF Gender Policy and Action Plan and Indigenous Peoples policy is conducted.</p> <p>One international expert will be travelling to Liberia for this output.</p>
<p>Output 4.3.3</p> <p>A project concept note for the 100 MW renewable IPP programme for Liberia is developed.</p>	<p>This activity will support the development of a Concept Note (CN) for the 100 MW renewable IPP programme for Liberia.</p> <p>An internal due diligence at the country level and AE level will be carried out through a workshop in presence of the steering committee.</p> <p>One international expert will be present in Liberia for the workshop.</p>
<p>Output 4.3.4</p> <p>An engagement plan to empower leaders or other influential members is designed.</p> <p>Training and training of trainer's packages developed in English and translated into up to 3 local languages.</p> <p>Capacity building workshop is organized for private sector stakeholder representatives</p>	<p>Training of trainer's package on Renewable Energy, and IPP solution will be developed.</p> <p>A capacity building workshop will be organized.</p> <p>An average of 50 participants is expected to participate to the capacity building workshop. The participants will be local leaders and other influential members who will be in a position to further spread the knowledge in various localities of Liberia.</p> <p>One international expert will be present in Liberia for the workshop.</p> <p>The role of the NDE and NDA is that of coordination.</p> <p>The committee will ensure effective engagement of the country stakeholders to ensure country ownership of the process.</p>

Before the start of the implementation of this Readiness Proposal, the Network Member who will implement the activities will prepare a detailed work plan and a monitoring and evaluation (M&E) plan as per the CTCN procedures.. This workplan is used to monitor the timeliness of the activities. The 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 work Plan and the M&E plan for implementation.

Further, all the deliverables are reviewed by the CTCN experts and then passed on to the GCF NDA/NDE and the project proponents for feedback and comments. The deliverable is approved only after all the comments are incorporated by the Network Member. Upon completion of all activities and outputs and as per the CTCN procedures, all the technical assistance implemented by CTCN is subject to monitoring and evaluation and is mapped in the Performance Measurement Framework of the CTCN, which is in alignment with reporting on the implementation of the Technology Framework under Article 10, paragraph 4, of the Paris Agreement under the

United Nations Framework Convention on Climate Change (UNFCCC). The data during and after the completion of the readiness proposal is collected through the well-defined templates as below:

- M&E Plan and Impact Statement Form
- Technical Assistance Closure Report Template
- Technical Assistance NDE Feedback Form
- Post-implementation NDE survey
- Event and Training Reporting Template
- Training Evaluation Form

The results are shared with the NDA/NDE and continuously followed up in terms of progress made towards the implementation of the recommendations of the technical assistance delivered. Upon completion of all activities and outputs, evaluation forms will be completed by the (i) NDE about overall satisfaction level with the technical assistance service provided; (ii) the Lead network member about the knowledge and learning gained through delivery of technical assistance; and (iii) the CTCN Director about timeliness and appropriateness of the delivery of the activities and outputs.

6.5 Other Relevant Information

Previous cooperation

The CTCN (hosted by UNEP-UNIDO) is providing technical assistance to the Government of Liberia, as per its COP Mandate, and supporting country to develop this readiness proposal. The CTCN has established close co-operation between the NDA and NDE to develop this readiness proposal.

The CTCN engagement with the Government of Liberia is mature with close co-operation between the NDA and NDE. The CTCN maintains a close relationship with all its NDE through its regional meetings and NDE forums. Further UNEP as a host to the CTCN has been engaged in a number of activities in Liberia.

- Capacity Building and Institutional Development for Environmental Management in Liberia and Sierra Leone
- GEF funded Technology Needs Assessment in Liberia
- The CTCN is supporting the government of Liberia in two other technical assistance related activities which are still under planning stage

Sustainability and Exit Strategy

The readiness project is a direct result between the discussions between EPA as the NDE of CTCN in Liberia and a subsequent Technical Assistance request to CTCN in September 2019. The Technical Assistance Request support from the technology mechanism on renewable energy technologies. A further CTCN mission in January 2020 consulted with key stakeholders – EPA, RREA, LEC, MME and agreed to focus the efforts of the TA on a GCF readiness request on a strategic pipeline development on renewable energy to achieve the NDC renewable energy commitments. The plans for such a readiness support proposal were also discussed with the GCF mission members who visited Liberia in February 2020. The NDA also decided to update the Liberia GCF Country Programme to include planned renewable energy project and readiness support.

Since this readiness proposal will develop an investment framework for renewable IPP and develop a Project Concept Note for NDA's submission to GCF, it is envisaged that the efforts will lead to additional transformative actions. It is expected that the readiness support will result in large scale investments in renewable electricity IPP in Liberia catalysed by a GCF project which will help Liberia meet its NDC commitments of 30% renewable electricity and carbon neutrality by 2050. Since a stakeholder coordinating mechanism will be established as part of the readiness support and as the key stakeholders will be involved in supervising key project outputs, the associated capacity building will result in enhancing the capacity of climate, energy, finance and investment stakeholders to attract investments in renewable electricity from public private and international climate finance. This enhanced human and institutional capacity will benefit the larger energy sector and other climate change mitigation investments.

To avoid any possible conflicts of interest deriving from the delivery partner's role as an accredited entity, the prioritization of investments and projects in the context of this readiness grant, will be made through a broad consultation process with relevant stakeholders, including other potential implementing entities. The final validation of these priorities will be carried out through the countries' own relevant coordination mechanism and

institutional arrangements, with the participation of other government agencies, as well as representatives from civil society and private sector as the NDA deems relevant, to ensure chosen priorities are fully aligned with national plans and strategies and adequately includes inputs from consulted stakeholders.

As per the CTCN procedures, the Network Member selected to implement the activities will have a local partner so that the knowledge and skill sets developed remain within the country. This local partner will continue to serve the needs and requirements of the country in the future.

The CTCN will not have any role in the selecting an Accredited Entity who will submit the concept notes because of conflict of interest issues. However, the CTCN will in its advisory role provide feedback to the NDA on reaching out to the Accredited Entities for submission of the concept notes prepared in the frame of the Activity 4.3.1.

Accredited Entity Statement on Conflict of Interest

To avoid any possible conflicts of interest deriving from the delivery partner's role as an accredited entity, the prioritization of investments and projects in the context of this readiness grant will be made through a broad consultation process with relevant stakeholders, including other potential implementing entities. The final validation of these priorities will be carried out through the countries' own relevant coordination mechanism and institutional arrangements, with the participation of other government agencies, as well as representatives from civil society and private sector as the NDA deems relevant, to ensure chosen priorities are fully aligned with national plans and strategies and adequately includes inputs from consulted stakeholders.

Prohibited Practices

The proposed project will be implemented in accordance with UN regulations, rules and policies, including the Anti-Fraud and Anti-Corruption Framework of the United Nations Secretariat. The financial management and procurement for the project will be guided by UN Financial Regulations, Rules and Practices, as well as UNEP's programme manual.

The risk of GCF proceeds being utilised for prohibited practices, money laundering or terrorist financing will be mitigated through appropriate legal instruments which will include warranties and caveats by the Executing Entities to inter alia ensure compliance with the Anti-Fraud and Anti-Corruption Framework of the United Nations Secretariat, as well as the Green Climate Fund Policy on Prohibited Practices. Further information on UNEP's Misconduct and Anti-fraud Policies is available at: <https://www.unenvironment.org/about-un-environment-programme/policies-and-strategies/misconduct-and-anti-fraud-policies>

Money Laundering/Financing of Terrorism

Consistent with numerous United Nations Security Council resolutions, including S/RES/1269 (1999/S/RES/1368 (2001), and S/RES/1373 (2001), UNEP is firmly committed to the international fight against terrorism, and in particular, against the financing of terrorism. In accordance with UN Regulations, Rules and Policies, UNEP undertakes to use reasonable efforts to ensure that none of the GCF funds provided under the award are used to provide support to individuals or entities associated with terrorism.

Environmental and Social Sustainability

UNEP screens all its projects for environmental, social, and economic risks and impacts as established under the UNEP's Environmental and Social Sustainability (ESS) Framework. The Compliance Review and Grievance Redress processes provide a Stakeholder Response Mechanism that informs and guides staff, implementing and executing partners and people affected by UNEP projects in bringing and responding safeguard-related stakeholder responses concerning compliance review and dispute resolution in the context of the. The Stakeholder Response Mechanism provides a direct link for third parties or anonymous persons who are negatively affected by the projects to report their concerns directly to the Independent Office for Stakeholder Safeguard-related Response. Further information on UNEP ESS Framework and Stakeholder Response Mechanism is available at: <https://www.unenvironment.org/resources/report/uneps-environmental-social-and-economic-sustainability-stakeholder-response>

Intellectual Property and title

In accordance with UN regulations and practices, title to any equipment and supplies that may be purchased during the implementation of the project shall rest with UNEP after consultation and/or agreement of NDA. Upon completion of the project, the disposal of the equipment and supplies will be made in accordance with UN Regulations and practices and in the best interest of the sustainability of the activities. UNEP shall hold the

intellectual property rights to any publications and materials developed during project implementation and will provide worldwide royalty free license to the NDA. Any reports and publications prepared as a deliverable from this project will be posted on the both UNEP and NDA websites and will be freely accessible to all relevant stakeholders.

UNEP's Environmental and Social Sustainability Framework (ESSF) and [Environmental and social sustainability Framework: Stakeholder Response Mechanism](#).

Stakeholder Response Mechanism provide an avenue for stakeholders to provide feedback or report concerns, complaints or grievance issues on UNEP's proposed or on-going projects. UNEP is committed to avoiding or minimizing unintended harm to stakeholders that may directly or indirectly result from its work. Stakeholders are strongly advised to make an effort to raise any concerns, complaints or grievances to the relevant UNEP Project Manager, UNEP's local project partners, consultants or the related UNEP Regional Office. Stakeholders may also submit their grievance through the UNEP website: <https://www.unenvironment.org/about-un-environment/why-does-un-environment-matter/un-environment-project-concern> or email unenvironment-iossr@un.org.

Whistle Blower Protection

Further, UNEP being part of the UN Secretariat, it adheres to the United Nations Ethics Office prescribed Whistle Blower Protection by the Secretariat's ST/SGB/2005/21.¹⁰ The Ethics Office has the authority to take preventive action against potential repercussions the whistle blower may receive.^{11,12}

By providing protection for staff who may otherwise be reluctant to come forward, the UN learns about and is able to respond to misconduct. This strengthens accountability and maintains the integrity of its operations and programmes.

Protection against retaliation applies to all staff members, interns and UN volunteers. Punishing consultants who report violations of UN rules and regulations is also prohibited.

UNEP will comply with its obligations under the Framework Agreement for Readiness and Preparatory Support, including applying the UNEP Environmental and Social Sustainability Framework. UNEP has already provided information on its Grievance Redress Mechanism through the accreditation process. For more information, please refer to <https://www.unenvironment.org/resources/report/uneps-environmental-social-and-economic-sustainability-stakeholder-response>. Please note that the UNEP website provides a direct link for stakeholders to report readiness proposal concerns during the implementation.

As indicated in section 6.3 of the project document, the proposed project will be implemented in accordance with UN regulations, rules and policies and in compliance with UN Security Council Resolution 1636. Pursuant to resolution 2288 (2016); resolution 1521 (2003) and resolution 1343 (2001), the UN Security Council has terminated sanctions against Liberia. There are currently no UN Security Council sanctions against Liberia. Please see: <https://www.un.org/securitycouncil/sanctions/information>.

AML/CFT and "know your customer"

UNEP will comply with its obligations under the Framework Agreement for Readiness and Preparatory Support, including applying UN fiduciary principles and standards relating to any "know your customer" checks, AML/CFT and financial sanctions imposed by the United Nations Security Council, which should enable UNEP to comply with the Policy on Prohibited Practices and the principles of the AML/CFT Policy. UNEP's screening processes for prohibited practices and money laundering have been shared with the GCF Secretariat through the accreditation process. More information on UNEP's Misconduct and Anti-fraud Policies is available at <https://www.unenvironment.org/about-un-environment-programme/policies-and-strategies/misconduct-and-anti-fraud-policies>.

¹⁰ Annan, Kofi (19 December 2005). "Secretary-General's Bulletin - Protection against retaliation for reporting misconduct and for cooperating with duly authorized audits or investigations". *undocs.org. United Nations. ST/SGB/2005/21*. Retrieved 24 March 2017.

¹¹ "The UN Ethics Office promotes an ethical organizational culture based on our shared values of integrity, accountability, transparency and respect. It is independent, impartial, confidential and professional". *www.un.org*. Retrieved 2017-08-10.

¹² "The UN Ethics Office promotes an ethical organizational culture based on our shared values of integrity, accountability, transparency and respect. It is independent, impartial, confidential and professional". *www.un.org*.

