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INVEST
SALONE

ANALYSIS OF THE CARBON MARKET LANDSCAPE IN SIERRA LEONE

Rapid situational analysis

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Contents

Abbreviations and acronyms	i
Executive summary	1
Key recommendations	1
Introduction	4
Approach	6
Purpose and objectives	7
Methodology	8
Constraints and limitations	11
Trajectory of the carbon market in Sierra Leone	12
Carbon projects in Sierra Leone	13
Carbon project types	20
Carbon market types	21
Carbon market stakeholders	23
Private sector (carbon offset project implementors, investors)	23
Public sector (NGOs, CSOs, INGOs)	24
International donor aid entities	25
Community stakeholders	26
Academia and research	26
Government	26
Additional considerations	27
Policy and institutional environment	28
Policies, regulations and legislation	29
Government agencies and institutions	34
Inflection points	34
Political landscape of the carbon market	36
Overview	36
Considerations for the carbon market sector	36
Power dynamics	37
Influence and positioning	39
Potential for the Sierra Leone carbon market	39
Value	40
Financing	40



Technological	41
Opportunities.....	42
Challenges.....	43
Requirements for Sierra Leone to meet its full potential.....	48
Recommendations.....	48
Conclusion.....	52
References	53
Annex A: Carbon market stakeholder matrix	55
Annex B: Carbon project and interventions map	56
Annex C: Sample interview questions	57
Annex D: Carbon coalition	59



Abbreviations and acronyms

°C	degrees Celsius
ACF	Africa Capitalization Fund
AF	Adaptation Fund
AFD	French Development Agency
AfDB	African Development Bank
AFLAC	Africa, Latin America and the Caribbean Fund
AI	artificial intelligence
ARR	afforestation, reforestation and revegetation
BCCSL	British Chamber of Commerce Sierra Leone
CCCAP	Coastal Climate Change Adaptation Plan
CCFL	China Climate Change Framework Loan
CCPL	Climate Change Program Loan
CCRF	Catalyst Climate Resilience Fund
CFU	Climate Finance Unit
CIDA	Canadian International Development Agency
CO ₂	carbon dioxide
COP	Conference of Parties
CSO	civil society organisation
DFAT	Australian Department of Foreign Affairs and Trade
DSTI	Directorate of Science, Technology and Innovation
EC	European Commission
EIB	European Investment Bank
EPA-SL	Environment Protection Agency Sierra Leone
ER	emission reduction
ETS	Emissions Trading Scheme
EU	European Union
FCC	Freetown City Council
FCDO	Foreign, Commonwealth & Development Office
FGEF	French Global Environment Facility
FPIC	free, prior and informed consent
GCCA	Global Climate Change Alliance
GCF	Green Climate Fund
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GGF	Green for Growth Fund
GHG	greenhouse gas
GoSL	Government of Sierra Leone
HSF	Herbert Smith Freehills
ICS	improved cookstoves
IFM	improved forest management
IGC	International Growth Centre
IKI	International Climate Initiative
iNAP	initial Climate Adaptation Plan
INGO	international non-governmental organisation
ISL	Invest Salone
JICA	Japan International Cooperation Agency

KII	key informant interview
KPI	key performance indicator
LDC	least developed country
MAF	Ministry of Agriculture, Forestry and Food Security
MDA	Ministries, Departments, and Agencies
MFMR	Ministry of Fisheries and Marine Resources
ML	machine learning
MoECC	Ministry of Environment and Climate Change
MoF	Ministry of Finance
MoFAIC	Ministry of Foreign Affairs and International Cooperation
MoLHCP	Ministry of Lands Housing and Country Planning
MoPED	Ministry of Planning and Economic Development
MoU	memorandum of understanding
MRV	monitoring, reporting and verification
MSWGCA	Ministry of Social Welfare, Gender, and Children's Affairs
MTI	Ministry of Trade and Industry
MTNDP	Medium-term National Development Plan
MWR	Ministry of Water Resources
NAPA	National Adaptation Plan of Action
NDC	nationally determined contribution
NGO	non-governmental organisation
NPAA	National Protected Area Authority
NRA	National Revenue Authority
NWRMA	National Water Resources Management Agency
REDD+	reducing emissions from deforestation and forest degradation
RES	renewable energy source
RTP	Revenue and Tax Policy
SA	situational analysis
SDC	Swiss Agency for Development and Cooperation
SDGs	United Nations Sustainable Development Goals
SLMet	Sierra Leone Meteorological Agency
tCO ₂	tonnes of carbon dioxide
TSA	Treasury Single Account
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNFAO	United Nations Food and Agriculture Organization
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USA	United States of America
US\$	US dollars (currency)
WAB	West Africa Blue
WFP	World Food Programme
WRI	World Resource Institute

Executive summary

This rapid situational *Analysis of the carbon market landscape in Sierra Leone (SA)* is the culmination of an effort to document and assess the carbon market landscape in Sierra Leone. Commissioned by Invest Salone and undertaken by the Cadmus Group, it reflects a snapshot of the current state of the carbon market in Sierra Leone, including stakeholder priorities, opportunities for support, areas of risk and actionable recommendations to support a long-term, viable, transparent and equitable marketplace. It also provides key government ministries, private sector actors, non-governmental organisations (NGOs)/civil society organisations (CSOs) and international donors and investors currently engaged (and those planning to participate) in the burgeoning carbon market in Sierra Leone with a high-level overview/mapping of all existing stakeholders (private and public) working in the carbon offset (and tangential) investment space, as well as an understanding of the regulatory environment and power dynamics that will need to be navigated to harmonise policy and programming. In addition, it addresses options for the development of a “carbon coalition” to build consensus and share knowledge of the carbon landscape in Sierra Leone.

Methods used by the consultants to complete this rapid SA included desk-based research (more than 125 documents were analysed), key informant interviews (KIIs) (n=26) and survey tools/questionnaires. KIIs involved representatives from project implementors, NGOs, international donors and aid agencies, government ministries and academic and research institutions. This mixed methods approach helped to identify patterns and trends in the market and lay out several key recommendations to support the first step of a “roadmap” to provide all actors in the carbon market space with a strategy for the successful establishment of a future compliance (regulatory) carbon market in Sierra Leone.

Key recommendations

Ministry of Finance (MoF)

- In order to balance competing interests, and without diluting its own mandate and responsibilities, GoSL MDAs (Ministries, Departments, and Agencies) (MoF in this instance) could adopt a tripartite structure of consultation, dialogue and decision-making to advance Sierra Leone’s carbon market to reflect the critical rights, interests and roles of landowning/using communities and investors.
- To support informed decision-making on tax structures, policies, operationalisation of carbon projects, and community protections and rights, MoF should facilitate additional conversations including coordinating research in areas that promote an equitable, viable and sustainable long-term marketplace.
- Develop clear, informed and transparent processes for taxing carbon revenue that provide certainty and consistency over time.
- Develop, implement and enforce policies that protect community interests. A viable carbon marketplace needs to explicitly benefit communities, including policies to protect indigenous and local community lands, access to natural resources, livelihoods and opportunities, and carbon funding. This requires the development and enforcement of clear, transparent

policies and regulations that protect the rights of communities and create specific mechanisms to ensure that benefits (e.g., financial, social, development, protection and use of natural resources, support of education and health initiatives) reach communities in a meaningful way.

Ministry of Environment and Climate Change (MoECC) and Environment Protection Agency (EPA)

- In order to balance competing interests, and without diluting its own mandate and responsibilities, GoSL MDAs (MoECC in this instance) could adopt a tripartite structure of consultation, dialogue and decision-making to advance Sierra Leone's carbon market to reflect the critical rights, interests and roles of landowning/using communities and investors.
- MoECC, as the leading ministry in developing a carbon framework, should facilitate sessions with MoF, EPA and other relevant agencies to streamline clear roles of each MDA and design a clear process for private sector engagement and formal partnerships with the government.
- The MoECC should develop a robust, equitable and sustainable finance roadmap for Sierra Leone's carbon market in collaboration with all credible market actors (private sector, NGOs and other experts) at all stages of the roadmap development process.
- Incorporate lessons learned from other case studies in efforts to develop a long-term, equitable, transparent and viable carbon market (MoECC can consider work already done in these areas by ISL, Herbert Smith, etc.).
- Partner with researchers, universities and other research institutions to provide avenues for filling data gaps in protection and restoration (forest, mangrove, peat lands, etc.), rates of deforestation, carbon prices, land use, biodiversity and more across the country. This will permit more informed decision-making on the viability of a carbon market over the long term.
- Collaboratively develop policies, regulations and operational procedures that incentivise investment in the country's carbon market. This includes incentivising (and requiring) transparent data collection, as well as monitoring and reporting to ensure indicators accurately measure progress and impact. Ideally, an independent third-party organisation (donor programme) would support the data collection process to ensure that it is credible and accurate.
- Develop mechanisms in collaboration with EPA to enforce contracts and agreements that investors make in-country, especially those that affect local communities.
- Work with other stakeholders, including local communities, to develop effective and efficient mechanisms (such as guidelines that can be monitored by all, etc.) to verify carbon actors and remove "carbon cowboys".
- Develop a clear, transparent and credible framework in response to Article 6 of the Paris Agreement.
- Build partnerships with trusted organisations (e.g., Namati and community stakeholders) from the outset to ensure that conservation, biodiversity and environmental initiatives also address community livelihood issues for local and indigenous communities. To attract and retain long-term investment in the carbon market in Sierra Leone, the MoECC needs to offer confidence in its credibility, transparency and equity. This includes developing, adopting and enforcing equitable and transparent policies, procedures and operations. This may include strengthening the Climate Finance Unit (CFU) of the MoF (CFU can sign MOUs with MDAs for

better coordination) to mobilise and track the flow of climate financing from both domestic and international sources, formalising and strengthening the Sierra Leone Climate Finance Fund, and adjusting the NDC based on the international financing needed to meet adaptation and mitigation targets in the near, mid and long term.

Private sector

- Collaborate to create a “carbon coalition” of responsible investors in the carbon credit space through effective, collective action that is able to bring together private sector representatives to dialogue, coordinate and support the development of a credible carbon credit market in Sierra Leone.

Community

- Local community stakeholders should ensure local and indigenous communities are actively involved and are supportive of the implementation of “responsible” carbon credit projects. Community stakeholders should be willing and able to organise themselves as credible actors to dialogue with the government and the private sector to ensure their interests are considered. Communities can also work through representatives (e.g., Namati).
- Work with MoF and MoECC in the design and enforcement of policies that protect community interests.

Donor partner/programmes

- Partners should provide direct funding and technical assistance to established institutions responsible for data collection to ensure transparent data collection that it is credible and accurate so that established indicators can accurately measure progress and impact.
- Support the private sector to create a “carbon coalition” of responsible investors that bring together private sector businesses with a collective voice that will support a credible carbon credit market.
- Partners should advocate and support mechanisms for the equitable distribution of benefits among the project developers, the government and local communities.

Ultimately, the rapid SA determined that to develop, foster and sustain a viable, credible, transparent and equitable carbon market in Sierra Leone, significant work will be required to provide carbon project implementors (i.e., government, private sector, international aid organisations and donors, NGOs) with the confidence they need to continue to invest in the country. Establishing a carbon market framework, with contributions from key private and public stakeholders and the use of the best available science and metrics, is vital. There are also a host of lessons to be learned from other nations that have and have not succeeded in developing and sustaining a viable carbon market. A coordinated approach and commitment to collaboration will be needed to ensure that there is alignment across the GoSL, and to provide transparent processes, clear policies and efficient guidelines for current and potential project implementors. The rapid SA found that additional work is needed to protect the rights of local and indigenous communities. Community-based organisations and community representatives need to be involved from the outset of the process and, where carbon projects take place, benefits for local communities must be cemented into national policies and regulations.

Introduction

Sierra Leone, a country of 8.61 million people¹ located on the west coast of Africa is host to a vast array of natural resources. It possesses a diverse and rich cultural fabric and contains unique, rich and biodiverse ecosystems. Considered a least developed country (LDC) by the United Nations (UN)² it also faces distinct challenges – a lack of effective enforcement of regulations, rampant deforestation, increased population growth and the over-harvesting of threatened and endangered species have resulted in habitat degradation, impacts on and reductions of biodiversity, a release of carbon dioxide (CO₂) stores, increased vulnerability to a changing climate and direct impacts on local and indigenous peoples. Sierra Leone's economy also contends with underdevelopment and an inability to maintain the stability needed to alleviate high levels of poverty and unemployment. Compounded by increasing temperatures, changing precipitation patterns, rising sea levels and a greater frequency of extreme weather events, this culminates in a strain on natural, social, economic and built systems across the country, particularly for frontline communities (those impacted first and worst by a changing climate) – and the impacts are expected to get worse.³

Currently, Sierra Leone has a unique opportunity to create a transparent, credible and equitable carbon market that reduces deforestation, supports local and indigenous community livelihoods, provides long-term sustainable financing to the country, and contributes to global GHG ER goals.

To limit the most catastrophic consequences of a changing climate, global temperature increases must be limited to a maximum of 1.5°C. While strategies to reduce GHG emissions remain important, reaching net zero will also require actively removing CO₂ from the atmosphere. Carbon markets are increasingly considered an important mechanism for achieving this. As nations globally aim to meet their Paris Agreement commitments to avoid the most catastrophic impacts of the climate crisis, governments, organisations and corporations have turned to the carbon market to avoid, remove and reduce carbon, as well as support financial flows to developing nations. Currently, Sierra Leone has a unique opportunity to create a transparent, credible and equitable carbon market that reduces deforestation, supports local and indigenous community livelihoods, provides long-term sustainable financing to the country, and contributes to global GHG emission reduction (ER) goals.

The carbon market unofficially emerged in Sierra Leone with the development of the Sustainable Assisted Natural Regeneration, Reforestation and Agroforestry Initiatives initiated by what is now known as the Sustainable Human and Environmental Development Agency. Unregulated carbon trading began in Sierra Leone in 2016 and has continued to gain traction. Over the past several years, the GoSL, the private sector, international donors and agencies, and NGOs have expressed interest in the viability of a carbon market in Sierra Leone for a variety of reasons, including climate,

¹ World Bank, 2024

² United Nations Department of Economic and Social Affairs, 2023.

³ IPCC, 2022.

³ibid.

biodiversity and development pledges at the international scale. However, creating a viable market requires significant institutional support, strong leadership and a stable political environment to encourage actors and donors to invest. Very little is currently known about the scale and scope of the carbon market in Sierra Leone and to fully activate a transparent, credible and equitable carbon market, additional work is needed to identify key actors, create and enforce a sound policy and institutional framework, align interests between private sector and government (at all levels), and promote community-based outcomes. Defining the existing landscape and potential future of the carbon market will help support informed decision-making and catalyse next steps for the development of a national carbon policy, framework and key regulations – levelling the playing field, creating shared value and reducing risks/uncertainties for investors and beneficiaries.

Therefore, to support the development of an inclusive and equitable carbon policy and regulatory framework that will guide the establishment of a viable carbon market in Sierra Leone, the Cadmus Group (Cadmus) conducted a rapid situational analysis (SA) of the country's carbon market on behalf of Invest Salone. This analysis reflects the current state of the carbon market in Sierra Leone, including stakeholder priorities, opportunities for support, areas of risk and actionable recommendations. It also provides key government ministries, private sector actors, NGOs/CSOs and international donors/investors currently engaged (and those planning to participate) in the burgeoning carbon market in Sierra Leone with a high-level mapping of all existing stakeholders (private and public) working in the offset (and tangential) investment space. This rapid SA also provides an understanding of the regulatory environment and power dynamics that will need to be navigated to harmonise policy and programming, as well as options for developing a “carbon coalition” to build consensus and share knowledge, all to support understanding of the potential for the carbon market in Sierra Leone. It comprises the following key sections.

- **Approach** – describes the approach used to develop this rapid SA, including its purpose and objectives, methodology, and constraints and limitations.
- **Trajectory of the carbon market** – summarises the past, present and future (potential) trajectory of the carbon market in Sierra Leone, including carbon project and carbon market types, and carbon projects operating in Sierra Leone.
- **Carbon market stakeholders** – summarises the known actors in the carbon market in Sierra Leone, including private and public sector actors, international donors and agencies, academic and research-related institutions, and government.
- **Policy and institutional environment** – highlights carbon-related policies, regulations and legislation, current government and institutional capacities to support a carbon market in Sierra Leone, and potential inflection points that might shape and/or catalyse a carbon market in the country.
- **Political landscape of the carbon market** – provides a high-level overview of the current political landscape of the carbon market, including power dynamics and influence and positioning of key ministries and agencies.
- **Potential for the Sierra Leone carbon market** – highlights the projected market value potential for the carbon market in Sierra Leone, potential financing opportunities, technological considerations and the potential opportunities and challenges for the development of a long-term, sustainable, equitable and credible carbon market.
- **Recommendations** – to support the development and implementation of a long-term sustainable, equitable and credible carbon market in Sierra Leone.

Approach

The approach to this rapid SA builds on Invest Salone’s ongoing work in Sierra Leone, which began in 2019, and has been focussed on a variety of economic development activities that align with the country’s development, climate and conservation goals. Invest Salone is a Foreign, Commonwealth & Development Office (FCDO)-funded private sector development programme aimed at boosting trade and investment to generate incomes and jobs for Sierra Leoneans (www.investsalone.com). It works on and at the interface of firm productivity, competitiveness, investment- and export-readiness, investors and their pipelines, and investment climate reform. Invest Salone provides support to private sector investors to help them assess market viability, understand and evaluate where to allocate capital based on certain development priorities, and identify opportunities to support long-term market development for a variety of initiatives. Invest Salone has supported the exploration and development of carbon credit projects in the western part of Sierra Leone, as well as facilitating regulatory and policy framework discussions with key carbon market actors.

In 2023, Solon Capital Partners received a grant under Invest Salone’s PROSPER Salone Climate Window to develop the Sherbro River Estuary carbon credit project through financing a feasibility study for its portfolio company West Africa Blue (WAB). With that funding, Invest Salone is supporting ongoing investments in the Sherbro River Estuary project. Invest Salone is also assessing the opportunity to support development of a carbon credit policy framework that is private sector friendly, a potential carbon coalition that is public-private driven, and more. This work is intended to support Sierra Leone’s climate, economic, conservation and livelihood goals, as it is supporting the development of carbon credit projects directly in addition to a policy framework to support future projects. This approach to development, also known as sustainable finance, centres on nudging capital towards sustainable business and operating models to support economic goals as well protecting a country from the impacts of climate change through adaptation finance. It is also about protecting the stability of Sierra Leone’s financial system by embedding climate risk management into prudential regulation. Invest Salone’s work is intended to catalyse the development of a sustainable, long-term, credible and equitable carbon market in Sierra Leone. The significant potential of the carbon market in the country highlights the need for open dialogue and transparent conversations between public and private sector actors, including international climate finance organisations and donors. The GoSL will have to continue to demonstrate strong leadership, develop informed and private sector-friendly policies and regulations, and provide clarity on the conditions and requirements that will inform investments far into the future.

Due to the rapid nature of this SA, the term “snapshot” is an apt description of the approach used by Invest Salone to capture meaningful information and present it in a concise and digestible format to support a call to action. This rapid SA is designed to provide a baseline of understanding of the existing carbon landscape and recommendations to promote inclusive, equitable standards for its further development. As such, it is high level and aims to encourage further coordination, collaboration, outreach and engagement with actors identified by the analysis. In addition, the approach complements and mirrors international standards for a broader understanding of the carbon market (such as the World Bank’s Climate Change and Development Reports). The following section describes the purpose, objectives and methodology used for the development of the rapid SA.

Purpose and objectives

The overarching purpose of this rapid SA is to support growing demand for the development of policies, regulations and a framework for a more structured carbon market in Sierra Leone. To meet this demand, it is necessary that the government and other key carbon actors understand the existing carbon landscape and future plans, investments and trends for its development. Beyond mapping existing and future potential stakeholders (see Annex A for carbon actor profiles and the “Carbon market stakeholders” section for an overview of actor types), this rapid SA is intended to support informed decision-making for all carbon actors on the viability, opportunities and challenges of operating and investing in the current and future carbon market space in Sierra Leone. This analysis will also support Invest Salone’s ability to better determine what role it is best placed to play in a marketplace that actively engages concerned stakeholder groups and supporting institutions. As such the key objectives of the rapid SA are three-fold.

- **Map existing and expected private and public sector actors (inclusive of donors/investors) engaged in the carbon market.** This exercise is intended to identify current and known potential actors’ scope of activities, geographical areas of focus, expected tonnes of verified carbon⁴ (current operators), sequestered carbon offsets, existing or anticipated level of engagement with the government and communities (including sustainable and compatible land use planning and livelihoods programming), existing successes and challenges (for actors already operating in the market), and any additional support needed for successful advancement. In addition, it highlights whether proposed and ongoing projects have a clear conservation vision, an adaptive management plan, and a monitoring and reporting system as required to generate sustainable revenue streams through payment for performance. This information is summarised in the “Carbon market stakeholders” section with more detail provided in an Excel file accessible via Annex A to allow for ease of filtering and sorting of desired offset project- and carbon-related intervention information.
- **Assess the current political landscape and implications for the viability of a carbon market.** This objective includes highlighting key potential opportunities and obstacles for carbon credit development, evaluating power dynamics within the country that might inform market viability, and outlining any government processes, timelines and “influencing moments” for policy change – such as COP28 processes, internal Ministry of Environment and Climate Change (MoECC) and Ministry of Finance (MoF) processes, and any key decisions on upcoming carbon credit projects. An assessment of the power dynamics and policy implications that have an impact on the carbon market in Sierra Leone are presented in the “Political landscape of the carbon market” and the “Policy and institutional environment” sections, respectively.
- **Identify proposed options for the formation of a carbon coalition.** This includes identifying key actors in the carbon market for inclusion and existing and potential future power dynamics that may influence or provide insight into options for its creation. Information about the carbon coalition is included in the “Potential for the Sierra Leone carbon market” and “Recommendations” sections.

⁴ Inclusive of which audited and verified carbon standards in place/anticipated.

Methodology

The consultants used a variety of methods to complete the rapid SA, including desk-based research, KIIs and document analysis. All data gathered were reviewed, crosschecked and further refined through dialogue with local experts to ground the findings in local and regional knowledge, as well as with global carbon market experts. Following the data-gathering phase, recommendations were developed to inform next steps for Invest Salone and other carbon market actors, including the GoSL as it considers key inputs for the development of a formal carbon market framework to guide investment moving forward.

Desk-based research

Desk-based research was conducted on the current state of the carbon market in Sierra Leone. This involved the analysis of more than 125 documents, including policies, regulations, procedures, case studies, conference presentations, reports, peer-reviewed academic journal articles and statistical information. Publicly available carbon offset and carbon credit project documents were analysed to glean insights from current and proposed projects in the carbon marketplace in Sierra Leone and internal reports, assessments and presentations were identified to support a broader understanding of the landscape. Key document types reviewed and analysed included:

- **Government documentation** (e.g., formalised legislation; policy briefs; national plans and commitments; legal briefings)
- **Donor-funded reports, documentation and research** (e.g., project descriptions; impact statements; climate risk profiles; conference presentation materials)
- **Academic and think tank/foundation research** (e.g., policy briefings; white papers; peer-reviewed academic journal articles)
- **Press releases** from private companies (investors/buyers) with details of sales of credits, value of investments made, commercial terms for pre-purchase agreements
- **Media** (e.g., newspaper articles; blogs; op-eds)
- **Project implementor documents** (e.g., annual reports; feasibility studies; free, prior and informed consent (FPIC) protocols; manuals)
- **Carbon standard and verification documentation** (e.g., Verra project description and monitoring reports).

Carbon market stakeholder matrix and carbon projects and interventions map

To support the rapid SA, a carbon market stakeholder matrix (more detail is available in an Excel file via Annex A) was developed and maintained to include details of known public and private sector carbon market actors in Sierra Leone. This matrix helped inform the interview process and keep track of scheduling and outcomes, continuing to grow and expand as additional respondents were identified. In total, nearly 30 individuals were engaged through email, in-person, phone and video call conversations. Another 50 individuals and/or organisations were identified as having a role in the carbon market in Sierra Leone, but due to the time constraints for the development of the rapid SA, were not engaged. Interview respondents and their details are included in the “Carbon market stakeholders” section of this rapid SA.

Following each KII with project implementors where project details were evaluated and compiled, a carbon projects and interventions map (more detail is available in an Excel file via Annex B) was developed and expanded to highlight specific details about current and proposed carbon projects in Sierra Leone. Where information was publicly available and/or shared, details were included in the map; however, many details of carbon market projects are considered proprietary and confidential. More than 15 carbon offset and carbon-related project interventions were included in the carbon projects and interventions map.

Criteria for selection

Interview respondents were identified through a systematic process of prioritisation defined as:

- those central to the development of the carbon market
- those actively engaged in the voluntary carbon market space, and
- those with a likely role in the development of policy and regulation of a possible future compliance market in Sierra Leone.

The prioritisation process was led by the Cadmus Group with strategic guidance from Invest Salone and inputs from other stakeholders in the carbon market space. Additional key stakeholders were identified during the interviews and were included as interviewees where possible, within the time constraints of the SA.

In some cases, high-priority interviews could not be conducted, as multiple attempts to engage some stakeholders were met with no response, or respondents indicated that they had limited or no availability to speak with the consultants in the allotted time window. These additional conversations are regarded as crucial for understanding the carbon landscape in Sierra Leone and should continue with the key stakeholders the team was unable to engage with (see Annex A). These include the MoF, the National Protected Area Authority (NPAA), the Environment Protection Agency Sierra Leone (EPA-SL) and Namati. It is suggested that Invest Salone is best positioned to engage these actors when envisioning and planning collaborative engagement efforts across the carbon market in Sierra Leone. Additional recommended conversations that should take place to support a broader understanding of the carbon market in Sierra Leone are identified in the “Carbon market stakeholders” section of this rapid SA (and their details can be found in Annex A).

Key informant interviews

More than 26 KIIs were held with key individuals who are recognised leaders, actors and experts engaged across a variety of different disciplines, sectors and industries with relevance to the carbon marketplace (e.g., environment, energy, economics). They included representatives from individual project implementors, international donors and aid agencies, government and academic and research institutions (see Table 1). Interview respondents were identified in collaboration with local experts and Invest Salone and evolved using snowball sampling. The team used a combination of in-person interviews, emailed questions, survey exercises, phone calls and video calls to collect information to help define the status of the carbon market in Sierra Leone and identify potential and existing conflicts, power dynamics, initiatives (previous, underway, pending), additional projects and conditions for success. Sample interview questions are available in Annex C. Respondents were also invited to provide feedback during the socialisation of the analysis to ensure that accurate and

credible information was published and to promote the intended transparency of information sharing. Sensitive information was determined and safeguarded by the Cadmus and Invest Salone team, where necessary.

Notably, representatives of communities where project implementors are already working or are proposing to work were not engaged for the development of this rapid SA due to time constraints. Input from community representatives where ongoing projects are occurring (and where they are proposed) is necessary to inform a more comprehensive picture of the opportunities, challenges and recommendations for a carbon market in Sierra Leone. In accordance with the UN Declaration on the Rights of Indigenous Peoples, “Indigenous peoples have the right to maintain and strengthen their distinct political, legal, economic, social and cultural institutions, while retaining their right to participate fully, if they so choose, in the political, economic, social and cultural life of the State.”⁵ To protect the rights of local and indigenous communities, special attention should be paid to understanding the diverse needs, priorities and challenges of communities across the country in order to align broader national development, conservation and climate goals.

Table 1: Stakeholders and institutions consulted

Private sector (carbon offset project implementors, investors)	
Solon Capital Partners/WAB	Invest Salone
Klimat X Development	Tradin Organic Agriculture (Sierra Leone)
Oko Environmental/Demeter Holding	Sunbird Bioenergy
DelAgua	Crown Agents
Gola Rainforest Conservation Company (GRC)	Green Collar
Herbert Smith Freehills (HSF)	Rainforest Builder
Miro Forestry Developments (Sierra Leone)	
Public sector (NGOs, CSOs, international NGOs)	
Kivu International	Royal Society for the Protection of Birds (RSPB)
Sustainable Energy for All (SEforALL)/Africa Carbon Markets Initiative	
International donor aid entities	
United States Agency for International Development (USAID)	FCDO
United Nations Food and Agriculture Organization (UNFAO)	United Nations Capital Development Fund (UNCDF)
World Bank	United Nations Development Programme (UNDP)
Academia and research	
International Growth Centre (IGC)	
Government	
MoECC	Forestry Division
MoF/Climate Finance Unit (CFU)	Ministry of Energy

⁵ United Nations, 2007.

Constraints and limitations

There were a variety of time, technological and logistical constraints to the development of this rapid SA – some anticipated, others less so. Table 2 presents the constraints, their context and the solutions implemented to address them. It is important that these limitations and the solutions implemented are included to manage expectations around the outcomes and impact of the rapid SA.

Table 2: Constraints and mitigations

Constraint	Context	Solutions implemented to address constraints
A narrow time frame for delivery of the rapid SA resulted in a smaller pool of possible KIIs, limited engagement (and no engagement with representatives from key communities) and a shallower approach to assessing potential opportunities, challenges and recommendations	The current high level of engagement/prioritisation of carbon markets by both the GoSL and the private sector required this analysis to be conducted as soon as possible	The rapid SA is high level, concise and focussed – summarising key takeaways and identifying areas where further conversations and analysis are needed. Conversations and analysis took place over several weeks concurrently with the socialisation of the analysis, with the findings updated accordingly
Access to key points of contact delayed outreach and thus the timing of interviews. In addition, the short window for conducting interviews did not provide much flexibility for respondent availability or for interviewers to fit multiple meetings in per day, or give the opportunity to follow up with individuals who were non-responsive, or allow time for very responsive and engaged interviewees to share updated project details (i.e., for the mapping matrix)	The carbon market in Sierra Leone is nascent, leading to an uncertain and quickly growing landscape of actors. In addition, limited centralised reporting for known carbon projects required significant time and effort to identify carbon market actors	Snowball sampling was used to identify and build on an initial list of carbon market actors. As additional respondents were identified, outreach and interviews were held (where possible). Individuals who were non-responsive and respondents who were not available during the allotted time frame were identified for future additional conversations (see “Carbon market stakeholders” section). In addition, the two rounds (audience groups) of socialisation permitted additional time to collect technical inputs from interviewees to complete key tasks, such as the mapping exercise
Limited to no input from indigenous and local communities where carbon projects are already occurring or are expected to occur resulted in a limited perspective on the opportunities, challenges and recommendations necessary to support a long-term, sustainable, credible and transparent carbon market in Sierra Leone	A short timeframe for conducting the SA and a rapid start-up did not allow enough time to effectively engage with communities in key project areas. In addition, limited access to, and limited established relationships in, key communities resulted in limited engagement	NGOs/CSOs and other stakeholders were consulted to garner high-level insights about the political landscape at the local level. Effective, long-term engagement with local and indigenous communities where projects are already occurring (and where they are being proposed) is needed. Deep and long-term engagement and power sharing with local and indigenous communities is necessary to inform next steps in the development of a “carbon

Constraint	Context	Solutions implemented to address constraints
		coalition” and for the carbon market in Sierra Leone
Access to information about the carbon market in Sierra Leone is limited and certain data are proprietary and sensitive (e.g., project implementor investment data)	There is currently very little publicly available information on the carbon market in Sierra Leone. In some cases, access to relevant information (e.g., draft bills and policies) was not possible within the required timeframe	Secondary desk research was supplemented with on-the-ground interviews led by a local consultant who also identified additional avenues for gathering information (e.g., policy briefs) and analysed additional documents
Inability to interview key stakeholders due to limited time and non-responsiveness	Private and public actors in the carbon landscape	Invest Salone should engage additional key stakeholders as it looks towards future collaborative engagement in the carbon market in Sierra Leone

Trajectory of the carbon market in Sierra Leone

Complex and global challenges nearly always produce new markets. The ongoing climate, biodiversity and development crises are no exception. Carbon markets – trading systems in which carbon credits are bought and sold to account for GHG emissions that contribute to climate change – can be powerful mechanisms for driving beneficial climate, biodiversity and human livelihood outcomes. Sierra Leone – a country whose total carbon emissions are minimal (0.11 tons of carbon dioxide equivalent [tCO₂] in 2020) when compared to many developed economies such as the USA (14.34 tCO₂ per capita)⁶ – bears a disproportionate and significant burden from the impacts of a changing climate; it is considered one of the least climate-resilient countries in the world.⁷ If done properly, the benefits of building a viable, transparent and equitable carbon market that allows investors and corporations to trade both carbon credits and carbon offsets in a voluntary and/or regulated marketplace could support a variety of biodiversity, economic, climate, development, conservation and livelihoods objectives.

⁶ Jain et al, 2022.

⁷ African Development Bank Group, 2022.

Research shows that global warming must be limited to 1.5°C to avoid the most catastrophic impacts of climate change, and carbon markets are increasingly considered an important solution for reducing global GHG emissions.

Research shows that global warming must be limited to 1.5°C to avoid the most catastrophic impacts of climate change,⁸ and carbon markets are increasingly considered an important solution for reducing global GHG emissions. Some estimates put current carbon market value at up to US\$909 billion and growing.⁹ The advent of new mandatory emissions trading programmes and growing consumer pressure have driven companies to turn to the voluntary market for carbon offsets. In Sierra Leone, a developing economy, the implications could be significant. Sierra Leone has an opportunity to be a global leader in the carbon market space; along with several other West African countries (such as Ghana), Sierra Leone is ranked among the top 20 countries in the world with the highest rates of carbon sequestration.¹⁰

In Sierra Leone, unregulated carbon trading emerged in 2016. Between 2016 and 2021, Sierra Leone issued 1 million carbon credits on the voluntary carbon credit market, primarily through the Gola Rainforest Conservation Project (started in 2012) and the Freetown Blue Peace Project (started in 2017).¹¹ As interest in the carbon market in Sierra Leone continues to increase among the private sector, the GoSL, international donors and aid agencies, and other international climate finance groups, many more project implementor-led activities have either started, or are being planned, including carbon credit generation and trading through reducing emissions from deforestation and forest degradation (REDD+) for forest protection and restoration, mangrove “blue carbon” and farmed landscapes offset schemes. Evidence also shows that governments are prioritising carbon markets globally to reduce emissions, even in unstable economic and political environments.

Carbon projects in Sierra Leone

Early evidence indicates that the number of carbon projects is expected to grow exponentially in Sierra Leone in the coming decades. Yet, due to the sensitive nature of the proposed investments, inconsistent reporting and the siloed approach that the GoSL currently uses to support carbon projects, little information is available to support future projections for the carbon market in Sierra Leone.

Ongoing carbon offset projects and activities that included carbon-related interventions (e.g., reforestation, but not selling of carbon credits) identified during this SA are summarised in Table 3 (more detail on each project/intervention is provided in Annex B). All known project implementors currently operating in Sierra Leone’s carbon market are highlighted, with brief descriptions, their operating location(s) and project start and end dates.

⁸ IPCC, 2018

⁹ Verma & Chestney, 2023.

¹⁰ Dupper, 2023.

¹¹ Jain et al, 2022.

Table 3: Current project implementors in Sierra Leone’s carbon market sector

Project	Implementor	Description	Geography	Project dates
<i>Carbon offset projects</i>				
The SRE-YB Project (Community-Based Mangrove Conservation and Restoration in Sierra Leone)	Solon Capital Partners/WAB	WAB is striving to work with communities to provide them with alternative sources of income that will enhance their livelihoods and reduce the degradation and loss of the surrounding mangrove ecosystems through mangrove conservation in the Sherbro River Estuary (SRE) and mangrove restoration in Yawri Bay	Mangroves in Moyamba and Bonthe Districts, located south of the Western Peninsula in Sierra Leone. This area covers two of Sierra Leone’s four major mangrove estuaries, namely Yawri Bay and the SRE	Memorandum of understanding (MoU) with the MoECC and 11 Chiefdoms established in August 2021 July 2023 – June 2023 <i>*Crediting period has not yet started as of November 2023</i>
Gola Rainforest Conservation Project (Gola REDD Project)	Gola Rainforest Conservation LG (GRC) (an equal partnership between the GoSL, Conservation Society of Sierra Leone, RSPB and Gola communities)	First REDD+ project in West Africa, which centres on addressing deforestation and strengthening conservation of the Gola Rainforest area. The Gola REDD Project works with communities, supporting the upgrade of local infrastructure, microfinance access and education for farmers, which encourages improved productivity and a shift away from traditional crop-fallow cycles towards more sustainable development and land use planning such as cocoa production. “Co-benefits” such as livelihoods and biodiversity are very important to access higher carbon prices	Seven Chiefdoms of Malema, Gaura, Nomo, Tunkia, Koya, Barri and Makpele within the Gola Rainforest National Park (71,048 hectares and a 4 km buffer zone c. 70,000 hectares)	Registered April 2015. Durability guarantee of 30 years August 2012 – July 2042 <i>* First crediting period</i>
Miro Sierra Leone Commercial Plantations Project (Reforestation of Degraded Lands in Sierra Leone)	Miro Forestry Developments Limited/Miro Forestry Sierra Leone (MFSL)	Miro works with communities to lease land and provide jobs through afforestation of their land. Afforestation is through both commercial plantations on rotation for timber product manufacturing (predominantly plywood) and for permanent indigenous afforestation. Both plantation types are designed to generate carbon credits	Project plantations are in the Yoni and Masimera Chiefdoms within the Tonkolili and Port Loko Districts in	Founded in 2009. GHG project started in 2016 May 2016 – May 2046 <i>* First crediting period</i>

Project	Implementor	Description	Geography	Project dates
		and provide sustainable livelihoods (commercial plantations and industrial activities, along with protection of permanent afforestation)	northern/northwestern Sierra Leone	
DelAgua Clean Cooking Grouped Project in Sierra Leone	DelAgua	DelAgua is working to reduce the use of firewood as fuel for cooking at the household level, thereby reducing GHG emissions. This reduction will be achieved by introducing improved cookstoves (ICS) which have a higher thermal efficiency and therefore require less fuel and time for cooking a specific amount of food. DelAgua is working to distribute 150,000 ICS in 2023 and expects to distribute a total of 1,000,000 ICS throughout the programme's lifetime. The ICS (imported Burn Kuniokoa Rocket Stove and the SSM S32-X Rocket Stove) are high-efficiency cooking devices, which will reduce indoor smoke levels, the time spent collecting firewood for cooking and the overall use of firewood compared with pre-project levels	Project activity in the Kenema, Bo, Bonthe, Kambia, Tonkolili, Kenema, Falaba and Kono Districts	MoU with the MoECC and seven Chiefdoms established in April 2019. Project began distribution of the first ICS in May 2023 February 2023 – February 2030 <i>* First crediting period</i>
Rewilding Maforki Project	Klimat X Developments Inc.	The Rewilding Maforki Project comprises reforestation degraded ecosystems around key ecoregions in the Port Loko District, in northwestern Sierra Leone. At the local level, the project is improving households' quality of life by the payment of land leases, generating new employment opportunities for families, supporting sustainable agriculture production and increasing the adaptive capacity of communities to climate change effects	Port Loko District in northwestern Sierra Leone. Four Chiefdoms (Bureh, Loko Massama, Magbema, Maforki)	2022–2072
Scarcies Mangrove Rewilding Project	Klimat X Developments Inc.	The Scarcies Mangrove Rewilding Project is a smallholder mangrove reforestation project in the Scarcies estuaries, northern Sierra Leone. The project will generate GHG ERs through mangrove reforestation in abandoned rice paddies. It will benefit communities by providing income from carbon markets, lease income and employment	Communities in the Mambolo Chiefdom in northern Sierra Leone	2022–2072

Project	Implementor	Description	Geography	Project dates
Project Bankasoka	Oko Environmental/Demeter Holding/sibling subsidiary company, West African Agribusiness	Designing and launching an afforestation initiative to regrow 22,000 hectares of forest in Sierra Leone. This initiative will boost the local economy in Port Loko, safeguard and encourage biodiversity, and protect the environment for generations to come. Working with global carbon industry leaders to maintain the highest standards and deliver an afforestation, reforestation and revegetation (ARR) project focussed on ERs	Port Loko District in northwestern Sierra Leone	Pilot project was implemented in summer 2022, with planting in May/June 2023 to coincide with the start of Sierra Leone's wet season, which will last until November
Carbon Sequestering Programme	Tradin Organic Agriculture (Tradin SL is local partner of ACORN)	Tradin SL is supporting regenerative organic cocoa agroforestry in Sierra Leone, promoting biodiversity and farmer livelihoods through a sustainable cocoa value chain. The programme helps convert cocoa farms into agroforestry farms with cocoa as a primary and annual crop (once) and fruit trees, oil palm, timber trees and biomass trees as additional crops, to obtain a four-strata forest and diversified income for farmers. Tradin SL also offers a variety of technical assistance services to support farmers and cooperatives (e.g., training on cocoa planting best practices)	Kailahun, Kenema and Kono (the core of the cocoa hub in the Sierra Leone), additional smaller operations in Tonkolili and Bo	First project initiated in 2020 with 100 hectares. Current project working on ~1,000 hectares but hope to increase to 10,000–50,000 hectares in future Carbon credit payments expected to be given to farmers in three to four years
Undetermined at time of final report submission	Sunbird Bioenergy	Sunbird is an integrated agricultural estate and renewable energy company. Focusses on sustainable agriculture, biorefinery and renewable energy. Specialises in bioethanol (a low-carbon transportation and cooking fuel) and had a large-scale project producing bioethanol. Sunbird has not yet been active in the voluntary carbon market in Sierra Leone but is looking to launch a clean cooking programme to replace charcoal (the primary cooking fuel and key driver of deforestation in the country). It is also exploring options for biomethane and renewable gases as carbon credit	Mabilifu, Bombali and Makeni Districts	Undetermined at time of final report submission

Project	Implementor	Description	Geography	Project dates
		systems and is investigating how to register to participate in the market		
Freetown the Tree Town	Freetown City Council (FCC) (funded by the World Bank)	As a part of the World Bank-funded Resilient Urban Sierra Leone Project (RUSLP), FCC is in the process of planting 5 million trees via communities, environmental stewards and community-based organisations. As part of the Transform Freetown campaign initiated by the Mayor of Freetown, the #FreetownTheTreeTown project aims to plant, track and grow 1 million trees over three years (2020–2022), focussing on higher slope areas where communities are most susceptible to landslide risks and along the coast where there are risks from sea level rise. It aims to increase vegetation cover in Freetown by 50%, contributing to the restoration of its lush green mountains and once-pristine coastal mangroves. The Freetown reforestation initiative has already taken steps to geotag each tree planted, helping it to meet the transparency prerequisites needed to issue carbon credits	Planting in the Western Area Peninsula in 13 catchment areas: Aberdeen, Congo Town, Tower Hill, Gloucester, Leicester, Kissy, Sumaila Town, Regent-Grafton, Yams Farm, York, Sussex, Angola Town, Baoma and Regent-Lumley	2020–2026
Carbon-related interventions				
Project Sapling (Drones for Carbon Credits)	Crown Agents	Community-based approach to forest management and governance, building sustained stewardship and alternatives to deforestation. The project will mobilise communities to identify and gather indigenous seeds, grow them to saplings in locally resourced nurseries and train them as forest monitors and stewards. It will provide highly localised forestry skills to ensure replanting success from the start, designing forests that increase biodiversity with local and appropriate species, meeting multiple goals of community welfare, conservation, disaster risk reduction,	Working in Sacugama Chimpanzee sanctuary and has an established nursery in Mansonia, where the project has grown over 4,000 trees	September 2022–December 2023 <i>*Pilot</i>

Project	Implementor	Description	Geography	Project dates
		watershed management and other ecosystem services in addition to carbon capture		
Freetown Blue Peace Project (Financing Initiative)	UNCDF, FCC, Swiss Agency for Development and Cooperation (SDC)	The vision is to leverage innovative finance to construct reliable water, sanitation and hygiene facilities (WASH) as an extension of delivering safe, affordable, sustainable water to the residents of Freetown (Project Freetown Wash and Aquatic Environment Revamping Project). The initiative demonstrates a successful model for financing sustainable water production and consumption in LDCs. Safe drinking water projects aim to reduce the amount of firewood required to purify drinking water	17 informal settlements across Freetown	December 2020–ongoing
RUSLP	World Bank	Goals of RUSLP include improving integrated urban management, service delivery and disaster emergency management in the Western Area and secondary cities of Sierra Leone. Overarching focus areas: (1) institutional and capacity development in urban management; (2) resilient municipal infrastructure investment and urban greening; (3) emergency management institutional and capacity development	Five coastal districts in Kambia and Port Loko	2021–2026
Sierra Leone Coastal Resilience Project (SLCRP)	Save the Children (Australia)	In Sierra Leone, climate risks and hazards, future climate change, lack of coordination in the management of environmental resources, weak enforcement of laws/policies and limited finance for climate action will exacerbate the already high vulnerability of communities across the country. As coastal areas are most vulnerable to climate change in Sierra Leone, this project will target Sierra Leone’s Coastal Landscape Complex and seek to increase the resilience of coastal wetland and inland communities to climate change and various impacts on their livelihoods and ecological resources, while catalysing	Coastal communities in four coastal zones (Sierra Leone River Estuary, Yawri Bay, Scarcies River Estuary, SRE) and five coastal districts (Kambia, Port Loko, Moyamba, Bonthe, Pujehun)	2023–2028

Project	Implementor	Description	Geography	Project dates
		transformational change in local livelihood strategies and resource use for the next generation		
Climate Change Induced Coastal Risks Management Project in Sierra Leone	United Nations Development Programme (UNDP)	Strengthening the ability of coastal communities to systematically manage climate change risks and impacts on physical infrastructure and economic livelihoods	Hamilton, Lakka, Conakry Dee, Tombo, Shenge Districts and Turtle Islands	April 2018–March 2023
West Africa Biodiversity and Low Emissions Development (WABiLED)	USAID (implemented by Tetra Tech ARD)	WABiLED is working with partners to strengthen the capacity of national and regional networks and institutions to enforce and prosecute wildlife trafficking laws across the region; implement regional and transboundary cooperation and biodiversity conservation strategies in the key forested countries of Côte d’Ivoire, Guinea, Liberia and Sierra Leone; and improve capacity for economic planning and development of low emissions development strategies to reduce West Africa’s GHG emissions, thus contributing to national and global climate commitments	Moyamba, Bonthe and Pujehun Districts	July 2021–July 2025

Carbon project types

The following section highlights the types and risk profiles of current carbon projects operating in Sierra Leone. This includes a variety of nature-based solution projects (e.g., REDD+, ARR, improved forest management [IFM] projects, regenerative agriculture projects) and a variety of technology-based solutions. Table 4 lists the different carbon project types with brief descriptions, risk profiles and related examples of projects in Sierra Leone.

Table 4: Current carbon project types and risk profiles in Sierra Leone

Solution	Project type	Description	Market risk profiles	Projects in Sierra Leone
Nature-based solutions	REDD+	Projects mitigating deforestation of at-risk forests (e.g., protecting forests)	Avoidance	SRE-YB Project; Gola REDD Project; WABiLED (not a REDD project, but working on related reduction of GHG emissions and increased carbon sequestration from land use and natural resource management)
	ARR	Projects increasing carbon stocks in woody biomass and sometimes soil (e.g., planting new forests)	Removal	SRE-YB Project; Miro Project; Mafork and Scarcies Rewilding Projects; Project Bankasoka
	IFM	Projects increasing net carbon stocks or reducing emissions through changes in existing forest management practices (e.g., managing forest harvesting)	Avoidance and/or removal	Freetown the Tree Town; Project Sapling; Freetown Blue Peace Project (through firewood reduction); RUSLP (through disaster risk management); SLCRP (through improved food and water security); Climate Change Project (improved resilience of green infrastructure)
	Regenerative agriculture	Projects improving practices to enhance soil-based carbon sequestration (e.g., improving farming practices to enhance soil health) based on agroforestry practices	Avoidance	Carbon Sequestering Programme
Technology-based solutions	Renewable energy sources	Projects displacing emissions from fossil fuel power plants to supply electricity to a grid through renewable energy	Avoidance	Sunbird Bioenergy

Solution	Project type	Description	Market risk profiles	Projects in Sierra Leone
	Cookstoves	Projects decreasing carbon emissions through the adoption of fuel-efficient cookstoves, decreasing household fuel consumption	Avoidance	DelAgua Project

Carbon market types

The GoSL is poised to develop policies and regulations that would establish a hybridised compliance carbon market that works in lockstep with ongoing private sector-led initiatives to create enough high-quality carbon credits to meet the demand of this rapidly growing market¹² and to take stock of its timber resources and intensify enforcement against illegal logging. As it does so, there are valuable lessons to be learned from other African nations that are also trying to adapt to a complex and changing marketplace. For example, Zimbabwe devastated investment in its current and future carbon market through complex tax rate structures on carbon pricing and by demanding 47% of pre-net profits. This has all but quashed any carbon offset or carbon credit project in Zimbabwe. In contrast, Ghana has managed to provide a transparent and credible marketplace by setting percentages and tiers for different carbon projects (e.g., fixed percentage for mangrove projects) and continues to encourage investment from private and international climate investors in a meaningful way with transparent and clear policies and regulations. Important lessons are also being learned from policy, procedures and operations in Rwanda as ongoing development, conservation and climate investments continue to grow.

To date, the GoSL's role has been more limited, with engagement through key agencies such as the MoECC, the MoF and the EPA-SL, which have issued licences to firms for carbon credits on a case-by-case basis with no standard guidelines or regulations. Although the GoSL has set up a CFU in the MoF, there is growing demand for it to develop and implement effective policies and regulations for the carbon credit market to ensure market certainty through clear frameworks and guidelines for participation and equitable benefit sharing. In March 2023, the CFU appointed HSF to develop a carbon framework mechanism with the support of the FCDO.

Evidence shows that many stakeholders in the Sierra Leone carbon market, including the GoSL, would benefit from an in-depth comparative analysis of the nuanced differences between voluntary and compliance (regulated) carbon markets, as well as the policies and regulations that inform them. In addition to being a complex and technical practice area, the policy and regulation environment is ever changing. For example, if Sierra Leone enters into an Article 6 agreement under the Paris Agreement, this would formalise the compliance market in Sierra Leone. Among other things, this would provide certainty for the carbon credit buyer. As recognised under Article 6, the GoSL will take a share of the credits, but Article 6 also requires that governments do not double count those credits

¹² In addition to further mainstreaming climate change into its national development agenda and to meet the updated Nationally Determined Contributions (NDCs), National Climate Change Policy (NCCP) and National Climate Change Strategy and Action Plan (NCCS & AP).

(i.e., sell carbon credits to a corporation while also counting those credits in their own reporting). The viability of the compliance market in Sierra Leone is also contingent on project developers finding buyers who believe in the credibility of the GoSL's reporting. Some KII respondents indicated that there will likely be both a voluntary and a compliance market in Sierra Leone, while others highlighted the temporary nature of carbon markets as global climate, development and conservation priorities shift and climate pledges under the Paris Agreement are or are not met.

Voluntary

The voluntary carbon market is “a decentralised market where private actors voluntarily buy and sell carbon credits that represent certified removals or reductions of GHGs in the atmosphere”.¹³ Evidence shows that voluntary carbon markets are entirely dependent on a transparent and credible governance structure and policies that encourage and incentivise investors to buy into the carbon market.¹⁴ While growing exponentially because of the net zero commitments of corporations and governments across the globe, voluntary markets are entirely dependent on market demand, and they are not often scaled in a way that will be sufficient to meet global GHG ER needs. Estimates show that the voluntary carbon market is currently worth US\$500 million globally and is expected to be worth up to US\$1.5 trillion by 2050, if confidence in it continues to grow.¹⁵ That said, the price of carbon has significantly decreased since 2023 (from US\$9 per metric tonne of CO₂ to US\$2 per metric tonne of CO₂) thanks to a variety of problems, including a lack of consistency, regulation and reporting transparency in the marketplace. For example, double counting remains a persistent issue, and many experts are calling for better and more transparent reporting systems.

In Sierra Leone, only a voluntary carbon market currently exists. Trading on this market began in 2016 and has continued to grow through investments by the private sector, NGOs and international climate finance organisations in a variety of clean cookstove, mangrove reforestation and anti-deforestation projects.

Compliance

Compliance, or regulated, carbon markets are centralised markets dictated by legal frameworks established by governments that mandate GHG ERs through a variety of projects. Many experts believe that compliance markets are required to scale GHG ERs in any significant way and to increase predictability across the marketplace in order to meet global targets outlined in the Paris Agreement.¹⁶ Compliance market carbon credits will likely become more expensive because the Paris Agreement targets will drive demand and compliance credits will be seen to have more credibility due to the Article 6 requirement that the host country does not double count the credits towards its own nationally determined contributions (NDCs).

In Sierra Leone, the development of a compliance market or a hybrid market would require significant oversight and management by several ministries and agencies in the GoSL. As evidenced in other compliance carbon markets globally, transparent processes, clear roles and responsibilities,

¹³ Climate Focus, 2023.

¹⁴ Webb, 2023.

¹⁵ Stone, 2023.

¹⁶ Webb, 2023.

and significant capacity are needed to support a viable marketplace at a national level. For example, the ongoing management costs of reviewing applications, processing permits, adjudicating leases, covering finance and accounting needs, supporting compliance and enforcement needs, and processing legal concerns will be substantial. Agencies and ministries will also have to clarify, allocate and implement tasks in a way that supports effective processes and operationalisation for project implementors. For example, project implementors need to have clear guidelines on where to submit information about a proposed project, the process for review and implementation, and the ongoing tracking, reporting and monitoring needed to support a long-term project. These details need to be solidified to support ongoing investment from credible organisations.

Carbon market stakeholders

The following section focusses on identifying the known actors operating in the carbon market in Sierra Leone to date, including from the private and public sectors, community, international donors and aid agencies, international climate finance organisations, academic and research institutions, and the GoSL. Known actors are listed by stakeholder type, with brief descriptions and details of their geographical focus. As explained in the Approach section above limited time constraints meant that not all carbon market actors were interviewed/able to provide information. Initial stakeholder mapping of tier one priority stakeholders is presented in Annex B, which can be further developed as required. For carbon stakeholders identified as tier one, the following baseline information was collected:

- Who they are, where they are, and appropriate contact details
- What their current activities in the carbon market space in Sierra Leone are
- What their level of engagement is with other stakeholders, including within government and/or communities
- What initial support they might require (i.e., what their current challenges are).

Private sector (carbon offset project implementors, investors)

The private sector plays a significant role in developing and implementing carbon credit and carbon offset projects in the voluntary carbon market in Sierra Leone, through initiating, developing and implementing carbon projects. For example, Miro Forestry – an international plywood manufacturing company that owns and operates sustainable Forest Stewardship Council-certified plantations across West Africa – earns carbon credits from commercial plantation projects and afforestation of degraded land projects under ARR credits on more than 10,000 hectares of land across the country. For private sector project implementors, projects can be internally and/or externally financed and are often contracted on a case-by-case basis and can be extensive. To operate in Sierra Leone, individual agreements (e.g., tax agreements) are established with the GoSL and require significant input in terms of time, funding, coordination and organisational capacity. Private sector project implementors also establish individual agreements with Chiefdoms and pay lease fees for land being used by communities, offering financial benefits and employment opportunities. Incentives for private sector actors are mostly financial, but the projects they implement can provide a multitude of benefits, including supporting Sierra Leone’s broader

biodiversity, economic, sustainable development, climate, conservation and livelihood objectives. Other actors, such as GreenCollar, do not manage carbon offset projects but provide technical and investment support to project implementors. Known private sector actors currently operating/engaging in the carbon market in Sierra Leone include:

- Crown Agents
- DelAgua
- Klimat X Development, Inc.
- Miro Forestry Developments Limited/Miro Forestry Sierra Leone (MFSL)
- Oko Environmental/Demeter Holding
- Rainforest Builder
- Solon Capital Partners/WAB
- Sunbird Bioenergy
- Tradin Organic Sierra Leone.

Public sector (NGOs, CSOs, INGOs)

Public sector organisations – NGOs/international NGOs (INGOs) and CSOs – can play a role in supporting national and community-based outcomes through carbon credit and carbon offset projects. In Sierra Leone, public sector organisations are involved in the carbon market in a variety of ways, including as project implementors, project advisors and technical assistance support (e.g., The Nature Conservancy), and revenue generators (e.g., Conservation Society of Sierra Leone). Public sector organisations often provide technical assistance and cross-cutting support to trusted, credible project implementor partners. This can include providing subject matter experts to support community engagement processes (e.g., FPIC), research and data collection, and decision-making around best practices for development, conservation and climate initiatives. Public sector organisations also apply for, receive and distribute funding from grants and capital investments to support revenue generation for projects operating on the ground. Known public sector NGOs, CSOs and international partners currently operating in the carbon market (related in some capacity to their objectives/interventions or otherwise) in Sierra Leone include:

- Catholic Relief Services
- Conservation International
- Conservation Society of Sierra Leone
- Environmental Defense Fund
- Greenpeace International
- Kivu International
- Namati
- RSPB
- Save The Children
- Sustainable Energy for All (SEforALL)/Africa Carbon Markets Initiative
- Tacugama Chimpanzee Sanctuary
- The Nature Conservancy
- Tony Blair Institute for Global Change (TBI)
- Wetlands International Africa
- World Wildlife Fund (WWF).

International donor aid entities

International climate donors, agencies and financing entities play a significant role in cultivating a viable carbon marketplace through intergovernmental cooperation, climate project financing and cross-pollination of multilateral policies and regulations. The organisations listed below were identified through research and KIIs, but in some cases their exact role was not clear, and had not been validated before the submission of this report. Known international climate actors potentially operating in the carbon market (related in some capacity to their objectives/interventions or otherwise) in Sierra Leone include:

- Africa Capitalization Fund (ACF)
- Africa Climate Change Fund/African Development Bank (AfDB)
- Adaptation Fund (AF)
- Africa, Latin America and the Caribbean Fund (AFLAC)
- Australian Department of Foreign Affairs and Trade (DFAT)
- British Chamber of Commerce Sierra Leone (BCCSL)
- Canadian International Development Agency (CIDA)
- Catalyst Climate Resilience Fund (CCRF)
- China Climate Change Framework Loan (CCCFL, of EIB)
- Climate Change Program Loan (CCPL, of the French Development Agency (AFD) and Japan International Cooperation Agency (JICA))
- Danish International Development Agency (DANIDA)
- European Commission (EC, of European Union (EU))
- European Investment Bank (EIB)
- European Union (EU)
- EU's Emissions Trading Scheme (ETS)
- FCDO
- French Development Agency (AFD)
- French Global Environment Facility (FGEEF, of AFD)
- Global Energy Efficiency and Renewable Energy Fund (GEEREF, advised by EIB)/German International Climate Initiative (IKI)
- Global Climate Change Alliance (GCCA/GCCA+)
- Green Climate Fund (GCF)
- Green for Growth Fund (GGF)
- Swiss Agency for Development and Cooperation (SDC)
- UN
- UNCDF
- United Nations Development Programme (UNDP)
- United Nations Food and Agriculture Organization (UNFAO)
- USAID
- World Bank
- World Food Programme (WFP).

Community stakeholders

Although this report was not able to engage directly with any communities due to time and logistical constraints, community stakeholder participation is essential for the success of carbon credit projects, as they are inhabitants of the land areas where carbon credit projects are implemented. Community stakeholders should be meaningfully involved in carbon credit projects. They must be organised, gender and socially-inclusive, vigilant, and willing and able to participate in discussions as equals with government and project developers to ensure that they adequately benefit from these projects while the land/environment which they rely on remains protected. Community stakeholders can choose to work with representatives to support their interests.

Academia and research

Academic and research institutions play a crucial role in helping project implementors, governments and other actors to understand the potential benefits, implications and challenges of carbon offset and carbon credit projects in Sierra Leone. To date, very little research has been done to understand how and where a long-term, viable carbon market in Sierra Leone could contribute the country's conservation, biodiversity, development and climate objectives. In addition, very little research has been done to understand how a carbon market would impact the wellbeing, authority and livelihood goals of indigenous and local communities across the country. Academic and research institutions can serve as independent arbiters, and often have deep subject matter expertise and funding support. By establishing relationships in and with communities, researchers can fill knowledge gaps, bring best practices from other locations and study areas, and provide access to funding for follow-on work. They are often tied to protocols (e.g., Institutional Review Boards) and agreements established with the communities that they work in, and can provide perspectives that may not be established in other ways. Known academic/research actors currently exploring the viability of a carbon market in Sierra Leone include:

- International Growth Centre (IGC)
- World Resource Institute (WRI).

Government

The GoSL plays the most critical role of any actor in the development of a viable, credible and equitable carbon market in Sierra Leone. With the authority to develop, institutionalise and enforce carbon market policies and regulations, the GoSL has a unique opportunity to build a framework that will support long-term investment in the country. To date, the GoSL has operated in a more siloed manner when supporting the development and implementation of carbon projects across the country. For example, when establishing MoUs with individual private sector organisations (e.g., Miro Forestry), the terms and conditions have been specific to each individual agreement. The GoSL holds significant power in supporting the investment potential and development of projects. More information about the role that the GoSL plays in the carbon market in Sierra Leone is included in the "Political landscape of the carbon market" section below. Known government actors with relevance or related mandates in the carbon market in Sierra Leone include:

- Climate Finance Unit (CFU, of MoF)
- Community management associations
- Directorate of Science, Technology and Innovation (DSTI)
- EPA-SL
- Forestry Division
- FCC
- Local and informal governments
- Ministry of Agriculture, Forestry and Food Security (MAF)
- MoECC
- Ministry of Fisheries and Marine Resources (MFMR)
- Ministry of Foreign Affairs and International Cooperation (MoFAIC)
- MoF
- Ministry of Lands Housing and Country Planning (MoLHCP)
- Ministry of Planning and Economic Development (MoPED)
- Ministry of Social Welfare, Gender, and Children’s Affairs (MSWGCA)
- Ministry of Trade and Industry (MTI)
- Ministry of Water Resources (MWR)
- Municipality and District Councils
- NPAA
- National Revenue Authority (NRA)
- National Water Resources Management Agency (NWRMA)
- Public Private Partnerships Unit (Office of the Vice President)
- Revenue and Tax Policy (RTP, of MoF)
- Sierra Leone Meteorological Agency (SLMet).

Additional considerations

As explained above, the time constraints on the development of this rapid SA meant the consultants were unable to speak with all relevant parties with expertise on the carbon market in Sierra Leone. More information about the respondents spoken to was provided in the Approach section. Additional experts who were identified in the conversations that informed this report and who should be considered in ongoing discussions include:

- Dr. Idrassa Kanu, Director of Tax and Revenue, NRA
- Giancarlo Montaforte, EU representative (now retired).

Policy and institutional environment

At the global level, Sierra Leone committed to the Paris Agreement in 2016 and subsequently submitted its updated NDC in 2021. Updating the NDC, which is aligned with the country's medium-term development aspirations, showed Sierra Leone's willingness to participate in climate change initiatives, including support for the voluntary carbon market. The updated NDC describes a pathway for reducing GHG emissions by 25% from baseline levels by 2050.¹⁷ The NDC also includes firm commitments to mitigation and provides details on key emission sectors in the economy that would accommodate carbon credit projects, including agriculture and food systems, water resources, energy, coastal zone management, tourism, land and forestry. The cost of implementing the NDC is estimated at US\$2.8 billion and will require substantial resources from the public treasury, which under current fiscal realities is unlikely to be feasible. While there will be unique challenges associated with Article 6 of the Paris Agreement, it may present a suitable alternative way of implementing the NDC as it permits the deployment of finance from the private sector. Specifically, Articles 6.2 and 6.4 of the Agreement make provisions for parties to pursue voluntary cooperation in the implementation of the NDC and trade carbon credits generated through specific projects.

To take advantage of global carbon markets and participate in global trade, Sierra Leone will need to establish a regulatory regime by passing carbon credit market regulations into law. Discussions with key stakeholders in government institutions indicate that this does not yet exist but is an immediate priority that is being developed to guide the process and to attract private sector finance for carbon projects. A well-designed carbon credit framework, which explicitly prioritises transparency, establishes clear mechanisms for engagement with the GoSL, and reduces barriers to investments from credible organisations, would provide much-needed clarity and guidance to generate carbon credits for trade. The framework may also provide assurance to interested parties about carbon ownership and carbon credit sharing. Some aspects of the framework are already being established by the MoF with technical assistance from HSF (via FCDO). These will establish the key tax policy and pricing on carbon credits and set up the accounting framework and procedures to facilitate carbon credit trade. The MoECC has earmarked the development of the holistic guiding framework using its expected allocations from the GoSL for the 2024 budgetary year and hopes to secure the services of an international firm to support this exercise.

In addition, the GoSL should consider the pros and cons of developing a regulatory regime for a compliance market. If the compliance market grows as planned, it will rapidly reduce the importance of the voluntary market. Therefore, time spent regulating a market that does not require government approval to trade credits (because there is no need for a corresponding adjustment to the host country's NDC) risks missing the opportunity to prioritise regulation of the compliance market.

¹⁷ Government of Sierra Leone, 2021.

Policies, regulations and legislation

Several governing bodies are working on climate policy at the national level in Sierra Leone. For example, in early 2023, the Counsel for the EPA-SL indicated that a bill on carbon rights and regulations had been taken to parliament and was being reviewed. It is unknown when the final bill will be approved and enforced. In addition, the Presidential Initiative for Climate Change, Renewable Energy and Food Security, which is led by Dr. Kandeh Yumkella and located in the Office of the President, is working on carbon market policies. The initiative got underway in August 2023 and is ongoing. In the development of this rapid SA, respondents indicated that leaders of the initiative were already working on the programme, including hiring staff and sourcing funds externally. Early discussions point to a focus on food security issues to address ongoing food price concerns as well as discussions more broadly about potential future investments in energy infrastructure. The MoECC and MoF are also both working on aspects of federal carbon market policy and frameworks, which if not streamlined, could result in uncertain roles and responsibilities for GoSL ministries in the market.

Investments in forestry projects generating carbon credits are important for trade as forest credits are an integral component of REDD initiatives. However, forest projects are often complex (when compared to clean cookstove projects, for example) as they require extensive use of community land, which sometimes raises contentions on land rights, food and water uses. Forests and farmlands play a key role in the rural economy and communities depend on them for their livelihoods. Under certain conditions, communities may lose access to or be required to give up land used for farming and other purposes for carbon credit projects. Sierra Leone's land tenure system is complex, as rural land is often communally owned and managed under customary law. In the past, agricultural projects that involved the large-scale acquisition of land have occasionally been deemed to be a "land grab", leading to (sometimes violent) protests by communities. For example, when the multinational SOCFIN Group acquired more than 18,000 hectares of land for an industrial oil palm plantation in southern Sierra Leone violent protests by local authorities and communities opposed to the land deal swiftly followed.

Traditional land tenure and governance systems clearly establish that the land belongs to the community and that the community may lease the land to a third party. Leases therefore should not infringe on any customary ownership rights. Leases are generally required to specify what the land is to be used for (e.g., granted for conservation and other activities designed to preserve the ecological value of the demised premises to the environment). Leases should also indicate that further consultation is required in demarcating the location and extent of the conservation areas and specifying the transfer of rights to any certified ER credits. Leases are typically reviewed every seven years and can be extended if agreed upon by all parties involved. Leases represent the formal consent for carbon project implementors to undertake conservation-related activities in the Chiefdoms and establish an actor's legal right to operate the project. Leases and MoUs often establish the basis for further engagement with the GoSL and consultation with community partners under the principles of FPIC to research, test, design and implement the project, including the creation of an equitable and transparent benefits-sharing agreement.

Carbon rights and ownership are not currently explicitly defined but are interpreted through other legal frameworks and are intimately tied to other forest and land rights policies

In a bid to address some of the root causes of the SOCFIN land deal (i.e., outdated and inadequate land laws that created opportunities for rent seeking and corruption), the Customary Land Rights Act and the Land Commission Act were signed into law in 2022. The Customary Land Rights Act replaces Cap 122, the law that gave traditional chiefs and local authorities absolute power to negotiate and lease land on behalf of their communities without due consultation and acquiescence from rightful landowners. The Customary Land Rights Act empowers individual landowners to negotiate land deals with prospective investors. The powers to veto projects however still lie with the local authorities and the GoSL. The Customary Land Rights Act also sets out guidelines on investor-induced displacement and resettlement. The changing political, regulatory and legal landscape has significant implications for the carbon market in Sierra Leone.

Carbon rights and ownership are not currently explicitly defined in Sierra Leonean law but are interpreted through other legal frameworks. They are intimately tied to forest and land rights legislation, policies and frameworks, including the recent Customary Land Rights Act. In the Tradin SL Carbon Sequestering Programme, the landowner/land user is the owner of the carbon right. In agroforestry, he/she produces the biomass that sequesters the carbon and is therefore entitled to the proceeds when the carbon credits are sold (through the Rabobank/ACORN platform). The Forest Act of 1988 details a benefits mechanism that allows for non-forest benefits from forests to be owned. As interpreted, project owners are understood to have the right to carbon credits, but this is not explicitly defined and is a loophole that will need to be closed in a formalised carbon market framework. Relevant legislation, plans, policies and frameworks that could inform carbon market investments in Sierra Leone are discussed below.

Climate mitigation and adaptation policies, frameworks and guidelines

- **National Climate Change Policy.** Enacted in 2021, this national policy defines Sierra Leone's climate adaptation and mitigation goals in alignment with the UN Sustainable Development Goals (SDGs).¹⁸ This strategy should inform (and be in alignment with) a future carbon market framework.
- **National Climate Change Strategy and Action Plan (NCCS & AP) (2015).** Sierra Leone's mitigation and adaptation policy response to climate change is driven by the need to urgently address the adverse impacts of climate change on the country's economy and society as well as its physical environment. It focusses on climate adaptation in key sectors, including agriculture and food security, fisheries, tourism, forestry and water resources. The strategy and action plan lay out specific steps to reduce the vulnerability of all sectors to climate change as well as to develop and implement mitigation initiatives for a low-carbon, high-growth development path, which should inform carbon market development and investment in Sierra Leone.¹⁹

¹⁸ African Development Bank Group, 2022.

¹⁹ Ibid.

- **Sierra Leone Meteorological Agency Act (2017).** Passed in parliament in 2017, the Act sets up the Meteorological Agency to provide meteorological and climatological services in the country. The Meteorological Agency advises the GoSL on climate change-related policies, promotes the use of meteorology in agriculture and food systems, and is a member of the Intergovernmental Panel on Climate Change. The Act (and Meteorological Agency) have important implications for the carbon market in Sierra Leone.
- **Clean Cooking Compact (2021).** The Ministry of Energy’s 2021 Clean Cooking Compact is a key policy that sets a path towards clean cooking in Sierra Leone by 2030 and will be relevant to carbon credit policy and framework development.
- **Renewable Energy Policy.** This policy sets out a range of measures to promote a just transition and integrate renewable energy fuels into mainstream energy production. It sets an ambitious target of achieving 84% renewable energy contribution to final energy consumption by 2030. Experts indicate that there is a parallel relationship between the potential future carbon market and renewable energy policies in alignment with Sierra Leone’s NDC and SDGs.
- **Energy Efficiency Policy (2015).** This policy is specific to facilitating technology transfer for cleaner energy sources and a low-carbon economy.
- **Coastal Climate Change Adaptation Plan (CCCAP) (2019).** Part of the national climate adaptation planning process, the CCCAP aims to identify and implement adaptation and resilience measures specific to Sierra Leone’s coastline. By planning for and implementing nature-based solutions, a multitude of benefits will be realised, including carbon sequestration and vulnerability reduction goals. Implementation of this plan is expected to contribute to the development of organised coastal landscapes in the country that could serve as a ready platform to plan for and adapt to climate change impacts in future. Carbon projects can also help Sierra Leone achieve important climate adaptation and resilience objectives.
- **National Climate Change Communications Strategy (2020).** Launched under the national climate adaptation planning process, the communications strategy defines short- and mid-term directions on how the GoSL can use information to strategically and effectively support the national climate adaptation planning process.
- **Sierra Leone’s NDC (updated in 2021).** NDCs are pledges to limit global warming submitted by countries under the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC). Sierra Leone’s NDC, which was originally developed in 2016, and updated in 2021, and again in 2023, aligns with its Medium-Term Development Plan (2019–2023) and identifies a broad range of sectors impacted by a changing climate. It lays out a pledge to reduce carbon emissions by 5% from 2005 levels before 2025, 10% before 2030, and 25% before 2050. In addition, it sets adaptation goals of reducing vulnerability by half by 2030.²⁰ The NDC specifically highlights the mechanisms and conditions under which Sierra Leone would establish a carbon market to support its own NDC and the NDCs of other countries.

²⁰ Government of Sierra Leone, 2021.

- **initial Climate Adaptation Plan (iNAP) (2021).** A national climate adaptation plan based on four key pillars as identified by the UNFCCC: (i) identifying climate impacts, vulnerabilities and risks; (ii) adaptation-related policies, plans and programmes; (iii) mainstreaming of adaptation; and (iv) monitoring evaluation and reporting. The iNAP also identifies five categories of adaptation programmes (physical investments, human capacity development, institutional strengthening, regulatory modifications, research) for each vulnerable sector.²¹ Climate change adaptation and mitigation measures intersect, presenting unique opportunities for carbon market initiatives.
- **National Adaptation Plan of Action (NAPA) (2007).** A national climate adaptation plan developed in 2007. Alongside the iNAP, GoSL officials have prioritised 24 adaptation projects with key implementation details including rationales, project objectives, inputs, outputs, institutional arrangements, risks and barriers, monitoring and cost estimates.²² However, selection criteria to prioritise these programmes and projects are missing in the iNAP and NAPA.
- **National Renewable Energy Action Plan (2016).** This plan was developed to create a viable low emissions and development pathway.

Forestry and biodiversity policies, acts and frameworks

- **National Protected Area Authority Act.** Enacted by parliament in 2012, this Act made provisions for the establishment of a Conservation Trust Fund. A primary stipulated source of finance for the fund is revenues to be generated from the trading of carbon credits.
- **National Environmental Policy.** This is considered the cornerstone document for environmental management in Sierra Leone as it has significant implications for environmental conservation initiatives across the country. The policy also articulates the main environmental objectives that underlie the country's aspirations for sustainable development. This is a particularly significant policy document as it outlines restraints for the sustainable utilisation of forests, marine and other natural resources. The National Environmental Policy would dictate important considerations for the carbon market in Sierra Leone.
- **National Biodiversity Strategy and Action Plan (2017).** This establishes the GoSL's strategy and action plan for maintaining and improving biodiversity outcomes across the country.
- **Integrated Coastal Zone Management Plan (2016–2020).** Developed by the EPA-SL, the plan defines the approach to integrated coastal and marine ecosystem management with a focus on planning, policy, implementation and monitoring.
- **National Environmental Action Plan.** This describes specific actions that must be undertaken in line with the National Environmental Policy. Specific actions align with those also needed to contribute to the support and development of a carbon market in Sierra Leone.
- **Forestry Policy.** The policy promotes strategies that are aligned with the effective management of natural resources in Sierra Leone with linkages to the National Development Plan. The main thrust of the policy is focussed on deforestation, land degradation and biodiversity loss. The policy highlights the challenges of effective forestry management,

²¹ Jain et al., 2022.

²² Ibid.

among which are competing land use needs for livelihoods in rural areas, illegal logging and the land tenure system in the country (often important considerations for carbon projects).

- **Medium-term National Development Plan (MTNDP) (2018–2023).** The MTNDP highlights the need to align environmental, climate and economic development plans to encourage proactive efforts to mitigate the causes of global warming.²³ Carbon projects can provide a multitude of benefits, including addressing the SDGs.

Land ownership, land use and land rights

- **The Customary Land Rights Act (2022).** This Act, adopted in 2022, introduced new requirements for customary and formal land use regulations across the country (as explained above). In the context of the carbon market in Sierra Leone, many actors have expressed anxiety and confusion around what this Act means for land leases, land use and carbon ownership. This needs to be clarified moving forward.
- **National Land Commission Act (2022).** This legislation was enacted by the parliament of Sierra Leone with the intention of benefitting individual landowners and eliminating discrimination under customary laws by empowering local communities and requiring FPIC for all land-based investments. This has significant implications for land leases and carbon ownership in a carbon market for Sierra Leone.
- **Tribal Authority Ordinance (Cap 61) (1960).** An ordinance that established Chiefdom Councils, which are local and customary governing bodies made up of a Paramount Chief and his closest advisors, key title holders and principal members of the Chiefdom intended to govern, resolve conflicts and regulate land use, ownership and development “in or near a town for development of the town and the general benefit of inhabitants of that town and its villages”. Under an equitable carbon market framework, land rights, land use and carbon ownership policies would protect the rights of local and indigenous communities.
- **Local Government Act No.1 (2004).** This legislation specifically categorised Sierra Leone into districts, towns and cities. The Chiefdoms are broader geographical areas comprising multiple towns and are headed by a Paramount Chief whose powers are largely based on customary laws which were codified in parliamentary legislation. The Chiefdom Council is under the jurisdiction of the district administration and all land leases and similar documents must be filed with the district administration. The Act also clarifies the role of local governments in reviewing, approving, monitoring and administering carbon projects across the country.
- **Constitution of Sierra Leone (Section 170).** This defines customary laws, laws by parliament and rules of equity. Of particular significance, section 171(15) of the Constitution indicates that any law can be voided if the law or rule is inconsistent with the Constitution. A carbon market framework would have to follow established policies set by the Constitution.
- **Registration of Instrument Law (Cap 256) (Section 4).** Legislation that requires land to be registered within 30 days of the date of an agreement in order for the agreement to be enforceable.

²³ African Development Bank Group, 2022.

Carbon ownership policies, frameworks, and guidelines

- **Strategy for the Development of a Climate Change Abatement Economy (2010).** This strategy focusses on opportunities for earning carbon credits by implementing REDD+ programmes. The main goal is to develop and manage up to 2.5 million hectares of forest over a 10-year period and in the process generate a forecasted annual revenue of US\$100 million through carbon trading. As part of the strategy an anti-deforestation force of about 2,000 personnel has been recruited and deployed to serve as forest rangers in communities to promote and protect reserved areas in the country.

Government agencies and institutions

Key government agencies that currently have a significant role to play in developing a viable carbon market in Sierra Leone include the MoECC, MoF (CFU), EPA-SL, Ministry of Lands, NRA and Ministry of Agriculture. Across the GoSL, roles and responsibilities for key ministries and agencies are not yet clear; presumably this could be further defined through the formalisation of a carbon market framework. More information about the political landscape can be found in the “Political landscape of the carbon market” section below.

Inflection points

Several inflection points – events, conditions or scenarios that result in abrupt shifts in economic, political and governance decisions – should be monitored closely in the development of a carbon market. Historic inflection points have proven important indicators for changing economic conditions. For example, Sierra Leone was on schedule to achieve “middle-income status” by 2035, but the economic fallout from the Ebola outbreak left institutions reeling.²⁴ A clear global inflection point that changed the political and economic landscape in Sierra Leone was the COVID-19 pandemic. According to the World Bank, “Sierra Leone’s post-pandemic recovery was disrupted by concurrent domestic and external shocks, exacerbating existing macro-fiscal vulnerabilities.”²⁵ These shocks resulted in inflation and exchange rate depreciation (of record levels) and the cascading impacts were severe.

Political violence, global health crises (e.g., Ebola, COVID-19, etc.), changing energy and food prices, global agreements, regional or international conflict, natural disasters and more all create a challenging backdrop for catalysing action around establishing an entirely new economic marketplace in the country. Yet, these conditions also speak to the opportunity that Sierra Leone has in this moment to support new and transformative market mechanisms that help the country reach its development, climate and conservation objectives.

²⁴ World Bank, 2023.

²⁵ World Bank, 2023.

Currently, there many national and global political landscape conditions that could influence a carbon marketplace in Sierra Leone. Notably, the 2023 elections delayed the processes and actions needed to support a carbon market framework, with collaboration across key ministries and agencies stalled. This process is now underway although there are still coordination challenges. In addition, recent legislation (e.g., the Customary Land Rights Act 2022) and potential upcoming legislation may provide inflection points that determine the path forward for the carbon market in Sierra Leone (for the better or worse). Key inflection points also include reaching tipping points for biodiversity, land area or climate-related issues. Deforestation continues to be a pervasive problem across the country, but there are not enough data currently to understand where the tipping points are for forest loss that could, for example, result in catastrophic and irreversible damages (i.e., to food security or water security, or increased climate vulnerability due to a reduction in mangroves that serve as buffers against extreme events, etc.). In 2010, Sierra Leone had 5.43 million hectares of tree cover, extending over 75% of its land area. In 2022, it lost 120,000 hectares of tree cover, equivalent to 63.5 Mt of CO₂ emissions.²⁶ These conditions cannot be sustained, but more information is needed to understand if and how tipping points might lead to conditions that would impact the carbon market.

Significant global events, like COP28 – which took place in November and December 2023 in the United Arab Emirates – are certain to influence development of the carbon market in Sierra Leone. This is particularly true as decisions around Article 6 of the Paris Agreement continue to inform next steps for voluntary, hybrid and compliance carbon markets.

Political violence, global health crises (e.g., Ebola, COVID-19, etc.), changing energy and food prices, global agreements, regional or international conflict, natural disasters and more all create a challenging backdrop for catalysing action around establishing an entirely new economic marketplace in the country. Yet, these conditions also speak to the opportunity that Sierra Leone has in this moment to support new and transformative market mechanisms that help the country reach its development, climate and conservation objectives.

²⁶ Global Forest Watch, 2023.

Political landscape of the carbon market

Recent conversations with current and future potential carbon market actors in the environment and climate change space in Sierra Leone have re-emphasised that there is strong interest among policy-makers for the development of the carbon market. A formal market with clear guidelines on resilient, secure and scalable trade (and post trade) infrastructure, however, has not been established due to the absence of necessary regulatory instruments. The process of designing, growing and sustaining the carbon market in Sierra Leone will require the formalisation of, and interaction between, several GoSL ministries and agencies. Respondents identified this as particularly relevant in a challenging political landscape, highlighted by the fact that ministries and agencies of the GoSL have different incentives, varying mandates that sometimes overlap and currently limited capacity to participate effectively in the carbon market. A general overview of the political landscape in Sierra Leone and considerations specific to the carbon market, power dynamics, and influence and positioning is provided below.

Overview

The economic situation in Sierra Leone is in a state of flux, though there have been significant improvements in key macroeconomic indicators of stability compared to late last year. The exchange rate is relatively stable but inflation is still high. Unemployment rates are also high and productive sectors are not performing well. The poor overall macroeconomic performance has also impacted private enterprise. High domestic borrowing by the GoSL to finance budget deficits is resulting in prohibitively high costs of borrowing from commercial banks and reducing access to finance for the private sector.

While the political system in Sierra Leone has experienced significant change over recent decades, the underlying factors that drive the political economy in the country have not. The policy environment has remained unpredictable for private enterprise and the economy is still dominated by the informal sector. The private sector experiences pervasive bureaucratic red tape and high shadow pricing. For instance, businesses encounter long delays in processes for granting permits or licences, and must make unreceipted payments. These challenges present additional costs and increased risks to a private sector that must already contend with negligible physical infrastructure required for private enterprise to thrive. The lack of reliable electrical power supply, water services, cheap telecommunications and good inter-country links - which are all invaluable when it comes to attracting investors - pose massive challenges.

Considerations for the carbon market sector

Private sector activities and large investments in Sierra Leone have historically been dominated by the extractive sector (especially for exports). The carbon market in the country is fairly new, and there is significant potential for creating a robust carbon credit market, as well as developing solutions that also inform development, biodiversity and conservation outcomes, and climate goals. A carbon market offers immense opportunities for the GoSL to raise revenues to bolster its public

financial position and provide a multitude of benefits. This process is already happening in other sub-Saharan African nations. The World Bank estimated that Ghana earned US\$4.8 million for reducing emissions through its REDD+ projects in the second half of 2019 and this is projected to rise to about US\$50 million by 2024 with an increased number of ER projects for trade.²⁷

In addition to the GoSL, communities where carbon credit projects are implemented may also be well positioned to receive revenue through benefit-sharing plans, which can contribute to improving economic opportunities and livelihoods. This highlights the explicit need to develop a carbon credit instrument that outlines clear mechanisms for the equitable distribution of benefits from the trade. For example, there have been allegations of corruption, wherein land rent that should have been allocated to landowners has instead been paid by companies to local elites that have political connections. Respondents indicated alarm with regards to operating in these conditions and highlighted clear indicators that might dissuade investment. Currently, carbon project implementors are required to do the “legwork” (including funding, staff and time requirements) to interface with local authorities and communities to set clear objectives and expectations. Respondents also said that funds from carbon credits generated from community lands should go back to those communities.

The political landscape also significantly impacts the management of forests critical to the success of some carbon credit and carbon offset projects. The commercial exploitation of forest resources in Sierra Leone has grown significantly, leading to a steady decline in forest cover as plantation forests also decline. Global Forest Watch estimates that between 2001 and 2022, approximately 1.94 million hectares of tree cover was lost, which is a 35% reduction in tree cover since 2000.²⁸ A key driver of this decline is the weak enforcement of forest management and monitoring policies. Corruption, poverty and illegal logging have been at the centre of the mismanagement of forest resources. The government has deployed forest rangers to help push back loggers, but these rangers have not been effective in stopping widespread logging operations in rural communities. From time to time, the government imposes a moratorium on timber exports because of concerns that environmental degradation may displace forest-dependent communities. However, such moratoria are usually lifted as they do not improve the situation and are influenced by politics. The government also collects revenues from timber exports and appoints an agent to facilitate them. The poor management of forest reserves and illegal logging risk jeopardising benefits that could accrue from carbon credit projects.

Power dynamics

Power dynamics across the GoSL are complex, dynamic and deeply rooted in the past and affected by the ever-shifting current political landscape. The control of funds accruing from the trade of carbon credits will fundamentally dictate the priorities and power dynamics across and between key ministries and agencies. Respondents indicated that how funds are allocated to, between and across key ministries and agencies will likely be polarising in Sierra Leone and could delay or stop progress.

²⁷ GhREDD+, 2023.

²⁸ Global Forest Watch, 2023.

The full implications of policies being developed by the MoF and MoECC are unknown at the moment. Both ministries consider themselves to be the leading player in carbon credit trade and this creates the potential for infighting across institutions, which could derail progress. There are no indications that the MoF's policy is being developed collaboratively with other ministries in the carbon market space. Such a siloed approach to developing a policy that will have implications for other ministries will be problematic in future. In addition, early evidence suggests challenges emerging from relationships with the EPA-SL (supervised by the MoECC), with overlapping mandates and scopes which will continue to create conflict. Stakeholder engagements revealed that the MoF has taken the lead with external support to develop the fiscal framework of the policy, while the MoECC is planning to develop a broader carbon credit framework.

The control of funds accruing from the trade of carbon credits will fundamentally dictate the shifting priorities and power dynamics across and between key ministries and agencies.

According to the Paris Agreement, revenues generated by a country through the trade of carbon credits should be used to finance the implementation of its NDC. In Sierra Leone the MoECC has broad oversight of NDC implementation but, by law, revenues generated by public agencies should be channelled through the Treasury Single Account (TSA), which is managed by the MoF. Conceptually, funds received in the TSA for the sale of carbon credits could be channelled to the appropriate agency implementing the NDC, but other institutions using this route have found accessing such resources to be problematic. Anecdotal evidence from a neighbouring country trading carbon credits revealed disputes and infighting among government ministries over where the funds from the trade should go. To address larger equity and anticorruption questions the necessary safeguards should be put in place now.

For a voluntary carbon market, private project owners do not need to seek government approval to trade credits. However, the need to develop a compliance scheme cannot be overemphasised as more actors (including the GoSL) become interested in the carbon market in Sierra Leone and across the globe. Respondents indicated that the GoSL's experience, capacity and systems are fundamentally shaped by the industries in which it is already operating (predominantly mining). Because the GoSL is more familiar with the extractive sector, the fiscal regime used to tax minerals may be incongruent with the requirements needed to support a carbon market. The regulatory instruments needed to inform a carbon credit and carbon offset trade are unique and complex, and should be informed by global best practices. This requires significant consultation with subject matter experts, time to develop policies, frameworks and processes, and capacity at the GoSL level to operationalise them.

The GoSL will have complex, competing and conflicting interests in a carbon market as it continues to emerge. Strong leadership, transparent processes, a framework built on international best practices, and clarification on roles and responsibilities for key ministries and agencies will help inform next steps.

The Office of the President appears to be front and centre in all these areas. A new development under the auspices of the office is the Climate Change, Renewable Energy and Food Security Presidential Initiative, but its core mandate is not yet known.

It is clear that the GoSL will have complex, competing and conflicting interests in a carbon market as it continues to emerge. Strong leadership, transparent processes, a framework built on international best practices (and on regional successful frameworks such as that in Ghana), and clarification of roles and responsibilities for key ministries and agencies will help inform next steps.

Influence and positioning

In addition to the siloed approach addressed above, ongoing positioning across the GoSL is creating unique challenges with regards to identifying clear roles and responsibilities for key ministries, clarity in processes for engagement from the private sector, and transparent processes for funding allocation for future credits. Respondents indicated that ongoing infighting between ministries could create some significant challenges for the development of a long-term, viable carbon market in Sierra Leone. For example, conflicts have emerged across the EPA-SL and the MoECC where reporting is concerned, and between the EPA-SL and the MoF where leadership and roles are not clear. In addition, the MoECC has budgeted for the development of a carbon market framework in 2024, while discussions revealed that the MoF is developing a carbon credit policy with a focus mostly on fiscal issues and pricing. There are no clear indications of ministries, agencies or departments actively aiming to block the development of a carbon market in Sierra Leone, but more information is needed. Because these conditions often lead project implementors to approach investments cautiously, it is imperative that GoSL departments, agencies and ministries effectively collaborate on a comprehensive framework to clarify roles, needs and approach to operationalising these policies moving forward.

Potential for the Sierra Leone carbon market

The potential for the carbon market in Sierra Leone is expansive. And there is the opportunity to act now in an informed way using best practices, credible science and with input from experts. Catalysed by global inflection points like COP28, carbon project actors are in a unique position to cultivate further dialogue across the industry and with the GoSL to create the conditions that lead to significant investment from trusted institutions across the globe.

Establishing a framework for a transparent, credible and equitable carbon market in Sierra Leone through clear policies and regulations could provide a multitude of biodiversity, economic, sustainable development, climate, conservation and livelihoods benefits. This is likely best achieved through selling high-quality (higher-price) credits in a hybrid carbon market with credible organisations, governments and other carbon project implementors.

According to the MoF,²⁹ the following types of environmental and social projects are potential assets for development in Sierra Leone in the coming decade:

- Forest protection – 3 million hectares
- Forest restoration – unknown
- Mangrove protection projects – 180,000 hectares
- Mangrove restoration projects – 60,000 hectares over 10 years
- Peat land/biodiversity protection – unknown.

This section highlights the projected market value potential for the carbon market in Sierra Leone, including financing opportunities, technological considerations, requirements for the carbon market to reach its full potential, and potential opportunities and challenges for the development of a long-term, sustainable, equitable and credible carbon market in Sierra Leone.

Value

The discounted cumulative per capita carbon debts and credits were estimated for Sierra Leone at a discounted international average carbon price of US\$31 per tonne for three cut-off years: 1850, 1970 and 1990. The estimated carbon credit at international average carbon market price for Sierra Leone is US\$18.39 billion with a lower level of US\$17.31 billion and upper level of US\$18.90 billion. On a per capita basis, the estimated carbon credit amounts to US\$2,277.41 on average with lower and upper levels of US\$1,965.10 and US\$2,496.58, respectively. Due to inherent market failures, market prices do not reflect the true extent of the damage caused to the climate. To measure the true extent of cumulative damage to the climate, the discounted average social cost of carbon has been used instead by the Annual Energy Outlook 2022. According to this approach, the cumulative per capita social carbon debts and credits are more than double the amount arrived at using market prices. Using the discounted social cost of carbon, the estimated carbon debt for Sierra Leone is US\$5,060.90 on a per capita basis. This implies that the country is owed US\$40.86 billion. Compensated annually over 2022–2050, Sierra Leone should receive an estimated US\$1.46 billion per year in climate change compensation under “common but differentiated responsibilities” principles accounting for historical climate damage.³⁰

Financing

Sierra Leone faces a significant financing gap for implementing climate change adaptation and mitigation solutions in light of the large financing needs identified in the updated NDC 2020–2030. Sierra Leone is in a unique position to access a variety of climate finance tools including multilateral climate finance (e.g., Global Environment Facility [United Nations Environment Programme/World Bank], Green Climate Fund [African Development Bank (AfDB)], Adaptation Fund [International Fund for Agricultural Development], REDD+ [UN/European Union], Climate Investment Fund [AfDB], taxpayer dollars, philanthropic efforts and a carbon market). To this effect, the country needs to

²⁹ Momoh, 2023.

³⁰ Jain et al., 2022.

create a dedicated institution to mobilise and track the flow of climate finance from both domestic and international sources. The planned Sierra Leone Climate Finance Fund also needs to be formalised and strengthened with clear goals and operational autonomy. In addition, the NDC needs to identify the size of international financing needed for the implementation of conditional adaptation and mitigation targets for at least the next decade.

Technological

Access to data-driven, accessible and open-source technology is needed to deliver higher-quality carbon credit projects (data integrity, improved risk management) and the resultant sale of premium carbon credits to market for the long-term benefit of communities and customers. There are several technologies that could build trust in and transparency of carbon credit sales for Sierra Leone, as described below.

- **Drones and open access satellite imagery for improved monitoring, reporting and verification (MRV).** Access to satellite imagery databases and the use of improved multispectral drone technology (such as demonstrated through the Project Sapling pilot project implemented by Crown Agents and as currently deployed in several other offset projects in Sierra Leone by Oko and WAB) allow for improved MRV to capture and analyse big data at scale. By combining these data with advanced analytics, important insights can be gained into the health and condition of forests and mangroves (i.e., tracking growth, identifying problem areas or illegal deforestation activities, and measuring density and health), changing land cover and land use, and more. One of the primary advantages of using multispectral drones for forest and mangrove regeneration is their ability to cover vast areas quickly and efficiently. Traditional methods of monitoring and analysis can be time-consuming, labour-intensive and expensive, often involving teams of scientists on the ground collecting data manually. In contrast, drones can fly over large areas in a fraction of the time, collecting high-resolution data that can be analysed in real time. Another advantage of multispectral drones is their ability to capture data in different weather conditions. Unlike satellite imagery, which can be hampered by cloud cover or atmospheric interference, drones can fly at lower altitudes, capturing data in high resolution, even in cloudy or overcast conditions. This means that data can be collected year-round, providing a more comprehensive and accurate picture of an ecosystem's health and condition.

Carbon Done Right (CDR) technology developed by Klimat X can assist the GoSL in tracking and monitoring carbon stock in the country and carbon trading out of Sierra Leone via the Tree Counter Technology Platform (TCTP). The CDR-TCTP undertakes tree-level ground truthing, incorporates machine learning artificial intelligence (AI) foundation models from the University of Copenhagen, synchronises data using AI to monitor life cycles, and provides tree-level analytics – proven to provide valuable information for end buyers and farmers to ensure accurate compensation while offering a total traceability arc.

- **Machine learning (ML) and artificial intelligence (AI) platforms can help drive decision-making through in-depth data labelling of project sites.** Technologies are now available to empower communities to create more accurate carbon data calculations (tree by tree, farmer by farmer). For example, Carbon Done Right – a technology developed by Klimat X (a current project implementor in Sierra Leone) – uses ML to detect patterns in land use and cover (i.e., forests) and make accurate predictions on carbon sequestration potential. It does this by processing data and through pattern recognition, rather than by receiving explicit programming instructions from any individual user, which allows for large datasets to be analysed at any given time. The algorithms are adaptive and can become more effective in response to new data and patterns. There are now unique ML technologies that can accurately deduce 300,000 different types of organic foliage and trees in real time from space, measure the size and cover of each type of matter, assess the carbon sequestration potential, and determine ongoing changes in land cover and ecosystem health (i.e., deforestation activities).

These technologies have the potential to remove double counting of carbon sequestration potential (problematic in global carbon credit markets), limit fraud, and ensure that stakeholders get full monetisation of biological assets. In summary, these technologies can build trust and traceability in a carbon credit market.

Opportunities

There are opportunities that could help create a viable, transparent, credible and equitable carbon market in Sierra Leone now and into the future.

- **Several strong case studies, policy frameworks and examples that have proven successful in other African nations are available for the GoSL to build from.** Evidence suggests that Ghana and Rwanda provide strong policy frameworks to build from when developing a carbon market in Sierra Leone. There are also important lessons to be learned about what to avoid (e.g., Zimbabwe, Liberia, etc.). The MoECC has indicated awareness of countries in the region that have rushed into issuing carbon credits without the necessary safeguards. In addition to building from successful carbon market policies and frameworks, engaging experts who understand the nuances of the details in each of these case studies is essential to informing decision-making moving forward.
- **There is evidence of strong leadership, strong technical expertise and adequate capacity across the GoSL to support the development and maintenance of a viable, credible, transparent and equitable carbon market in Sierra Leone.** Ongoing research and conversations indicate that there are several representatives across the GoSL who are positioned to provide strong leadership on the development of a carbon market. A climate change technical planning committee, developed in preparation for COP28, includes several government agencies, which shows early potential collaboration. In addition, stakeholders have indicated that, under the proper conditions, GoSL ministries could potentially work well together because of the professionalism and leadership at the helm of key ministries and positions.

- **Core tenets and burgeoning interest in collaboration exist in the private sector.** This includes collaboration across the private sector itself, working together on targeted areas of shared interest, as well as with the GoSL to foster a more friendly market space and richer investment environment. There are clear shared benefits in more open dialogue, collaboration in the development of a carbon framework, and promotion of a market space that is investor friendly.
- **Sierra Leone is uniquely positioned to take advantage of the emerging global carbon credit demand.** Sierra Leone’s vast natural assets and unique positioning in the global climate conversation, together with increasing attention from international governments, donors and aid organisations create a backdrop for significant market potential. There is significant potential for generating carbon credits through REDD+, ARR, IFM, regenerative agriculture, renewable energy source (RES), biochar and clean cookstove initiatives. Carbon project implementors and the GoSL have unique roles to play in catalysing a long-term, viable, credible and equitable market across the country now and into the future.

Challenges

Some of the potential challenges to fostering a carbon market in Sierra Leone are discussed below. Many of these challenges were identified in stakeholder interviews, desk-based research and with input from local and national carbon market experts.

- **Developing and fostering a carbon market is complex and requires technical expertise, strong guidance, reliable data, effective data monitoring, vast financial resources and credible reporting.** Evidence suggests that there is a need for further assistance to improve capacity to overcome the challenges of developing and enforcing laws, policies and regulations needed to establish a carbon market in Sierra Leone. To support a viable marketplace, technical expertise, strong guidance (from other countries that have already operationalised a successful marketplace), good data (e.g., land use data, deforestation data, etc.), effective data and project monitoring, financial resources (e.g., to support carbon credit auditors, long-term collaboration, etc.), and credible reporting systems are required. This is particularly true for deforestation- and reforestation-related projects (as opposed to clean cookstove projects, for example) because of complex customary and formal governance and land use decisions and needs. The carbon market is growing quickly globally and in Sierra Leone, with interest from a vast array of actors. This puts pressure on the government, communities and other actors to introduce clear guidance for the development and maintenance of the systems required to support a viable marketplace. In research for this SA, many examples emerged of actors requesting MoUs with the Department of Forestry and other ministries to get projects off the ground. As in any marketplace, there is a significant risk of unsavoury business dealings and “carbon cowboys” emerging that do not have the best interests of the country or communities in mind. This could be mitigated by a robust policy framework. In addition, the GoSL’s experience from the mining industry may not best inform the approach to developing and maintaining a carbon market in Sierra Leone. Other challenges include limited understanding of the nuanced differences between voluntary and compliance carbon markets and the policies and regulations that inform their development. There is also limited agreement on the price of carbon, which is a prerequisite

for developing a carbon market. Currently, very limited data exist to support decisions around carbon credit and carbon offset projects as well as on rates of deforestation, among other things. Some respondents also spoke about government turnover as a significant problem, due to loss of the institutional knowledge required to support the complex and technical information and decisions needed to inform strong policy.

- **Indigenous and local communities are not currently benefitting from the carbon market in Sierra Leone.** To support an equitable carbon market that values and protects the rights and needs of local and indigenous communities, the benefits of a carbon market in Sierra Leone must be passed down to communities. This requires the development and enforcement of clear and transparent policies and regulations that protect the rights of communities and create specific mechanisms to ensure that benefits (e.g., financial, social, development, protection and use of natural resources, support of education and health initiatives) reach communities in a meaningful way. It also requires that communities have the authority to make their own decisions about land use, conservation outcomes, etc. Limited long-term, sustainable engagement between project implementors and communities continues to be a challenge and developing strong incentives for communities to support a carbon market may help build relationships with responsible project implementors. Benefits can include a range of options, such as financial incentives, job and livelihood opportunities, biodiversity and conservation outcomes, support for other country targets (e.g., SDG goals), land use protections, etc.
- **Limited collaboration across government ministries and between the GoSL and the private sector presents a range of challenges that impact private sector and international investment in the carbon market in Sierra Leone.** Several respondents noted that government ministries are currently operating in silos, presenting a range of challenges when it comes to clarity of roles, responsibilities and opportunities for the private sector to engage with the government. In some cases, this has led to a lack of necessary collaboration across departments, agencies and ministries. In addition, limited ongoing government collaboration with the private sector, international climate finance organisations, NGOs and others has led to a lack of clarity across the carbon market in Sierra Leone about the future direction the government will take in response to calls for a compliance market. Some actors expressed concerns that policies ratified at the local level (e.g., lease terms and benefit/profit sharing agreements) will not be honoured at the national level. This is exacerbated by a lack of transparency from the GoSL and key market players. Respondents also indicated that licences for agribusiness on specific tracts of land have run into conflicts when licences were also identified on the same tracts of land for mining and/or forestry operations. Ongoing collaboration with a variety of expert organisations (e.g., World Bank, USAID, FCDO, private sector organisations, etc.) has been repeatedly identified as vital to developing and maintaining a long-term, successful carbon market in Sierra Leone. In addition, a “government knows best” approach has often led to policies being developed in isolation, with other actors not hearing about a rule or policy until it is being debated for approval, which leads to potentially uninformed decisions, little collaboration, and unintended consequences. Evidence shows that large investments and years of work by project implementors can be undone and/or discarded with the implementation of an uninformed policy. In the long term, this can impact investment, credibility and trust nationally and globally.

- **There is a steep barrier to entry into the carbon market as a project implementor.** Forest restoration and conservation projects are expensive, long term, and complicated by land use and governance considerations. In addition, to support robust reporting, carbon auditors – which are very expensive to use – are required to ensure investments are credible and safe. A viable carbon market would require collaboration and a holistic approach to government, which is a challenge in the current political landscape. From a project implementor’s perspective, project setup, implementation and scaling are complex, require a long-term investment and can be expensive and involve navigating multiple challenging relationships and political landscapes. Overall, project costs can be overwhelming, particularly for smaller NGOs and CSOs. Carbon intermediaries also present unique challenges, including the expense and time associated with developing multiple agreements and paying intermediaries for their support and accreditation. Current economic conditions in Sierra Leone may dissuade investment in the carbon market. At the time of this rapid SA, inflation was hovering around 47% and Sierra Leone’s currency had depreciated by around 50% in the previous 12 months. Even if project implementors could access capital, there is very little incentive to launch with an interest rate of approximately 28%. Shoring up the economic situation in Sierra Leone may be critical to supporting a long-term, viable carbon market in the country. In addition, the Finance Act 2024 changes the carbon landscape with a dramatic increase in land lease costs – from a minimum of \$12.50/hectare to \$50/hectare – making development of carbon projects extremely difficult and possibly untenable.
- **The carbon market is dynamic and can be volatile.** Global agreements (like Article 6 of the Paris Agreement) inform market viability, and the relatively young carbon marketplace will continue to experience changes in the coming years as governments, corporations and others seek to offset their emissions using carbon credits and carbon offsets. This has led to volatility in the marketplace, mostly due to carbon pricing and market demand. This requires that the GoSL and other actors in the Sierra Leone marketplace stay nimble, have the technical expertise to respond and adapt, and that necessary policies and regulations are in place to support decision-making structures now and into the future. The nascency of the carbon market is associated with a lack of precedents, benchmarks, methodologies and international and domestic policy. These challenges are expected to subside as the market matures, but will remain in the meantime. In addition, carbon markets may disappear at some point. For example, in 2050, fewer investors may be looking to offset emissions because they will have achieved their global GHG emissions targets. If harnessed well, carbon markets can be a powerful development tool for a specific moment in time driven by market demand. There is ongoing debate about whether buyers should continue to rely on traditional certification bodies like Verra, which can be slow and inaccurate, and have limited transparency. A variety of external factors are also at play and realised ERs will depend on factors such as population growth, migration and climate change, among others.
- **There is currently no clear legal or policy framework to establish and maintain a long-term credible, transparent and equitable carbon market in Sierra Leone.** At present, only limited legal and policy frameworks and processes exist to support a long-term, viable carbon market in Sierra Leone. There is no established legal framework for the ownership or transfer of carbon rights, for instance, nor is there a national policy in place that covers carbon finance and trading. Evidence shows that carbon market policies and regulations should not be developed in isolation by one ministry, but across and in collaboration with all

ministries to ensure alignment in priorities, roles and responsibilities. While the current political climate in Sierra Leone is mostly considered stable this could quickly shift with a change in government, new political violence, expropriation and/or discriminatory treatment by authorities. All these elements would impact the appetite of private investors to invest in the carbon market, something that is already in question following responses to the most recent election, opposition party resistance, an attempted coup, and more. The Paris Agreement stipulates that if a country generates revenue from a carbon offset project, it is supposed to use that revenue for implementing its NDC. Yet, it is not entirely clear in Sierra Leone where funds would go across ministries, which could lead to conflict. Zimbabwe and Liberia provide important examples of what to avoid when developing carbon market policies and regulations. In Zimbabwe, exhortative and complex tax rate structures and requirements appear to have all but killed private sector investment in its carbon market. In Liberia, a recent MoU signed with the United Arab Emirates has led to potentially challenging land ownership, corruption and transparency issues in the buildup to significant inflection points like elections and COP28. In contrast, for countries like Rwanda and Ghana, sound, credible, equitable and transparent carbon market policies, frameworks and regulations have provided a multitude of benefits beyond just revenue, including long-term and sustainable investments in a burgeoning carbon market, international credibility, government trust and transparency, economic support, livelihood development, and positive conservation and biodiversity outcomes.

- **Development pressures may impact land otherwise suitable for carbon projects.** Ongoing development pressures – driven by a growing population – are fuelling deforestation and land use incentives. These pressures could have significant implications for land otherwise ideally suited to carbon projects. To be viable in the long term, the economic value of carbon offset and carbon credit projects would need to outweigh financial incentives realised from development projects.
- **Conflicting legislation and policies could impact the viability of a carbon market in Sierra Leone.** Respondents indicated that recent legislation (e.g., National Land Commission Act, Customary Land Rights Act) may present additional challenges resulting from a lack of clarity around leasing, community benefits and revenue sharing with the government (e.g., taxes). In addition, the land tenure system in Sierra Leone is complex and often requires multiple approvals from many communities and/or families. These ambiguities will need to be resolved, particularly when formalising who owns the carbon on lands across Sierra Leone. Carbon projects often require large land areas, which may conflict with certain restrictions formalised in recent legislation.
- **Polarisation across the GoSL could impact the viability of a carbon market in the long term.** Misalignment between the mandates of different ministries and a lack of clarity on roles and responsibilities in an emerging carbon market could create significant challenges for the development of a long-term, viable carbon market in Sierra Leone. For example, the MoECC has included a line item in its 2024 budget for the development of a carbon market framework while the MoF is developing a carbon credit policy mainly focussing on addressing fiscal issues and pricing. Conflicts have emerged between the EPA-SL and the MoECC where reporting is concerned, and between the EPA-SL and the MoF where leadership and roles are not clear. GoSL departments, agencies and ministries must collaborate effectively on a comprehensive framework to clarify roles, needs and approach

to operationalising these policies moving forward. Evidence suggests that infighting between ministries in the Government of Liberia has created significant challenges with regards to implementing a viable carbon market. These conditions often lead project implementors to approach investments cautiously, for fear of catastrophic results in risky business dealings.

- **Potential corruption and business integrity considerations could derail carbon market objectives and priorities.** International agreements (such as Article 6 of the Paris Agreement) are very public agreements, and governments and corporations will have unique insights into where their investments are going. While there has been steady improvement, corruption is an ongoing risk in Sierra Leone. According to Transparency International's Corruption Perceptions Index, Sierra Leone has improved from a global ranking of 158 in 2008 to 115 in 2021, yet the risk of corruption and other business integrity considerations are ongoing.³¹ Evidence shows that there are many actors and vested interests that may be positioned to exploit Sierra Leone's natural resources in a way that is neither sustainable nor in line with the policies and legislation of the country.
- **There is a lack of accurate and reliable data to support climate, conservation, biodiversity and community livelihood decisions in Sierra Leone.** Limited research and data impact the ability of actors to make informed decisions on indicators, including baseline projections of deforestation and community wellbeing. Baseline data must be collected to support a deeper understanding of how carbon projects are or are not achieving desired outcomes. Respondents identified requirements needed to support the development of a long-term, viable carbon market including rates of deforestation, types of vegetation that have a consequence for carbon stocks in Sierra Leone, soil quality and carbon store potential. Overall, there appears to be a gross underestimation of the carbon stock potential of Sierra Leone as a whole, which has notable implications for the potential marketplace in the future.
- **Carbon credit and carbon offset projects could lead to unintended consequences.** A variety of potential unintended consequences could emerge from carbon credit and carbon offset projects, including displacement and/or criminalisation of people, harm to wildlife, encouragement of invasive species, and restriction of access to natural resources and culturally significant practices and norms. The WWF Environmental and Social Safeguards Framework indicates that community conservation and natural resource management are at moderate risk of potential adverse social and/or environmental impacts.³² Unintended consequences of legal frameworks and policies that support a viable carbon market could also include the removal of land ownership and use rights of local and indigenous communities and/or the concentration of decision-making power in a few influential people or families.

³¹ Transparency International, 2023.

³² World Wildlife Fund, 2023.

Requirements for Sierra Leone to meet its full potential

The Sierra Leone NDC encourages the use of innovative vehicles to meet financing needs. Innovative financial instruments for better climate resilience and a just energy transition include green finance, carbon markets, debt climate swaps, climate-related debt, natural capital accounting, national funds and the participation of the private sector. Sierra Leone is currently relying on national funding, private sector participation and green finance. Potential exists for a carbon market, debt-for-climate swaps and natural capital accounting. Carbon finance investment firms have shown interest in purchasing carbon credits in Sierra Leone, largely through afforestation programmes. However, given the volatility in the global carbon market (the price per tonne of CO₂ equivalent can range from less than US\$10–100 while in the voluntary market prices are currently less than \$2 per tonne for certain methodologies), Sierra Leone needs more robust climate financing facilities underpinned by government-to-government collaboration in the carbon market.

Recommendations

The following key recommendations have been developed in response to the challenges, opportunities and solutions identified in the development of this report.

Ministry of Finance (MoF)

- **To support informed decision-making on tax structures, policies, operationalisation of carbon projects, community protections and rights, among other things, MoF should facilitate additional conversations** including coordinating research in areas that promote an equitable, viable and sustainable long-term marketplace.
- **Develop clear, informed and transparent processes for taxing carbon revenue that provide certainty and consistency over time.**
- **Develop, implement and enforce policies that protect community interests.** A viable carbon marketplace needs to explicitly benefit communities, including policies to protect indigenous and local community lands, access to natural resources, livelihoods and opportunities, and carbon funding. This requires the development and enforcement of clear, transparent policies and regulations that protect the rights of communities and create specific mechanisms to ensure that benefits (e.g., financial, social, development, protection and use of natural resources, support of education and health initiatives) reach communities in a meaningful way. It also requires that communities have the authority to make their own decisions about land use, conservation outcomes, etc. In relation to project implementors, long-term, sustainable engagement with communities continues to be a challenge and developing strong incentives for communities to support a carbon market may lubricate the relationship between responsible project implementors and communities. This impacts negotiations for carbon credit projects, as well as outcomes regarding agreements and benefit-sharing.

Ministry of Environment and Climate Change (MoECC) and Environment Protection Agency (EPA)

- **Collaborate closely with project implementors, international climate financing organisations, NGOs, researchers and other experts before formalising a framework, policies and regulations that impact the carbon market in Sierra Leone.** Nearly every conversation facilitated in the development of this report indicated that collaboration across sectors would lead to the successful development, institutionalisation and sustainment of the carbon market.
 - MoECC, as the leading ministry in developing a carbon framework, should facilitate sessions with MoF, EPA and other relevant agencies to streamline clear roles of each MDA and design a clear process for private sector engagement with MDAs.
 - MoECC should develop a robust, equitable and sustainable finance roadmap for Sierra Leone's carbon market in collaboration with all credible market actors (private sector, NGOs and other experts) at all stages of the roadmap development process.
 - In order to balance the divergent interests at stake, and without diluting its own mandate and responsibilities, GoSL MDAs (MoECC in this instance) could adopt a tripartite structure of consultation, dialogue and decision-making to advance Sierra Leone's carbon market to reflect the critical rights, interests and roles of landowning/using communities and investors.
- **Incorporate lessons learned (both good and bad) from other case studies in efforts to develop a long-term, equitable, transparent and viable carbon market.** There are valuable lessons to be learned from countries that have created viable, long-term carbon markets (e.g., Ghana, Rwanda) and from countries that have failed to do so (e.g., Zimbabwe). Fostering dialogue with experts and building frameworks that replicate what is working well in those nations will help to ensure that Sierra Leone understands and integrates lessons learned into its approach and processes moving forward. This may also include publishing case studies showcasing successful and failed examples of carbon credit market development. In addition, a white paper focussed on potential scenarios and/or pathways that the GoSL could take could help inform decision-making and gain buy-in for decisions that support a viable, long-term market.
- **Seek opportunities to fill critical data gaps.** Respondents and research pointed to evident data gaps in protection and restoration (forest, mangrove, peat lands, etc.), rates of deforestation, carbon prices, land use, biodiversity and more across the country. Partnerships with researchers, universities and other research institutions may provide avenues for filling those data gaps to permit more informed decision-making on the viability of a carbon market over the long term.
- **Develop and deliver on clear incentives for the private sector and other international climate financiers with regards to the carbon market in Sierra Leone.** To create a viable, sustainable and equitable carbon market in Sierra Leone, MoECC needs to collaboratively develop policies, regulations and operational procedures that incentivise investment in the country's carbon market. This includes incentivising (and requiring) transparent data collection, monitoring and reporting for indicators to accurately measure progress and impact.

- MoECC and EPA to develop mechanisms to enforce contracts and agreements that investors make in-country, especially those that affect local communities. For example, farmers and landowners can enter into agreements with private companies and then breach those contracts with little to no restitution and/or opportunity for the private companies to take action for a breach of contract. These loopholes need to be closed and enforcement needs to be supportive.
- **Develop an effective and efficient way to verify carbon actors and remove “carbon cowboys”.** Respondents identified the risk that Sierra Leone faces now as a burgeoning carbon market with great potential with regards to potentially untrustworthy actors looking to make a profit from carbon projects and communities. Developing a clear and effective way to report, remove and create barriers to entry for unsavoury actors in Sierra Leone will protect communities and carbon market investors. Accreditation should be the minimum criteria for the operationalisation of carbon projects, such as a listing under Verra or Gold Standards, and initial agreement(s) to operate from a line ministry (i.e., MoU).
- **Develop a clear, transparent and credible framework in response to Article 6 of the Paris Agreement.** To make Sierra Leone an appealing place for long-term investment, the GoSL needs to develop a clear approach to the policies, procedures and operations required to support the voluntary and compliance markets. There is a need to make sure countries and corporations are not double counting credits. Building on successful case studies from other countries (e.g., Ghana) can foster a long-term, viable market that investors are confident in supporting.
- **Ensure that conservation, biodiversity and environmental initiatives also address livelihood issues for local and indigenous communities.** Decades of global research suggests that conservation initiatives fail when local communities are not equal partners in decision-making and where the benefits of those initiatives are not realised at the community level. Creating mechanisms to ensure that local communities benefit from conservation initiatives (i.e., ecotourism, access to protected areas for culturally significant purposes, etc.) will ensure longer-term success. Build partnerships with trusted organisations (e.g., Namati and community stakeholders) from the outset to ensure that conservation, biodiversity and environmental initiatives also address livelihood issues for local and indigenous communities.
- **To attract and retain long-term investment in the carbon market in Sierra Leone, the MoECC needs to offer confidence in its credibility, transparency and equity.** This includes developing, adopting and enforcing equitable and transparent policies, procedures and operations. This may include strengthening the Climate Finance Unit (CFU) of the MoF (CFU can sign MOUs with MDAs for better coordination) to mobilise and track the flow of climate financing from both domestic and international sources, formalising and strengthening the Sierra Leone Climate Finance Fund, and adjusting the NDC based on the international financing needed to meet adaptation and mitigation targets in the near, mid and long term.
- **Be strategic in the support of carbon market projects.** Encourage investment in, and support of, large-scale carbon market projects, where possible, to ensure that they are cost-effective, provide a multitude of benefits to communities, and account for landscape-scale biodiversity and carbon sequestration goals.

Private sector

- **Collaborate to create a “carbon coalition” of responsible investors in the carbon credit space through effective collective action** that is able to bring together private sector players to dialogue, coordinate and support the development of a credible carbon credit market in Sierra Leone.

Community

- **Local community stakeholders should ensure local and indigenous communities are actively involved and are supportive of the implementation of “responsible” carbon credit projects.** Community stakeholders should be willing and able to organise themselves as credible players to dialogue with the government and the private sector to ensure their interests are considered. Communities can also work through representatives (like Namati and others).
- **Work with MoF and MoECC in the design and enforcement of policies that protect community interests.**

Donor partner/programmes

- **Partners should provide direct funding and technical assistance to established institutions responsible for data collection** to ensure transparent data collection that it is credible and accurate so that established indicators can accurately measure progress and impact.
- **Support the private sector to create a “carbon coalition” of responsible investors** that bring together private sector players with a collective voice that will support a credible carbon credit market.
- **Partners should advocate and support mechanisms for the equitable distribution of benefits** among the project developers, the government and local communities.

Conclusion

Sierra Leone has the potential to be a global leader in carbon trading thanks to its high natural asset carbon stock and low emissions. Significant work will be required to provide carbon project implementors with the confidence they need to continue to invest in the country. Establishing a framework for a transparent, credible and equitable carbon market in Sierra Leone through clear policies and regulations could provide a multitude of biodiversity, economic, sustainable development, climate, conservation and livelihoods benefits. It could also help meet the country's economic, climate mitigation and adaptation, sustainable development, biodiversity and conservation goals, among a host of other objectives. Work is required to ensure alignment across the GoSL, and to provide transparent processes, clear policies and effective guidelines. There are a host of lessons to be learned from other nations that have and have not succeeded in developing and sustaining a viable carbon market. The rights of local and indigenous communities must be protected in the development of a carbon market, and benefits must be realised for local communities where carbon projects take place. Stakeholders across the country must be brought in for ongoing discussions of the implications of policy, regulatory and operational decisions proposed by the GoSL to inform a sound approach that uses the best available science, industry best practices and a transformative (and equitable) lens – improved collaboration and a more transparent approach is essential for success.

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Annex A: Carbon market stakeholder matrix

Please see the Excel file titled "Carbon market stakeholder matrix."



Annex B: Carbon project and interventions map

Please see the Excel file titled “Carbon projects and interventions map.”



Annex C: Sample interview questions

Rapid situational analysis – sample interview questions

Purpose: Cadmus is working with the Invest Salone team to deliver a RSA of the carbon credit market space in Sierra Leone. As part of this analysis, we are: (1) mapping the existing carbon market landscape in Sierra Leone to include all actors (private, government, NGOs, etc.) and interventions; (2) identifying opportunities, challenges and future goals for a viable, inclusive and equitable carbon market; and (3) examining the potential for the market's growth (scale and investment) by determining what existing and future potential regulations and governance mechanisms may be needed to support and foster a viable carbon marketplace. Your inputs are extremely valuable as we work to provide an overview of the current and future potential carbon market in Sierra Leone. Please review the following questions and provide as detailed a response as possible for any projects you have engaged in related to the carbon credit market space.

Questions related to your engagement/activities/interventions in the carbon credit market space:

- What is your organisation's current involvement in Sierra Leone's carbon market? Can you provide details of the activities you are undertaking (planned, already completed, ongoing and pending)?
- Where are you currently working (locations) and how are you engaging with local communities?
- Are you collaborating with any partners/investors (please state who and what role they are playing)?
- Have you had any engagement with the government (please state which part of the government and what role/support/level of engagement)?
- Can you provide us with any project documents so that we can better understand the scale and scope of your work?
- Are you familiar with any other carbon offset projects or initiatives led by other implementors in Sierra Leone?
- Do you engage or collaborate with other actors/carbon offset projects? If so, in what way? If no, why not? Would you be potentially interested in participating in a "carbon coalition" with other actors in the voluntary carbon marketplace in Sierra Leone? Who else should we be speaking with?

Questions related to how you understand and view the carbon landscape more broadly:

- Who are the main actors (e.g., government, private sector, NGOs), as you understand, in the carbon credit space in Sierra Leone?
- In your experience, have there been any early successes for the carbon market in Sierra Leone? Challenges? What do you see as opportunities and challenges in the future?
- Do you have any specific recommendations that you would make to the GoSL and for the development of a long-term, viable, equitable and credible carbon market in Sierra Leone?
- What initial support from the government do you believe would have the greatest impact to foster a more sustainable, inclusive and equitable carbon marketplace (e.g., policies,

regulations, funding)? Are there challenges that concern you with regards to the government's involvement?

- Would you like to see future opportunities for collaboration with other actors (non-government) in the carbon landscape? If so, in what ways? If not, why? Would you be interested in participating in a coalition focussed on the carbon market in Sierra Leone?



Annex D: Carbon coalition

The proposed development of a carbon coalition – a dedicated group of representatives from government, private sector, NGOs and international aid organisations, and subject matter experts that convene regularly to work through the complex needs, challenges and opportunities of supporting a long-term viable carbon market in Sierra Leone – has garnered interest from key organisations in the country. Parallel to the research undertaken by the consultants, work by Kivu International (policy framework) and HSF (legal structures) has similarly identified/proposed the potential for the formation of a task force and/or carbon ***coalition with a particular focus on supporting existing carbon project implementors and promoting intergovernment coordination, working in partnership with the GoSL now.***

As in many sectors, working groups dedicated to building solutions around complex environmental, climate and development issues have proven to be effective platforms to align priorities, identify tools/methods/approaches that promote investment and transparency, and work through challenges as they emerge. For example, steering committees devised at the outset of planning and implementing national REDD+ programming³³ have demonstrated that the early formation of a body directly tasked with promoting intergovernmental coordination that is actively engaged and accessible to private and public sector actors (via working groups) promotes a more inclusive and transparent process for the establishment of a higher-functioning carbon coalition, improves regulatory and investor-friendly policies, reduces risk of conflict, and results in more sustainable outcomes for a fiscally responsible and viable carbon marketplace. A recent report by the World Resources Institute – which identified and analysed what works well and does not work well across 93 intergovernmental climate coalition initiatives – found that most coalitions are focussed on knowledge sharing, not built around concrete agreements focussed on policies and investment.³⁴ The report found that essential elements for effective cooperation and action include setting clear targets (i.e., key performance indicators [KPIs]) based on credible data, the involvement and backing of high levels of government, and the supply of technical and financial support. These factors are all important considerations when exploring the development of a potential carbon coalition.

Early conversations about the development of a carbon coalition have been met with mixed results, often divided by sectors. For example, non-profits, donors and international aid organisations, and some government officials, were often supportive of the prospect of a convening body focussed on the long-term viability of a carbon market in Sierra Leone. On the other hand, private sector organisations and current carbon project implementors often expressed more scepticism as to the benefits of a carbon coalition, mostly due to concerns around a lack of carbon project developer transparency (in part, driven by the proprietary nature of their work) and the current siloed nature of the GoSL's work on this area. For example, the current absence of a carbon market framework and systems that would support market transparency and integrity has resulted in some project implementors choosing to align only with “known quantities”, namely those operators they believe

³³ The Government of Fiji example can be found at <https://bit.ly/43SH7Vt> and <https://fijireddplus.org/resources/studies/> and more information about the Government of Ghana example can be found at <https://reddsis.fcghana.org/about.php>

³⁴ WRI, 2023 <https://www.wri.org/research/review-intergovernmental-cooperation-mitigation-climate-change>

are operating with a high degree of integrity. Also, the institutional experience required to deal with the challenges of developing and implementing a carbon project in Sierra Leone and the immense opportunities that exist to invest in the country's carbon market now present unique challenges in building partnerships. Some stakeholders indicated that they already collaborate closely with other organisations so as not to duplicate efforts.

Several organisations have indicated that Invest Salone could play a significant role in the convening of a task force and/or carbon coalition, and have a role in identifying who in the GoSL is responsible for coordinating particular elements of the carbon market framework, as well as coordinating private sector actors in the carbon market with a focus on revenue sharing. Two potential structures have been proposed: 1) an informal coalition of carbon project developers operating in the Sierra Leone carbon market that agrees to work towards a high-quality standard for project development (i.e., transparency, credibility, integrity); and 2) a more formal coalition of carbon project developers working in the Sierra Leone carbon market that pools resources to meet certain requirements that all implementors must adhere to (i.e., carbon template, audit, etc.) in order to reduce costs and barriers to entry, and increase collaboration. Invest Salone could continue to explore the value of these potential arrangements to determine whether there is sufficient buy-in.

A variety of more detailed challenges, benefits and recommendations emerged in conversations for the development of this rapid SA that are relevant to the development of a carbon coalition.

■ Challenges

- Significant capacity-building will be required to support the formal collaboration mechanisms necessary to make progress on a topic as complex as the global carbon market. Beyond that, decision-making mechanisms, operational processes and networks established from a long history in the mining sector will be significantly different in the carbon market sector and may run contrary to the way things currently operate in the GoSL and across the country. Significantly, extractive industries are likely to resist efforts that run counter to their goals, values and profits (i.e., conservation, land preservation, protection).
- Significant turnover of staff and shifting mandates across the GoSL make it difficult to create trust, build relationships and work towards long-term solutions in a meaningful way. When turnover happens across ministries and/or departments move around organisationally (i.e., the agricultural department moving out of the EPA) this can create further disruption. Long breaks, holidays, turnover and deprioritised meetings also contribute to the lack of continuity. This all ties into the challenges of capacity-building.

■ Benefits

- A formal convening mechanism (like a carbon coalition) could foster meaningful discussion and collaboration across sectors that is not currently happening but which is needed to inform transparent, sound and viable processes for the market moving forward.
- This carbon coalition could: (1) support capacity-building efforts across sectors if done in an intentional way; (2) create accountability across the GoSL and across

other actors in the carbon market; (3) establish a “level playing field” in some ways for carbon project implementors; (4) provide insights into the priorities, needs and opportunities of all stakeholders, but particularly the GoSL and international aid and donor agencies; (5) provide a “small win” to the marketplace that would help establish and build trust; and (6) promote more open dialogue and allow for expert insights and unique perspectives essential to informing the development of a transparent, credible, realistic and equitable carbon framework.

If there is a path towards convening a carbon coalition in the future, the experience and outcomes of the KIIs held by the consultants indicate that there are some specific considerations to address, including on the proposed structure (including membership), funding support, process for gaining buy-in, etc. The following **recommendations** emerged in the development of this rapid SA.

- The initial establishment of a carbon coalition should be helmed by a credible, independent organisation that is well-respected in Sierra Leone, one that is a global leader in the carbon market space and without bias – supportive of a process that promotes accountability and transparency from both the private sector and government and is working towards a sustainable outcome for a viable carbon market in Sierra Leone. This would ensure that strong leadership would inform the process, provide continuity, and create direct and clear channels for communication across all sectors.
- Leadership should also include key members from leading government institutions (e.g., MoECC, MoF, NPAA, EPA) who are tasked with (have roles and responsibilities) and have a demonstrated interest in the development of an investor-friendly market space. Thematic working groups should also be established that are inclusive of key interest groups with representatives from the private sector, academia, NGOs, CSOs, etc.
- Participants invited to attend should be vetted first and include only credible actors with a proven track record of transparency, integrity and commitment to carbon projects in Sierra Leone.
- Secure relevant intergovernmental support, including effective financial and technical assistance mechanisms.
- To devise the foundational structure, several workshops should be undertaken and facilitated to establish a clear vision, objectives and goals for the coalition from the beginning to make best use of everyone’s time.
- Identify and agree on specific targets (i.e., KPIs) and goals, including identifying benchmarks, adopting science-based targets, and developing roadmaps to guide participants.
- Move beyond the sharing of experiences and knowledge toward agreements to implement specific policies for guiding investment, scaling-up research, development and dissemination of green technologies, and increasing public climate finance to accelerate action.
- Strengthen financial and technical support to members that increase transparency.
- Develop a clear roadmap for the carbon coalition that focuses on risk analysis, institutional capacity-building, benefit and revenue sharing, and coalition building.
- Consider the value and viability of two potential carbon coalition structures, including a cost-sharing arrangement for project development and/or a working group focussed on reaching agreement on high-quality standards for carbon projects in the country. In addition, further conversations are needed to determine buy-in across the market.

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