

Briefing note

Unlocking the potential of Sierra Leone's carbon credit market: Background and opportunities

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Executive summary

- **Carbon credits represent a key instrument of green finance**, enabling countries, companies and individuals to offset their greenhouse gas emissions by paying for verified reductions or removals elsewhere
- **Sierra Leone is strategically positioned to become a global leader in high-integrity carbon credit generation**, owing to its relatively low baseline emissions and diverse natural ecosystems
- **Sierra Leone is currently participating in the voluntary carbon market**, with at least 16 carbon-related projects and interventions in various stages of development or implementation
- **Carbon credit projects are already delivering significant economic benefits in Sierra Leone**, currently supporting close to 2,000 jobs, mostly for young Sierra Leoneans, with projections of up to 15,500 direct and indirect roles when current projects are at their peak, and wider community benefits estimated to be in the millions.
- **The government should establish a clear national carbon framework**, developed in close collaboration with the private sector and local communities, to ensure effective regulation, attract investment and maximise the benefits of carbon markets for sustainable development.

What are carbon credits?

Carbon credits are permits that allow the holder, whether a company, individual or country, to emit a specified amount of carbon dioxide or other greenhouse gases (GHGs). Each credit typically entitles the purchaser to emit 1 tonne of GHGs. To issue and trade these credits legitimately, there must be a verifiable reduction or removal of GHGs. Such outcomes are achieved through certified climate mitigation projects, which generally fall into three categories (although many projects adopt a blended approach):

- **Removed emissions:** Credits generated by directly extracting GHGs from the atmosphere. Examples include:
 - Forest management, protection and reforestation
 - Carbon capture and storage (CCS), including methane capture
- **Reduced emissions:** Credits produced by actions that result in lower future emissions compared to a 'business-as-usual' scenario. Examples include:
 - Transitioning to renewable energy sources such as wind and solar
 - Improving industrial or residential energy efficiency
- **Avoided emissions:** Credits earned by preventing emissions that would have occurred in the absence of the project. Examples include:
 - REDD+ (Reducing Emissions from Deforestation and Forest Degradation) projects
 - Grassland preservation and regenerative agriculture
 - Technology-driven initiatives that prevent environmental harm.

Carbon market structures

Carbon markets are trading systems through which carbon credits are bought and sold. There are three main types:

- **Voluntary market:** Operates independently of formal regulatory oversight. Private entities purchase credits to meet self-imposed sustainability goals or corporate social responsibility commitments
- **Compliance market:** Established by legislation or regulatory frameworks that mandate emissions limits. Entities within these jurisdictions must acquire and surrender credits to comply with their legal obligations. Such markets are often central to national or regional climate policy frameworks
- **Hybrid market:** Combines elements of both voluntary and compliance systems, often allowing voluntary actions to complement or enhance regulatory targets. This approach supports flexibility and broader stakeholder participation.

What is the scale of the opportunity in Sierra Leone?

Sierra Leone is uniquely positioned to become a global leader in the carbon credit market. With one of the lowest per capita emissions levels globally,¹ the country has a strong case for generating high-integrity carbon credits through additionality, new carbon-reducing or carbon-removal projects that can produce measurable climate benefits without being required to offset domestic emissions.

Sierra Leone also holds a distinct competitive advantage in developing carbon credit projects, particularly in sectors where low-carbon alternatives can be introduced at scale and relatively low cost. For example, clean cooking technologies and sustainable transport solutions remain largely untapped, offering significant opportunities for emissions reductions that have already been realised in much of the Global North. The country's geographic diversity further enhances its potential, with a wide range of ecosystems, including tropical rainforests, mangroves and peatlands, suitable for nature-based solutions. This variety allows for the development of a broad portfolio of carbon credit types, increasing both environmental and investment appeal.

According to the Africa Carbon Markets Initiative (ACMI), the African carbon market could be worth up to US\$6 billion annually by 2030. Based on conservative projections, Sierra Leone could potentially earn approximately US\$14 million per year through the voluntary carbon market, with further investments if governance and investment frameworks are strengthened.²

At present, Sierra Leone operates within an unregulated voluntary carbon market. There is currently no comprehensive legal or policy framework governing the ownership, generation or transfer of carbon rights. Establishing a clear national framework would be a critical step towards unlocking the full economic and environmental potential of this emerging sector.

Current carbon credit projects in Sierra Leone

Sierra Leone is already hosting a diverse portfolio of carbon-related projects at various stages of development. These initiatives span the three primary categories of carbon credits: removed emissions, reduced emissions and avoided emissions.

- **Removed emissions:** Projects that capture carbon from the atmosphere
 - *Key initiatives:* Miro Forestry Project (128,000 credits generated), Mafork and Scarcies Rewilding Projects, Project Bankasoka, the Carbon Sequestering Programme, and the SRE-YB Mangrove Restoration Project

¹ For example, Sierra Leone's per capita carbon emissions were 0.11 tonne of carbon dioxide equivalent (tCO₂) in 2020 compared to 14.34 tCO₂ for the USA.

² Based on the ACMI Africa-wide assumptions and estimating the Sierra Leone total based on the country's geographic size.

- **Reduced emissions:** Projects that lower future emissions
 - *Key initiative:* DelAgua Cookstove Project
- **Avoided emissions:** Projects that prevent emissions by conserving natural carbon sinks and improving land management
 - *Key initiatives:* Gola REDD+ Project (over 1 million credits generated), West Africa Biodiversity and Low Emissions Development Project, and multiple improved forest management efforts including Freetown the Treetown, Project Sapling and others focused on firewood reduction, urban resilience and coastal protection.

Emerging impact and future potential

Sierra Leone currently hosts six carbon-related projects, with many more related interventions. Just the six carbon credit projects currently provide direct or indirect employment for nearly 2,000 people, the vast majority of whom are Sierra Leonean, with nearly half under the age of 35.

At full scale, these projects are expected to directly employ close to 5,000 individuals and indirectly support a further 10,500. Wider community beneficiaries are already estimated to be over 700,000 people, with potential to reach over seven million as the projects expand.

In 2024, the Association of Carbon Conservation and Reforestation (ACCR) was established, a formal business membership organisation created to represent carbon credit project developers in Sierra Leone. Its membership includes all six of the country's established project developers.

Conclusion

To fully realise the economic, environmental and developmental potential of carbon markets in Sierra Leone, it is essential to establish a clear and comprehensive national carbon framework. This framework should define the legal basis for carbon ownership, guide the project approval process and establish strong standards for transparency and accountability. Its development must be carried out through close consultation. This includes engagement with ACCR, representing the private sector who have played a key role in driving early project success and investment, as well as with community groups to ensure that local interests are protected. By creating an enabling environment that offers policy certainty, protects community rights and attracts responsible investment, the government can position Sierra Leone as a leading destination for high-integrity carbon credit generation in support of climate action and inclusive green growth.

This briefing was prepared by Invest Salone in collaboration with the Association of Carbon Conservation and Reforestation (ACCR), a formal business membership organisation established in 2024 to represent carbon credit project developers in Sierra Leone. Its membership includes the country's most established project developers. The content is informed by two rapid situational analysis reports produced by Cadmus for Invest Salone:

- [Analysis of the Carbon Market Landscape in Sierra Leone](#)
- Risk Analysis of the Carbon Market Landscape in Sierra Leone (to be published in due course)

For further reading see:

Africa Carbon Markets Initiative (ACMI). [Roadmap Report: Harnessing carbon markets for Africa](#). November 2022.