Advancing Guyana’s National Ambition
Mangrove Management

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Outline

- Country Context
- National Mangrove Restoration Programme
- Governance
- GCF Project
- Other Mangrove Projects
- Recommendations
Coastal Profile

- The coastline extends for 430 kilometers
- Protected by hard and soft engineering structures
- 90% of the population reside on the Coast.
- The administrative, agricultural, industrial and residential activities are concentrated.
- Infrastructure was first constructed by the early Dutch settlers.
Guyana’s Vulnerability Along the Coast

- The Coastal belt is 1.4 meters below mean sea level
- Vulnerable to flooding, erosion and salinization, sea level rise
- 55% of all Guyanese reside within 10 metres of the average sea level
- Guyana is number 5 of ten countries with the largest share of their population living within ten meters of the average sea level.
- Sea level rise in Guyana rose at a rate some six times the global average, (10.2 millimeters per year), around 6 times the twentieth century average, or 3 times the 1993 to 2009 annual average.
National Mangrove Restoration Programme

The NMRP works to:

- Strengthen administrative capacity,
- Promote sustainable management of mangrove,
- Support research and development of Guyana’s mangrove forest,
- Develop effective protection and/or rehabilitation of mangrove ecosystems,
- Increase public awareness and education on mangrove
Community Involvement:
Public Awareness, Education and Training
Restoration Interventions

- Mangrove seedling planting
- Coastal Engineering Structures
- Spartina Grass Planting
- Restrictive Gates and Fences
Governance

- Mangroves were declared protected species under the Forest Act (CAP.67:01) in 2010.
- Embedded in Guyana’s Green State Development Strategy, National Climate Change Policy, Nationally Determined Contribution and the Mangrove Management Action Plan
- The Mangrove Department coordinates restoration and monitoring activities.
Project Title: Unlocking the Potential of Guyana’s Inland and Mangrove Forests to further Reduce Emissions and to Build Resilience to Climate Change.
Objective

To harness Guyana’s forests (including mangroves) to enhance climate change mitigation and ecosystem-based adaptation, resulting in 12 MtCO2e avoided emissions and 465,000 people who are more resilient to floods.
Outcomes

- **Outcome 1 (Forests/mitigation Component):** Deforestation and forest degradation from mining and logging activities reduced.
- **Outcome 2 (Ecosystem-based Adaptation Component):** Resilience of communities vulnerable to flooding is improved.
- **Outcome 3 (Monitoring and Reporting Component):** Use of climate information in decision-making is increased.
The concept note will be revised to remove the components that are being advanced under other projects.
Specific objectives

- Provide technical support to key stakeholder for the establishment of two mangrove reserves.
- Draft a Mangrove Forest Reserve Management Plan for two locations
Mangrove Project

**Title:** “Setting the foundations for zero net loss of the mangroves that underpin human wellbeing in the North Brazil Shelf Large Marine Ecosystem”
Mangrove Project

Objective:

- To generate the necessary baseline knowledge and technical assessments as inputs towards a collaborative vision and a coordinated well-informed management of NBS mangrove systems, with emphasis on the information needs of Guyana and Suriname.

- To support development of transboundary coordination mechanism(s) between the countries of Guyana, Suriname, French Guiana, and Brazil (state of Amapá) towards the improved integrated coastal management of the extensive, ecologically-connected yet vulnerable mangrove habitat of the NBS region.
Output

- Updated mangrove maps for Guyana and Suriname
- Ecosystem Valuation at the local, national and global level, including biocarbon feasibility study
- Biophysical Characterization and threats to mangroves
- Policy Analysis that identifies spatial management, use, regulations and tenure arrangement for mangrove
Blue Carbon Feasibility Assessment

Specific Objectives

- A review of NBS mangrove ecological structure, function, and key environmental factors regarding carbon sequestration and storage potential;
- dimensioning NBS mangrove potential as carbon sink
- dimensioning NBS mangrove carbon value.
Results

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<th>Year</th>
<th>Area (ha)</th>
<th>AGB (Mg)</th>
<th>BGB (Mg)</th>
<th>AGB C (Mg C)</th>
<th>BGB C (Mg C)</th>
<th>Soil C (Mg C)</th>
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Carbon stock data for Guyana using mangrove area estimates from Hamilton and Casey (2016).

<table>
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<th>Year</th>
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<th>AGB C (Mg C)</th>
<th>BGB C (Mg C)</th>
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Recommendations

- Conduct further assessment combined with research
- Update the National Mangrove Management Action Plan to reflect new technologies and concepts
- Establish a scheme for Coastal Management synchronized with mudbank dynamic
- Upscaling building with nature approach by using construction of hybrid engineering structures such as bamboo brushwood dams
- Explore opportunities of establishment of mangrove based economy for local communities
Amazon fires: Record number burning in Brazil rainforest - space agency

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