

REGIONAL GUIDELINES FOR SOUTH NORTHERN PLANNING REGION

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MAIN CHARACTERISTICS OF THE COASTAL PLANNING REGION

Population: Approximately 12,400 (SIB, 2022)

Coastal communities and major population centers

Dangriga Town, Hopkins, Sittee River (SIB, 2022)

Cayes: Blue Ground Range, Bread and Butter Caye, Carrie Bow Caye, Coco Plum Caye Range, Columbus Caye, Cross Caye, Crows Nest Caye, Curlew Caye, Garbutt Caye, Glory Caye, Long Caye, Man of War Caye, Middle Caye, Mosquito Caye, Northeast Caye, Ragged Caye, Rockers Caye, Sandfly Caye Range, Southern Long Caye, South Water Caye, Southwest Caye #1, Southwest Caye #2, Stewart Caye, Tobacco Caye Range, Twin Caye Range, Wee Wee Caye.

Area Approximately 3316 km²

Aquatic: 3144 km² **Continental:** 161 km² **Cayes:** 11 km²

Ecosystems: Seagrass beds, Coral reefs, Mangroves

Major Sources of Income: Tourism and hospitality, Commercial Fishing, Sport Fishing and Agriculture

Main topics: Tourism, Fishing, Marine Transportation, Marine Dredging and Mining, Land Use and Development, Coastal Agriculture, Coastal Aquaculture, Disaster Risk Management.

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1 INTRODUCTION TO THE REGIONAL GUIDELINES

The management of the South Northern Region's coastal zone should follow the recommendations and action lines proposed in the National Integrated Coastal Zone Management (ICZM) Plan and be linked to the goals and aspirations of the community and users. This Coastal Planning Region includes very different territories such as the Glover's Reef Atoll, the cayes and the terrestrial area surrounding Dangriga.

Considering this heterogeneity, this Regional Guideline has been developed to:

- Present updated information on Habitat Risk Assessment (HRA), a useful tool for assessing potential impacts and informing environmental conservation decision-making.
- Present updated information on the disaster risk profile to contribute to a more resilient development of the coastal zone.
- Summarize the key issues and challenges of the region, by identifying the strengths, weaknesses, opportunities and threats (SWOT analysis) and collecting feedback from the Coastal Advisory Committee (CAC).
- Formulate a set of recommendations to be developed in the region, in collaboration with local committees and stakeholders.
- Provide information on sectoral recommendations for development standards.

To this end, this document is structured in the following sections:

- Section 1. South Northern Region: presents information on ecosystem services and HRA, disaster risk and SWOT analysis
- Section 2. ICZM recommendations: this section presents the key issues identified combining literature review and stakeholder consultations and informs the formulation of a set of recommendations and actions, supported by a four-year implementation, monitoring, and evaluation plan.
- Appendix: including (i) recommendations for community and caye development, as outlined in the *Interim National Integrated Coastal Zone Management Plan: 2020-2025*, align with the *National Guidelines for the Subdivision and Consolidation of Land* from the Lands Department; and (ii) recommendations from the *National Sustainable Tourism Master Plan*, updated in 2023.

The information presented in this document has been prepared using a combination of technical and participatory approaches. The technical process included the review of existing studies and previous ICZM Plans and the performance of the Habitat Risk Assessment model. The participatory approach included the organization of two rounds of consultation with the CAC in Dangriga. The first meeting, held on December 12, 2024, focused on the identification of key challenges and needs in the Coastal Planning Region (CPR). The second meeting, held on April 4, 2025, focused on the validation of proposed key issues and recommendations and the prioritization of actions.



Figure 1. First meeting with local stakeholders (Pelican Beach Conference Room, December 12, 2024).



Figure 2. Second meeting with local stakeholders (Russel Chiste Garcia Auditorium, April 4, 2025).

2 THE SOUTH NORTHERN PLANNING REGION

2.1 ECOSYSTEM SERVICES AND HABITAT RISK ASSESSMENT

In the South Northern Region, the level of risk for coral reefs generally depends on their location, with high risk in the cayes and medium risk in the atoll (Figure 3, Table 1). This difference is mainly caused by fishing, dredging, infrastructure development, and agricultural runoff, stressors that have a greater impact on the cayes. Most of the mangroves are at medium risk (55%), although there are also some at low (17%) and high risk (28%). The strongest stressors are agricultural runoff, infrastructure development, and dredging, which is highly localized. Seagrass beds occupy the entire region shallow waters, with most areas at medium risk (77%). The small areas at high risk are affected by several stressors: agriculture runoff, infrastructure development, dredging, fishing, recreation and transportation.

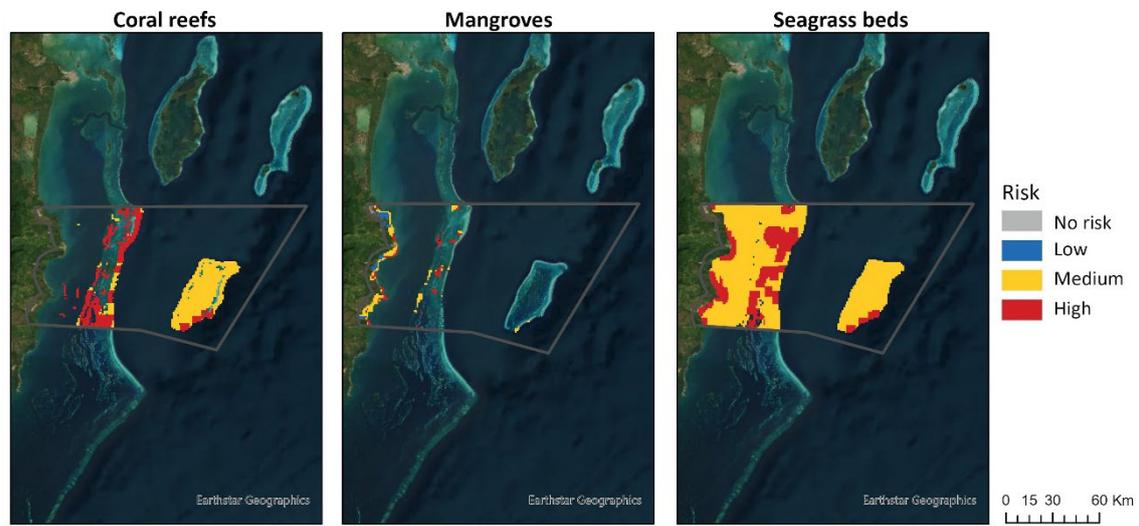


Figure 3. Coral Reef, mangroves and seagrass beds classified as high, medium and low risk for current human activity (2025) in South Northern Region.

Table 1. Habitat Risk Assessment InVEST model outputs for South Northern Region.

Habitat	No risk (km ²)	Low Risk (km ²)	Medium Risk (km ²)	High Risk (km ²)
Coral Reefs	0	0	293.75	211.5
Mangroves	0	18.75	61.25	30.75
Seagrass	0	0	981.5	297

2.2 DISASTER RISK AND CLIMATE CHANGE ADAPTATION

South Northern Planning Region faces multiple hazards and risks related to coastal dynamics and climate change. Most critical threats faced in the CPR are tropical cyclone winds, earthquakes, floods and storm surges, with 100%, 41.2%, 30.4% and 27.1% of the population and capital exposed to each hazard respectively (Pacific Disaster Center, 2021). Most of those

impacted populations and infrastructures are likely to be located in great proximity to coastal areas. Flood mapping related to tropical cyclones (see Figure 4) indicates that the South Northern Region experiences minimal impacts, with Mullins River Village being the most affected area. Under current conditions, flood heights of 2 m could occur during extreme 500-year return period events, with little to no impact from more frequent storms. However, under a pessimistic climate scenario (IPCC AR5 RCP8.5 by 2050, resulting in a sea level rise of 0.275m), flood heights over 1.5 m are reached with return periods as short as 100 years (Martínez et al., 2022).

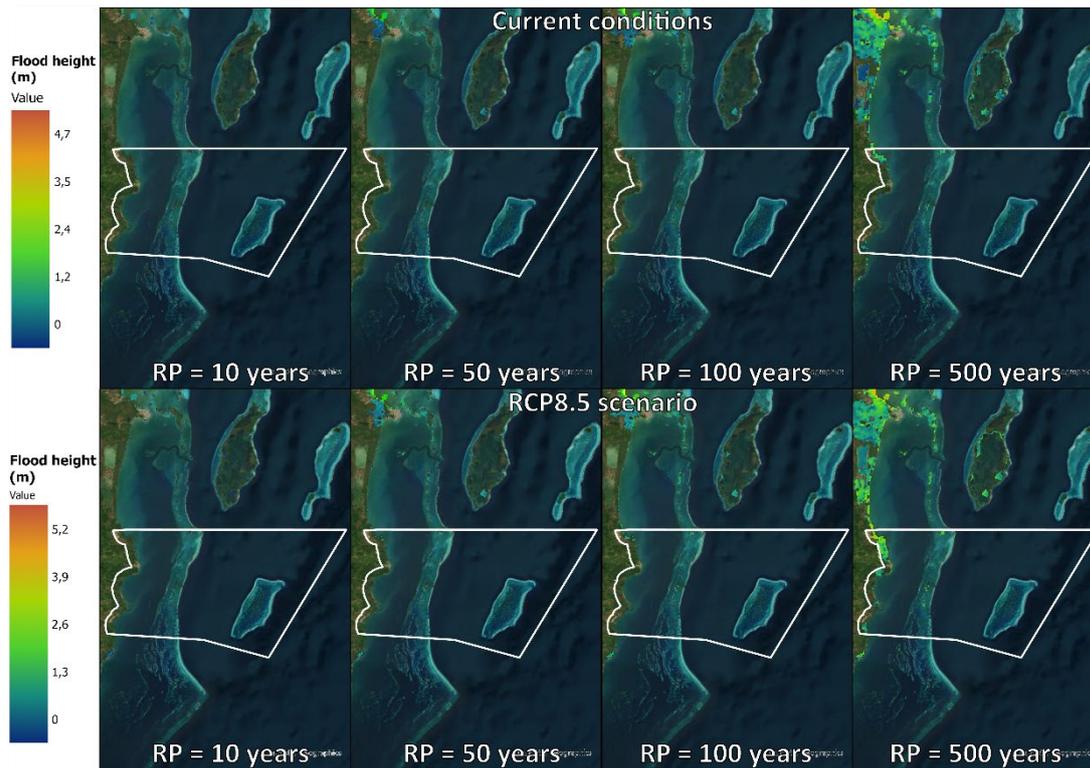


Figure 4. Maps with the 10, 50, 100 and 500 years return periods of extent and depth of flooding for current conditions and for the RCP8.5 climate change scenario by 2050 (SLR= 0.275 m) for South Northern Planning Region. (Source: Martínez, J. et al., 2022)

Coastal erosion is another critical concern, but mangroves play a key role in mitigating its effects, by providing a natural shield for these areas. According to Martínez et al. (2022), Belize’s mangroves significantly reduce erosion caused by tropical cyclones, maintaining shoreline retreat in Dangriga and Freetown Area below 0.12 m under both current and pessimistic climate scenarios. However, in sandy coastal areas like Dangriga and Hopkins, shoreline erosion (without considering beach resilience, i.e., the ability of a beach to recover naturally from erosion caused by storms or climate change effects) is projected to reach up to 3.4 and 1.7 m respectively for 100-year storms under current scenarios, but under a pessimistic scenario, the same retreats are already expected for 50-year storms.

The region’s vulnerability is primarily driven by population pressures and economic constraints. Additionally, governance and the economy rank among the lowest sectors in terms of coping capacity. Nevertheless, South Northern Planning Region’s resilience is relatively high compared to other CPRs leading to medium multi-hazard risks, mainly composed by earthquakes, storm surges and tropical cyclone winds (Pacific Disaster Center, 2021).

2.1 SWOT ANALYSIS

The following section presents a SWOT analysis of the CPR, identifying elements or processes that need to be improved or strengthened (Weaknesses), mitigated (Threats), maintained (Strengths), and leveraged (Opportunities), which in turn help define coastal management objectives and recommendations. This analysis results from a careful assessment, including an in-person consultation process with local stakeholders and the CACs on December 12, 2024, and April 4, 2025; a review of existing studies of the coastal area available and the analysis of previous ICZM Plans, together with the review of sectoral policies and plans.

Strengths:

- The region's rich biodiversity, including mangroves and coral reefs, provide a strong base for eco/sustainable tourism, fishing, sport-fishing and aquaculture.
- Local tourism/recreational industries such as diving, snorkelling, and sport fishing support local incomes.
- Active participation of local communities and stakeholders in coastal and marine protected areas management, such as the Glover's Reef Advisory Committee and the South Water Caye Advisory Committee.
- South Water Caye Marine Reserve forms a part of Belize's Barrier Reef Reserve System (BBRTS) which is a UNESCO World Heritage Site.
- Research station and management presence in the area by the Wildlife Conservation Society and the Belize Fisheries Department.

Weaknesses:

- Overuse of resources, limited enforcement capacity, and inadequate regulation of land use for resorts.
- The local population's reliance on fishing and tourism, both of which are highly sensitive to environmental changes and market fluctuations, creates economic vulnerability.
- Nutrient runoff, algae blooms, sediment displacement, and mangrove deforestation impact the ecosystem.
- Land reclamation and dredging increase turbidity, harming marine habitats.
- Limited resources for monitoring and enforcement of environmental laws, illegal fishing, and habitat protection.
- Tourism operators are using fishing licenses in the low season, leading to disputes with fishermen.
- Inadequate preparedness for storms, rising sea levels, and coastal erosion.
- Lack of buoy markers for marine protected areas, inadequate waste management, and weak communication for reporting illegal activities.
- Coastal erosion due to sargassum removal and sediment transportation.
- Communication and licensing enforcement gaps between field staff and responsible agencies.

Opportunities:

- Combining nature-based tourism with eco-friendly traditional income sources (e.g., sustainable fishing).

- Digital platforms to track and report illegal dredging and improve fisheries oversight.
- Promoting natural filters like mangroves, seagrass meadows, and wetlands to reduce eutrophication.
- By integrating nature-based coastal defences such as mangrove restoration and artificial reefs, the region can enhance its resilience to climate change impacts like storm surges and coastal erosion.
- Strengthening enforcement of environmental laws, clarifying development guidelines, and improving inter-agency coordination would protect sensitive habitats and sectors critical to local livelihoods.
- Targeted policies can strengthen economic stability and help to protect local fisheries.

Threats:

- Loss of beaches and natural habitats due to unregulated construction and private investment.
- Increased visitor numbers leading to waste issues, overuse of resources, and ecosystem damage.
- Rising sea levels, more frequent tropical storms, and coastal erosion threaten infrastructure and livelihoods.
- Declining fish stocks from destructive fishing, weak enforcement, and illegal activities undermine the fishing sector, impacting local economies and food security.
- Tourism revenue often benefits foreign investors, while local communities face limited access to resources and economic opportunities.
- Inefficiencies in management and unclear responsibilities hinder sustainable development and conservation efforts.

3 ICZM RECOMMENDATIONS

3.1 KEY ISSUES AND RECOMMENDATIONS

Table 2. Key issues and recommendations. ID refers to the Code of each Recommendation (R). S refers to the scale implementation of each recommendation: National (N), Local (L). G means that the Key Issues and Recommendations are applicable in Glover’s Reef Atoll.

TOPIC	KEY ISSUES	ID*	RECOMMENDATIONS	S**
Tourism	Rapid tourism expansion in ecologically sensitive areas and competition over land use without proper zoning regulations.	R1	Promote a mixed-use model that integrates nature-based tourism with sustainable traditional economic activities (e.g., artisanal fishing, handicrafts), while restricting resort development to already urbanised areas, limiting intensification.	N/L
	Visitors' pressure in sensitive areas like South Water Caye.	R2	Develop environmental awareness campaigns for South Water Caye.	N/L
		R3	Establish waste collection points at key tourism sites and for fisher folks, and implement educational programs to reduce pollution from visitors and businesses.	L
	Rising storms and sea levels threaten tourism infrastructure in low-lying areas, with many facilities lacking disaster preparedness.	R4	Ensure that all tourism facilities comply with BTB’s minimum standards, which shall be reviewed to consider smaller enterprises’ capacities, including disaster preparedness and evacuation plans to enhance visitor safety and minimize disruption during extreme weather events.	N/L
	Conflicts between fishermen and tour operators over licenses, along with weak coordination among stakeholders.	R5	Implement targeted awareness and capacity-building programs to fishermen and tour operators on sustainable resource use, conflict resolution, and alternative income opportunities during low tourism seasons. Develop and distribute public-friendly materials and science briefings.	L
		R6	Enhance coordination between government agencies, the private sector, and conservation organizations to align tourism growth with environmental conservation and local economic development. Quantify tourism-	N/L

			<p>related fishing extractions to set accurate quotas.</p> <p>Organize public regular meetings with maps and data.</p> <p>Set up local advisory groups to improve trust and involve the community.</p>	
Fishing	Harmful fishing practices affect habitats and biodiversity in areas like Glover’s Reef Atoll and MPAs.	R7	Strengthen local fisheries management by developing local ranger programs and involving traditional fishermen in co-management initiatives, providing them with training and resources to protect critical habitats like Glover’s Reef Atoll.	L
		R8	Increase patrolling and coordination among enforcement agencies, focusing on areas like Glover’s Reef Atoll, using modern surveillance tools and technology advances to deter illegal fishing and protect MPAs, such as drones, radar systems, and stationary cameras.	N/L
	Limited resources (e.g., fuel) for enforcement, leading to conflicts between commercial and recreational fishers.	R9	Provide capacity-building for local fishermen to ensure they are knowledgeable about sustainable practices, and involve them in enforcement efforts to reduce conflicts with commercial and recreational fishers.	N/L
	Patrols lack sufficient information on sport fishing licenses.	R10	Increased coordination and communication between Fisheries Department and CZMAI regarding sport fishing licenses.	N/L
Marine Transportation	Increased traffic due to high boating activity in the region (cruise vessels, cargo ships, water taxi, and leisure vessels)	R11	Development and implement Maritime Areas Policy that will focus on managing the increased demands for the sector	N/L
	Increased demand for mooring buoy as and other navigational aids in light of increasing demands	R12	Develop and implement a National Mooring Buoy Plan, including an inventory and strategic placement of buoys to mark MPAs and ensure compliance with regulations in critical areas like Area 3 and Glover’s Reef Atoll, in collaboration with relevant agencies for maintenance and oversight of	N

			buoys, lighthouses, and boundary markers.	
Marine Dredging and Mining	Unpermitted dredging threatens biodiversity, fish stocks, and marine ecosystems like coral reefs and spawning grounds.	R13	Discourage dredging activities unless essential for land rehabilitation or access channels, ensuring approval from DOE and NEAC to protect marine ecosystems.	L
	Limited enforcement and government oversight.	R14	Strengthen government oversight and enforcement by increasing patrols, improving coordination, and allocating additional resources to ensure the effective enforcement of dredging regulations and prevent illegal activities.	N/L
		R15	Develop a digital platform to track and report illegal dredging activities, allowing for easier community participation and quicker responses. Patrols routes should also be more frequently with new routes.	N/L
Land Use & Development	Development in coastal buffer zones threatens shoreline stability and biodiversity.	R16	Strictly enforce the preservation of the 66 ft. reserve and delineate a buffer zone to protect the coastline from erosion and safeguard ecological health.	N/L
	Seawalls and beach replenishment projects without proper environmental assessments may exacerbate erosion and disrupt marine ecosystems.	R17	All seawall and beach replenishment applications should undergo thorough EIAs by relevant agencies to ensure sustainable coastal management and minimize sedimentation risks, especially in sensitive areas.	N/L
	Erosion is accelerated by unsustainable development practices, such as mangrove removal, and climate change, particularly in areas like Dangriga and Hopkins, further reducing coastal resilience.	R18	Promote "soft" coastal defence measures, such as mangrove restoration and beach nourishment, in high-risk areas like Dangriga and Hopkins, while reserving "hard" defences like seawalls for areas where natural solutions are not viable. Encourage developers to integrate mangrove preservation into their designs for shoreline stabilization.	N/L

	Developers and contractors often lack knowledge of applicable regulations, leading to non-compliance and unsustainable practices.	R19	Disseminate up-to-date information on land-use regulations and procedures to developers, contractors, and real estate agents to ensure they adhere to coastal management standards, particularly in high-risk development areas. Develop and distribute public-friendly materials and science briefings.	N/L
	Caye development face unique problems that shall be considered under land use and coastal planning	R20	Address caye-specific considerations in alignment with the National Land Use Plan and relevant Municipal Development Plans, as outlined in the National Land Use Policy.	N/L
DRM	Rising seas and storms endanger tourism and fishing infrastructure, with many sites unprepared for disasters.	R21	Ensure all tourism facilities meet BTB's minimum standards, including disaster preparedness and climate-resilient infrastructure, such as storm-resistant designs, nature-based coastal protection, and improved drainage.	L
		R22	Implement coastal protection measures like mangrove restoration and flood barriers to protect vulnerable sectors, and introduce parametric insurance for storm surge and flood damage, along with reef damage evaluation mechanisms to support rapid recovery.	L
	R23	Improve local drainage systems.	L	
	Climate variability leads to storms outside traditional hurricane seasons, signalling broader climate change impacts.	R24	Develop and implement region-specific early warning systems to better prepare communities for out-of-season storms.	N/L
	Unplanned coastal development, including pier construction and mangrove removal, is accelerating beach erosion and sedimentation, increasing	R25	Conduct an assessment of the cumulative impacts of coastal structures (e.g., piers, seawalls) to guide future development and inform regulatory updates.	N
R26		Establish a national beach erosion monitoring program to systematically track shoreline changes and inform climate	N	

	vulnerability to climate change impacts.		adaptation and disaster risk planning.	
Environmental conservation	Coral bleaching.	R27	Strengthen climate resilience strategies through innovative coral protection and restoration initiatives and ongoing monitoring and research programs. Promote a community-led and ecosystem-based approach.	N/L
	Coastal erosion due to sargassum removal.	R28	Develop a comprehensive management strategy for sargassum removal and disposal, considering ongoing initiatives, such as using it as agricultural fertilizer.	N/L
	Unregulated waste disposal in natural features such as sinkholes poses environmental and cultural risks in the community.	R29	Collaborate with the Department of the Environment, Solid Waste Management Authority, and NICH to address illegal dumping in the cenote and assess its potential for environmental protection and cultural designation.	L
Governance	Loss of trust in the government system	R30	Government of Belize agencies should enhance collaboration and strengthen their presence in communities through monitoring, education, and outreach initiatives, aimed at fostering or restoring trust and cooperation	N/L
(G): Applicable in Glover’s Reef Atoll S: Scale: National (N) and local (L)				

3.2 IMPLEMENTATION, MONITORING AND EVALUATION PLAN

The implementation plan aims to establish priority recommendations to address the key issues of the CPR, as well as to define the actions needed to implement them. To this end, three recommendations have been prioritized, considering their relevance to local stakeholders, their feasibility of implementation during the four years of the ICZM plan, their potential to be applicable to other CPRs and their urgency in terms that have not been addressed during previous ICZM cycles. The selection of recommendations focuses on those at the CPR level, as national recommendations are addressed in the National ICZM Plan.

Following this approach, the prioritized recommendations for this CPR are:

- R3. Establish waste collection points at key tourism sites and for fisher folks and implement educational programs to reduce pollution from visitors and businesses.
- R7. Strengthen local fisheries management by developing local ranger programs and involving traditional fishermen in co-management initiatives, providing them with training and resources to protect critical habitats like Glover’s Caye. This approach helps balance ecological preservation with local livelihoods.
- R18. Promote "soft" coastal defence measures, such as mangrove restoration and beach nourishment, in high-risk areas like Dangriga and Hopkins, while reserving "hard" defences like seawalls for areas where natural solutions are not viable. Encourage developers to integrate mangrove preservation into their designs for shoreline stabilization.

The table below outlines the most relevant actions to be carried out for each priority recommendation. This implementation plan covers a four-year implementation period, specifying the stakeholders involved, progress indicators to track each action, and the baseline for comparison. To ensure effective implementation, a biannual report at the CPR level is required.

Table 3. Implementation plan for the prioritized recommendations.

ID	ACTION	STAKEHOLDERS INVOLVED	IMPLEMENTATION PERIOD				PROGRESS INDICATOR
			Y1	Y2	Y3	Y4	
R3: Establish waste collection points at key tourism sites and for fisher folks and implement educational programs to reduce pollution from visitors and businesses.							
3.1	Conduct needs assessment to identify key sites where waste accumulates due to fisher activity.	CZMAI, Fisheries Department, Local Village Councils, Advisory Councils					Assessment report completed and mapped
3.2	Install designated waste collection points at key fishing landing sites or overnight caye shelters.	Fisheries Department, Village Councils, Advisory Councils					Number of collection points installed
3.3	Develop and deliver awareness campaigns on waste disposal responsibilities and environmental impacts.	Fisheries Department, CZMAI, NGOs, Advisory Councils					Number of campaign events held, materials distributed, number of people outreached
3.4	Establish community-led clean-up days in collaboration with fishing communities.	NGOs, Fishing associations, Community groups, CZMAI, Advisory Councils					Number of clean-up days held annually
R7: Strengthen local fisheries management by developing local ranger programs and involving traditional fishermen in co-management initiatives, providing them with training and resources to protect critical habitats like Glover's Caye. This approach helps balance ecological preservation with local livelihoods.							
7.1	Formalize partnerships with traditional and local fishers for co-management roles in MPAs.	Fisheries Department, MPA Co-managers, Traditional Fishers					MOUs or co-management agreements signed
7.2	Develop a local ranger program with training in enforcement, surveillance, and ecological monitoring.	Fisheries Department, CZMAI, NGOs (e.g., WCS),					Number of rangers trained and deployed
7.3	Secure funding for ranger stipends, equipment, and logistics support.	Blue Bond Unit, Fisheries Department, Donors, NGOs					Ranger program budget secured
7.4	Incorporate local knowledge into patrol planning and hotspot mapping.	Rangers, Fishermen, MPA Managers					Patrol plans reflect community inputs

R18. Promote "soft" coastal defence measures, such as mangrove restoration and beach nourishment, in high-risk areas like Dangriga and Hopkins, while reserving "hard" defences like seawalls for areas where natural solutions are not viable. Encourage developers to integrate mangrove preservation into their designs for shoreline stabilization.						
18.1	Identify and prioritize areas (e.g., Dangriga, Hopkins) for mangrove restoration and beach nourishment.	CZMAI, Forestry Department, DOE, NGOs, Village Councils				Priority areas mapped and ranked
18.2	Implement pilot innovative restoration projects with community involvement and scientific monitoring.	CZMAI, Forestry Department, NGOs, Local residents				Number of hectares restored
18.3	Launch public awareness campaign linking dredging, erosion, and flood risks.	DOE, CZMAI, NEMO, Media, NGOs				Campaign reach and engagement metrics

4 APPENDIX

The sectoral recommendations for development standards in terrestrial zones and cayes, as outlined in the *Interim National Integrated Coastal Zone Management Plan: 2020-2025*, align with the *National Guidelines for the Subdivision and Consolidation of Land* from the Lands Department. The following sections present these recommendations in detail.

4.1 RECOMMENDATIONS FOR COMMUNITY AND CAYE DEVELOPMENT

Table 4. Recommended tourism development for major population centers in the South Northern Planning Region

COMMUNITY	RECOMMENDED TOURISM DEVELOPMENT
Dangriga	New resort development, sun and beach tourism, nautical tourism
Hopkins	Nautical tourism
Sittee River	Nautical tourism
Freetown Sibun	Low density tourism

Table 5. Recommended land use for cayes in the South Northern Planning Region

COMMUNITY	RECOMMENDED DEVELOPMENT DENSITY	RECOMMENDED DEVELOPMENT STANDARDS
Blue Ground/ Cockney Range	Not suitable for development	Conservation I
Bread and Butter Caye	Low density development	Conservation I
Carrie Bow Caye	Suitable for development	Conservation I
Coco Plum Caye/Range	Suitable for development	Commercial I
Columbus Caye	Low density development	Conservation I
Cross Caye	Suitable for development	Residential I
Curlew Caye	Not suitable for development	Conservation I
Garbutt's Caye	Low density development	Residential I
Glory Caye	Not suitable for development	Conservation I
Glovers Reef Caye (5)	Not suitable for development	Conservation I
Man-O-War Caye	Not suitable for development	Conservation I
Mosquito Caye	Low density development	Conservation I
Ragged Caye	Not suitable for development	Conservation I
Rockers Caye	Not suitable for development	Conservation I
Sandfly Caye	Low density development	Conservation I
South Water Caye	Suitable for development	Commercial I
Southern Long Caye	Low density development	Commercial I
Spruce/Crow's Nest Caye	Not suitable for development	Conservation I
Stewart Caye	Not suitable for development	Conservation I
Tobacco Caye	Suitable for development	Commercial I
Tobacco Range	Not suitable for development	Conservation I
Twin Cayes	Least suitable for development	Conservation I
Wee Wee Caye	No more development	Conservation I

4.2 NSTMP RECOMMENDATIONS

The *National Sustainable Tourism Master Plan*, updated in 2023, provides an overarching tourism policy and strategic planning instrument. It spans a 20-year period (2010-2030) and highlights 8 contemporary themes regarding tourism. The following themes and actions are established for the South Northern Planning Region:

Urban Settlement & Management

- 1.6** Enhance the resilience of established urban settlements in vulnerable (low lying, coastal or floodplain) locations.
- 1.7** Ensure the (real and perceived) safety and security of all visitors (at day and night) in tourism towns is prioritised.
- 1.8** Showcase distinctive urban-historic-cultural-natural assets and experiences in tourism township areas.

Coastal Conditions & Resilience

- 2.2** Identify and showcase locations for mangrove forest restoration for ecological and coastal fringe resilience.
- 2.3** Better understand the influence of climate change and sea level variation in coastal and lagoon settings (forecast mapping).
- 2.4** Support revegetation and enhancement of the coastal and lagoon edges through contiguous linear land planning.
- 2.5** Ensure development is well setback from the coastline/lagoon edge to avoid visual intrusion and potential harm from encroachment.

Marine, Reef and Caye Condition

- 3.2** Undertake research and monitoring to better measure the impact of climate and water temperature change of reef systems.
- 3.3** Policing of illegal fishing and related behaviours that compromise reef & biosphere conditions.
- 3.4** Acknowledge the critical role of caye and reef management by NGO and seek a coordinated approach to tourism practices.
- 3.6** Better management of recreation air & boat traffic in and around the reef and cayes.
- 3.8** Recognise the delicate environmental condition of cayes and establish common development regulations.

Cultural Attractions and Archaeological Sites

- 5.6** Grow visitor awareness/education of other living cultures across regions with opportunities to share traditional practices.

Trunk Infrastructure and Connectivity -Accessibility

- 6.5** Aim to increase potable water storage and sewage treatment in tourism destinations, including new sustainable systems.

- 6.6** Develop funding models (such as tourism development contributions) to improve investment and maintenance of infrastructure.
- 6.9** Expand the capability and service of National Information & Technology (Internet) to support wider tourism market and aid communications, emergency management, and climate threats.

Regional Linkages and Frontier Interfaces

- 7.1** Enhance regional tourism connections to cayes and interior through improved public/private transit– unlocking potential market growth.

Tourism Governance Management and Marketing

- 8.1** Adopt the Spatial Tourism Framework as a national network of hubs, nodes, and corridors to aid decision-making on planning and investment.
- 8.4** Avoid the privatization of cayes, islands, and beachfronts, and compulsorily acquire or buy back vulnerable land where possible.
- 8.6** Promote the use of clean energy and sustainable land and management for tourism development and services.
- 8.14** Restore tourism standards program to benchmark with other regions (i.e. ASEAN) and promote information technologies.

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