Saint Vincent and the Grenadines
COASTAL AND MARINE ECOSYSTEMS MANAGEMENT STRENGTHENING PROJECT
TERMS OF REFERENCE
Technical study to conduct site-specific technical assessments and partnership models for coastal and marine management
SVHCMEMS-C-LCS-1

1.0 Background Information

The Government of St. Vincent and the Grenadines is implementing a World Bank supported Coastal and Marine Ecosystem Management Project with GEF funding. The project is being funded by a US$3.65 million GEF grant, over a five-year period from April 2022 - 2027. Responsibility for implementation of the project lies with the Sustainable Development Unit (SDU) within the Ministry of Tourism, Civil Aviation, Sustainable Development and Culture. The objective of the Project is to strengthen the management of coastal and marine ecosystems in Saint Vincent and the Grenadines. The Project supports the GEF–7 Programming Directions, by contributing to the long-term protection of the SVG's coastal and marine ecosystems. Specifically, the Project targets the Biodiversity Focal Area. In alignment with the GEF–7 Strategy, the Project follows the priority of mainstreaming biodiversity across sectors as well as landscapes and seascape. The Project contributes to the third pillar *resilience* of the OECS Regional Partnership Strategy (RPS) for FY15–19. The project is aligned with the GoSVG's goals and commitments, particularly related to coastal and marine management and resilience. Specifically, the project continues the goals of the National Biodiversity Strategy and Action Plan (2015–2020) prepared under the CBD for the conservation of locally and globally significant biodiversity. Furthermore, the project aligns with the country's National Economic and Social Development Plan 2013–25 Goal 4 of "Improving Physical Infrastructure, Preserving the Environment and Building Resilience to Climate Change," by improving the management of and ultimately the ecosystem services provided by coastal and marine resources.

The Government of SVG is seeking to hire a Firm to support the design of a participatory approach to improve management of four targeted environmentally sensitive coastal and marine areas in SVG. The Firm/NGO will be relied upon to offer expertise in the undertaking of biological, social and threat assessments and mapping in the four target sites and defining management strategies for conservation of coastal and marine resources, reduction of threats and enhancing opportunities for enhancing economic benefits to dependents on these resources that are environmentally sustainable. This assessment, mapping and planning exercise in each site will be undertaken in a participatory manner, in consultation with local communities. The Firm/NGO will work closely with relevant Government staff while drawing on other expertise from local NGOs and CSOs. The outcome of this exercise will be a planning document for each of the four target sites, identifying key activities for conservation, sustainable natural resource management and community livelihoods and sustainable resource uses, roles of

responsibilities for implementation of these plans, costed budget and monitoring framework. The Firm/NGO will designate a representative (consultant team manager) to work within the SDU, as well as with local communities while drawing on other expertise within the Firm/NGO to fulfill the task assigned under this contract.

2.0 Objectives of Consultancy

The objective of this consultancy is to support the assessment, mapping and design of management plans for improved conservation, sustainable natural resource use and institutional strengthening for management of the four targeted environmentally sensitive coastal and marine areas in SVG. It will further elaborate the timing of the piloting activities schedule, implementing partners (local NGO/community), cost estimation, the subgrant mechanism and monitoring plan. The four-target coastal and marine areas identified are the following:

- Site 1: St. Vincent Southeast Landscape/Seascape: Milligan Cay, Brighton, Diamond and Stubbs beaches
- Site 2: Grenadines Landscape: Union Island and Tobago Cays Marine Park /Mayreau
- Site 3: Leeward Coast: Richmond Beach, Chateaubelair Bay, Petit Bordel Bay and Troumaca Bay
- Site 4: Colonaire Beach.

Further detail regarding the four sites is provided in Annex 1.

3.0 Project Description

The intent of the project is to support the participatory approaches in coastal and marine environment of St. Vincent and the Grenadines including: (i) institutional and policy support, and capacity building for coordination, spatial and financial planning, and monitoring of the coastal and marine environment; (ii) enhancing the National Environmental Data and Information Platform (NEDIP) for an improved information base for decision-making on the use and conservation of coastal and marine resources; and (iii) demonstrating the effectiveness of spatial and financial planning approaches in selected pilot coastal and marine sites.

The project is expected to result in the following positive environmental and social benefits over the long term:

(a) Enhanced access to relevant baseline environmental data on the linkages among ecosystem services, shoreline stability and protection and climate change adaptation;

(b) Appropriate institutional mechanism, strengthened institutional capacity and improved coordination for coastal and marine ecosystem management at both the national and local levels;

(c) Conservation of beaches, dunes, near shore reefs and other associated species and habitats;

(d) Promotion of an ecosystem-based approach to climate change adaptation; and

(e) Enhanced protection of public and private property and contribution to overall resilience of coastal populations.

The project is organized around three interacting components implemented in parallel. Component 1 is essentially institutional strengthening across all sectors and jurisdictions that is spearheaded and coordinated nationally. In addition to stronger institutions and policies, a key output will be a nation-wide coastal zone management plan for the nation, with selected priority actions and models that can be implemented in the long-term after project completion. Component 2 involves pilot testing to demonstrate spatial planning and innovative financing arrangements; as these are implemented a key output will be lessons learned that will feed into Component 1. These pilot tests will be evaluated for efficiency, effectiveness and replicability. Component 3 is a monitoring and evaluation task that is permanently institutionalized as a knowledge repository within a new National Environmental Data and Information Platform (NEDIP). All biophysical and planning information will be maintained here, as well as information on any pilot activities. Output from this activity involves fast dissemination and ready accessibility of information to any stakeholder. Please see the Project Appraisal Document for more details.

4.0 Tasks

The Firm/NGO will be responsible for the following tasks in the four-target coastal and marine sites in relation to Component 2

A. Assessment and Mapping: Undertake site specific assessment and mapping of the biological values, current socio-economic activities and threats and pressures on these natural resources so as to facilitate zoning and/or enhance sustainable (low impact) resource uses to manage the threats at each site. The assessments will be carried out using a rapid biodiversity/ecological assessment approach based on internationally accepted guidelines such as developed by the Convention of Biological Diversity or Conservation International. The rapid assessment will entail the use of existing literature, maps and information (including consultations) to map coastal and marine resources coupled with ground-truthing, their status and condition; resource use in terms of what resources, who harvests, when, where and how these resources are harvested and used; location of biological hotspots (species distribution, spawning and nesting sites, critical habitats etc.) and problems for the community or other stakeholders, such as resource use conflicts, destructive activities (poaching, destructive fishing, poaching pollution, tourism related, waste and garbage disposal, sand mining, etc.). This should be conducted as a rapid exercise. Based on the mapping and assessment, develop biological, environmental and social baselines on which project outcomes can be measured.

B. Stakeholder Analysis: Undertake stakeholder analysis at the target sites to identify key stakeholders, the relation of such stakeholder groups to the use of

natural resources, the threats and opportunities they profess for either reduction of threats or enhancement of the natural environmental/resources, the measures for strengthening their participation in improving the conservation and management of these areas and the resources within them. Based on the stakeholder analysis, identify the major environmental and social priorities for addressing with the threats within the target site that need to be solved in the subsequent planning phase.

C. Participatory Planning: Guide a participatory and site-specific planning exercise, and work with stakeholders to define strategies for conservation, sustainable resource use, and livelihood/income generation at the site. In terms of conservation, this might include: zoning of the site for various uses, conservation actions and monitoring. In terms of sustainable resource use, this might include identifying permissible resource uses (sustainable harvest methods, harvest targets, harvest times/duration and any other controls necessary). In terms of improving livelihoods, this might include identifying existing livelihoods that can be sustainably undertaken, new livelihood options, training and extension requirements for promotion of such livelihood measures etc.).

D. Develop site-specific management and zoning plans: Prepare site-specific management and zoning plans for each of the four target sites, based on the mapping, assessment, stakeholder analysis and participatory planning exercise and on-going activities. These site-specific management and zoning plans for each target site should include: (i) management measures to enhance conservation, sustainable resource use, threat reduction and environmental sustainable livelihood practices to be implemented through the project and through existing national programs or co-financing; (ii) institutional mechanisms for coordination of implementation and monitoring of the site-specific management plans for each site, indicating the roles and responsibilities of the SDU, other key sector ministries and agencies, NGOs, CSOs and local communities; (iii) identification of key stakeholders and their specific roles in pilot project implementation; (iv) a monitoring framework that defines indicators, baseline and end of project targets and means of monitoring and verification for performance-based and impact-based indicators; (v) a draft budget for implementation and monitoring of management plans for each target site over a three-year implementation period, that includes project-supported activities, other sector supported activities and those activities that may be supported from co-financing for other national, donor and NGO programs; (vi) timelines for the implementation of activities; and (vii) service providers and linkages for value addition products and potential sources for providing technical support and extension for these products, etc. In designing the strategies, it is important to be realistic (in terms of what can be achieved within a given time span and with the available resources), should have clear and achievable outcomes, be adequately funded, and have clear responsibilities defined for each of the partners. The plans, will provide a implementation schedule of proposed activities to be implemented, roles and responsibilities of the communities, government agencies (in terms of provision of funding,

technical and extension support and roles and responsibilities of key stakeholders, a monitoring plan with agreed targets and outcomes, and plan monitoring and adjustment procedures, including but not limited to the project Result Framework specific to Component 2 (The Project result framework is given in Annex 3). These management plans would be for a three-year implementation period.

E. Identification and evaluation of NGOs/CSOs for overseeing implementation in the four pilot sites: The consultancy will identify and evaluate capacity and skills of existing NGOs/CSOs to assess their capacity, skills and track record for overseeing the implementation of the management plans for the four target sites, including consideration of co-financing and other resources they can bring to the project activities.

F. Develop TORs for NGO consultancy activities for implementation of site management plans

G. Develop a Technical Support Plan: A technical assistance plan, identifying key technical and extension supported that is needed to effectively implement each target plan, in particular those required from key sector agencies (forestry, eco-tourism, coastal and marine, livelihood and small-scale enterprise development, and other agencies as deemed relevant), research institutions and expert NGO groups

Overall, the proposed interventions should demonstrate integrated management of coastal and marine resources in the target site, involving communities, public and private sector and other stakeholders (including other national stakeholders, as relevant) in the mapping, planning and implementation of proposed interventions at the targeted site. The outcome would be conservation and environmental-friendly resource use and livelihood practices that also provide benefits to local communities and the local economy. The overall exercise should be conducted in coordination with the SDU and should include specific arrangements for participation of SDU technical staff in aspects described under this assignment. The potential GEF support investments are discussed under the following six general categories:

- Zoning/mapping/planning
- Bio-diversity monitoring and awareness program
- Eco-tourism
- Alternative livelihood Support
- Reducing Coastal and Marine Pollution
- Eco-engineering for shoreline protection

5.0: Duration of Services

The assignment is for a period of 6 months to complete the tasks outlined in Section 4.0 above for all four-target sites. The Firm/NGO should have sufficient flexibility to concurrently work across all four-target sites, in a well-coordinated and sequenced manner so as to deliver the expected outputs in a timely manner

6.0: Qualifications and expertise of Firm/NGO

The following are the qualifications/expertise required from the Firm:

(a) Preferably at least five (5) years' experience in planning, management and implementation of environmental and/or sustainable natural resources programs

(b) Experience/expertise in projects involving coastal and/or marine ecosystems, Experience in conducting community and stakeholder consultations

(c) Proven track record in undertaking similar projects in SVG, including local expertise with extensive knowledge on national conservation efforts, policies and strategies and the ability to position project activities in the local context effectively, and knowledge of social and livelihood systems and value chain development in SVG

(d) In addition, the firm should have some experience on matching grant, and international development projects or projects supported by multi-lateral or bilateral development partners.

7.0: Consultant Team and Experience

The Firm/NGO must include key personnel with demonstrate relevant experience in the planning and management of coastal and marine resource experience. It is expected that the Firm/NGO will include members (either as staff or sub-consultants) with experience in the following technical disciplines:

Consultant	**Education Qualifications**	**Experience**
Coastal and Marine Specialist/Team Leader	A post-graduate degree holder . In lieu of an MSc,a Bachelor's Degree in aforementioned fields, with at least seven (7) years of relevant professional experience will be accepted.	-Experience in leading teams of inter-disciplinary work is an advantage -At least 5 years professional experience in carrying out similar kind of assignments -Good working knowledge in marine, coastland and wetland biodiversity -Experience in undertaking similar assignments in SVG would be an advantage -Previous experience in natural resources planning and management
GIS/mapping specialist	a bachelor's degree holder in GIS related fields	-At least 3 years' experience working with GIS and remote sensing or related field -Strong familiarity with landscape/seascape ecology desirable -Familiarity with the principles and techniques of geospatial analysis

Livelihood and natural resource use Specialist	a bachelor's degree holder in natural science or social sciences or related fields	-At least 5 years' experience in working on rural development and small enterprise development -Direct experience working on livelihood improvement programs -Experience in undertaking community livelihood development capacity building -Experience in natural resources based livelihood development would be an added advantage
Participatory Specialist	A bachelor's degree holder in social science or related fields	At least 5 years of experience on participatory processes -Good understanding and experience in mobilizing and organizing communities -Expertise and experience in community institutional building -Good communication skills -Similar experience in SVG would be an advantage

The Firm/NGO may propose the most efficient team of individuals to respond to the various discipline requirements.

Consultant travel, meeting costs and other expenditures related to delivery of the proposed site activities will be included in the negotiated contract.

8.0: Key Deliverables and Reporting Requirements

Tasks	Deliverable	Timeline
1. Methodological approach, data collection procedures/tools and analysis	Inception Report	Two weeks after issue of contract
2. Assessment, Mapping, Stakeholder Analysis and participatory planning	Assessment and Mapping Report (including with maps of land use, biological assessments and species/ecosystems and threat ranking), stakeholder mapping, site specific participatory planning exercise	Two months after signing of contract

Tasks	Deliverable	Timeline
3. Site-specific management and zoning plans, implementation mechanism and procedure, and identification and evaluation of NGOs/CSOs	Site-specific management plans with timeframe, milestone, institutional arrangements for implementation (including small grant program), stakeholder roles, monitoring indicators and framework, and baselines and indicative budget for plan implementation This will also include sustainable natural resource and livelihood improvement plan, including list of service and training providers, value addition and marketing links as well as small-grant mechanism	Five months after signing of contract
4. Terms of references for NGO implementation of management/zoning plans	TORs for NGO implementation of the management plans	Five and half months after signing of contract
5. Technical Support Plan, Training and skills development plan	Technical Assistance Plan including key technical and extension support required, capacity assessments and training needs for implementation of the management plans	Five and half months after signing contract
6. Sustainability	Final report identifying key lessons, options for sustaining investments, monitoring sustainable practices at sites, etc.	Six months after signing of contract

10..0: Payment Schedule

This will be a lump sum contract with the payment schedule as follows:

Signing of Contact	10% of contact amount
Acceptance of report with Task 1	15% of contract amount
Acceptance of report with Tasks 2 & 3	55% of contract amount
Acceptance of final report with Tasks 4 5 and 6.	30% of contract amount

Selected Pilot Sites

Four sites have been identified based on primary analysis and stakeholder consultation at the project concept stage. The sites will be further reviewed during the project implementation stage based on (i) available scientific/technical information on the sites; (ii) benefits in conservations of species, genes and ecosystems; (iii) conservation of environmental services; (iv) potential economic benefits focusing on creation of new jobs and improved quality of life; (v) conservation and promotion of traditional knowledge compatible with conservation and sustainable use of biodiversity; and (vi) potential and interest of local communities and private sector participation.

Site 1: St. Vincent Southeast Landscape/Seascape: Milligan Cay, Brighton, Diamond and Stubbs beaches

The Southeast landscape/seascape includes Milligan Cay, Brighton, Diamond and Stubbs beaches that are located on the south-eastern shoreline along the windward coast of the island of St. Vincent. Together with the Kings Hill Reserve, they can be considered one the richest biological diverse corridors in St. Vincent and the Grenadines. The Landscape/Seascape is resident to one of the oldest forest reserve in the Western Hemisphere. The King's Hill Forest Reserve was declared a Wildlife Reserve under the Wildlife Protection Act, 1987 and is managed by the Forestry Department. The coastal forest reserve was once connected to the Brighton and Diamond Beaches. The reserve is now isolated by the windward highway and housing development in the Diamond community, losing its physical connectivity to the coast, but maintaining some of the ecological connectivity in terms of offering nesting and roosting sites for coastal bird species.

Milligan Cay

Milligan Cay is a Wildlife Reserve under the Wildlife Protection Act No. 16 of 1987. Critically endangered marine turtles recorded at Milligan Cay include: The Leatherback Sea Turtle *Dermochelys coriacea* and the Hawksbill Sea Turtle *Eretmochelys imbricata.* These species of turtles have international conservation status as per the IUCN Red List and are at extremely high risk of extinction in the wild. Turtles, in particular, require beaches of specific slope and grain size for laying of their eggs.

This island is important for a variety of birds, including water, sea and terrestrial species. The island is known to be a 'significant staging habitat' for migratory waterfowl like ducks, mallards, terns and others. The island provides important foraging, roosting and breeding habitat for a number of resident and migratory birds (including terrestrial, water and sea birds), and hosts a number of regionally important species at certain periods of the year. Changes in one zone within this corridor will affect the delicate balance between the biodiversity and associated habitats within the area.

Brighton and Diamond beaches

These beaches are located a few miles southwestwards from the Stubbs Bay and were once connected to the Kings Hill Forest Reserve, a coastal forest located on a sugarloaf hill in the community of Diamond that provides a vegetation corridor between the coast and the

associated beaches. Brighton Bay is also considered predominantly a nesting beach for leatherback and hawksbill turtles (UNEP, 1993). Diamond Bay is also a turtle nesting site and poaching has been reported on that beach (Per. Comm. Fisheries Division).

The principal driver of biodiversity and habitat loss in Brighton and Diamond is the removal of the dunes and coastal bluffs, followed by the direct impacts of the mining operations. As a result, sand dunes have been almost completely removed, and the shoreline has receded by nearly 50 meters in places. Erosion inland is currently threatening the stability of the forested woodland, the sanitary landfill, roads and residential properties. The process has resulted in the loss of coastal vegetation (including grasses, creeping succulents and coastal forests), which not only serve to stabilize coastal lands, but also provides a nesting place for resident and migratory sea birds, some of which may be endangered or of global significance. Mining operations also destroy the habitats of burrowing animals like crabs and nesting sites for critically endangered species of turtles such as the hawksbill, green and leatherback.

Stubbs beach

The sandy beach is cited as one of the nesting beaches on the windward coast for hawksbill and leatherback turtles (UNEP, 1993). However, there is no concrete data on the nesting incidences on the beach. The vegetation along the bay is classified as coastal shrubs and constitutes mainly *Coccoloaba uvifera* (sea grapes) and *Cocos nicifera* (coconut trees).

A recognizance dive in the area between the mouth of the Yambou River and the tiny rocky island at Agyle, about 2 kilometers to the north of Stubbs beach revealed the presence of reef structures. These were mainly individual colonies, well separated from each other (*Montastrea spec* and *Diploria spec*). Large individual sponges, growing on the bottom, were noticed also as well as crust-forming sponges. On flat bottom areas many soft corals and gorgonians were observed. Rocky outcrops and boulders were found down to approximately 12 meters depth, after which a sandy shelf area was found. Fish life is abundant, albeit small specimens of ornamental and food fish varieties. The following are fish genera and species have been aobserved: *Cephalopholis fulva, Chaetodon spp., Rypticus saponaceus, Holocentrus spec., Myripristis spec*., various wrasse varieties, *Rhinesomus triqueter, Diodon spec., Acanthurus spp., Acanthocybium spec., Haemulon flavolineatum, H. chysargyreum, H. surinamensis,Bodianus rufus, Balistes ssp.* and black margate. Adult spiny lobsters were also observed at various spots.

Fishing is widespread amongst community members living near to the Yambou River. Most community members fish opportunistically, but regularly. The catch is utilized for domestic consumption and, occasionally, to supplement incomes by selling a portion of the catch ‘commercially’ by the roadside or in local markets. Providing entrepreneurial strengthening for existing business and creating alternative likelihood opportunities for unemployed persons in the area can help reduce the illegal poaching of turtles on the beach.

There has been no reported significant damage to this site from the 2021 volcanic eruption.

Key Threats identified in Site 1

- Illegal poaching of turtle’s eggs and turtles reported as a major threat in all three (Stubbs, Brighton and Diamond) breaches

- Over extraction and illegal sand mining has resulted in removal of the beach vegetation causing beach recession and erosion destroying beach habitat at both Diamond and Brighton beaches
- Illegal sand mining putting extra pressure on turtle's habitat
- Landfilling for urban housing
- Inadequate Solid waste disposal

Initial Interventions considered during Site 1 selection

S. No.	Activity
1	**Reducing marine pollution.** Assess the sources of pollution at the Brighton and Diamond beaches and develop a solid waste management plan to protect marine resources (investment in pollution reduction to be undertaken with co-financing).
2	**Eco-engineering for shoreline protection.** Assess the feasibility of stabilization and mangrove and shore vegetation restoration (co-financing for investments).
3	**Zoning/mapping/planning.** Develop a landscape/seascape management plan including mapping and zoning, solid waste disposal, and protection of turtle nesting sites.
42	**Biodiversity monitoring and awareness program:** (a) Implement a scientifically designed participatory biodiversity monitoring of the beaches and (b) develop a turtle conservation, monitoring, and awareness program involving the schools and community groups
5	**Nature-based tourism:** (a) Promote green and nature-based tourism models in new tourism investments and (b) promote turtle conservation-based tourism activities as alternative to turtle poaching, as well as enhance community participation in conservation.
6	**Alternative livelihood support.** Strengthen small local enterprises and create alternative livelihoods opportunities for locals in the community (small-scale agriculture, fishing, and small enterprises based on block making, gastronomical, and other services).

Site 2: Grenadines Landscape: Union Island and Tobago Cays Marine Park /Mayreau

Union Island is one of the southern-most islands of SVG. It is in the southern Grenadines and is approximately 4.8 km long and 1.6 km wide and has around 2,500 residents living in two main villages: **Clifton** and **Ashton**. It has white sand beaches commonly associated with tourism, the main revenue earner on the island and the country. The island is also known for having the greatest range of environmental habitats in the archipelagic state. These include the largest mangroves in the Grenadines, seagrass beds rich in lobster and lambi, coral reefs of fringing, patch, and barrier reef types, and an offshore island (Frigate)

that was an important bird habitat (Price et al, 1994[1]). The site is important for congregatory seabirds and many Neotropical Migratory Birds (NMB) including six species that are Birds of Conservation Concern[2] (Brown Pelican, Peregrine Falcon, Wilson's Plover, Lesser Yellowlegs, Roseate Tern, Whimbrel), as well as six Lesser Antilles restricted range species such as the Sandpipers, Willets, Magnificent Frigatebird, Warblers, Caribbean Coot and Laughing Gull. Although small in size, Union Island has a diversity of species that are not only unique to Union Island and the Grenada Bank but also endemic to this arid wind-swept island. Surprisingly these resilient species survived the many multinational occupancy and agricultural changes over the decades.

Ashton lagoon

Located in this site is the Ashton lagoon that is protected within Union-Palm Island Marine Conservation Area under Schedule 11, Regulation 20, The Fisheries Act, 1986. This Marine Conservation Area covers an area of 1359.6 hectares and includes Frigate Island and Palm Island. The Marine Conservation Area supports four species of mangroves (*Avicennia germinans, Rhizophora mangle, Languncularia racemosa and Conocarpus erectus*) within a 61.78-acre (25-hectare) of mangrove forest. The Ashton Lagoon was also designated an Important Bird Area (IBA) by BirdLife International in 2008, due to its significance for more than 30 species of resident and migratory birds. The Belmont salt pond is also a particularly significant ecosystem that supports the 2nd largest mangrove forest in Union Island and home to many water birds found on the island. Recently a Flamingo was sighted in and around the pond. This salt pond also holds a mayor place in the cultural heritage, as well as the livelihoods of islanders.

Chatham Forest ecosystem

Located within this site is also the Chatham Forest ecosystem that is home to the only known population of the endemic *Gonatodes daudini*, a rare gecko confined to this 50-hectare patch of forest on Union Island. This single population comprises an estimated 9,960 individuals, including juveniles. The species are protected under the St. Vincent and the Grenadines Wildlife Protection Act of 1987. The gecko was also recently categorized a critical endangered species under the International Union for the Conservation of Nature (IUCN) in 2011. Other notable species occurring on Union Island include the 'pink rhino' iguana, the white snake (*Mastigodryas bruesi*) and regionally endemic Congo Snake (*Corallus grenadensis*). Other reptiles include the Grenadines Dwarf Gecko (*Sphaerodactylus kirbyi*), Earless Worm Lizard (*Bachia heteropa*), Smooth Worm Lizard (*Gymnophthalmus underwoodi*), Grenada Bank Skink (*Mabuya sp.*), Common House Gecko (*Hemidactylus mabouia*), Turnip-tailed Gecko (*Thecadactylus rapicauda*), Grenada Bank Anole/Tree Lizard (*Anolis aeneus*), Ground Lizard (*Ameiva ameiva*), Red-footed Tortoise (*Chelonoidis carbonaria*) and the Blind Snake (*Typhlops sp.)*

The Tobago Cays Marine Park

The Tobago Cays Marine Park comprises of four islets, made up of a 50 sq. km sand-

[1] (W. S. Price. & P. G. Price, 1994, A survey of the nearshore marine environment of Union Island, St. Vincent & the Grenadines, Union Island Association for Ecological Protection)

[2] The overall goal of the Birds of Conservation Concern (US Fish and Wildlife Services) is to accurately identify the migratory and non-migratory bird species (beyond those already designated as Federally threatened or endangered) that represent our highest **conservation** priorities.

bottomed lagoon, which encompasses a series of beaches surrounding the Cays of Petit Rameau, Petit Bateau, Jamesby, and Baradal, plus a fifth outlier—Petit Tabac. The Marine Park also includes the island of Mayreau. Due to its rich ecological value and significance to the fisheries of the Grenadines, the **T**obago Cays was designated a conservation area as part of the Fisheries Regulations of 1987. In 1998, the SVG **government formally adopted marine park regulations.** Today, the Tobago Cays Marine Park provides a home to a wide variety of animals and plants that thrive on the Cays and in the protected waters of the marine park. The systems of coral reefs found in the TCMP contain many of the species native to this part of the Caribbean biogeographic region. Around the windward sides of Mayreau, Union Island and the Cays exists the most extensive and well-developed coral reef complexes in St Vincent and the Grenadines. The Grenadines contain the most extensive coral reef system in the Eastern Caribbean, with each island supporting fringing, patch, or barrier reefs, and a variety of ecologically important seagrass and mangrove habitats. The TCMP protects the two largest of these reefs, Horseshoe Reef and World's End Reef. (Mahon et al. 2004; DeGraff and Baldwin 2013). Mayreau is also reputed for an extensive coral reef formation on its western coast named the Mayreau Gardens. In addition to its coral reefs, TCMP also features small systems of mangroves, a salt pond in Mayreau, and sea grass beds. Sea turtles, conchs, lobsters, and iguanas all take refuge in the protected area. The decision to include the entire neighboring, fisheries-dependent island of Mayreau in this protected area, however, continues to provoke controversy in the community (Hoggarth 2007).

The island especially Big sands area is becoming very heavily eroded. There are needs for additional studies on longshore drift and wave action so that appropriate interventions can be planned. Tobago Cays Marine Park (TCMP) is made up of a 50 sq. km sand-bottomed lagoon that encompasses a series of beaches surrounding the uninhabited islands of the Cays. Around the windward sides of Mayreau, Union Island and the Cays exists the most extensive and well-developed coral reef complexes in SVG. The systems of coral reefs found in the TCMP contain many of the species native to this part of the Caribbean biogeographic region. Sea turtles, conchs, lobsters, and iguanas all take refuge in the protected area. However, coral cover has decreased in recent years. Conservation of remaining coral reefs could support larger fish populations.

Palm Island

East and southeast of Union Island stand the small private resort of Palm Island. Palm Island was designated a Wildlife Reserve under the Wildlife Protection Act (1987). Though species information is not readily accessible, there is a population of the 'pink rhino' iguana on Palm Island and also neighboring Petit St. Vincent.

Overall, the Grenadines landscape/seascape has not be affected by the 2021 volcanic eruption, with the exception of light ashfall.

Key threats identified in Site 2:

- Destruction of critical habitats for birds, fish and other marine organisms and opportunities for nature based tourism and improved livelihoods
- Illegal trade in wildlife, particularly the geckos
- Potential impacts from uncontrolled and unmanaged tourism
- Sewage pollution from yachts

Initial Interventions considered during Site 2 selection

S. No.	Activity
1	**Alternative livelihood support.** Mainly focusing on sea moss cultivation. Others that could be considered are aquaponics and sustainable ecological home gardens—vegetable gardens and so on
2	**Zoning/mapping/planning:** (a) Mapping and landscape/seascape planning and zoning for conservation, nature-based tourism, salt mining, fishing, and so on and (b) sustainable master plan for Ashton lagoon to address engineering aspects, mangrove and coral rehabilitation, fishing, nature-based tourism, and navigation
3	**Nature-based tourism.** Nature-based tourism promotion based on environmentally friendly guidelines for hotels, boating, recreational activities, mooring, and so on
4	**Biodiversity monitoring and awareness program.** Biodiversity monitoring, including geckos
5	**Reducing marine pollution**
6	**Eco-engineering for shoreline protection:** (a) Complete breakwater revetment at Ashton lagoon (with co-financing); (b) swale and mangrove peninsula construction to improve mangrove flushing (co-financing); and (c) water circulation gaps opened in marine pier structure to improve circulation in lagoon (potential co-financing)

Site 3: Leeward Coast: Richmond Beach, Chateaubelair Bay, Petit Bordel Bay and Troumaca Bay

Leeward Coast is a narrow shelf with a steep slope. Within the shallow areas nearshore, there are boulders from land covered with small corals, the endangered Elkhorn, high Diadema. Along the slope lies fringing reef, high coral cover, and complex structure, with high diversity of corals, sponges, octocorals and fish in 10-30 meters (TNC, 2016). It si reported that there are healthy brain corals and hard corals along the coast. The beaches on the Leeward coast are characterized by black volcanic sand and are devoid of much sand-dwelling fauna except for the ghost crab (*Ocypode*) and the fiddler crab (*Uca*) just above the swash zone. One type of attached marine alga (*Caulerpa*) is found on intertidal rocks at either end of the beach. The fauna found on these rocks included chitons, limpets, sea anemones and small gastropods (Smith Warner International, 2014).

Richmond Beach, Chateaubelair Bay, Petit Bordel Bay and Troumaca Bay are considered predominantly hawksbill nesting beaches, (UNEP – CEP, 1993). It is also noted that green turtle and leatherback turtle also nest on these beaches as well (Smith Warner International, 2014).

Chateaubelair Islet was declared a Wildlife Reserve under the Wildlife Protection Act (1987). Situated about 100 meters from Chateaubelair, the islet is a sanctuary for roosting and nesting local and migratory birds. Coral reefs also located in the vicinity of the Islet. Richmond Beach is a black sand beach stretching from the Richmond River in the south bordering the famous Cavali rock to the Walibou River in the north. The river creates an estuarine ecosystem that forms part of our few remaining wetlands in St. Vincent.

Richmond Beach is located to the north west of the island at the beginning of the North Leeward Highway 24 miles from Kingstown, one mile beyond the town of Chateaubelair, and the village of Fitz-Hughes which is on the outskirts of Chateaubelair (Caribbean Birding Trail, 2020)[3]. Richmond is used for recreation fishing and hand mining of aggregate. Other popular activity includes the catching of tri-tri, a tiny fish captured in schools as they swim up the Richmond River. This forms one of the folklores of the area and constitutes one of the local traditional livelihoods. A natural stand of West Indian Almond (*Terminalia catappa*) that is estimated to be over 100 years old stretches the expanse of the beach recently broken up by storms of 2010 and 2013. Among these trees many birds find refuge and numerous resident and migratory birds loiter and feed along the bay. According to Caribbean Birding Trail, it's a great spectacle to see the fish-eating bats feed in flocks at dusk as the Tri-tri leaves the sea and enters the river.

Fishing is a major activity in the area. Petit Bordel and Rose Bank are considered the main fishing villages in North Leeward. The main fishing activity is seining for jack fish and a few other pelagic fish, including barracuda, butterfish, parrotfish, and snapper among others.

The COVID 19 pandemic has seen a remarkable decline in international arrivals and severely impacted the tourism sector in the country. However, with this threat came opportunities to develop the local tourism sector. This precipitated a wave of local ecotourism enterprises and associated activities within the growing sector. Activities along the Western coast of the island flourished as locals explored the pristine waters of the coast through kayaking and snorkeling. This growing trend among young and upcoming entrepreneurs has sparked a movement, where adventurous Vincentians seized the opportunity to enjoy the ecosystem services this unspoiled landscape/seascape has to offer. Beaches along this coast are also popular hotspots for picnickers and beach enthusiast. Access to the leeward coast through water taxi has also become a popular trend, as persons take advantage of the beautiful sceneries the lush landscape provides along the journey. There is therefore potential to create alternative livelihoods opportunities for locals in ecotourism and agro-processing. This includes a mix of hiking, snorkeling and kayaking as well as camping, picnicking and bird watching. Connecting these activities to new and existing agricultural and gastronomical industries in the area will create a trickledown effect into the local economy.

Key threats identified in site 3

- Urban runoff, erosion and some pollution along the coastal area cause impacts on reefs.
- Garbage disposal is contributing to marine pollution along the bay due to indiscriminate disposal of solid waste.
- Pig farms along the river that inadequately dispose of their wastewater into the river which empties into the Bay
- Gravel mining using heavy machinery
- Tourist boom can cause environmental impacts if not properly planned and managed

[3] *https://www.caribbeanbirdingtrail.org/sites/st-vincent-and-the-grenadines/saint-vincent/richmond-beach/* (Accessed, December 2020)

- Over-fishing of pelagic and lobster
- Chemical farming cause marine pollution

Initial Interventions considered during Site 3 selection

S. No.	Activity
1	**Alternative livelihood support:** (a) Development of agro-processing facilities and (b) livelihood opportunities, including sea moss farming, SMART agriculture[4], fish storage, processing, and packaging
2	**Nature-based tourism.** Development of local and ecological adventure tourism based on hiking, whale and dolphin watching, diving, kayaking, bird watching, camping, and so on with emphasis on local community benefit
3	**Zoning/mapping/planning:** (a) Mapping and landscape/seascape planning and zoning of Richmond beach for conservation, location of nature-based tourism activities, mining, diving, snorkeling, and so on and (b) fish stock assessment and fisheries management plan, including installation (and training to prevent unsustainable fishing such as yellow tuna—there is evidence of immature yellow fin tuna at the fish market in Kingstown), and fish aggregation devices
4	**Eco-engineering for shoreline protection.** Coral and mangrove and coastal vegetation restoration (potential co-financing)
5	**Reducing marine pollution.** Promoting low-chemical farming
6	**Biodiversity monitoring and awareness program.** Participatory turtle conservation, monitoring, and awareness program that includes fish (like the parrot fish, corals, birds, insects, and other species around the Richmond Wetland and Coastal Conservation Initiative)

The Leeward Coast has been the most affected by the volcanic eruption, as it lies within the red zone, only miles from the crater. Ash of several inches thickness was deposited along the coast. This resulted in damage to the *Terminalia Catappa* (West Indian Almond) stand, causing the branches to break under the weight of the ash. This is the oldest natural West Indian Almond Forest in St. Vincent (approximately 100 years old) and forms a natural buffer against coastal erosion on the western coast. The forest also suffered previous damages by storms in 2010 and 2013. Other species such as White Cedar and *Samanea saman* were also affected.

The riverbed at Walibou River, which marks the most western boundary of the site, was severely affected by pyroclastic and lahar flows that changed the course and dynamics of the river. Thick deposit of ash, trees, rocks, and volcanic materials covered the entire riverbed and a large canyon like formation of about 30 feet high was deposited on the riverbed, changing not only the course of the river but also the depth of the river channel itself. It is anticipated that the Richmond pilot will need significant resources due of the

[4] It is an approach that helps guide actions to transform agri-food systems towards green and climate resilient practices

impact of the volcanic eruption. Therefore, support for restoration/rehabilitation will be needed such as:

- Enrichment planning of West Indian Almond should be conducted to ensure succession, as the older trees die back.
- A community livelihoods assessment should be conducted to understand the challenges and opportunities related to shifting away from gravel mining at the site or to identify ways of zoning to enable the site to be used for multiple activities, including controlled mining in some areas.
- Under GEF-6, the Leeward Coast Marine Managed Area will be mapped and legally designated. Therefore, there may be some overlap. However, site-specific management plans would need to be developed for Richmond and marine management plans for the areas between Troumaca and Richmond.

Site 4: Colonaire Beach

Colonaire Beach is about a mile long and is considered an important turtle-nesting site on the island of St. Vincent. The beach extends from Colonaire, up to Gorse and ends at Byrea Village. According to the Sea Turtle Recovery Action Plan for St. Vincent and the Grenadines, prepared in 1993, Leatherback **(***Dermochelys coriacea*), Hawksbill (*Eretmochelys imbricate*) nesting is reported on Colonaire Beach with the former being the predominant species (UNEP – CEP, 1993)[5]. While these species are protected by law, many of these nesting beaches do not enjoy the same level of legal protection. Although beaches are connected to marine conservation areas, there are minimal stipulations for their protection. Except for those covered under the Beach Protection Act of 1981, (which focuses on regulating sand mining), most beaches are exploited for sand and gravel unregulated. As a result, many turtle nesting beaches like Colonaire have been impacted significantly from illegal and unregulated sand mining activities for construction. This coupled with the aggressive wave environment on the north-eastern coast have resulted in acute erosion along the coastal fringe of Colonaire and Gorse respectively. Coral Reefs are located at Colonaire, but the form and health of the reefs are unknown.

Ecologically associated with the Colonaire beach is the Colonaire Forest Reserve that encompasses the mid and upper reaches of the Colonaire watershed. The Colonaire River is the longest watercourse on St. Vincent and its watershed; the second largest on the island has a drainage area of about 8.8 sq. miles (22.7 km^2). Within the upper parts (over 305 m) of the Reserve, slopes cut deeply into ash agglomerates, and basaltic bedrock creating an area of irregular, complex and steeply sloping landform units (Reid, Collins and Associates, 1994). The steepness of the terrain also causes high rates of erosion and landslide hazards. Much of the area is still covered with Primary Forest but encroachment is a major concern (Birdlife International 2020[6]). The Reserve is a traditional stronghold for the St. Vincent Parrot, which numbered 142 individuals in 2004 (Forestry Department, 2004). The site supports other Globally-threatened species, the Whistling Warbler, and

[5] Sea Turtle Recovery Action Plan - Caribbean Environmental Program Technical N0.27

[6] BirdLife International (2020) Important Bird Areas factsheet: Colonaire Forest Reserve. Downloaded from *http://www.birdlife.org* on 29/10/2020

thirteen (13) RRS. Other important species include the House Wren, Short-tailed Swift, Scaly-naped Pigeon, Caribbean Elaenia and Black Hawk. Non-bird biodiversity: Endemic herpetofauna *A. griseus, C. vincenti, A. griseus* and *A. trinitatus;* endemic sub-species *M. bruesi* and endemic flora *A. vincentiana, B. rotundifolia, P. cuneata, P. vincentiana, E. vincentinum, C. vincentiana* and *C. tenera* (Birdlife International 2020).

Colonaire beach is prone to high levels of erosion. With the impacts of climate change, sea level rise and storm surges have affected beaches along the northeastern coast of St. Vincent. For example, a small community called Friendly located just north and south of the mouth of the Colonaire River has been affected by destructive wave action associated with storm surge. In addition, many turtle nesting beaches like Colonaire have been impacted significantly from illegal and unregulated sand mining activities for construction. Although there is a complete band on turtles harvesting in St. Vincent and the Grenadines, both Leatherback **(***Dermochelys coriacea*), Hawksbill (*Eretmochelys imbricate*) turtles are hunted for their meat and eggs on this beach. These are adding to the already existing treats they face in the marine environment. The greatest of these threats worldwide are incidental capture in fishing gear. Well targeted interventions on the Colonaire Beach can help to reduce the incidences of poaching and encourage alternative livelihoods opportunities for locals in Colonaire.

One of the main focuses of the project is to the designation of the area as a turtle sanctuary/protected area with both terrestrial and marine components. Mapping and surveying will need to be conducted as well as relevant legal and institutional arrangements to ensure operationalization and financial sustainability.

No Environmental Fund, are being provided for turtle conservation and associated livelihood in Colonaire beach damage was done to the Colonaire beach following the volcanic eruption, except being covered by light ash. Small grants, including funding from the St. Vincent and the Grenadines

Key threats identified in Site 4

- Unregulated sand mining
- Turtle poaching and destruction of turtle nesting
- Loss of beach vegetation
- Beach erosion due to wave actions
- Pollution and waste disposal

Initial Interventions considered during Site 4 selection

S. No.	Activity
1	**Zoning/mapping/planning:** (a) Mapping and landscape/seascape planning and zoning for conservation, mining, recreation, and so on and (b) declaration of turtle sanctuary
2	**Biodiversity monitoring and awareness program.** Participatory turtle conservation, monitoring, and awareness program
3	**Nature-based tourism.** Tourism based on turtle conservation

S. No.	Activity
4	**Alternative livelihood support.** Promoting alternative livelihood activities (local crafts, small-scale agriculture, and so on) to reduce turtle poaching and other unsustainable activities
5	**Reducing marine pollution.** Garbage collection and management program and reduction of chemical farming
6	**Eco-engineering for shoreline protection:** (a) Assessment and introduction of ecosystem engineering approach for beach erosion control (physical investments supported through co-financing) and (b) vegetation shoreline stabilization (potential co-financing)

Procedures/Practices for management of sub-grants by NGOs (considered during project preparation. This will be tested and further elaborated in form brief manual)

- The Consultancy for design of participatory management plans for the four-target coastal and marine sites that will result in the site-specific management plans for each target site will form the basis for award of small-grants for their three-year implementation. The above consultancy will also result in identification of mechanisms for implementation of sub-grants, identification and evaluation of suitable NGO(s) for implementation of sub-grants and the technical support and training needs to ensure effectiveness of the sub-grants

- Based on the above-mentioned identification of NGO(s) the SDU will consult, evaluate and contract NGOs (referred to as 'Recipient') for implementation of sub-grants in each of the 4 target sites for a 3-year time period. Based on the number of NGOs identified in the design consultancy mentioned previously, it is possible that a single NGO may be contracted for one or more sites

- The NGO Agreement will list the key technical staff and qualification required to be provided by the Recipient and may likely include a Project Coordinator (preferable combined with a particular technical expertise), community participatory specialist, and other relevant expertise that would be specific to a site(s) as and when required. The NGO Agreement will list the specific tasks to be performed (e.g., implementation of capacity building and training, sustainable of adaptive community marine and coastal initiatives as described in the relevant target site management plan(s) and sub-grant governance, monitoring and evaluation and reporting procedures)

- SDU will ensure that they provide oversight and strategic guidance to the Recipient on management of sub-grant activities

- The activities (coastal and marine actions) that will be supported through the sub-grant will be determined in accordance with eligibility criteria and procedures to be outlined by SDU, and specifically shall include the following: (a) activities will be undertaken by a Community, an individual member of a Community, or a community-based organization; and (ii) that the Community (or community-based organization) agrees to implement activities in accordance with sound environmental and social principles and take appropriate and agreed measures to ensure that the use of the natural resources (whether for individual or commercial benefit) are within agreed sustainable limits.

- Selection of a community-based organization or community group, will ensure that such an organization: (i) is recognized and operating as a community group within the local community for a period of at least two (2) years; (ii) has carried out some

or all of its operations in a local community in the Select target site; (iii) is recognized by the local community in the Select target site in which it has operated; and (iv) has the organization, management, technical capacity, and financial resources necessary to carry out a proposed activities

- The SDU shall approve the community (or community-based organization) recommended by the Recipient to receive financing for a related Activities

- The Recipient will oversee and ensure that all requirements related to social and environmental safeguards has been fulfilled and notwithstanding these provision, the following types of activities should not be financed, namely: (i) activities relating to the purchase of land;(ii) activities carried out in relation to the adjudication of lands (and seascapes) under dispute; (iii) activities adversely affecting local communities, or where communities have not provided their broad support to such activities; (iv) activities involving the removal or alteration of any physical cultural property (includes sites having archeological, paleontological, historical, religious, or unique natural values); (v) activities involving conversion, destruction or degradation of natural habitats (coral reefs, seagrass beds, mangrove forests, etc.) or other alteration of natural habitats that would cause a loss of biodiversity or provision of ecosystem services; and (vi) activities within national parks or protected areas and in accordance with laws pertaining to SVG.

- The Recipient will provide the resources and technical support required for the carrying out of activities, including procurement of goods, works and services required
- The Recipient will develop procedures adequate to enable it to monitor and evaluate the progress of the activities and the achievement of its objectives;

- The Recipient will maintain a financial management system and prepare financial statements in accordance with consistently applied accounting standards acceptable to the SDU. The Recipient will be reimbursed on a quarterly basis following submission of financial reports approved by SDU

- The Recipient shall prepare and furnish to SDU for its approval, before the start of the new fiscal year, a proposed Annual Work Plan and Budget containing all activities proposed to be carried out under the Project in the following calendar year. The Annual Work Plan and Budget shall include details of activities to be carried out, including training activities that may be required such as the: (a) the type and scope of training; (b) the method of training; (c) the purpose of the training; (d) the personnel to be trained; (e) the institution or individual who will conduct the training; (f) the location and duration of the training; and (g) the cost of the training. SDU may permit, on the basis of valid reason the amendment of the Annual Work Plan and Budget to include new activities.

- Following award of the sub-Grant, the Recipient will undertake the training based on the training plan developed by the Design Consultants that prepared the target

site management plans. The training will cover communities and local stakeholders for implementation of plan activities, including livelihood and small-scale enterprises, training for key sector agencies (if deemed necessary) and list of potential institutions in the country that can provide such training. The training may likely include the following: (a) initial assessment to determine the baseline knowledge of local communities in the select target site to determine their understanding of sustainable coastal and marine resource use to determine training and awareness needs; (b) workshops and capacity building activities to improve the capacity of Communities to understand sustainable resource use principles and impacts of climate change, livelihoods and related interventions; (c) basic training to demonstrate the links between livelihoods and sustainable resource use; (d) extension service providers (including in key sector agencies) to improve their ability to incorporate relevant knowledge into their activities and equip them to be more effective trainers of Communities; (e) training to key community leaders to improve their ability to support communities to combat illegal sand and coral mining, illegal fisheries and tourism activities and other related activities identified through the initial management planning exercise undertaken by the prior technical assessments; and (f) training to selected members of Communities on local actions related to improving coastal and marine conservation, sustainable resource use and livelihoods (fisheries, tourism, artisanal activities, etc.) and climate actions.

- Following training, the Recipient will support selected communities or community organizations to carrying out the following activities, providing technical support, namely (a) promoting community-based sustainable fisheries and fisheries related value chains, nature-based tourism, alternative livelihoods (small-scale coastal agriculture, small scale livelihood enterprises, waste and pollution management, sustainable sea moss farming, local craftmanship, service facilities, etc.), small-scale coastal eco-engineering works, mangrove and sea grass regeneration, climate change initiatives, etc.; and (b) identify appropriate service providers, enterprise/business partners and marketing channels to build linkages between the community producers/beneficiaries and market access.

- In concurrence with the training and community-based activities, the Recipient will support the strengthening of the community institutional/governance arrangements for sustaining the coastal and marine activities at the target site level.

- The Recipient will help communities to establish a monitoring framework and indicators to assess environmental, social and livelihood impacts of interventions at target site level; and strengthen community capacity for impact monitoring and evaluation, progress, trouble-shooting problems and reporting of results related to coastal and marine conservation, sustainable resource use, livelihood improvement and threat reduction;

- The Recipient will help communities and community organizations to develop partnerships and mobilizing funds for support community-based marine and coastal investments.

- The Recipient will report regularly (quarterly) regarding community initiatives, effectiveness, and impacts

- The Recipient will prepare Completion Report within three (3) months after the Closing Date that will provide information on the activities, impacts, sustainability and replication and lessons learned

Annex-3: Results Framework (RF)

COUNTRY: St. Vincent and the Grenadines
Coastal and Marine Ecosystems Management Strengthening Project

Project Development Objectives(s)

To strengthen the management of coastal and marine ecosystems of St. Vincent and the Grenadines.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Strengthen the management of coastal and marine ecosystems in Saint Vincent and the Grenadines							
Area of coastal and marine habitat under improved practices (excluding protected areas) to benefit biodiversity as a result of the Project (Hectare(Ha))		0.00	0.00	500.00	2,400.00	5,100.00	8,102.00
Area of marine habitat under improved practices (excluding protected		0.00	0.00	350.00	1,650.00	4,200.00	6,965.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
areas) to benefit biodiversity as a result of the Project (Hectare(Ha))							
National Environmental Data and Information Platform (NEDIP) operational. (Yes/No)		No	No	Yes	Yes	Yes	Yes
Direct beneficiaries of the Project (reports will be disaggregated by gender). (Number)		0.00	250.00	700.00	1,200.00	1,550.00	1,730.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
1: Institutionalization of Coastal and Marine Ecosystem Management Program							
Policy, legal and strategic instruments developed to promote		0.00	0.00	1.00	3.00	4.00	6.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
improved governance of the coastal and marine ecosystem management as a result of the Project. (Number)							
NOCC Operations Guidance Manual finalized (Yes/No)		No	No	Yes	Yes	Yes	Yes
Number of beneficiaries of trainings on coastal and marine management as a result of the Project (reports will be disaggregated by gender). (Number)		0.00	30.00	90.00	250.00	320.00	380.00
Beneficiaries that received training on gender inclusion in coastal and marine management (reports will be disaggregated by gender) (Number)		0.00	30.00	90.00	250.00	320.00	380.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Long-term investment and revenue-generation strategy and plan for financing coastal and marine ecosystem management published. (Yes/No)		No	No	No	Yes	Yes	Yes
2: Applying a participatory approach to effectively plan, manage, finance and monitor compliance							
Pilot site plans, developed through a participatory process, approved by the Project (Number)		0.00	2.00	4.00	4.00	4.00	4.00
Pilot site plans executed as a result of the Project (Number)		0.00	0.00	2.00	4.00	4.00	4.00
Direct beneficiaries of pilot site activities (reports will be disaggregated by gender) (Number)		0.00	160.00	400.00	750.00	1,050.00	1,350.00
Beneficiaries that received training on gender inclusion in pilot sites (reports		0.00	110.00	300.00	600.00	925.00	1,175.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
will be disaggregated by gender) (Number)							
3: Knowledge and data management, gender mainstreaming, monitoring and evaluation, documentation							
Standardized information collection parameters and operational manual for NEDIP approved (Yes/No)		No	No	Yes	Yes	Yes	Yes
Unique visitors to the NEDIP (Number)		0.00	0.00	150.00	700.00	2,200.00	5,000.00
Communications and Knowledge Management Plan for coastal and marine management finalized and updated annually (Yes/No)		No	Yes	Yes	Yes	Yes	Yes
Stakeholders who report that information from the Project has contributed to their understanding of coastal and marine		0.00	0.00	100.00	100.00	100.00	100.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
management (Percentage)							
4: Project coordination and management							
Actions proposed by beneficiaries during consultation and/or stakeholder engagement events that have been incorporated into Project implementation (Number)		0.00	1.00	3.00	5.00	7.00	10.00
Carbon sequestered or emissions avoided in the AFOLU sector (Tones/year)		55,000.00			55,000.00		55,000.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Dat Collection**
Area of coastal and marine habitat under improved practices (excluding protected areas) to benefit biodiversity as a result of the Project (Ha)	Area will include coastal and marine areas included in pilot activities under Component 2. Improved practices will be identified in pilot site plans that will be developed following good practices for coastal and marine management plans, including, the process for developing pilot plans through a participatory approach, the process to identify and analyze existing natural resource management practices and gaps including related to biodiversity, and parameters for activities to address such challenges and gaps.	Annual	Pilot site reports; site visits	The expected area to be conserved, restored, and/or sustainably managed will be included in pilot plans and evidence of the actual implementation in these areas will be provided in biannual reports they provide to SDU on the status of implementation of agreed activities. Site visits will validate this information for all sub-Projects, including through stakeholder interviews and site visits by the World Bank.	PIU/SDU

Area of marine habitat under improved practices (excluding protected areas) to benefit biodiversity as a result of the Project	This sub-indicator will disaggregate the marine area that is conserved, restored, and/or under sustainable management and monitored through indicator 2. The same definitions/methodology will be used for this indicator. Corresponds to GEF Core Indicator 5.	Annual	Pilot site reports; site visits	This sub-indicator will disaggregate the marine area that is conserved, restored, and/or under sustainable management and monitored through indicator 2. The same definitions/methodology will be used for this indicator.	PIU/SDU
National Environmental Data and Information Platform (NEDIP) operational.	The NEDIP is defined as a database/monitoring system of key indicators related to environmental sustainability, first focused on coastal and marine data. The NEDIP will consolidate existing information from relevant administrative functions/processes, analyses, Projects, cartography, and reports. The NEDIP will be considered 'operational' when it is publicly accessible. The NEDIP	Annual	Operational guidance; online platform; output reports	The NEDIP must be available publicly (online) and functional. Output reports from the NEDIP should be provided to provide evidence of its functionality.	PIU/SDU/ITSD

	will be improved over and past the lifetime of the Project and a basic version will be available first. Assumptions: - Support provided in year 1 on data management and in year 2 on hardware. A basic version should be available in year 2.				
Direct beneficiaries of the Project (reports will be disaggregated by gender).	This indicator will aggregate the beneficiaries monitored in indicators 6, 10, and 13, including their sub-indicators. Methodologies and definitions are consistent with those for indicators 6, 10, and 13. Number of people will be disaggregated by gender when reported. Corresponds to GEF Core Indicator 11. Results will	Annual	Specified in indicators 6, 10, and 13	Specified in indicators 6, 10, and 13	PIU/SDU

	not be double counted when reporting to GEF.				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Policy, legal and strategic instruments developed to promote improved governance of the coastal and marine ecosystem management as a result of the Project.	Component 1 will support the development, revision, or update of policies, strategies, regulations, and maps for coastal and marine ecosystems. These actions include those referenced in the National Oceans Policy and Strategic Action Plan. The following are examples of policies, strategies, regulations, and maps that would be included in this indicator: - Comprehensive policy and institutional analysis - National Ocean Status Report	Annual	Policies, regulations, strategies, reports, analyses	Expected policy, regulation, and strategy instruments will include relevant outputs from the consultancy under Component 1. They will also include actions specified in the National Oceans Policy and Strategic Action Plan, potentially including some of the examples identified in the indicator definition. Instruments will be considered developed once a draft has been approved by the NOCC. Ideally, they	PIU/SDU

	- National Integrated Coastal Zone Management Policy - National Maritime Transport Policy - Blue Economy Action Plan - Beach management and safety strategy for SVG Assumptions: - 1 action is an output from the consultancy under Component 1 - 1 action possible from NOPSAP in years 2 and 3 - 2 actions possible from NOPSAP in years 4 and 5			will also be approved by Cabinet.	
NOCC Operations Guidance Manual finalized	An Operations Guidance Manual will be developed for the NOCC defining roles and responsibilities, reporting and coordination lines, and administrative functions and requirements.	Annual	NOCC Operations Guidance Manual	The NOCC Operations Guidance Manual will be approved by Cabinet and made publicly available.	PIU/SDU

	Assumption: Consultancy in Component 1 will draft in year 1 of Project and approval and publication will take place in year 2.				
Number of beneficiaries of trainings on coastal and marine management as a result of the Project (reports will be disaggregated by gender).	People trained on coastal and marine management under Component 1. Trainings will include issues related to biodiversity conservation, integrated management, and financial sustainability, amongst others. Number of people will be disaggregated by gender when reported. Corresponds to GEF Core Indicator 10. Results will not be double counted when reporting to GEF. Assumptions: - 5 total trainings, with participation of 30 people (2X the number of representatives on the NOCC)	Annual	Training plans; attend ance documents	Attendance for training events will be disaggregated by gender and formally documented.	PIU/SDU

	- 1 training in year 1 - 2 trainings in year 2 - 2 trainings in year 3				
Beneficiaries that received training on gender inclusion in coastal and marine management (reports will be disaggregated by gender)	This indicator is a subset of the people trained under indicator 6. This indicator will disaggregate the number of people that receive training on gender inclusion in coastal and marine management. Number of people will be disaggregated by gender when reported. Corresponds to GEF Core Indicator 9. Results will not be double counted when reporting to GEF. Assumption is that each training will incorporate gender considerations.	Annual	Training plans; attend ance documents	Attendance for training events will be disaggregated by gender and formally documented.	PIU/SDU
Long-term investment and revenue-generation strategy and plan for	The long-term investment and revenue-generation strategy and plan for	Annual	Investment strategy and	The expected details of the investment strategy and financing	PIU/SDU

financing coastal and marine ecosystem management published.	financing coastal and marine ecosystem management will be developed under Component 1. This strategy and plan will be published on a GoSVG website. Assumption is consultancy will complete this in year 2 and it will be published.		financing plan	plan will be specified in the TOR of the consultancy under Component 1. As part of the contract for the consultancy, including the inception report for their work, will specify the format and timing of this output. The strategy/plan will be published on a GoSVG website.	
Pilot site plans, developed through a participatory process, approved by the Project	Pilot sites will be identified under Component 2. A plan will be developed for each site based on analysis of the current state of coastal and marine management at each site. Plans will be reviewed by relevant stakeholders and approved by the NOCC or the Project Steering Committee prior to implementation of site activities.	Annual	Pilot site plans	Approval of pilot site plans will be formalized and documented as approved by the NOCC/Project Steering Committee, following review/consultation with relevant stakeholders.	PIU/SDC

	Assumption is due to capacity, 2 would be done in year 1 and the final 2 would be in year 2.				
Pilot site plans executed as a result of the Project	Completion of pilot site plans approved under Component 2, referenced in indicator 8. Assumption is each pilot is implemented for 3-4 years after approval of the plan.	Annual	Pilot site reports	Pilot sites will provide biannual reports on the implementation of their plans. The final biannual pilot site report will be a completion report. Site visits will validate this information for all pilot sites, including through stakeholder interviews and World Bank site visits.	PIU/SDU
Direct beneficiaries of pilot site activities (reports will be disaggregated by gender)	This indicator will aggregate the following beneficiaries: - People trained on coastal and marine management specific to the pilot sites. Trainings will include issues related to biodiversity conservation, integrated management, and	Annual	Pilot site reports; training plans; attend ance documents	Pilot sites will provide biannual reports on the implementation of their plans, including direct beneficiaries disaggregated by gender. The final biannual pilot site report will be a completion report.	PIU/SDU

	financial sustainability, amongst others. - Direct beneficiaries of pilot site plans, including those engaged in implementing investments and receiving technical assistance or benefiting from capacity building efforts. The number of expected beneficiaries will be included in pilot site plans and evidence of the actual beneficiaries will be provided in the biannual reports they provide to SDU on the status of implementation of agreed activities. Site visits will validate this information for all sub-Projects through stakeholder interviews. Number of people will be disaggregated by gender when reported. Corresponds to GEF Core Indicator 9. Results will			Site visits will validate this information for all pilot sites, inluding through stakeholder interviews and World Bank site visits. Attendance for training events will be disaggregated by gender and formally documented.	

	not be double counted when reporting to GEF.				
Beneficiaries that received training on gender inclusion in pilot sites (reports will be disaggregated by gender)	This indicator is a subset of the people trained under indicator 10. This indicator will disaggregate the number of people that receive training on gender inclusion in coastal and marine management. Number of people will be disaggregated by gender when reported. Corresponds to GEF Core Indicator 9. Results will not be double counted when reporting to GEF.	Annual	Training plans; attend ance documents	Attendance for training events will be disaggregated by gender and formally documented.	PIU/SDU
Standardized information collection parameters and operational manual for NEDIP approved	An Operational Manual, including standardized information collection parameters, will be developed for the NEDIP defining roles and responsibilities, information sources, reporting and coordination lines, and administrative	Annual	NEDIP Operational Manual	The NEDIP Operations Guidance Manual will be approved by the Project Steering Committee and made publicly available.	PIU/SDU/ITSD

	functions and requirements. Assumption: Consultancy in Component 3 will draft in year 1 of Project and approval and publication will take place in year 2.				
Unique visitors to the NEDIP	Unique visitors include individuals that visit the website hosting the NEDIP.	Annual	Website metrics	Website metrics will provide the number of unique visitors to the website hosting the NEDIP.	PIU/SDU/ITSD
Communications and Knowledge Management Plan for coastal and marine management finalized and updated annually	Stakeholders are defined as people who interface with the Project and who are working in sectors related to coastal and marine management or live in or utilize/benefit from resources in coastal and marine areas. Stakeholder engagement and surveys will be conducted regularly throughout the Project. As part of this engagement, stakeholders will be asked whether their understanding of coastal	Annual	Surveys	Surveys will be conducted following trainings and pilot site engagements. Also, users of the NEDIP will be surveyed. Survey questions will be developed in consultation with the monitoring and evaluation specialist for the Project to ensure efficacy.	PIU/SDU/ITSD

	and marine management has improved as a result of trainings, communications, and implementation of the NEDIP related to this Project. Assumption: Priority for the Communications and Knowledge Management specialist and will be completed and approved annually.				
Stakeholders who report that information from the Project has contributed to their understanding of coastal and marine management	Stakeholders are defined as people who interface with the Project and who are working in sectors related to coastal and marine management or live in or utilize/benefit from resources in coastal and marine areas. Stakeholder engagement and surveys will be conducted regularly throughout the Project. As part of this engagement, stakeholders will be asked whether their understanding of coastal	Annual	Surveys	Surveys will be conducted following trainings and pilot site engagements. Also, users of the NEDIP will be surveyed. Survey questions will be developed in consultation with the monitoring and evaluation specialist for the Project to ensure efficacy.	PIU/SDU

	and marine management has improved as a result of trainings, communications, and implementation of the NEDIP related to this Project. Assumption: Post-workshop and event surveys would request input from stakeholders on this issue. Assumption is all would see improvement in their understanding of coastal and marine management.				
Actions proposed by beneficiaries during consultation and/or stakeholder engagement events that have been incorporated into Project implementation	Feedback from beneficiaries will be received through processes described in the Project's Stakeholder Engagement Plan. Actions may be proposed and documented through these processes. Incorporation of actions must be formally documented.	Annual	Consultation reports; meeting minutes; Project progress reports	Consultation reports or meeting minutes must be made public and must note how the proposed action has been incorporated in the Project and how it has or will be implemented. This can also be documented in regular progress reports on the Project	PIU/SDU

				submitted to the World Bank.	
Carbon sequestered or emissions avoided in the AFOLU sector	Carbon sequestered or emissions avoided in the AFOLU sector will be reported in tCO2e using the EX-ACT Tool, according to GEF requirements. Assumption: - According to the GHG analysis for the Project at Appraisal stage, the total tCO2e expected to be sequestered or avoided totals 1.1 million tCO2e expected after 20 years. - An "immediate (I)" loss basis for resource base degradation is assumed: inputs will be based on intact areas of the three coastal ecosystems nationally, the landings reported for the national fishery, and actual incremental energy	Mid-term and Final (years 3 and 5)	EX-ACT Tool Outputs	At mid-term and end of the Project, the EX-ACT Tool will be used to update the GHG analysis and analyze the emissions avoided or reduced due to the Project's interventions.	PIU/SDU

	use in compliance and monitoring activities. Corresponds to GEF Core Indicator 6.1.				