



## **Enhancing Land Management and Strengthening Ecosystem Resilience for Integrated Landscape Restoration and Climate-Resilient Food Systems in Carriacou, Grenada**

### **Part I: Project Information**

#### **GEF ID**

10980

#### **Project Type**

MSP

#### **Type of Trust Fund**

GET

#### **CBIT/NGI**

**CBIT No**

**NGI No**

#### **Project Title**

Enhancing Land Management and Strengthening Ecosystem Resilience for Integrated Landscape Restoration and Climate-Resilient Food Systems in Carriacou, Grenada

#### **Countries**

Grenada

#### **Agency(ies)**

UNEP

#### **Other Executing Partner(s)**

Partnership Initiative for Sustainable Land Management (PISLM) in Caribbean Small Island Developing States (CSIDS)

#### **Executing Partner Type**

Others

#### **GEF Focal Area**

Land Degradation

#### **Taxonomy**

Focal Areas, Land Degradation, Sustainable Land Management, Sustainable Agriculture, Drought Mitigation, Sustainable Livelihoods, Restoration and Rehabilitation of Degraded Lands, Community-Based Natural Resource Management, Income Generating Activities, Integrated and Cross-sectoral approach, Improved Soil and Water Management Techniques, Ecosystem Approach, Land Degradation Neutrality, Land Cover and

Land cover change, Land Productivity, Carbon stocks above or below ground, Climate Change, Climate Change Adaptation, Climate resilience, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Influencing models, Demonstrate innovative approach, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Stakeholders, Local Communities, Type of Engagement, Partnership, Consultation, Participation, Information Dissemination, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Communications, Behavior change, Awareness Raising, Public Campaigns, Education, Private Sector, Individuals/Entrepreneurs, Beneficiaries, Gender Equality, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Knowledge Exchange, Knowledge Generation, Learning, Innovation

**Sector**

**Rio Markers**

**Climate Change Mitigation**

Climate Change Mitigation 1

**Climate Change Adaptation**

Climate Change Adaptation 1

**Duration**

36 In Months

**Agency Fee(\$)**

82,008.00

**Submission Date**

5/27/2022

**A. Indicative Focal/Non-Focal Area Elements**

<b>Programming Directions</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
LD-1-4	GET	647,431.00	2,163,750.00
LD-2-5	GET	215,811.00	721,250.00
<b>Total Project Cost (\$)</b>		<b>863,242.00</b>	<b>2,885,000.00</b>

**B. Indicative Project description summary**

**Project Objective**

To effectively address land degradation in Carriacou, through demonstration and application of ecosystems-based landscape restoration, sustainable land management and good agricultural practices, using community participatory approaches that expands diversification and sustainability of livelihoods options.

<b>Project Component</b>	<b>Financing Type</b>	<b>Project Outcomes</b>	<b>Project Outputs</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Community-Based Landscape Rehabilitation and Protection using EbA approaches	Investment	<p><b>1.1: Landscapes rehabilitated</b> at Bellevue South and Dumfries (designated hotspots under the LDN target-setting programme) by stakeholders applying EbA solutions</p> <p><b>Indicator(s):</b>  <i>(i) Area (in ha) of productive landscapes that incorporate climate-resilient SLM and restorative measures based on nature-based solutions that serve as demonstrations to stakeholders;</i>  <i>(ii) volume in m3 of additional water storage available for land restoration</i></p>	<p><b>1.1.1: One plant propagation facility</b> for multiplication of planting material to support land restoration by farmers and community members.</p> <p><b>1.1.2: At least 250 ha restored grasslands, agricultural lands at Bellevue South Dumfries</b> through improved soil and land conservation measures implemented by farmers and community members.</p> <p><b>1.1.3: Four water conservation installations</b> to enhance moisture retention at sites restored by farmers and community members.</p>	GET	600,346.00	2,000,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2: Strengthening landscape governance for application of SLM and EbA tools	Technical Assistance	<p><b>2.1 Strengthened local governance, coordination and capacity</b> for integrating EbA restoration solutions within productive landscapes by key stakeholders from government agencies, farmers and the community</p> <p><b>Indicators:</b>  <i>(i) No. of coordination mechanisms for SLM in Carriacou adopted by stakeholders;</i>  <i>(ii) Increase in adoption of SLM and climate smart measures by farmers and stakeholders within land holdings based on field assessment surveys;</i> <i>(iii) No. of farmers and stakeholders trained disaggregated by gender;</i>  <i>(iv) No. of protocols for SLM/savanna land mgmt.</i></p>	<p><b>2.1.1: Effective local coordination mechanism for SLM including co-management protocols for savannah grass lands</b> for implementation by local government agencies, farmers, livestock owners and the local community</p> <p><b>2.1.2: Package of effective SLM gender-sensitive approaches/technologies and training events</b> for uptake and application over <b>635 ha</b> by farmers, community beneficiaries and made available through online knowledge platforms.</p> <p><b>2.1.3: Public awareness and education plan implemented</b> targeting farmers, school children and the community.</p> <p><b>2.1.4 Gender Sensitive Monitoring and Evaluation Framework</b> in Support of Project Implementation</p>	GET	184,420.00	605,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
				Sub Total (\$)	784,766.00	2,605,000.00
<b>Project Management Cost (PMC)</b>						
	GET		78,476.00		280,000.00	
	<b>Sub Total(\$)</b>		<b>78,476.00</b>		<b>280,000.00</b>	
	<b>Total Project Cost(\$)</b>		<b>863,242.00</b>		<b>2,885,000.00</b>	

Please provide justification

**C. Indicative sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Recipient Country Government	Ministry of Agriculture, Lands and Forestry	In-kind	Recurrent expenditures	850,000.00
Recipient Country Government	Forestry and National Parks Department	In-kind	Recurrent expenditures	500,000.00
Recipient Country Government	Ministry of Carriacou and Petit Martinique Affairs	In-kind	Recurrent expenditures	650,000.00
Beneficiaries	Carriacou Farmers Association	In-kind	Recurrent expenditures	30,000.00
Other	PISLM Secretariat	In-kind	Recurrent expenditures	100,000.00
Other	Inter-American Institute for Cooperation on Agriculture (IICA)	In-kind	Recurrent expenditures	100,000.00
Other	University of the West Indies (UWI), Faculty of Food and Agriculture, Department of Soil Science, St Augustine Campus	In-kind	Recurrent expenditures	100,000.00
Recipient Country Government	Ministry of Agriculture, Lands and Forestry	Grant	Recurrent expenditures	555,000.00
<b>Total Project Cost(\$)</b>				<b>2,885,000.00</b>

**Describe how any "Investment Mobilized" was identified**

Not Applicable



**D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds**

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNEP	GET	Grenada	Land Degradation	LD STAR Allocation	863,242	82,008	945,250.00
<b>Total GEF Resources(\$)</b>					<b>863,242.00</b>	<b>82,008.00</b>	<b>945,250.00</b>

**E. Project Preparation Grant (PPG)**

PPG Required **true**

**PPG Amount (\$)**

50,000

**PPG Agency Fee (\$)**

4,750

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNEP	GET	Grenada	Land Degradation	LD STAR Allocation	50,000	4,750	<b>54,750.00</b>
<b>Total Project Costs(\$)</b>					<b>50,000.00</b>	<b>4,750.00</b>	<b>54,750.00</b>

## Core Indicators

### Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
250.00	0.00	0.00	0.00

#### Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
250.00			

#### Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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#### Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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#### Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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### Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
635.00	0.00	0.00	0.00

#### Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
635.00			

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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### Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
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Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	76656	0	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	76,656			
Expected metric tons of CO <sub>2</sub> e (indirect)				

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Anticipated start year of accounting	2023			
Duration of accounting	20			

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)				
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	400			
Male	400			
Total	800	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

## Part II. Project Justification

### 1a. Project Description

#### 1. The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Carriacou at 34 km<sup>2</sup> is the largest and most populated of the group of islands known as the Grenadines. It is located at 12°28'N and 61°28'W and is a dependency of the Tri-Island State of Grenada that also includes Petit Martinique. The highest point on the island is High North Peak, at 291 metres above sea level. Carriacou, like Grenada and the other islands in the Grenadines, is of volcanic origin, where the terrain is less hilly than Grenada's where about 50% of the land has slopes greater than 20 degrees (Niles, 2013). The soils of Carriacou are primarily made up of Woburn Clay Loam (65.2%) and Limlair Clay (16.0%). These soils are not suitable for intensive cultivation on slopes of 10 degrees or more without soil conservation measures, yet cultivation has been and continues to be carried out on much steeper slopes with little use of anti-erosion controls[2]<sup>1</sup>.

Carriacou is significantly drier in comparison to mainland Grenada, owing to the small size of the landmass and lower elevation, meaning that the orographic rainfall potential is low. The annual average rainfall is approximately 1,000 mm (CEHI, 2007). The streams on the island are intermittent with surface flow originating from the central areas and draining towards the coast. Twenty distinct watershed units are differentiated on the landscape (Map 1b and Annex A). High runoff can occur in extreme rainfall events owing to the coincidence of geology, topography and drainage factors, where upland areas are subjected to accelerated erosion while low-lying areas experience flooding. Carriacou is completely reliant on rainwater harvesting to meet their needs for potable water, owing to extremely limited natural water capture on these islands. Water is supplied through 33 community rainwater catchments and public buildings such as schools, hospitals and churches have also installed communal cisterns, which number 78 altogether (CEHI, 2007). In 2015, a solar powered desalination plant was commissioned with a supply capacity of 312 m<sup>3</sup>/day along with a storage tank and limited water distribution system for Hillsborough area. However, the system has encountered maintenance and operational problems since commissioning and has seldom been able to provide a consistent supply (Cashman and Yawson, 2019)[3]<sup>2</sup>.

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The main forested region on Carriacou is the High North Forest Reserve, a designated protected area<sup>[4]</sup><sup>3</sup> that covers approximately 559 hectares and runs along the higher elevations of the central-northern ridge of the island (Government of Grenada, 2014a). The High North Peak is also a designated protected area (99 ha) surrounding the highest elevation on the island. While it is a protected area and legally established, there is no management plan in place. The High North Addition Protected Area (152 ha) extends to the northern coast from the High North Peak. This protected area encompasses the complete spectrum of ecological systems in Carriacou with dry thorn scrub deciduous forests found on the northwest slope descending to seasonal evergreen forests on the alluvial flats leading to L'Ance La Rouche<sup>[5]</sup><sup>4</sup>. The other protected areas on the island include Sabazan, a small 26 ha terrestrial area at Bretache Bay along with five coastal/marine protected areas; Limlair Theboud (24 ha), Grand Bay (18 ha), South Carriacou Islands (2,510 ha) and Sandy Island-Oyster Bay (695 ha). Important mangrove systems in Carriacou include: Petite Carenage Bay, Saline Island, Tyrrel Bay, and Lauriston Point (Env. Profile,1991). The main threats to forest and wildlife biodiversity are the clearing of the land for agricultural production, animal tethering, housing settlement, infrastructure and commercial activities<sup>[6]</sup><sup>5</sup>. Annex A includes the protected areas on Carriacou.

At the 2019 population census Carriacou's population was 9,595<sup>[7]</sup><sup>6</sup>. The main town and primary port of entry is Hillsborough, and the other main settlements on the island are the villages of L'Esterre, Harvey Vale and Windward. Carriacou's economy is distinct from that of mainland Grenada, reflecting its different historical socio-economic development. The economy of the island has been historically based on agriculture and fishing, though over the last 30 years, a small tourism-based service economy has emerged, providing additional employment opportunities in hotels, yacht servicing, water taxi operation, among others. This has been alongside employment opportunity in the construction, and government sectors. Fishing and agriculture (including livestock-rearing) still forms a mainstay of the island's economy. Further detailed analysis on Carriacou's socio-economic activities is limited as the central government does not keep disaggregated data.

According to the Carriacou Farmers Association, there are approximately 800 registered farmers on Carriacou, but of these, less than twenty are commercial, and three practice irrigation, having just over one hectare each under cultivation. In 2001 approximately 34% of the land area was under some form of agricultural practice, cultivated, or pasture; this had decreased to 27% by 2012 (Cashman and Yawson, 2019). Local production is currently insufficient to meet food requirements of the island, hence produce is imported from mainland Grenada. Presently, agricultural activity remains largely at the subsistence level where a variety of crops are grown for home consumption; main crops include pigeon peas, corn, sweet potato, yam, dasheen, watermelon, sorrel, cucumber and butter squash. The high cost of crop production is attributed to the relatively high cost of inputs, limited labor availability and water scarcity.

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Carriacou accounts for one-third of the livestock population of Grenada, and in the past, livestock was exported to Grenada and Trinidad. Over the last decade, there has been a shift, with fewer cattle raised with more of an emphasis of rearing small stock such as goats, sheep, and pigs. Notwithstanding, agriculture remains intimately involved in the fabric of the island's society and way of life.

As with all the countries in the Caribbean that are heavily tourism-dependent, Grenada was significantly impacted by the COVID-19 pandemic, due to travel restrictions and the consequent curtailing of visitor arrivals. In the fallout from the pandemic, the economy of Grenada was estimated to have contracted by about 13%; data on the scale of the impact on Carriacou however is not available, however. In a Caribbean COVID-19 Food Security & Livelihoods Impact Survey administered by the World Food Programme with support from the Food and Agriculture Organization for the region, findings for Grenada[8]<sup>7</sup> revealed that the pandemic has had widespread impacts on livelihoods, translating into loss of jobs or income for nearly a half of the respondents that participated in the survey. Some 78% of respondents in the survey indicated that their ability to carry out their livelihoods was affected, primarily owing to movement restrictions and to a lesser extent transport limitations. The survey revealed that food and other key items were not always fully available in stores and respondents observed an increase in food prices with some 40% of respondents eating less preferred foods or skipping meals/eating less than usual. The data gathered in the survey was not disaggregated for Carriacou, but the national findings were reflective of Carriacou[9]<sup>8</sup>. In response to the economic fallout associated with the pandemic, the Government of Grenada initiated the COVID-19 National Food Security Mitigation and Response Plan in 2020 that provides direct financial support to farmers in facilitating expansion of acreages under cultivation to shore up rural economies and stimulate growth in the sector to compensate for losses in other sectors, notably tourism.

***Policy and legal context:*** There are several key policy frameworks and legislative instruments that are relevant to this project. The *National Sustainable Development Plan (NSDP) 2019*,[10]<sup>9</sup> lays out strategic priorities to address crucial social, economic, environmental, and other development challenges to realise Vision 2035. Of relevance is Goal 3: Environmental Sustainability and Security, and Outcome 7: 'Climate Resilience and Hazard Risk Reduction' where the proposed national strategic actions include creation of more green spaces and promote environmentally friendly practices across Grenada, Carriacou, and Petite Martinique, the implementation of an annual tree-planting programme across the Tri-island State, mainstream climate-smart agricultural, soil, and water conservation practices. It should be noted that Outcome 3 of the NSDP considers gender sensitivities in building resilient, inclusive and peaceful communities which is also necessary to ensure social stability.

The *Grenada National Land Policy (2016)*[11]<sup>10</sup> prescribes measures that the government intends to implement to ensure that the country's land and natural resources are soundly managed, and that the resilience of ecosystems (threatened by climate change and human activities) is enhanced through sound

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management practices. Specifically, the Policy aims to (i) establish the framework for sustainable, productive and equitable development, management and use of land and natural resources, (ii) establish the legal and administrative framework to support sound and sustainable management of the land, terrestrial and coastal natural resources, (iii) establish the information system to support land and natural resource management and (iv) establish the jurisdictional responsibilities and functions of the Ministry responsible for land, environment and natural resources.

Core to the Government of Grenada's obligation to toward sustainable land management, *National Action Programme (NAP) Alignment under UNCCD*[12]<sup>11</sup> has been adopted in 2015. The aligned NAP seeks to prevent land degradation, and restore 10% of degraded land by 2020, and mitigate the effects of drought and other climatic shocks. It is underpinned by the operational objectives of (i) expanding advocacy, awareness raising and education, (ii) enhancing the policy framework, (iii) strengthening application of science, technology and knowledge dissemination, (iv) capacity building, and (v) expanding financing and technology transfer. A key support commitment to the NAP has been the formulation of the national voluntary *Land Degradation Neutrality Target Setting Process (LDN-TSP)* under the UNCCD, that was initiated in 2016 and concluded in 2018. Under the LDN-TSP the rehabilitation of 383 ha of degraded lands at Bellevue South in Carriacou by 2030 has been identified within the national voluntary targets.

The *Grenada National Agricultural Plan 2015-2030* (2015)[13]<sup>12</sup> Strategic Objective 3.1 is relevant to this project that aims to build climate resilience to avoid, prevent, or minimize climate change impacts on agriculture (including forestry and fisheries), the environment and biodiversity, improve preparedness for climate change impacts and extreme events, enhance the country's response capacity in case of extremes and facilitate recovery from impacts and extremes. The recommended strategy is to promote sustainable agriculture practices, strengthen promotion of and support for more efficient water management and conservation measures (including terracing, drainage, mulching, storage, use of rainwater harvesting systems and water use-efficient systems).

The *Revised Forest Policy for Grenada, Carriacou and Petite Martinique* (2018)[14]<sup>13</sup> references Objective 4 that seeks to maintain, enhance and restore the ability of forests to provide goods and services on a sustainable basis, emphasizing co-management approaches. Relevant policy directives point to (i) tree establishment and management to reduce soil erosion, improve soil fertility, beautify the environment, provide timber and non-timber forest products (NTFPs) and maintain biodiversity in urban and rural areas, (ii) promote sustainable management of dry forest ecosystems, (iii) promote recreation and eco-tourism that sustainably manages, enhances and diversifies recreational and touristic uses of forests, and (iv) implement best practices to improve watershed management, protect, manage and restore critical watersheds as needed and ensure effective collaboration and partnerships for watershed management.

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Key relevant legislative instruments to the issue of land degradation in Grenada include the *Physical Planning Act* (2016) and *National Building Code* (2016). This is the most expansive land-related statute however, the focus is on regulating physical development through a permitting process, compliance with building standards, and the development of National and Local Area Development Plans which seek to define the type of development that is to be undertaken in any location. The *Forest, Soil and Water Conservation Act* (Cap 116) makes provision for the conservation of the forest, soil, water and other natural resources of Grenada. Its main objective is to prevent flooding and soil erosion and makes provisions for the prevention of squatting. There is an overlap between the Act and the Physical Planning Act in regards to the jurisdiction over the declaration of crown lands as forest reserves and private lands as protected forest subject to special protection.

In 2014 the Government of Grenada adopted a *National Gender Equality Policy and Action Plan (GEPAP) 2014 ? 2024*[15]<sup>14</sup> which defines the framework toward attaining gender equity and equality in the country. The GEPAP presents the ten priority policy areas that includes Policy Area 4 on Agriculture and Tourism. GEPAP based its policy recommendations and actions on key findings of the background study that pointed toward challenges in occupational segregation, disparities in income earning, and disparities in access to loans for investment. It concluded that governmental and other agricultural agencies are largely unaware of the gender dimensions of in the agriculture sector. Through the GEPAP the Government will commit to promoting gender equality in the sector and its importance in facilitating agricultural diversification, food security, economic growth, poverty reduction, and sustainable development. This is underpinned by key actions that include; (i) building awareness to break perceptions that relegates agriculture to marginal groups, (ii) widen engagement and empowerment of male and female farmers in restructuring the agricultural sector, (iii) address the challenge of women's ownership of land/property and access to credit, (iv) promote women's equal access to leadership and decision making, and (v) ensure that sectoral development is informed by sex-disaggregated data.

**Threats:** Decline in the acreage under agricultural production (34% in 2001 to 27% by 2012) has been attributed to land degradation and erosion that has made it increasingly difficult to maintain agricultural production, along with concomitant impacts on household incomes and living conditions. Land degradation, caused primarily through inappropriate land use practices, as well as clearance of primary forest, cultivation on steep slopes, soil compaction by livestock, the impact of bush fires, increased runoff and soil erosion have been noted as root causes in adversely affecting agricultural productivity. The impact of drought, in the absence of mitigation and adaptation measures, magnifies the long-term adverse impacts of environmental deterioration not just on the island's ecosystem but also on households that depend in part on agriculture for their livelihoods (Cashman and Yawson, 2019). In total over 1,800 ha of land is estimated to be affected by water erosion. The main land use categories affected are shrub/grasslands and pasture and grazing lands. Areas at Belle Vue South area in Belmont exhibit significant soil erosion.[16]<sup>15</sup> The underlying threats contributing to land degradation and biodiversity loss in the Carriacou are all interlinked and discussed below.

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Deforestation: To support traditional boat building and agricultural activities and livestock rearing, in particular, the removal of tree cover has been a long-practiced. This has led to the destruction of terrestrial ecosystems and impairment of watershed function with increasing erosion and loss of fertile land, as well as contributing to the increased prevalence of drought conditions.[17]<sup>16</sup> The loss of vegetation cover in areas including Belle Vue South, Dumfries and Six Roads, has resulted in impairment of runoff attenuation functions within the impacted drainage basin areas, increasing downstream flood risk potential, as dislocated soil is translocated to lowland areas during heavy rainfall reducing hydraulic capacities of drainage channels. Loss of topsoil has led to degraded productivity of the ecosystem and impairment of natural regeneration, resulting in changing vegetation communities, typically with limited ability to reclaim soil productivity. Overall, impoverishment of the land and depletion of soil has led to reduced productive yields and loss of biodiversity.

Inappropriate agricultural practices and overgrazing: On Carriacou land degradation is exacerbated by poor soil management, poor agricultural practices accelerated by indiscriminate use of synthetic herbicides, pesticides and fertilisers, and the slash and burn approach to clearing land for cultivation. On the island, livestock rearing is engrained in the social and economic fabric of the society; a practice that has sustained over generations. With increasing local and external demands for livestock products over the years, this has resulted in rapid growth of the livestock industry. This in turn has resulted in herd overstocking which pushed the carrying capacity of some of the farmers' pastures beyond manageable limits, forcing livestock owners to let their animals roam freely especially in the dry season from January to May when forage becomes scarce, in a traditional practice called *'leggo'* (let loose). The high density of livestock per unit area invariably leads to significant overgrazing, where regeneration of vegetation is prevented as seedlings and young plants are continually grazed back, perpetuating the cycle of soil erosion. This has also resulted in social and economic problems through *inter-alia*, damage to crops and consequent loss of income to farmers and stymieing growth of other agricultural enterprises as they cannot be protected from free-roaming animals. In extreme cases, frustrated landowners resort to inhumane and economically disastrous practices of injuring roaming animals or killing them, resulting in confrontation among residents. Predation by dogs within unsecured areas are ongoing issues that need to be addressed as a community. The main land use categories affected by overgrazing are shrubs/grassland and pasture/grazing lands.[18]<sup>17</sup>

Climate variability and climate change: These influences are already negatively affecting water availability in particular, with inter-related effects across the local economy; these include extreme hydrological events, such as hurricanes, storms and unseasonal rainfall and drought events[19]<sup>18</sup>. Cashman and Yawson (2019) cited modelling research on the impact of climate change and variability on water availability under the project *Sustainable Water Management under Climate Change in Small Island Developing States of the Caribbean* carried out by the University of the West Indies-CERMES. The results of the hydrological modelling show an increasingly negative water balance for Carriacou, driven by declines in rainfall and increases in potential evaporation due to temperature increases. Total water yield was modelled to decrease by up to 53%, depending on the climate scenario. The annual

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shallow aquifer recharge was estimated to decrease by between 13% and 45%. For all scenarios, water yield decrease was estimated to be particularly pronounced between September and November, with daily mean water yield modelled to decrease by between 58% and 72%. Extreme flow events will likely be short-duration and spatially small in extent, resulting in increased erosion with periods of drought forecast to become more frequent and extreme. These climate change forecasts will have dire consequences for agricultural production and livelihoods and socio-economic stability, more so if the challenges of land degradation remain unaddressed.

The *long-term problem* is that left unchecked, land degradation in Carriacou will continue to negatively impact the productive capacity of landscapes, through soil loss, increasing aridity, enhanced fire risk and loss of biodiversity including micro-biology critical for nutrient cycling. This in turn will reduce the capacity of residents to sustain investments in agriculture and other forms of economic activities that are reliant on maintaining the integrity of terrestrial ecosystem services. In addition, the problem of land degradation on the island will reduce its resiliency to withstand anticipated increases in frequency and intensity of climate change influences. In the long term, this will have compromise the opportunity for realizing diversified and sustainable livelihoods and a stable local economy. This is against the important backdrop that in Carriacou there are relatively limited alternative economic opportunities, hence driving the high reliance on the natural resources as the basis for sustaining livelihoods of the population. The COVID19 pandemic severely impacted economies and livelihoods in the tri-island state including on Carriacou, presenting cross-cutting sectoral challenges that exacerbates already existing vulnerabilities described above.

The *long-term solution* to address land degradation and degradation of ecosystem services in Carriacou is to strengthen capacities of relevant government and non-government stakeholders so that they may effectively empower farmers and local communities to adopt and implement sustainable land management practices that restore productive landscapes and maintain ecosystems functioning. With restoration of ecosystem functioning, productive landscapes will revert to a condition of improved soil nutrient supply capacity, improved hydrological balance and improved habitat quality for globally significant biodiversity.

The project restoration activities will be focused in two adjoining areas on Carriacou, specifically Bellevue South and Dumfires that have undergone significant land degradation but retain high importance in terms of strategic agricultural and food security for the island. The project will extend good practices for sustainable land management over wider landscapes on the island. The project therefore is designed to directly contribute to meeting the stated national land degradation neutrality (LDN) target of rehabilitation of degraded landscapes in Carriacou by 2030. In addition, there has been heightened emphasis on the need to support the rebuilding of the economy in the wake of the COVID19 pandemic, with heightened attention paid at policy level to strengthening the agricultural sector and enhancing productivity so as to expand this key pillar of economic development to help reduce over-reliance on the tourism sector.

***Barriers:*** There are two key barriers that need to be addressed in tackling the problems of land degradation in Carriacou, that otherwise prevent uptake and implementation of SLM practices and

ecosystem restoration to reduce drivers of land degradation. Addressing these two key barriers are the focus of the two project components.

**Barrier 1: Lack of demonstrable models and field capacities that demonstrate effective and sustainable landscape restoration and climate-resilient solutions that incorporate ecosystems-based (EbA) approaches that can be replicated across the island.** Restoration of landscapes on a sustainable basis requires the availability of capacity to generate planting material, and the island currently lacks a propagation facility for continuous production of seedlings that will be required by the project and post-project in the mid to long-term. A significant constraint however to ensuring field plantings remain viable after establishment is the ability to retain on-site moisture and water availability particularly given prevailing arid conditions during the dry season. While surface water retention structures have been installed across the island for livestock watering, there has not been an organized approach to artificially recharge degraded landscapes that have been identified for priority restoration. Further, investments are needed to bring water to locations where required at restoration sites. In addition, there has been relatively limited in-field practice and demonstration in on-site water retention measures in degraded landscapes that employs combinations of drainage diversion techniques, planting and mulching (including use of composted green and animal waste). There is limited adoption of climate smart agricultural practices that would otherwise enhance productivity and allow expansion to include new crops. There also has been insufficient transfer of approaches and innovation in use native species that are drought tolerant/low-water requirements that may be useful in restoration efforts. Capacity constraints also extend to limited support in demonstrating best practice approaches in reducing translocation of fertiliser and pesticide residues in surface runoff that may not only pollute receiving environments but result in high costs of inputs through inefficient use. A significant factor that also contribute to this overall barrier is the recurring loss of plant regeneration due to unrestrained livestock grazing particularly during the 'leggo' season. The challenge of managing livestock has been difficult and requires community engagement and cooperation to reduce losses to crops and newly established planting.

**Barrier 2: Inadequate local governance, coordination, limited capacity and awareness among farmers and community that support adoption and effective implementation of SLM and EbA restoration practices.** Although farmers and land owners have been supported by agricultural and forestry extension staff, there has not yet been a consolidation of specific best management practices that are location-specific for the work that needs to be done at the project target sites, and by extension over the rest of the island. Technical resource materials that have been developed on successful approaches and tools that can be applicable in Carriacou are still not readily accessible by the community of farmers, livestock owners and other stakeholders. The level of public awareness on the impacts of land degradation and the compounding threats of climate change to long-term livelihood remains relatively low and is insufficient to trigger behavioural change in how the landscape is managed in cropping and livestock system management. Where education programmes have commenced, these remain un-sustained, and there is continued need to provide support to build capacities among local technical personnel and educators, community groups who in turn can help build capacities among beneficiaries such as those in the farming community. There can be a lack of sufficient community involvement with organizations working in Carriacou if the targeted communities do not become involved at all stages of project interventions and that due consideration is not given to needs assessment, implementation modalities, monitoring, and

evaluation. Because of the small size of the communities, absence of their effective involvement becomes a barrier not only to project implementation but in sustainability in uptake of knowledge and application post-project. A key underpinning to the challenges in Carriacou is the there is no well-defined coordinated approach to integrate sustainable land management at a landscape level that can guide the work of government organizations and other entities working with farmers, livestock owners and the wider community to realize SLM. Closely related is the challenge of uncontrolled grazing due to the fact that there are no community-based protocols for savannah grass land management that can guide livestock owners and local communities in how herds are managed.

## **2) The baseline scenario or any associated baseline projects**

*Baseline - Government investments:* The baseline scenario with regard to land degradation in Grenada and Carriacou shows a concerted effort by the government to address land management issues. The preparation of a *National Physical Development Plan* and *National Land Use Policy* over the past few years has provided the basic elements necessary to assess national conditions and to implement sustainable land management approaches. Other important baseline activities have included the preparation of the *National Action Programme (NAP) Alignment under UNCCD[20]*<sup>19</sup> as part of the Government's commitment for sustainable land management, and the preparation of Grenada's *Land Degradation Neutrality Target Setting Process (LDN-TSP)* under the UNCCD, as part of the Government's commitment for sustainable land management (this activity started in 2016 and was concluded in 2018). Grenada was also one of the few SIDs that prepared a *National Drought Management Plan*. This plan gave special focus to Carriacou because of its limited water supply and negative impacts of drought on livelihoods. There is increasing appreciation of the importance of Sustainable Land Management to national development, the recent preparation of the National Land Policy is indicative of this trend, the effort supported through the OECS Technical Assistance for the Establishment of National Land Policies. Part of the assistance also involved the integration of sustainable land management components into the *Draft Land Management and Natural Resources Bill*. The National Land Policy recommends that the Government shall complete the preparation of the National Physical Development Plan within two years and be laid in Parliament.

*Farm Labour Support Project* that is financed from recurrent expenditure that provides labour support services to the farming community in the installation and maintenance of infrastructure and land enhancement measures on farms. The annual commitment is US\$555,000 (EC\$1.5 million) annually of which approximately 30% is allocated to services rendered in Carriacou. Through the Ministry of Agriculture, Lands and Forestry, the Government of Grenada has in place a *Disaster Resilience Support Mechanism* that assists farmers with meeting challenges brought on by adverse weather conditions that is supported under recurrent budget allocations. Approximately US\$74,000 (EC\$200,000) is made available annually of which roughly 30% of which is utilized in Carriacou.

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The Government, through the Agricultural Division in the Ministry of Carriacou and Petite Martinique Affairs & Local Government has been supporting farmers on Carriacou to bolster food production in the wake of impacts of the COVID-19 pandemic under a *COVID-19 National Food Security Mitigation and Response Plan*[21]<sup>20</sup> that has been rolled out since 2020. Production has been boosted on the three government-operated farms on the island to provide seedlings to farmers and residents with emphasis on backyard gardening as a means of food security. The Division of Agriculture has secured a new plough tractor through assistance of the People's Republic of China and it continues to run its 4H Programme throughout most schools on the island focusing on practical agriculture and life skills, as well as providing incentive support under its Food Security Initiative Programme[22]<sup>21</sup>. The Government of Grenada and allied national agencies in Carriacou spends roughly US\$630,000 annually under baseline actions, which is expected to continue over the course of the project in the joint environmental management and agricultural sectors.

*Baseline - donor and partner assistance programmes:* The proposed project will build on the experiences and lessons learned from two recently completed projects in Grenada with work done also in Carriacou. One of these was the *Land Degradation Neutrality (LDN) Target Setting Programme*, (TSP) which is being implemented through the Global Mechanism (GM) and the Secretariat of the UNCCD, in collaboration with multiple international partners. The LDN/TSP process in which Grenada has signed up to undertake, is the vehicle being used by the COP/UNCCD for driving the linkage of the Convention to the SDGs in general, and more specifically to target SDG 15.3, while contributing to the achievement of multiple SDGs, related to climate change mitigation and adaptation, biodiversity conservation, food and water security, disaster risk reduction, and poverty reduction. The other initiative is a Government of Morocco-funded *Caribbean Soil Fertility Project*. This project is contributing to the participating countries' capacity to manage soil fertility, establish a database and develop a sound soil information system to speedily and effectively respond to country needs and demand for fertilizers.

The *Climate Smart Agriculture and Rural Enterprise Programme (SAEP)*[23]<sup>22</sup> is a six-year programme (2018-2024) funded by the International Fund for Agriculture Development (IFAD), the Caribbean Development Bank (CDB) and the Government of Grenada that is part of the Rural Development Unit of the Ministry of Finance. SEAP focuses on assisting beneficiaries improve their livelihoods through skills training, investments in agriculture, teaching Climate Smart Agricultural (CSA) practices and providing business skills training and technical services to rural enterprises in the rural communities across the country including Carriacou. This project will build on the CSA awareness, extension support, training in climate change and climate-smart agriculture and financing for CSA initiatives. The programme has specific focus on gender and youth empowerment.

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The *Integrated Climate Change Adaptation Strategies (ICCAS) in Grenada Project* (2013 to 2019)[24]<sup>23</sup> aimed to increase resilience of vulnerable communities and ecosystems to climate change risks in Grenada through integrated adaptation approaches. The project, funded by the German Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) under its International Climate Initiative (IKI) was a collaboration between the Ministry of Agriculture, Lands, Forestry, Fisheries and Environment, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the United Nations Development Programme (UNDP). The project supported communities around Grenada, Carriacou and Petite Martinique to adapt to the challenges created by climate change. In Carriacou assistance was provided to Bishop's College for enhancing climate change resilience and flood mitigation, the Carriacou 4H Club for a nursery/propagation station and for refurbishment of community water catchments (Top Hill and Limlair).

This project will build on a recently approved GEF-funded project *Caribbean Small Island Developing States (SIDS) Multicountry Soil Management Initiative for Integrated Landscape Restoration and Sustainable Food Systems: Phase 1 (CSIDS-SOILCARE Phase 1)*. The CSIDS-SOILCARE project will coordinate efforts with this project to ensure that the capacity building programmes of each project will strengthen each other, and that knowledge acquired can be effectively disseminated to broader audiences. It is important to note that the Executing Agency of the CSIDS-SOILCARE project, the Partnership Initiative on Sustainable Land Management (PISLM), will lever experience gained and knowledge networks built, in application to this project (as the proposed Executing Agency).

### **3) The proposed alternative scenario, GEF focal area[25]<sup>24</sup> strategies, with a brief description of expected outcomes and components of the project**

**Project Overview:** The GEF's incremental funding and co-financing resources will be used to overcome the identified barriers that Carriacou faces in respect to addressing acute land degradation that poses a long-range threat to maintaining integrity of ecosystems and livelihoods of resident communities. The project seeks as its objective to effectively address land degradation in Carriacou, through demonstration and application of ecosystems-based landscape restoration, sustainable land management and good agricultural practices, using community participatory approaches that expands diversification and sustainability of livelihoods options.

Investment under **Component 1** will address physical on-site restoration of degraded landscapes primarily in the southern part of Carriacou, while investment under **Component 2** will build the needed governance mechanism and capacities among all relevant stakeholders to effectively transform landscape restoration tools and methodologies into improved practice over wider landscapes on the island. Carriacou is a micro-scale landscape that is already highly vulnerable to the influences of climate change and based on

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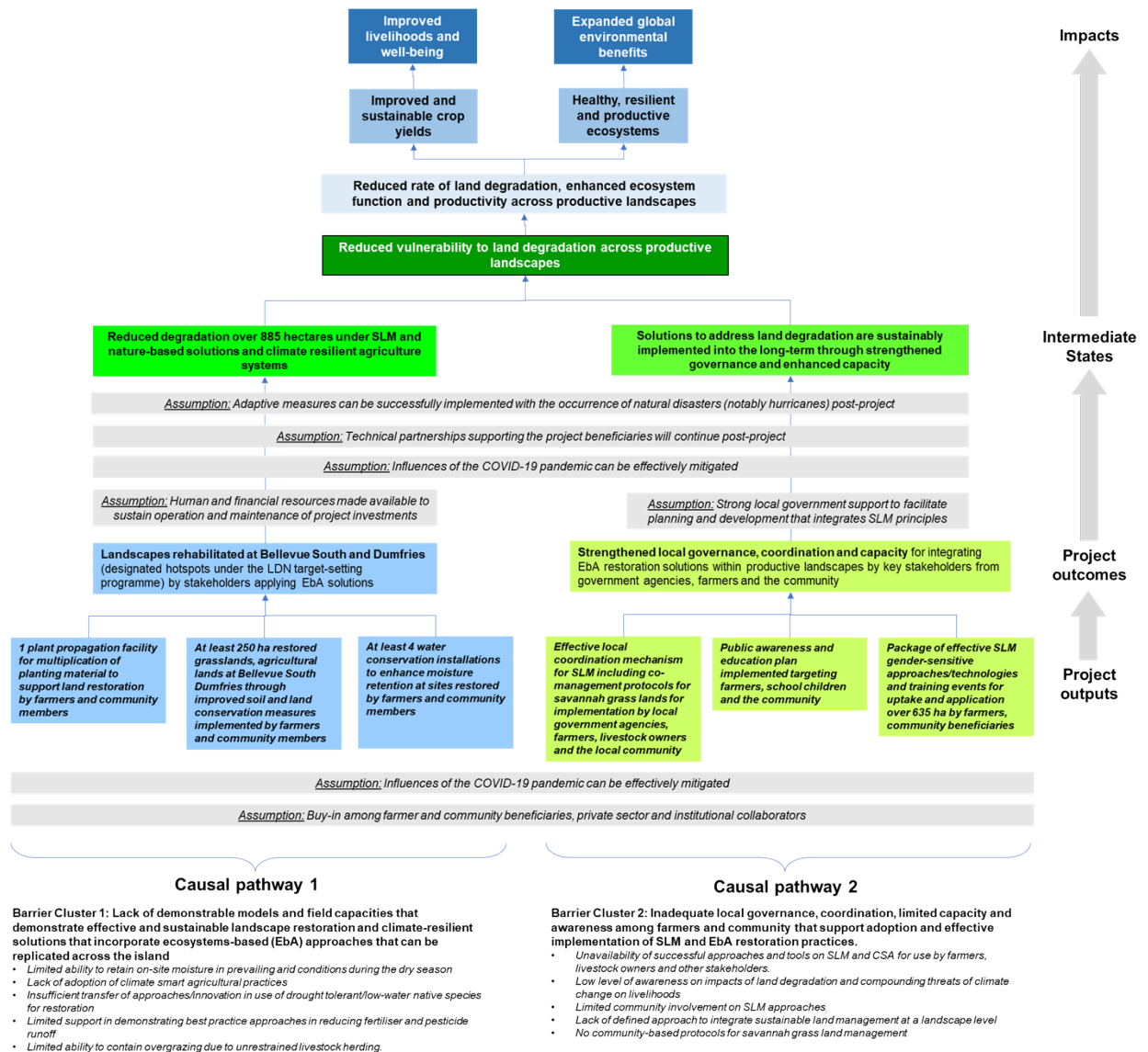


anecdotal observations over recent decades, supported by climate model research for the Caribbean, suggest that the local environment could see further degradation with ecosystems and livelihoods significantly compromised, if poor land management practices are not addressed. The work is well aligned with Grenada's UNCCD National Action Plan and voluntary Land Degradation Neutrality (LDN) targets. The project will directly contribute to the wider strategic national commitments on addressing land degradation as articulated in the national LDN voluntary Target Setting Programme, (TSP) which seeks to rehabilitate some 383 ha of degraded land at Bellevue South in Carriacou by 2030, where it is estimated that 1,800 hectares are affected by water erosion as a result of poor land management practices. The project will support efforts to strengthen institutional and stakeholder engagement through improved governance mechanisms for SLM on Carriacou within the scope of the UNCCD NAP objectives.

The project resources will help empower targeted communities with the means to meaningfully and effectively participate at all stages of project development and implementation through identification of the challenges they face and finding appropriate solutions toward accrual of tangible benefits. The project will help further strengthen collaborative co-management partnership agreements among the cross-section of stakeholders including *inter alia*, government institutions, farmers, private sector, NGOs, CBOs, youth groups and wider civil society. The project contributions to investments in SLM, climate-smart agriculture and improved livestock management will help efforts to build back the national economy in the wake of the COVID19 pandemic.

The project is framed against the backdrop of assumptions that have bearing on the anticipated outcomes to be realized through the proposed causal pathways. It is assumed that there will remain strong local government support for mechanisms to adequately facilitate planning and development on Carriacou that integrates sustainable land management principles within the wider scope of the national commitments under the UNCCD National Action Plan and the voluntary targets for LDN. Closely related is the assumption that the lead national agencies, mainly the Ministry of Agriculture and the Ministry of Carriacou and Petit Martinique Affairs will invest needed human and financial resources to operate and maintain the restoration and water augmentation investments that will be provided by the project. A central assumption is that there will be strong buy-in among farmer and community beneficiaries, private sector and institutional collaborators in supporting project implementation to realize the desired outcomes and it is further assumed that in assuring long-term sustainability of the investment is that the technical partnerships cultivated among the partners supporting the project and beneficiaries will continue post-project. The project assumes that should natural disasters (notably hurricanes) occur during the course of project implementation, the impacts will not completely debilitate continuity and that adaptive mechanisms will be effected by the project. Finally, although the influence of the COVID-19 pandemic is starting to diminish, a crucial assumption is that the Government of Grenada and the local authorities on Carriacou through its frontline health care sector is able to mitigate and manage the impacts and that business continuity is maintained within mandated protocols.

The project design is reflective of the causal pathways captured in the theory of change below.



**Component 1: Community-Based Landscape Rehabilitation and Protection using EbA approaches.** This component focuses on implementing restoration on severely degraded areas on the island to reduce further loss of ecosystem services to realize **Outcome 1.1 Landscapes rehabilitated at Bellevue South and Dumfries (designated hotspots under the national LDN target-setting programme) by stakeholders applying EbA solutions.**

The project will support the *establishment of a plant propagation station*, to support restoration efforts. This capacity currently does not exist on the island. The nursery will target plants which are indigenous to the island, resilient to drought and relatively fast-growing, as well as fruit trees and other plants in demand by the local community. During the project PPG design phase, determinations will be made of the required plant production capacity of the nursery based on field requirements and associated ancillary facilities such as water supply storage, materials storage and office space. The facility is expected to be outfitted with solar generation equipment to reduce cost of operation and contribute to reducing the

carbon footprint from use of conventional power supplies. The location for the nursery will be determined during the PPG phase and is anticipated to be at a location that allows for ease of transportation access. The facility will employ best-practice water use efficiency methods and low-chemical use with limited runoff to the ambient environment. The Ministry of Agriculture, with advisory support from the Ministry of Climate Resilience and Environment and the Ministry of Health, will ensure that nationally accepted environmental health standards are applied to uphold associated safeguards in respect to environmental and human health. The facility will be constructed using methods that will ensure resilience to impacts tropical storm exposure. The facility will be managed by the Carriacou Farmer's Association in collaboration with PISLM. To enhance sustainability of the investment, planting material will be made available for sale to residents. In the early stages of project start-up, a temporary 'flying nursery' will be established where project personnel will have responsibility for gathering seedlings from wild sources for the initial propagation that will be eventually transferred to the facility when completed. During the PPG phase a *draft scope of work and preliminary design specifications along with a cost estimate* in line with the budget envelope will be prepared. This will be validated and finalized at project start-up ahead of investment.

The project will contribute to *restoration of degraded landscapes in Bellvue South, Dumfries and environs*, an area of accelerated land degradation that encompasses some 250 ha in the southern part of the island. A core consideration will be that restoration follows ecosystem-based approaches and green/nature-based solutions. Restoration solutions will be more closely evaluated during the project design, however frontline measures will include planting of a range of grasses, shrubs and trees that serve the function of soil consolidation, reduction of overland surface runoff, enhanced moisture retention, nutrient and carbon fixation and reduction in fire hazard. The project expects to focus on indigenous species that have demonstrated suitability in land degradation control and have some level of resilience to arid conditions. The project will explore options in vegetation restoration tailored to agricultural systems in terms of integration of multi-crop systems that will conserve soil and water. Some of the specific soil measures to be applied will include installation of contour drainage along the to reduce erosive channelized flows and retain moisture, with check-dams, other live vegetation 'fences' and bio-engineered solutions to arrest soil movement. The project will explore opportunities for watershed-specific protection measures that include augmenting streambank vegetation to expand buffers along watercourses and reduce direct overland erosive runoff to watercourses. The project will also target degraded grasslands with replanting with indigenous plant species. An important consideration in the restoration effort will be measures to reduce livestock grazing on new plantings. This will be achieved through selective fencing over sensitive landscape areas and installation of guards around the seedlings themselves. Strategies for alternative forage and alignment of herding pathways will be introduced to divert animals away from sensitive areas. An overall consideration in design of approaches is that livelihood options, considering gender dimensions, are preserved and expanded and/or diversified via potential new opportunities afforded by the restoration efforts. In the design phase, detailed site assessments will be carried out that will inform the development of the restoration management plan for the Bellvue South/Dumfries at project start-up. During the project design PPG phase land degradation assessment indicators and targets, that also capture gender-related metrics to be achieved by the project will be determined.

The project will contribute *investments in water storage and conservation within the restoration area*. Based on estimates from the Ministry of Agriculture at least 3,000 m<sup>3</sup> per day of on-site water storage will be required to meet irrigation needs to service the plantings associated with the restoration efforts, as well as provide water for crop irrigation. The investment will also support the increased production of high-quality livestock fodder. This will entail the excavation of diversion drains and at least four mini-dams at strategic locations across the landscape that will impound surface flow for release via drains and irrigation works to locations at lower elevations. Runoff diversion structures will be built on to roads adjacent to the areas for restoration that will channel runoff to mini-dams. The immediate areas around the mini-dams will be stabilized using bioengineering installations such as geotex fabric and deep-rooted grasses and shrubs. The project will undertake the rehabilitation of concrete storage tanks at the Limlair Livestock Facility. The long-term upkeep and maintenance will be overseen by the Ministry of Agriculture, Lands and Forestry and the Ministry of Carriacou and Petit Martinique Affairs. Co-management arrangements with the Carriacou Farmers Association will be entered into to assist with community-based maintenance. During the PPG project design phase, the *scope of work with associated costing* (within the project budget envelope) and a draft procurement plan will be prepared.

During the PPG phase a detailed climate risk screening will be carried out to inform the design of, and anticipated operation and management of the investments under this component.

All relevant data (non-spatial and spatial) generated from the restoration work will be transmitted to the Land Use Unit in the Ministry of Agriculture for consolidation with the existing database that forms part of Grenada Land Information System (GLIS). This will be referenced to the land degradation neutrality targets set by the country[26]<sup>25</sup>. Best practices and lessons learned under this component will be contributory to shaping other relevant interventions within the framework of the Grenada National Land Policy[27]<sup>26</sup>.

**Component 2: Strengthening landscape governance for application of SLM and EbA tools.** This component focuses on enhancing the governance mechanism, capacities and knowledge of technical and policy support professionals, non-government and community-based organizations to influence behavioural change among beneficiaries to realize **Outcome 2.1** *Strengthened local governance, coordination and capacity for integrating EbA restoration solutions within productive landscapes by key stakeholders from government agencies, NGOs, farmers and the community*.

In support of the restoration measures to be achieved under Component 1, the project will address the underpinning challenge of the absence of a governance framework that coordinates and integrates actions of all actors and stakeholders that will ensure sustainability of investments in SLM in Carriacou. The project steering committee (PSC) to be established under this project will serve as the basis for establishment of a long-lasting local *governance mechanism for SLM* nested within the UNCCD National Coordination Body (NCB), following completion of the project. The modalities for establishing permanence of the mechanism will be explored during the project design however, it is likely that it will

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need to be anchored within the administrative framework of the Ministry of Carriacou and Petit Martinique Affairs, that already has statutory responsibility to serve such developmental functions. This local mechanism will be nested within the UNCCD National Coordination Body (NCB), a multi-sectoral committee with oversight for the implementation of the National Action Programme. The local governance mechanism, as an extension of the work of the PSC, will be refined based on the lessons learned during the course of project execution, and will be mandated against policy directives outlined in the recent Cabinet-approved National Land Policy, draft Land Management Bill and the UNCCD NAP (and Land Degradation Neutrality target setting).

Included within the proposed SLM governance mechanism will be an element to address the land degradation challenges and conflicts associated with free-roaming livestock. In this regard *co-management protocols for savannah grass lands* will be developed for collective implementation among livestock owners and local communities. Some 15 farms, which are mainly reliant on ruminant farming, will be the focus of this work and will continue to build on prior efforts in a learning approach to distil ideas that have shown promise and are feasible in reducing land degradation. Experiences in other islands in the Caribbean that face similar challenges with roaming livestock and land degradation will be considered in development of the co-management protocols. Formulation of the protocols will be in-step with the landscape restoration work under Component 1. Best practices and lessons learned from the interventions will be contributory to shaping relevant interventions elsewhere in the country under the scope of the Grenada National Land Policy.

The project will contribute to the development of a *package of effective SLM approaches, technologies and training events* for uptake and application by farmers and community beneficiaries. This package will take the form of best practice guidance manual(s) in hardcopy and in electronic formats designed for easy dissemination in print and web (including social media) platforms. It is expected that the content will be structured along thematic lines to include land preparation, slope/soil stabilization, runoff control, drainage and irrigation, pasture restoration, climate-smart agriculture, pollution control among others. Training will also be carried out on environmental monitoring, and application of tools and methods for land degradation assessment. The content will be derived from documented best practices from Grenada and other parts of the Caribbean and across the globe that is relevant and applicable to Carriacou. Key resources that will be drawn on in development of the package will include the global SLM database hosted by World Overview of Conservation Approaches and Technologies (WOCAT). During execution of the restoration work, the progress and lessons learned will be carefully documented to be used in updates to the guidelines and best practice. The project anticipates the production of at least eight (8) best practice guidelines that will be the basis for the capacity building work. The project will host training activities to validate the guidance methodologies and test applicability across the rest of the island within environments beyond the targeted restoration area. On Carriacou it is estimated that between 400 and 800 hectares are under relatively intensive land use and are subject to varying degrees of land degradation, hence application of SLM approaches will be tested over this wider area. Training will be delivered jointly by specialists to be retained by the project along with Ministry of Agriculture extension staff and other affiliate organizations associated with the project notably PISLM, IICA, Caribbean Agricultural Research and Development Institute (CARDI) and UWI. The project expects that at least 50 persons from the support agencies will be trained as trainers by the project specialists in the application of the methods and tools. It is expected that at least 750 beneficiaries from the farming community and community

stakeholders will be trained, achieving a balanced gender ratio. The SLM approaches and technologies will be made available through knowledge platforms hosted by both the Ministry of Agriculture, Lands and Forestry, and the Ministry of Climate Resilience, the Environment, Forestry, Fisheries & Disaster Management. Additionally, the content will be disseminated through the knowledge platform being developed under the CSIDS-SOILCARE Phase 1 Project, and the PISLM regional knowledge hub, to facilitate sharing of information and learning from other GEF-supported SLM projects in the Caribbean. During the PPG phase, draft terms of reference will be prepared for the capacity building specialists to be retained by the project.

To support the restoration activities and delivery of the technical capacity building a *public awareness and public education (PA/PE) plan will be developed and implemented* that targets farmers, NGOs, students, CBOs and the wider community around the themes of sustainable use of environmental and natural resources to include related topics *inter alia*, sustainable farming, grazing, forestry and land use practices. The project design phase will consider the various messaging needs in support of the project, building on prior efforts and resources available. In the PPG phase, draft terms of reference for a communications specialist will be prepared to include required elements that need to be articulated in development of the PA/PE plan immediately following project inception. To inform the development of the PA/PE Plan and ensure that it is appropriately targeted, a *detailed stakeholder analysis and community engagement plan to include gender considerations* will be undertaken during the PPG phase. Under the awareness and education programme, the project anticipates developing at least 10 separate core information products for use by stakeholders. The project will carry out a pre-execution public survey, one at the project mid-term and one at the end of the project to gauge effectiveness of the awareness programme and influence on behavioural change.

A *gender-sensitive project monitoring and evaluation system* will be put in place to ensure continual assessment of progress in meeting project outcome and output targets.

#### **4) Alignment with GEF focal area and/or Impact Program strategies**

*Land Degradation Focal Areas LD-1-4 Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape; LD-2-5: Create enabling environments to support scaling up and mainstreaming of SLM and LDN:* The project proposes demonstrate appropriate innovative ecosystem-based approaches in controlling land degradation triggered by poor land management practices associated primarily with intensive crop production and livestock rearing in Carriacou, that are in alignment with the UNCCD National Action Plan for Grenada and associated voluntary Land Degradation Neutrality targets. The project will enhance local capacity to effectively replicate and upscale best practices demonstrated elsewhere on the island, in Grenada and similar environments in the Caribbean. Given that Carriacou a very small water-scarce island, its ecosystems and population are already particularly vulnerable to climate change influences, and the project expects to contribute to mitigating adverse outcomes from climate change in building resilience through landscape restoration.

**5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTE, LDCF, SCCF, and co-financing**

Baseline	Incremental Cost
<p>Without the GEF investment land degradation situation in the project area in Carriacou will continue, with adverse outcomes in terms of maintaining the quality of the productive landscape and ecosystem services. There will continue to be limited adoption of sustainable management practices with unabated erosion, loss of land capability, declining forage quality for livestock with overgrazing, downstream pollution, sedimentation and increased flood risk in settlement areas during periods of heavy precipitation. In the longer term this will result in productive landscapes to becoming more marginal for agriculture and other uses particularly considering the compounding impacts of climate change in what is a highly vulnerable small island environment. This in turn will have impacts to sustainability of livelihoods not only in the agriculture sector but in other sectors such as in the hospitality and fisheries (near-shore) sectors and potentially lead to economic depression in the island over time.</p>	<p>The GEF investment will contribute to removal of the barriers that continue to persist in implementing solutions to address land degradation. This will be based on the design and installation of land and water conservation measures that are feasible and culturally acceptable for the small landscape context of Carriacou. The investment will support the expansion of the water supply capacity within the target restoration areas that will not only enhance sustainability of the landscape revegetation efforts, but also contribute to agricultural and livestock productivity that underpins the rationale for the investments. Tangible outcomes will ultimately lead to reduction in the volume of topsoil lost to surface erosion and sediment fluxes into rivers and receiving marine environments. The ecosystem-based field methods and tools will draw on best practices from other national interventions, from the Caribbean and further afield, complementing the investment being made by the GEF-Funded, CSIDS-SOILCARE Phase 1 Project at another location in the island. The GEF increment will overall enhance the resilience of the ecosystem to climate change and contribute to the long-term economic viability of the communities as a direct result of environmental enhancement. Opportunities for alternative livelihood options will be expanded, providing stimulus for attracting increased investments to the community.</p>

Baseline	Incremental Cost
<p>Under a business-as-usual scenario there will remain an absence of a focussed approach to addressing land degradation in a coordinated and integrated manner among stakeholders. There will continue to be limited capacities among farmers and target communities to acquire knowledge and apply tools and methodologies to reduce land degradation. Stakeholders will not have ready access to needed documented best practices and other references to guide them in implementing restoration measures. Without the GEF investment, the awareness on the challenges of land degradation will not be elevated to a high enough level of recognition of importance to elicit needed appropriate behavioural change. There will be continued dysfunction in how livestock management is carried out on the island without definition of protocols that are agreed to at the community level that can be effectively put into practice. Overall, without focussed attention on capacity building and awareness raising, investments on the ground will see limited opportunity for replication and scaling up to other environments, with limited opportunity to capture lessons learned.</p>	<p>The GEF investment will contribute to enhancement of the governance framework for SLM Carriacou. This framework will build on the institutional coordination via the PSC catalysed by this project, as the basis for a long-lasting SLM mechanism. It will also build on the work initiated under the Climate Smart Agriculture and Rural Enterprise Programme (SAEP) and the Climate-Resilient Agriculture for Integrated Landscape Management (CRA) project on climate smart agriculture and rangeland management. This will be supported by the delivery of assessment tools and field methods, and build local capacities among technical professionals, farmers, beneficiary and community stakeholders to employ landscape restoration tools and methodologies and maintain sustainability of these measures. The project will contribute to ongoing capacity building efforts for national stakeholders in Carriacou and Grenada through other relevant initiatives. The project will help strengthen the capabilities of local stakeholders as trainers to impart knowledge. The project will expand overall awareness, particularly in the context of the climate change stressors in terms of the inherent vulnerabilities of a small landscape environment as is the case for Carriacou. This awareness will contribute to expanding buy-in among targeted stakeholders and the wider community to accelerate efforts in mitigating land degradation and enhancing climate resilience. This will be important in coming to agreement with support of the project, in improving livestock management through new and/or improved protocols (under the wider SLM governance mechanism) that will reduce not only direct impacts in terms of land degradation from intensive grazing but also contribute to reduced conflict among community members.</p>



**6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);**

The project will generate the following main benefits:

? 250 ha of landscapes restored, and another 635 hectares will be and under improved SLM, incorporating climate-resilient agriculture and improved livestock husbandry that will contribute to Grenada's land degradation neutrality voluntary targets;

? -76,656 tonnes CO<sub>2</sub>eq greenhouse gas emissions mitigated (over 20 years) through incorporation of improved cropping and agroforestry systems and enhanced carbon sequestration into soils within productive landscapes (CO<sub>2</sub> sequestration estimates will be reassessed during the PPG phase);

? Improved socio-economic returns from improved land productivity.

Components	Global Environment Benefits
<b>Component 1: Community-Based Landscape Rehabilitation and Protection using EbA approaches</b>	
Output 1.1.1: One plant propagation facility for multiplication of planting material to support land restoration by farmers and community members	The landscape restorative measures proposed under the project are in line with the objectives of the UNCCD 2018-2030 Strategic Framework to enhance the implementation of the Convention, specifically <i>Strategic Objective 1</i> : To improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality, <i>Strategic Objective 2</i> : To improve the living conditions of affected populations and <i>Strategic Objective 3</i> : To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems. The project will contribute to Grenada's realizing Sustainable Development Goal 15 to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
Output 1.1.2: At least 250 ha restored grasslands, agricultural lands at Bellevue South  Dumfries through improved soil and land conservation measures implemented by farmers and community members	

<p>Output 1.1.3: Four water conservation installations (mini-dams) to enhance moisture retention at sites restored by farmers and community members</p>	
<p><b>Component 2: Strengthening landscape governance for application of SLM and EbA tools</b></p>	
<p>Output 2.1.1: Effective local coordination mechanism for SLM including co-management protocols for savannah grass lands for implementation by local government agencies, farmers, livestock owners and the local community</p>	<p>The improved governance framework for SLM implementation on Carriacou and the increased capacity of small farmers and local communities to adopt and implement SLM approaches and technologies will contribute to increasing ecosystem resilience to the global threat of climate change. The project will contribute to capability to evaluate land degradation and environmental status of productive agricultural landscapes, contributing to the basis for determining progress toward safeguarding and enhancing GEBs in line with the UNCCD 2018-2030 Strategic Framework. Knowledge management systems will be put in place to facilitate publication and dissemination of best practices and lessons to stakeholders from local to global levels, to encourage uptake and replication of the approaches applied in this project.</p>
<p>Output 2.1.2: Package of effective SLM approaches/technologies and training events for uptake and application over 635 ha by farmers, community beneficiaries.</p>	
<p>Output 2.1.3: Public awareness and education plan implemented targeting farmers, school children and the community.</p>	
<p>Output 2.1.4: Gender Sensitive Monitoring and Evaluation Framework in Support of Project Implementation</p>	

**7) Innovation, sustainability and potential for scaling up ?**

**Innovation:** The project intends to introduce innovation in best practices in landscape restoration approaches that have been developed and successfully applied not only in Carriacou and Grenada, but in other environmental conditions that are similar to those in Carriacou. The island is relatively arid, and it will be necessary to incorporate nature-based that are resilient in such conditions, considering climate

change influences. The project will employ a combination climate-smart agricultural production practices and sustainable livestock husbandry that will help ameliorate soils, reduce degradation and pollution, enhance carbon sequestration and conserve biodiversity. The project will introduce innovative approaches for water conservation necessary to support vegetative restoration, building on already well-established traditional methods in Carriacou for on-site water storage and distribution. Where appropriate, solar power systems will be installed to provide lift for water distribution established in the project. The project will deploy state-of-the-art tools and methods for assessment and monitoring of land degradation developed by Trends Earth[28]<sup>27</sup>.

**Sustainability:** A key to ensuring sustainability of the project will be to secure buy-in from the targeted communities, a process that will be further cultivated during the PPG stage, with an underpinning of enhancing livelihood options. Emphasis will be placed on identification and implementation of restoration solutions that are cost-effective so as to increase opportunity for uptake and replication by beneficiaries over the longer term. The project will adopt ecosystem-based or nature-based solutions that will utilize locally available vegetation species in landscape restoration that are known to be resilient to arid moisture regimes and will incorporate good practices into agricultural systems that are developed in close consultation with farmers. This will be supported by enhancement of capacities of stakeholders that is that is assisted through partnerships between technical agencies, the farmer association and community groups. One specific output of the project that will be core to long-term sustainability, will be the development of a local governance and coordination mechanism for SLM that includes community-based co-management protocols to better address the challenges posed by unrestricted livestock grazing that is a key causal factor of land degradation on the island. This local governance mechanism will be nested within the UNCCD National Coordination Body to as to ensure mainstreaming within the national strategic agenda on SLM. The Government of Grenada through the Ministry of Agriculture, Lands and Forestry and the Ministry of Carriacou and Petit Martinique Affairs have committed to long-term support to the efforts that will be initiated under the project and will ensure that needed linkages are made to other relevant interventions to exchange knowledge and best practices. In meeting the challenges of the COVID-19 pandemic the Ministry of Agriculture, Lands and Forestry has offered support in placing more emphasis on backyard gardening as a means of food security in Carriacou with efforts to boost production at all government-operated farms on the island. A key element in sustainability is the Ministry's efforts at promoting and encouraging youth to get involved in the sector, through initiatives such as the 4H Programme. A key underpinning of the sustainability model is that the Government of Grenada already offers incentives to investors for agricultural and rural enterprise development through a concessions package, whereby procurements are duty-free, in accordance with the Grenada Statutory Rules and Orders (SRO) #13, that are in compliance with the CARICOM External Tariff. Investments under the project will be sustained through these SRO provisions that will be made available to farmers and landowners to continue best practice investments in SLM in Carriacou (and at the national level). The foregoing will create conditions for long-term sustainability through demonstration of livelihood benefits for local communities that will feed the motivation for continued action after the project is completed.

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**Scaling Up:** Solutions will be designed in the context of small island environments that are cost-effective and lend themselves to scaling up at a wider scale on Carriacou, Grenada and other Caribbean SIDS with similar issues. Key to scaling these solutions will be the documentation of demonstrated results and effectiveness. The innovation in tools and methods to enhance local technical capacity among farmers, the local community and among technical support staff in government and support organizations will be an essential aspect to successful scaling up and it is expected that persons trained will serve as resource persons to exchange experiences and knowledge within the country and in the wider Caribbean. The Partnership for Sustainable Land Management (PISLM), through its regional mandate of supporting Caribbean countries in meeting their obligations under the UNCCD will play a key role in showcasing the lessons learned from the project through knowledge exchanges with partners in the region. The project will contribute to scaling-up at the global level with particular relevance to SIDS, where tools and methods available through knowledge hubs such as WOCAT and Trends Earth will be applied, and lessons learned are contributed to global efforts in assessing, monitoring and arresting land degradation.

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[2] <https://agris.fao.org/agris-search/search.do?recordID=TT9400004>

[3] <https://www.mdpi.com/2079-9276/8/4/174>

[4] Listed as Carriacou Ridge/Mt. Pelea WDPa ID: 555592989  
<https://www.protectedplanet.net/en/country/GRD>

[5] <https://sites.google.com/site/grenadagrenadagrenada/national-parks>

[6] <https://www.cbd.int/countries/profile/?country=gd>

[7] [https://en.wikipedia.org/wiki/Carriacou\\_and\\_Petite\\_Martinique#](https://en.wikipedia.org/wiki/Carriacou_and_Petite_Martinique#)

[8] <https://docs.wfp.org/api/documents/WFP-0000116248/download/>

[9] Communications from the Ministry of Agriculture

[10] <https://gov.gd/sites/default/files/docs/Documents/others/nsdp-2020-2035.pdf>

[11]  
[https://gov.gd/sites/foal/files/docs/Documents/Grenada%20National%20Land%20Policy%20\(Final\).pdf](https://gov.gd/sites/foal/files/docs/Documents/Grenada%20National%20Land%20Policy%20(Final).pdf)

[12] [https://www.unccd.int/sites/default/files/naps/2021-03/Grenada%20Aligned%20National%20Action%20Programme\\_withcommsplan.pdf](https://www.unccd.int/sites/default/files/naps/2021-03/Grenada%20Aligned%20National%20Action%20Programme_withcommsplan.pdf)

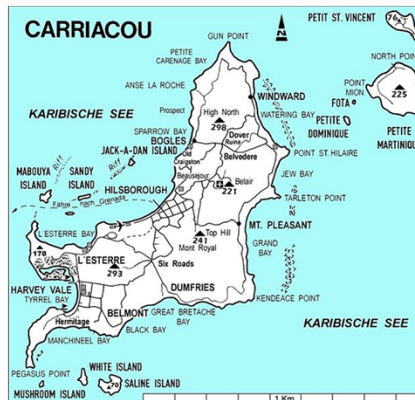
[13]  
[https://gov.gd/sites/foal/files/docs/Documents/COUNTRIES\\_GRENADA\\_National\\_Agriculture\\_Plan\\_Final\\_Aug25\\_2015\\_Final\\_Edit\\_\(002\).pdf](https://gov.gd/sites/foal/files/docs/Documents/COUNTRIES_GRENADA_National_Agriculture_Plan_Final_Aug25_2015_Final_Edit_(002).pdf)

[14] <https://gov.gd/sites/mocr/files/docs/Documents/Grenada%20Forest%20Policy.pdf>

- [15] <https://climatefinance.gov.gd/embedded-pdf/grenadas-gender-equality-policy-action-plan/>
- [16] [https://knowledge.unccd.int/sites/default/files/ldn\\_targets/grenada-ldn-country-report.pdf](https://knowledge.unccd.int/sites/default/files/ldn_targets/grenada-ldn-country-report.pdf)
- [17] <https://www.mdpi.com/2079-9276/8/4/174/htm>
- [18] Grenada - Land Degradation Neutrality National Report  
[https://knowledge.unccd.int/sites/default/files/ldn\\_targets/grenada-ldn-country-report.pdf](https://knowledge.unccd.int/sites/default/files/ldn_targets/grenada-ldn-country-report.pdf)
- [19]  
[https://unfccc.int/sites/default/files/resource/Grenada%20Second%20National%20Communication\\_Final%20%281%29%20%281%29.pdf](https://unfccc.int/sites/default/files/resource/Grenada%20Second%20National%20Communication_Final%20%281%29%20%281%29.pdf)
- [20] [https://www.unccd.int/sites/default/files/naps/2021-03/Grenada%20Aligned%20National%20Action%20Programme\\_withcommsplan.pdf](https://www.unccd.int/sites/default/files/naps/2021-03/Grenada%20Aligned%20National%20Action%20Programme_withcommsplan.pdf)
- [21] <https://gov.gd/ministry-agriculture-formulates-mitigation-and-response-plan-amidst-coronavirus-pandemic>
- [22] <https://www.nowgrenada.com/2020/09/agricultural-division-in-carriacou-boasts-increased-crop-production/>
- [23] <https://saep.gov.gd/>
- [24] <https://www.adaptation-undp.org/projects/bf-grenada#:~:text=The%20overall%20aim%20of%20the,analyzing%20and%20implementing%20adaptation%20strategies.>
- [25] For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.
- [26] [https://knowledge.unccd.int/sites/default/files/ldn\\_targets/grenada-ldn-country-report.pdf](https://knowledge.unccd.int/sites/default/files/ldn_targets/grenada-ldn-country-report.pdf)
- [27]  
[https://gov.gd/sites/maol/files/docs/Documents/Grenada%20National%20Land%20Policy%20\(Final\).pdf](https://gov.gd/sites/maol/files/docs/Documents/Grenada%20National%20Land%20Policy%20(Final).pdf)
- [28] <https://trends.earth/docs/en/index.html>

#### **1b. Project Map and Coordinates**

**Please provide geo-referenced information and map where the project interventions will take place.**



Project restoration area



## 2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

**Indigenous Peoples and Local Communities**

**Civil Society Organizations** Yes

**Private Sector Entities** Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

Leading up to formulation of the PIF the Ministry of Agriculture, Lands and Forestry have led bilateral discussions and group stakeholder dialogues with farmers in Carriacou on the project concept. Key areas of interest included addressing land degradation associated with the ruminant sector, expansion of water harvesting, improved land/watershed management, capacity building and livelihood enhancement. There have been ministerial-level discussions led by the Minister of Agriculture (Hon. Peter David) that affirmed the continued focus on Carriacou as a priority in addressing the overgrazing issue and the apparent desertification in critical agricultural areas of Carriacou.

Stakeholder	Roles in Project Preparation and means of engagement during PPG
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Stakeholder	Roles in Project Preparation and means of engagement during PPG
Ministry of Agriculture, Lands and Forestry	Overall responsibility for the design and implementation of the project, maintaining liaison among the various stakeholders in the project area in development of the project and facilitating buy-in. Guidance on policy and regulatory elements related to enhancing project sustainability, cross-sectoral integration and organisational/stakeholder coordination for SLM.
Ministry of Carriacou and Petit Martinique Affairs & Local Government	Support to identify community groups, mobilize farmers and technical guidance for design and development of project activities through direct bilateral engagement and in group planning discussions.
Ministry of Climate Resilience and the Environment	Consultative inputs in the design and project development related to forest and environmental management policy, climate resilience strategy integration through direct bilateral engagement and in group planning discussions.
Ministry of Health & Social Security	Consultative inputs in the design and project development related to upholding environmental and public health safeguards through direct bilateral engagement and in group planning discussions.
Grenada National Organization of Women (GNOW)	Consultative inputs in the design and project development on ensuring that gender considerations are adequately incorporated through direct bilateral engagement and in group planning discussions.
Partnership Initiative on Sustainable Land Management (PISLM)	Executing agency for the project (in close collaboration with the Ministry of Agriculture and Ministry of Environment of the Government of Grenada). Lead the development of the project document during the PPG phase; ensure wide consultative inputs from stakeholders and serve as primary liaison with UNEP in finalization on the proposal. The PISLM is executing two active GEF-UNEP land degradation projects in Dominica and is the executing agency for the CSIDS SOILCARE Project Phase 1 and will lever this experience and networking to this project.
Carriacou Farmers Association	Consultative inputs in project design and solicit farmer's mobilization for participation in capacity building activities through direct bilateral engagement and in group planning discussions.

Stakeholder	Roles in Project Preparation and means of engagement during PPG
<p><b>Key private sector:</b>  <b>Food distribution/retail:</b>  Marketing and National Importing Board (Carriacou), Alexis Food Stores, Matheson Supermarket, Kims Plaza Supermarket  <b>Restaurants:</b>  Laurena Jerk Centre, Bogles Roundhouse  <b>Yachting:</b> Tyrell Bay Marina, Carriacou Marine Limited  <b>Hotels:</b> Mermaid Hotel, Hotel Laurena, Carriacou Grand View Hotel  <b>Tours/excursions:</b>  Carriacou Tours, Kido Foundation</p>	<p>Consultative inputs in project design in context of interest in locally grown food supply augmentation stimulated by the project to meet demands for local population and visitors, and potential opportunities in nature-based tourism associated with areas to be restored. This will be through direct bilateral engagement and in broad group planning discussions</p>
<p>Inter-American Institute for Cooperation on Agriculture (IICA)</p>	<p>Technical inputs in project design related to capacity building for farmers and agricultural extension staff on the use of soil conservation and farming techniques through direct bilateral engagement and in group planning discussions.</p>
<p>Caribbean Agricultural Research and Development Institute (CARDI)</p>	<p>Technical inputs in project design related to capacity building for farmers and agricultural extension staff on the use of soil conservation and farming techniques through direct bilateral engagement and in group planning discussions.</p>
<p>University of the West Indies (UWI)</p>	<p>Technical guidance in project design on capacity building elements for farmers and agricultural extension staff related to application of soil conservation and farming techniques</p>
<p>United Nations Development Programme (UNDP)</p>	<p>Provide policy and technical guidance to ensure synergies occurs between this project and relevant initiatives being implemented by UNDP</p>

Refer to Annex F for a summary of stakeholder consultative process in development of the PIF. To reiterate, under Component 2, a detailed stakeholder analysis and community engagement plan to include gender considerations will be developed during the PPG phase.

### 3. Gender Equality and Women's Empowerment



**Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).**

Grenada is committed to protecting and maintaining the rights of all its citizens as enshrined and expounded in the constitution, which entitles women, men, boys, and girls to equal rights to exist in freedom, dignity, peace and non-discrimination. Since the Government of Grenada adopted a National Gender Equality Policy and Action Plan (GEPAP)[29] in 2014, many achievements regarding gender equity and equality have been reached and Grenada continues to make strides towards the social and economic achievement of women and indeed towards full gender equity and equality. The GEPAP will be used as the framework for mainstreaming gender into all areas of the project, as gender and social issues are important drivers and incentives for achieving global environmental benefits and therefore are a critical element for the success of the project. The project will have direct linkages to the GEPAP's stated intent of promoting gender equality in the sector and its importance in facilitating agricultural diversification, food security, economic growth, poverty reduction, and sustainable development in the context of Carriacou. The key actions identified in the GEPAP will be in alignment with the areas that will be addressed under this project that includes building awareness to break perceptions that relegates agriculture to marginal groups, widening engagement and empowerment of male and female farmers in the agricultural sector, promoting gender equity in leadership and decision making among others.

The project will play an important role in the empowerment of women in Carriacou in enhancing the skills and knowledge levels of women in implementing sustainable agriculture, which is important as women play a major role in agricultural production and associated activities within the project area and on Carriacou in general. Gender related aspects of the project will be addressed through close collaboration with the Grenada National Organization of Women (GNOW) who will work with communities and organizations to ensure gender equity in participation of women in project activities, to ensure socioeconomic benefits. All training and demonstration events will ensure that at least 50% of participants are women. In addition, the project will actively seek to recruit women as project staff and technical consultants, and to include women in relevant ministries and agencies (e.g. Agricultural Extension Services) in project activities on capacity building. All knowledge management activities will be gender mainstreamed, including the integration of gender dimensions into publications, for instance, presenting sex-disaggregated data, using gender sensitive language in publications and photos that show both women and men and avoid presenting stereotypes. Finally, the project will ensure that women, men and youth have access to and benefit from the knowledge created by the project, and under the terms of reference of the PMU (via the Project Manager), successfully track the gender metrics of the project monitoring and evaluation

system. The project will aim to ensure the governance mechanism for the project itself and extended to SLM on Carriacou, will be gender balanced.

During the PPG phase, a detailed gender analysis, to include considerations of land and resource access, decision making roles and gender-based vulnerabilities will be undertaken, to inform final project design.

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[29] <https://climatefinance.gov.gd/embedded-pdf/grenadas-gender-equality-policy-action-plan/>

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes**

**closing gender gaps in access to and control over natural resources; Yes**

**improving women's participation and decision-making; and/or Yes**

**generating socio-economic benefits or services for women. Yes**

**Will the project's results framework or logical framework include gender-sensitive indicators?**

Yes

#### **4. Private sector engagement**

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

The project will seek to actively engage private sector interests in Carriacou in the design and development of the project. The private sector in Carriacou apart from farmers and agri-entrepreneurs is relatively small and is dominated by the hospitality (hotel, yachting, water taxi), retail and services sectors. A 2012 Government of Grenada/UNDESA study[30] noted that there are potential opportunities for integration of agriculture and ecotourism sectors to enhance sustainable resource use on the island where it has been further proposed that a fraction of tourism related profits can be used to finance environmental protection and conservation. In Carriacou private sector in the retail, hospitality and yachting sectors will have interest in local food supply and provisioning services. Key enterprises include the Marketing and National Importing Board (Carriacou), Alexis Food Stores, Matheson Supermarket and Kim's Plaza Supermarket in local food retail and distribution; Laurena Jerk Centre,

Bogles Roundhouse within the restaurant sector; Mermaid Hotel, Hotel Laurena and Carriacou Grand View Hotel representing the hospitality sector, and Tyrell Bay Marina and Carriacou Marine Limited representing the yachting sector. Companies and community-based organizations that offer excursions on the island include Carriacou Tours and the Kido Foundation, which are of interest in the context of offering nature-based experiences that could potentially be integrated with the land restoration and conservation work that is anticipated under the project. These opportunities, among other avenues for private sector engagement will be explored during the PPG phase.

[30]

<https://sustainabledevelopment.un.org/content/documents/523421Final%20Pub%20Road%20Map%20Carriacou%20&%20Petite%20Martinique%20Grenada%20%20June2012.pdf>

### 5. Risks to Achieving Project Objectives

**Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)**

Risk	Risk level	Mitigation Measures
<p>Grenada's significant vulnerability to natural disasters, which are likely to be exacerbated by climate change, poses a risk to achievement of the project outcomes. Major weather events, including hurricanes, have significantly harmed the population's well-being, the country's economic and fiscal stability, and ecosystem functioning and services (e.g. water quality and quantity; flood prevention; soil services; agricultural production; etc.), and future climate change related events could impact project efforts to foster more sustainable agricultural production and landscape restoration.</p>	<p>Medium</p>	<p>A major focus of the proposed project is to mitigate the risks posed by climate change related natural disasters, in particular those arising from meteorological events. The project will strengthen the resilience of ecosystems by demonstrating and enhancing uptake of environmentally sound management practices. Training of farmers and local communities in sustainable agricultural practices, SLM and rehabilitation of degraded lands will enhance ecosystem resilience to withstand shocks associated with climate change-induced meteorological events. The project will prioritize SLM approaches that account for potential climate change impacts (resilient tree species selection, use of drought tolerant crops, adoption of soil conservation practices, minimal tilling, windbreaks, vegetative barriers) to limit soil erosion and land slippage in the event of heavy rainfalls.</p>

Risk	Risk level	Mitigation Measures
The limited capacity of institutions, to provide effective delivery of services and to oversee backstopping support for the implementation of project activities.	Low	In general, the Government entities that will be responsible for implementation of various project activities tend to be under-resourced. To address this, the capacity building aspects will be designed to facilitate ease of replication not only by the government agencies but by stakeholders who will be trained as trainers. The Executing Agency will establish project management presence in Grenada to ensure effective project implementation. The project will be adaptively managed as needed through flexibility measures such as reprogramming of activities if and as appropriate within the project results framework and implementation schedule and timely addressing of delays.
Co-financing from different partners may flow slowly due to different institutional cultures	Low	The project has secured commitments from core partner institutions. All of the identified co-financing is related to programs and projects that are already ongoing, and therefore the provision of co-financing is considered secure and can be expected to be contributed in line with project implementation.
Willingness of small farmers and local communities to adopt new land management tools and methodologies and to change agricultural and farming practices that contribute to land degradation and biodiversity loss.	Low	The application of location-specific, effective SLM technologies that produce both environmental and economic benefits (in terms of production increases and/or cost reductions) via consultations with farmers and stakeholders, will provide positive incentives for adoption. To support the effort, the project will carry out targeted awareness raising to increase stakeholder and public understanding and awareness on the threat of land degradation and the importance of implementation of SLM options.
The Implications of COVID-19	Medium to High	Given the uncertainty associated with the re-occurrence of COVID-19 in the region over the forecasted duration of the project, this remains a risk factor. To mitigate the risk, Grenada has health management protocols in place which will be observed during execution of the project. The project design will need to consider adaptive management options to address potential challenges.

## 6. Coordination

**Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.**

*Institutional project structure, monitoring, evaluation and coordination:* UNEP's Ecosystems Division be the project Implementing Agency (IA) and the Partnership Initiative for Sustainable Land

Management (PISLM) will function as the project Executing Agency (EA) on behalf of the Ministry of Agriculture, Lands and Forestry. The Ministry will provide the political and institutional supervision for the overall project activities as implementing partners. A Project Cooperation Agreement (PCA) will be issued by UNEP to PISLM to establish this executing function, with provision of financial resources.

The PISLM will establish Project Management Unit (PMU) that will be led by a Project Manager and supported by an Administrative Officer and a Technical Assistant. The PMU carry out the day-to-day management of the project, ensure successful realization of project outputs, deliver all technical and financial reporting, liaise with project partners and act as the Secretariat to the Project Steering Committee (PSC). The PMU will ensure annual financial audits of expenditure conducted and contribute to the conduct of a mid-term review and terminal evaluation, with engagement of the PMU and beneficiary stakeholders. The PSC will provide oversight and guidance to the project and will be chaired by the Ministry of Agriculture, Lands and Forestry. The PSC will comprise of organizational representation at senior levels of the various national implementing agencies (and local-level in Carriacou), partner organizations (including CSOs and CBOs). The project will aim to have equitable gender balance in representation on the PSC. The composition, responsibilities and rules of operation of the PSC will be detailed at the commencement of Project Implementation. The PSC will be nested within the framework of the UNCCD National Coordination Body (NCB) that will facilitate mainstreamed representation from Carriacou, to national-level strategic planning and implementation of the National Action Plan, and support retention of a post-project governance/coordination mechanism for SLM on Carriacou based on the working modalities established under the PSC.

UNEP in capacity as Implementing Agency will have a seat on the PSC and be recipient of substantive technical reports (half-year, and annual Project Implementation Review reports) and quarterly financial reports.

The PISLM in performing its functions as the Executing Agency will have its work overseen by different entities at different levels within the remit of the PSC but also at the regional Caribbean Community (CARICOM) level. At the CARICOM level, the PISLM is mandated to report to the Council on Trade and Economic Development (COTED) of the Caribbean Community on its stewardship including, *inter alia*, sustainable land management projects and initiatives being implemented by the PISLM on the behalf of Caribbean SIDS Member States. Feedback from execution of the project will be provided through regular updates to the COTED.

Coordination with other relevant GEF-financed projects and other initiatives: A number of on-going initiatives in Grenada have interlinked objectives with the proposed project and will contribute to strengthening the data and knowledge available for Grenada in relation to specific environmental issues (including key associated gender and socio-economic considerations) and, the proposed project intervention will draw on lessons learnt from these GEF projects. Projects which will be reviewed during the PPG design phase to extract lessons learnt that can be integrated into the design of this project include:

(1) Caribbean Small Island Developing States (SIDS) Multicountry Soil Management Initiative for Integrated Landscape Restoration and Sustainable Food Systems: Phase 1 (CSIDS-SOILCARE Phase 1).

CSIDS-SOILCARE Phase 1, in addition to contributing to the achievement of SDG 15.3, and more specifically to Land Degradation Neutrality (LDN), addresses the drivers of land degradation and barriers to SLM in the Caribbean, including, *inter alia*, overexploitation of forest resources and expansion of agriculture in accessible areas, improper use of fertilizers and other agro-chemicals and inadequate soil and water management at a scale for sustaining soil functions and related ecosystem services, unsustainable forestry and agricultural systems, including logging, cropping and livestock management practices. Opportunities for cross-collaboration will include capacity building and enhancing knowledge management and replication.

*(2) Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (GEF-IWEco Project);* This five-year multi-focal area regional project has four components that are relevant to the design of this project; (1) Development and Implementation of Integrated Targeted Innovative, climate-change resilient approaches in sustainable land management (SLM), integrated water resources management (IWRM) and maintenance of ecosystem services; (2) Strengthening of the SLM, IWRM and ecosystems Monitoring, and Indicators framework; (3) Strengthening of the Policy, legislative and institutional reforms and capacity building for SLM, IWRM and ecosystem services management taking into consideration climate change resilience building and (4) Enhancing knowledge exchange, best practices, replication and stakeholder involvement. The lessons learned from Component 1 in other Caribbean SIDS will be highly instructive in uptake and replication for this project in Carriacou.

*(3) Climate-Resilient Agriculture for Integrated Landscape Management (UNDP-supported)* incorporates sustainable land management (SLM) and biodiversity conservation into production landscapes, as a solution to biodiversity loss and land degradation in the country. It also incorporated into SLM climate smart agriculture (CSA) practices that can contribute to ensuring the long-term sustainability of agricultural production at the community and producer levels. The proposed project is expected to build on lessons learned from this project and complement with the demonstration of landscape restoration methods and tools. In Carriacou, the Climate-Resilient Agriculture for Integrated Landscape Management Project will entail implementation of a pilot rangeland demonstration facility at Mt. Pleasant/Windward and support the establishment of an integrated CSA/livestock facility. Given that the Ministry of Agriculture, Lands and Forestry is the lead national agency for execution of this project and will have overall responsibility for the design and implementation of the proposed project, close operational synergies will be established between the two initiatives. Many of the policy and technical stakeholders will be common to both projects and will therefore provide harmonized and coherent guidance in project implementation via the steering committees and other support technical working groups. During the PPG phase, operational modalities to enhance collaboration across the projects will be defined.

## **7. Consistency with National Priorities**

**Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions?**

Yes

**If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc**

Grenada has articulated its commitment to sustainable land management in various government documents including UNCCD national reports, adoption of a NAP, and the National Biodiversity Strategies and Action Plan (NBSAP) and the Land Degradation Neutrality ? Target Setting Process (LDN-TSP). The proposed project draws on these plans with the view of implementing relevant aspects and supporting the country?s efforts to meet its commitments under international conventions relevant to sustainable land management. Specifically, under the LDN-TSP the country has identified the rehabilitation of 383 ha of degraded land at Bellevue South in Carriacou by 2030 within its voluntary targets for rehabilitation,[31] the area that will be targeted under this project. Grenada has recently approved its National Land Policy (NLP)[32] and is currently involved in the legislative process that integrates the sustainable land management components of the NLP into a *Draft Land Management and Natural Resources Bill*.

The *Second National Communication (SNC) of the Government of Grenada, to the UNFCCC* (2017)[33] details projected climate change and biophysical impacts, and outlines mainstreaming climate change adaptation activities into national development planning in the context of enhancing institutional frameworks, building coastal resilience, improving water resource management and building the resilience of communities. Concerning the agriculture sector, climate change is forecast to progressively deteriorate food supply and economic growth with consequences for the poor and other vulnerable populations in Grenada. Key recommendations to increase the resilience of the agriculture sub-sector against the impacts of climate change include reduction of land degradation due to inefficient agricultural practices, such as the land clearing on steep slopes, overgrazing (especially in Carriacou and Petite Martinique), poor soil and water conservation practices (including little use of organic matter) and avoidance of farming too close to riverbanks so as to avoid flooding of croplands. This also includes the greater adoption and use of CSA (Climate Smart Agriculture) practices such as contour ploughing and planting, intercropping, rationalization of agro-chemicals and investment in crop insurance schemes. In addition, Grenada?s Intended *Nationally Determined Contribution* (2016)[34], followed by the second *Nationally Determined Contribution* (2020)[35] commits to an economy-wide target to reduce emissions by 40% (below 2010 levels) by 2030, which covers the energy, forestry, waste and industrial processes and product use (IPPU) sectors. Related to land management and emissions, emphasis will be placed on achieving reduction in forest fires that contribute to atmospheric carbon emission. The national land policy is cited in the NDC as providing guidance on addressing land use change in the future with the rehabilitation and protection of degraded landscapes. Improved water resource management through the capture, storage, distribution and conservation enhances the adaptive capacity of individuals and communities to climate change.

The *National Sustainable Development Plan (NSDP) (2020-2035)*[36] cites deforestation and indiscriminate clearing of lands, especially on privately-owned land, that are resulting in soil erosion and destroying natural habitats, causing loss of species with negative impacts on biodiversity. The NSDP notes that patterns of land use are changing, posing serious challenges for natural resources such as mangrove wetlands and the ecological system overall. Under Outcome 4 of the NSDP that seeks ?Broad-

based, Inclusive, and Sustainable Economic Growth and Transformation?, climate-smart agriculture is cited as a key strategy to adapt to climate change along with modernization of irrigation systems and practices, increasing organic production to reduce the reliance on chemicals and pesticides, and strengthening hazard mitigation for the sector. This approach for the agriculture sector is echoed under Outcome 7; ?Climate Resilience and Hazard Risk Reduction? in terms of recommended national strategic actions.

The Government of Grenada has adopted fourteen targets, all directly related to Aichi Biodiversity Targets, including a number of targets which are directly relevant to this project. These include; Target 7: Sustainable Agriculture, aquaculture and forestry; Target 9: Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment; Target 11: Protected areas increased and improved; Target 13: The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity; Target 14: Ecosystem restoration and Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

*COVID-19 Recovery:* In 2020 the Government of Grenada rolled out the *COVID-19 National Food Security Mitigation and Response Plan*[37] to address the social and economic fallout particularly in the agriculture sector, associated with the pandemic. In this regard the project in Carriacou will directly complement the efforts under the Plan that seeks to enhance both crop and livestock productivity, where SLM considerations will be taken into account to ensure that the production does not result in further land degradation. The existing fiscal incentive/farm concessions programme under the Statutory Rules and Orders #13 for support to the agricultural and rural development sector will be the main ?augment? vehicle under which these recovery efforts will be supported and will also facilitate sustainability of the investments made under the project.

*United Nations Cooperation Framework:* The United Nations coordinated support to Grenada is under a *UN Multi-Country Sustainable Development Framework (MSDF)*. The 2017-2021 UN MSDF in the Caribbean[38] includes Priority Area 4 ?A Sustainable and Resilient Caribbean? which is relevant to the objectives under this project. Under this priority area the UN system will support coherent efforts to strengthen the resilience of the Caribbean and its peoples by mitigating the effects of climate change, disasters and environmental degradation in the context of sustainable development, livelihoods, and the economies. The anticipated relevant outcome is ?Inclusive and sustainable solutions adopted for the conservation, restoration and use of ecosystems and natural resources.

The Office of the UN Resident Coordinator with responsibility for Grenada (Multi-Country Office (MCO)) covers the Barbados and the Eastern Caribbean. UNEP, through its Caribbean Sub-Regional Office (CSRO) participates in the UN Sub-regional Team (UNST) and works to ensure UNEP-led initiatives align with the Multi-Country Sustainable Development Framework (MSDF). During project



implementation, UNEP's CRSO will be kept in close communication to facilitate as relevant and necessary, avenues for building synergies between related initiatives. The CSRO will be furnished with key reports that will include *inter-alia*, annual progress implementation reviews, mid-term reviews and terminal evaluation reports for feedback particularly related to ensuring coherence with wider UN-led initiatives within the Caribbean region. The UN Resident Coordinator's Office has been advised in parallel with the formulation of the project and feedback will be incorporated into further drafts of the project documentation and appropriately incorporated into governance arrangements at implementation.

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[31] [https://knowledge.unccd.int/sites/default/files/ldn\\_targets/grenada-ldn-country-report.pdf](https://knowledge.unccd.int/sites/default/files/ldn_targets/grenada-ldn-country-report.pdf)

[32]

[https://gov.gd/sites/moal/files/docs/Documents/Grenada%20National%20Land%20Policy%20\(Final\).pdf](https://gov.gd/sites/moal/files/docs/Documents/Grenada%20National%20Land%20Policy%20(Final).pdf)

[33]

[https://unfccc.int/sites/default/files/resource/Grenada%20Second%20National%20Communication\\_Final%20%281%29%20%281%29.pdf](https://unfccc.int/sites/default/files/resource/Grenada%20Second%20National%20Communication_Final%20%281%29%20%281%29.pdf)

[34] <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Grenada%20First/Grenada%20INDC.pdf>

[35] <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Grenada%20Second/GrenadaSecondNDC2020%20-%2001-12-20.pdf>

[36] <https://gov.gd/sites/default/files/docs/Documents/others/nsdp-2020-2035.pdf>

[37] <https://gov.gd/ministry-agriculture-formulates-mitigation-and-response-plan-amidst-coronavirus-pandemic>

[38] [https://unsdg.un.org/sites/default/files/cf-documents/9bea30e0-f553-49d6-ac99-3c50989aaa6\\_UN-MSDF-2017.pdf](https://unsdg.un.org/sites/default/files/cf-documents/9bea30e0-f553-49d6-ac99-3c50989aaa6_UN-MSDF-2017.pdf)

## 8. Knowledge Management

**Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.**

This project is being formulated based on lessons learned and knowledge gained from existing and prior executed land degradation initiatives, that will build on Grenada's LDN Target-Setting process within which the Carriacou implementation site has been identified a priority area for the intervention under this

project. The project will consolidate knowledge gained from field execution compiled in the package of best practices and technologies on SLM and landscape restoration to be developed through the application of nature-based solutions for erosion control, water and livestock management that is crafted to the local conditions on Carriacou. The value of the knowledge gained from the project will be particularly useful in application to similar micro-landscapes that are highly vulnerable to climate change impacts, but yet are under accelerated degradation due to anthropogenic influences that threaten livelihoods that are supported by maintaining the functional integrity of ecosystems. The package of SLM practices will draw on best practices from regional and global knowledge bases and will be disseminated to farmers and local community residents involved in watershed restoration supported by capacity building via training on use of the identified approaches and technologies. Through stakeholder application, testing and validation, lessons learned will be carefully documented and consolidated in guidelines/handbook(s) to be used as key knowledge resources for further location-specific replication on Carriacou, across Caribbean SIDS, and SIDS at the global level, through various knowledge sharing networks.

In this regard, web-based platforms hosted by both the Ministry of Agriculture, Lands and Forestry, and the Ministry of Climate Resilience, the Environment, Forestry, Fisheries & Disaster Management will be avenues for knowledge sharing given that they already maintain information on land management initiatives in the country. An important aspect of the project will be support for the enhancement of regional cooperation and information sharing on issues, data and approaches relevant to land degradation and sustainable land management. To assist this process, knowledge acquired will be fed back through Caribbean-level knowledge platforms such as is being developed under the CSIDS-SOILCARE Phase 1 Project and also through the PISLM online resources. The PISLM is in the process of establishing a regional Information, Communications and Technology (ICT) knowledge hub that will facilitate the sharing of information among countries and with other GEF-supported SLM projects in the sub-region on SLM best practices, successes and failures in implementing SLM-oriented projects and strategies for developing LDN targets linked to Grenada's Land Degradation Neutrality Target Setting Process (LDN-TSP).

The knowledge management approach will be in alignment with the GEF knowledge management strategy so that the project can learn from and share with global community, and all publications developed under this project will comply with the communications policies of the GEF and its partner Agencies.

## **9. Environmental and Social Safeguard (ESS) Risks**

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

**Overall Project/Program Risk Classification\***

PIF	CEO Endorsement/Approval	MTR	TE
<b>Medium/Moderate</b>			

**Measures to address identified risks and impacts**

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

This project seeks to effectively address land degradation in Carriacou, through demonstration and application of ecosystems-based landscape restoration, sustainable land management and good agricultural practices, using community participatory approaches that expands diversification and sustainability of livelihoods options. This will be done through two project components; Component 1: Community-Based Landscape Rehabilitation and Protection using EbA approaches that will deliver on enhanced capacity for multiplication of planting material to support land restoration; restore at least 250 ha through improved soil and land conservation measures and support four water conservation installations to enhance moisture retention at restoration sites. Component 2: Strengthening Knowledge Management and Capacities for application of SLM and EbA tools will deliver a package of effective SLM approaches / technologies and training events for uptake and application over a further 635 ha by farmers, community beneficiaries; a public awareness and education plan to be implemented targeting farmers, school children and the community and co-management protocols for savannah grassland management for implementation by local communities.

**Supporting Documents**

Upload available ESS supporting documents.

Title	Submitted
<b>CRC SRIF SLM Grenada CC 2</b>	

**Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).**

<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Kelvin George	GEF Operational Focal Point	Ministry of Finance, Planning, Economic Development and Physical Development, Grenada	3/16/2022

**ANNEX A: Project Map and Geographic Coordinates**

Please provide geo-referenced information and map where the project intervention takes place

