

**United Nations Development Programme**

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| **Project title:** Climate-Resilient Agriculture for Integrated Landscape Management | | | | | |
| **Country:**  Grenada | **Implementing Partner:** Department of Economic and Technical Cooperation (DETC), Ministry of Finance, Economic Development, Planning and Physical Development | | | | **Management Arrangements:** National Implementation Modality (NIM) |
| **UNDAF/Country Programme Outcome (United Nations Multi-Country Sustainable Development Framework in the Caribbean)***:* Policies and programmes for climate change adaptation, disaster risk reduction and universal access to clean and sustainable energy in place. | | | | | |
| **UNDP Strategic Plan Output:** 1.4.1 Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains. | | | | | |
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| **Brief project description:**  Grenada’s biodiversity is being threatened by unsafe agricultural practices and encroachment from human settlements, resulting in habitat loss and fragmentation, overexploitation of biological resources, and pollution. The presence of invasive alien species and climate change are also drivers of biodiversity loss in the country. Land degradation has affected approximately 50% of land resources in Grenada; deforestation and fragmentation of forests in the form of forest clearance to allow for residential and commercial development, non-sustainable agriculture, forest fires, and coastal tourism development are the main forces behind land degradation in Grenada. Integrated agroecosystem management, which incorporates sustainable land management (SLM) and biodiversity conservation into production landscapes, may provide a solution to biodiversity loss and land degradation in the country. SLM and biodiversity conservation objectives need to be mainstreamed into national land use planning, sectoral policies, and legal frameworks. Incorporated into SLM are climate smart agriculture (CSA) practices that can contribute to ensuring the long-term sustainability of agricultural production at the community and producer levels. However, there are three overarching barriers that stand in the way of advancing this long-term solution of the effective implementation of SLM and CSA practices and the mainstreaming of biodiversity conservation into production landscapes in Grenada. These include: a) insufficient systemic and institutional capacity for integrated SLM and biodiversity conservation landscape-level planning; b) lack of access to financial mechanisms and technical and information services, thereby limiting investment in sustainable agricultural planning and practices; and c) limited awareness, understanding, and knowledge of CSA and SLM techniques and practices integrated with biodiversity conservation.  The project objective is to operationalize integrated agroecosystem management through mainstreaming biodiversity conservation in production landscapes and increasing the resilience of agricultural systems. This will be achieved through the following four interrelated outcomes: a) Outcome 1: Systemic and institutional capacity for integrated landscape management at the national level; b) Outcome 2: National capacity to provide financial, technical, and information services for CSA production; c) Outcome 3: Operationalization of resilient agricultural practices; and d) Outcome 4: Knowledge management for SLM, CSA, and biodiversity conservation. | | | | | |
| **Financing Plan** | | | | | |
| GEF Trust Fund | | | USD 3,659,775 | | |
| 1. **Total Budget administered by UNDP** | | | **USD 3,659,775** | | |
| **Parallel co-financing** | | | | | |
| UNDP | | | USD 400,000 | | |
| Ministry of Finance, Economic Development, Planning and Physical Development: loan from International Fund for Agricultural Development (IFAD) and the Caribbean Development Bank (Climate Smart Agriculture and Market Access Program (PN: 2000001475) | | | USD 8,215,800 | | |
| Ministry of Finance, Economic Development, Planning and Physical Development: loan from the World Bank (OECS Regional Competitiveness Project -  PN: P158958) | | | USD 4,792,550 | | |
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| 1. **Total co-financing** | | | **USD 14,093,000** | | |
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| **Signatures** | | | | | |
| **Signature:** print name below | | **Agreed by Government** | | **Date/Month/Year:** | |
| **Signature:** print name below | | **Agreed by Implementing Partner** | | **Date/Month/Year:** | |
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# List of Abbreviations

ACP African, Caribbean, and Pacific Group of States

ART Agency for Rural Transformation

BMZ German Federal Ministry of Economic Cooperation and Development

°C Degrees Celsius

CCAFS Climate Change, Agriculture and Food Security

CARDI Caribbean Agricultural Research and Development Institute

CARICOM Caribbean Community

CATS Caribbean Aqua-Terrestrial Solution

CBD Convention on Biological Diversity

CMBP Caribbean Marine Biodiversity Program

CSA Climate smart agriculture

CSO Civil Society Organization

DETC Department of Economic and Technical Cooperation

ESMP Environmental and Social Management Plan

FAO Food and Agriculture Organization of the United Nations

GBS Grenada Bureau of Standards

GCCA Global Climate Change Alliance

GDP Gross domestic product

GEF Global Environment Facility

GERRI Grenada Ecological Research and Resilience Institute

GlADMON Grenada Land Degradation Monitoring Network

GIDC Grenada Investment and Development Corporation

GIS Geographic information system

GIZ Gesellschaft für Internationale Zusammenarbeit

GOAM Grenada Organic Agriculture Movement

GPS Global positioning system

GWaSP Grenada Water Stakeholder Platform

GYELL Grenada Young Enthusiasts of Land for Life

ha Hectares

HACCP Hazard Analysis and Critical Control Points

HDI Human Development Index

IAGDO Inter Agency Group of Development Organizations

IAS Invasive alien species

ICCAS Integrated Climate Change Adaptation Strategies project

IEO Independent Evaluation Office

IFAD International Fund for Agricultural Development

IFOAM International Federation of Organic Agriculture Movement

iLAND OECS Project for Island Resilience

INRM Integrated natural resource management

IWRM Integrated water resource management

ISO International Organization for Standardization

J-CCCPJapan-Caribbean Climate Change Partnership

KAP/B Knowledge, Attitude, Practice, and Behavior

KBA Key Biodiversity Area

km Kilometer

km2 Square Kilometers

LAC Latin America and the Caribbean

LADA Land Degradation Assessment

LD Land Degradation

m3 Cubic Meters

MCREFFDM Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management

mm Millimeters

MNIB Marketing and National Importing Board

MTR Mid-term Review

M&E Monitoring and evaluation

NAMAs Nationally Appropriate Mitigation Actions

NAP National Action Program

NAWASA National Water and Sewerage Authority

NBSAP National Biodiversity Strategy and Action Plan

NEFO North-East Farmers’ Organisation

NGO Non-Governmental Organization

NIM National Implementation Modality

NPD National Project Director

NTA Grenada National Training Agency

OAI Office of Audit and Investigations

OECS Organization of Eastern Caribbean States

PA Protected Area

PASP Protected Area System Plan

PGS Participatory Guarantee Systems

PIR Project Implementation Report

PMU Project Management Unit

PPG Project Preparation Grant

RUSLE Revised Universal Soil Loss Equation

RWH Rain water harvesting

R2R Project Ridge to Reef Approach to Protecting Biodiversity and Ecosystem Functions within and Around Protected Areas Project

SAEP Climate Smart Agriculture and Rural Enterprise Programme

SBAA Standard Basic Assistance Agreement

SDGs Sustainable Development Goals

SESP Social and Environmental and Social Screening

SGP Small Grants Programme

SIDS Small Island Developing States

SLM Sustainable Land Management

SOP Standard Operating Procedures

SPECTO St. Patrick Environment Community Tourism Organization

SSTrC South-South and Triangular Cooperation

STAP Scientific and Technical Advisory Panel

TAMCC T.A. Marryshow Community College

TE Terminal Evaluation

TNC The Nature Conservancy

UNCCD United Nations Convention to Combat Desertification

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

UN MSDF United Nations Multi-Country Sustainable Development Framework in the Caribbean

# Development Challenge

*Environmental Context*

1. The tri-island State of Grenada, Carriacou, and Petite Martinique is located at the southern end of the Lesser Antillean islands; it is approximately 344 square kilometers (km2)[[1]](#footnote-2) in size and has a population of 107,825. Grenada’s climate is primarily influenced by the subtropical cyclone belt and the Inter-Tropical Convergence Zone. The frequency, duration, and intensity of rainfall vary considerably throughout the three islands, with the least rainfall in the lowlands of the northeast and southwest island of Grenada (990 to 1,500 millimeters [mm] per year) and in Carriacou and Petit Martinique (about 1,000 mm); the most rainfall occurs in the inland mountainous areas of Grenada (3,750 to 5,000 mm). The Island of Grenada is divided into 71 watersheds; there are eight major watersheds on Carriacou and none on Petit Martinique.[[2]](#footnote-3) [[3]](#footnote-4)
2. *Biodiversity.* Despite its small size, Grenada possesses a relatively high degree of biodiversity, which is essential to the provision of ecosystem goods and services. Forest ecosystems cover approximately 20.8% of Grenada and about 4% of the land area is non-agricultural and non-forested[[4]](#footnote-5). Much of the forest seen in Grenada today is secondary re-growth, which has been conditioned by the impact of hurricanes[[5]](#footnote-6). Deforestation and replanting in Grenada have also led to secondary re-growth or agroforestry, with the exception of some isolated areas on steep mountain slopes that contain primary forests. Secondary forests and forest fragments are important in the landscape as they reduce the amount of edge effect around forested protected areas (PAs) and minimize the amount of agricultural land (and therefore the setting of fires and other impacts) directly adjacent to forested PA, as well as provide habitat for biodiversity and connectivity between forests, among other services. Overall, Grenada presented very little change in the extent of forest cover during the last 25 years; the estimated annual rate of forest loss since 1995 was 0.9%.[[6]](#footnote-7)
3. Grenada’s terrestrial biodiversity includes approximately 1,068 vascular plant species[[7]](#footnote-8), four of which are endemic to the country.[[8]](#footnote-9) Terrestrial fauna comprise approximately 22 species of mammals, including two native opossums, one armadillo, and 11 native species of bats. Of the four amphibian species found in Grenada, the endangered[[9]](#footnote-10) Grenada Whistling Frog ([*Pristimantis euphronides*](http://www.iucnredlist.org/details/56593/0)) is endemic to upper mountain forests and is among the most vulnerable in the West Indies.[[10]](#footnote-11) There are also eight species of reptiles, including five snake species, and 150 species of birds including two endemic species, the critically endangered Grenada Dove (*Leptotila wellsi*) and the endangered Grenada Hook-billed Kite (*Chondrohierax uncinatus murus*).[[11]](#footnote-12) [[12]](#footnote-13) The prime habitat of these two species is the dry forest found in the south and north of the island, which has been drastically reduced from its original extension. Four species of sea turtles nest on Grenada’s beaches: the critically endangered hawksbill sea turtle (*Eretmochelys imbricata*), the endangered green sea turtle (*Chelonia mydas*), the vulnerable leatherback sea turtle (*Dermochelys coriacea*), and the vulnerable loggerhead sea turtle (*Caretta caretta*).
4. The freshwater ecosystems of the tri-island include three main volcanic lakes (Grand Etang, Levera, and Antoine), one man-made lake (Palmiste), multiple surface water streams that are part of an intricate river network, and a small number of springs. The coastal marine ecosystems include 298 hectares (ha) of mangroves; the main mangrove species present are the red mangrove and the black mangrove.[[13]](#footnote-14) Mangroves filter runoff from land, provide substrate for marine organisms and birds, and provide feeding and breeding areas and nurseries for fish stocks for Grenada’s fisheries sector, which is primarily semi-subsistence. In addition, seagrasses are estimated to cover 1,800 ha[[14]](#footnote-15) and include turtle grass, manatee grass, shoal grass, paddle grass, Johnson’s seagrass, and clover grass.[[15]](#footnote-16) Seagrass beds act as a transition point and energy bridge between the mangrove communities and the reef system and fishing grounds. Coral reefs cover approximately 1,250 ha and include 11 species, with the critically endangered elkhorn coral (*Acropora palmate*), boulder brain coral, finger coral, and mustard coral, being the most common.[[16]](#footnote-17) Grenada’s beaches are dynamic ecosystems that protect the coastal area from wave action and provide habitat and nesting sites for marine species, including sea turtles.

*Socioeconomic context*

1. The development challenge for this project is set against the backdrop of a country that remains susceptible to external impacts, including from climate change disasters and fluctuations in tourism demand and commodity prices. The economy of Grenada, whose real growth averaged -1.3% over the period from 2008 to 2012, has experienced growth since then, including 3.9% in 2016[[17]](#footnote-18), and was projected at 2.1% in 2017 and 3.2% in 2018. Growth has been helped primarily by strong construction activity and a steady tourism demand. However, agriculture production (second after tourism as the main source of foreign income) has declined significantly after hurricanes Ivan (2004) and Emily (2005) and has shown little signs of recovery.[[18]](#footnote-19) In addition, future climate projections indicate that Grenada will experience drier conditions with an increase in mean annual temperature, particularly over land areas, combined with reduced precipitation that would further affect the country’s agricultural activity.[[19]](#footnote-20)
2. Grenada’s Human Development Index (HDI) score for 2015 was 0.754, ranking 79 among 154 countries. Even though the country reports good social indicators (including low levels of maternal and infant mortality, universal primary education, low fertility, and increased life expectancy),[[20]](#footnote-21) poverty remains high with an estimated 37% of the population living below the poverty line; 2.4% of the population is considered indigent and an additional 14% is considered highly vulnerable. Most of Grenada’s poor live in the St. George (27.2%) and St. Andrew (31.9%) parishes[[21]](#footnote-22). This population is more visible in rural areas where the small communities do not have access to Grenada’s mainstream economy. Unemployment levels have been extremely high since 2008; the current average unemployment rate is 29% overall and is a concern particularly among youths, whose unemployment rates are above 40%, and even higher among females.[[22]](#footnote-23) Almost half of the households in Grenada (47%) are female-headed, of which more than 20% in the rural areas are poor as compared to 13% of male-headed households. Rural youth can be characterized as young men and women who are in large percentages unemployed or not meaningfully engaged in society, with low educational levels, high migration rates (in particular male youth), limited access to land and financial resources, and to a certain extent involved in youth and community development organizations. The people most vulnerable to food and nutrition insecurity are low-income households, children and adolescents with little education, unemployed youth, working poor adults, and the elderly.
3. Agriculture is fueled primarily by the production and export of cocoa, nutmeg, fruits, and vegetables. The sector contributed between 5% and 7% to the gross domestic product (GDP) over the 5-year period from 2007 to 2011 and provides employment for about 10% of the labor force.[[23]](#footnote-24) Overall growth in agriculture had a projected expansion of 13.5% in 2016. Agriculture in Grenada is carried out mainly on small-scale, family-run farms, many of which are on untitled, informally occupied land in rural communities where the highest levels of poverty occur; agriculture has the greatest impact on the livelihoods in these communities. However, agricultural acreage and the number of farmers are decreasing, with acreage having declined 22% between 1995 and 2012, or 1.3% per year. Although most farmers are males, with the gender gap increasing from 66% in 1995 to 71% in 2012, women play a predominant role in the post-production agroprocessing sector.
4. The largest decline is in the number of farms larger than 25 acres (48%) and those under 0.5-acre (38%); however, the average farm size remains relatively unchanged. Grenada’s market share declined significantly after Hurricanes Ivan (2004) and Emily (2005), and has shown little sign of recovery. Hurricane Ivan damaged or destroyed 90% of Grenada’s 555,000 nutmeg trees, and is currently only 36% of the pre-Ivan level. Prior to the hurricanes in 2004 and 2005, Grenada, which is also known as the Spice Island, was the second-largest producer and exporter of nutmeg in the world after Indonesia, with post-Ivan exports declining to 1/5th (500 tons) of pre-Ivan levels (the country also produces cinnamon, ginger, and cloves.). The cocoa industry declined by 70% and is now only at 40% pre-Ivan production levels. In spite of these changes, nutmeg remains a principal export crop; it is currently second to fisheries as a source of export earnings. The cocoa industry is a dynamic sector and is growing in importance as an export product. The northeast corridor (St. Andrew and St Patrick parishes along the east coast) has the largest flattest land areas in Grenada and remains the largest agricultural production area on the island.
5. In recent years, there has been increased interest in building Grenada’s economy in a sustainable and climate-resilient manner. In this context, integrated agroecosystem management can contribute to the country’s socioeconomic development through climate smart agriculture (CSA) and sustainable land management (SLM), and by mainstreaming biodiversity conservation in production landscapes.

*Water Resources and Land Use*

1. Grenada’s water resources are comprised primarily of surface water, with a groundwater potential to satisfy about 10% to 15% of the present potable requirement. Surface water is the main source of available potable water on the island of Grenada; some communities, particularly in the south of Grenada, rely heavily on rainwater harvesting and storage to augment supplies during shortfalls mainly during the dry season. Wells/boreholes (the main source on Carriacou) and springs constitute other sources and produce about 10% of the water consumed; domestic water on Carriacou and Petite Martinique comes exclusively from rainwater catchments, groundwater, and two desalination plants that, at lower than full capacity, contribute to supply the water needs on the two islands. Grenada is among the small island states already considered to be water-stressed. Seasonality and variability in rainfall can cause up to a 40% reduction in available water resources during the dry season**.** The absence of reliable water flows is a major constraint to farming on Carriacou and Petit Martinique and in the southwestern watersheds of Grenada.
2. In 2007, agriculture occupied 55.57% and forest 22.99% of the land in the island of Grenada. In Carriacou agriculture occupied 29.31%, while forest occupied 9.36%.[[24]](#footnote-25) Most of the lands used for agriculture are on plots of 5 acres or less. Agricultural lands are primarily interspersed with forests in the low-lying and mid-level elevations of Grenada. Public land is restricted to a few agricultural estates and forest reserves. With the exception of the Grand Etang Forest Reserve, most of the lands in the country are privately owned. Private ownership means clear transferable rights, which resulted in land being subdivided over time and resulted in small land holdings.
3. Grenada’s PA system currently includes nine terrestrial PAs totaling 1,991 ha, or approximately 6% of Grenada, and three marine PAs (1,780 ha) encompassing approximately 4% of nearshore coastal resources (defined as territorial waters out to 12 miles). There are an additional three terrestrial PAs totaling 1,183 ha and four marine PAs totaling 11,250 ha with activity toward their establishment in progress.
4. Through the Grenada Declaration made at the 8th CBD COP, the Government committed to a national target of PA coverage of 25% of nearshore and 25% of terrestrial territory by the year 2020.[[25]](#footnote-26) With implementation of all terrestrial PAs identified in the PA System Plan (PASP 2009-2014), Grenada still falls short of meeting its 2020 target. In addition, there are important gaps in terms of representativeness, namely for the dry forests, beaches, mangroves, reef habitat, lagoon habitat, freshwater bodies, and streams ecosystems.[[26]](#footnote-27)

*Policy, legal, and institutional context*

Grenada has an extensive policy, planning, and legislative framework related to biodiversity conservation and land degradation. Nevertheless, there do still exist gaps, particularly in implementing and enforcing existing policies. Grenada’s Protected Area System Plan (2009-2014) has not been updated. Although the PASP was based on an exhaustive and highly participatory gap assessment of biodiversity representativeness, it did not address the ecosystem services provided by the PAs except for a mention of tourism and recreation, and did not envision PAs in their surrounding landscapes. In addition, there is no national drought management policy that will allow harmonizing proposed policies under the United Nations Convention to Combat Desertification (UNCCD) and promote integrated watershed management. Finally, the Water Resources Management Unit and Action Plan for Implementation of the Grenada National Water Policy (2012) lacks implementation; the country’s watersheds do not have management plans that would allow for integrated water resources and land management with local participation.

*Threats to biodiversity*

1. The threats to biodiversity and ecosystem services in Grenada are characteristic of small volcanic islands with steep hillsides and marine island shelves adjacent to the deep ocean. Forest ecosystems, which are primarily found at high elevations where most of Grenada’s terrestrial PAs are located, are threatened by **habitat loss and fragmentation**. The most important ongoing threat is encroachment from expanding agriculture and human settlements, particularly on riparian forests in privately owned forested lands, where there are few controls, but also on the edges of PAs. This threat has been reinvigorated in the last 10 years after Hurricanes Ivan (2004) and Emily (2005) destroyed Grenada’s agriculture-based economy; there has been renewed emphasis on replanting nutmeg crops, rehabilitating the cocoa industry, expanding livestock development (especially small ruminants), and expanding fruit orchards. Efforts are being made to get as much idle lands as possible under cultivation. For example, dry forest in coastal areas is under threat by the expansion of middle-altitude forested landscapes are threatened by annual forest fires, encroachments of housing, and “slash and burn” farming practices. Agriculture being practices closer to water sources has also resulted in the removal of riparian forests for farming close to riverbanks, eliminating their buffer capacity to reduce water pollution. Grenada’s coastal ecosystems are threatened primarily due to **land use change** resulting in the clearing of coastal forest for housing and hotel/commercial development along the coastline. After Hurricanes Ivan and Emily there was a substantial rebuilding effort coupled with increased tourism-based activities, which led to a significant level of development in marinas and other coastal construction. This has been done with relatively weak planning control and weak enforcement and monitoring for compliance within the environmental impact assessment process. Mangrove wetlands, particularly in the southern part of Grenada, are being converted due to coastal development, and the last remnants of dry forest that provide critical habitat for the critically endangered Grenada Dove are also increasingly threatened by the expanding tourism sector. In addition to the **overexploitation of biological resources**, **pollution** from solid wastes (e.g., plastics, construction wastes, and electronic and hazardous waste with no proper management), agricultural runoff (sediments and agrochemicals), and sand mining (notably in the River Antoine Bay in the northeast, Telescope, and Tyboe has devastated the integrity of some of the beaches resulting in large scale erosion[[27]](#footnote-28)). **Invasive alien species** (IAS) pose a threat to native vertebrate and invertebrate populations; four of the predominant invasive mammalian predators in the Caribbean are found on Grenada, including the Indian mongoose (*Herpestes auropunctatus*), which predates on the critically endangered Grenada Dove. Recently the fungal pathogen *Batrachochytrium dendrobatidis* (Chytrid fungus) has emerged as a major threat to the endangered Grenada Frog (*Pristimantis euphronides*) and the invasive bamboo has spread throughout the mountain slopes of Grenada, becoming prolific after Hurricane Ivan and encroaching into native forests with particularly severe impacts to riparian areas.[[28]](#footnote-29)
2. The Caribbean region is already experiencing the effects of **climate change** in the form of increased hurricane frequency and intensity, coral bleaching, ocean acidification as a result of increased marine absorption of atmospheric CO2, coastal flooding due to sea level rise and loss of protective natural barriers, as well as increases in sea surface temperature. Hurricane Ivan (2004) and Hurricane Emily (2005) devastated forests and PAs in Grenada, including the Grand Etang Forest Reserve and the Mt. Hartman and Perseverance PAs, which were established for the protection of the critically endangered endemic Grenada Dove. In addition, storm surges from the offshore Hurricane Lenny (1999) destroyed many coastal forests. Prolonged drought periods (e.g., 2009 to 2010), combined with above-mentioned threats, have also significantly compromised Grenada’s ecosystems.
3. *Underlying causes.* Conditions of **poverty** that prevail particularly in the rural areas of Grenada constitute the principal underlying cause for the loss of biodiversity in the country. High unemployment (formal and informal) in rural areas force people to clear forested areas on private lands and particularly on state lands, which are considered to be Common Property; squatting is a serious problem in Grenada. **Insufficient capacities of institutions** charged with enforcing biodiversity regulations and lack of monitoring, control, and surveillance constitutes another underlying cause for the loss of biodiversity and forest cover in Grenada. The few forest rangers employed by the government tend to focus on the crown lands for monitoring threats to biodiversity and have limited capacity to monitor private lands, which make up 90% of the total holdings[[29]](#footnote-30); this is despite the fact that laws such as the Physical Planning and Development Control Act (Act 25 of 2002) and the Forest, Soil, and Water Conservation Act (Cap. 116; 1949/1984) provides for compliance controls to be applied as well on private as on crown lands. Until recently, **public policies** were strongly oriented to the promotion of all forms of agriculture and included incentives and support for tree crops as well as other types of farming and marketing. These policies encouraged crop farming and land clearance while taking advantage of almost any option for increased agricultural production and livelihood, and ultimately encouraged deforestation.

*Threats of land degradation*

1. In 2006 it was estimated that land degradation had affected approximately 50% of land resources in Grenada[[30]](#footnote-31); this has been the general trend in the subsequent years. **Deforestation and fragmentation of forests** in the form of forest clearance to allow for residential and commercial development, **non-sustainable agriculture**, **forest fires**, and **coastal tourism development** are the main drivers behind land degradation in the country. Unsustainable land management, particularly agriculture within upland watershed areas and in proximity to watercourses has negatively impacted terrestrial and water resources, of particular significance where over 90% of Grenada’s land area has a slope of 20º and above. The range of negative impacts from unsustainable land management include: sedimentation of watercourses, reduction of infiltration within the watershed causing flooding downstream; removal of riparian buffers for farming close to riverbanks; fertilizer use contributing to pollutant loading in runoff following rains; use of harmful chemicals and pesticides that negatively impact fresh and coastal waters; nutrient loss and reduced soil fertility and crop support; and altering of soil chemical and physical characteristics due to physical modification and chemical/pollutant contamination.
2. *Underlying causes.* **Governance, policy, and institution limitations** are among the main underlying causes for land degradation in Grenada. In particular, the agricultural sector has been faced with a number of challenges that restrict the ability of policymakers to modernize the sector and reduce the negative externalities resulting from the absence of effective land use planning. In addition, the policy framework on land management at the sectoral level is incomplete, with policy absent in several areas. **Population pressures**, **land tenure issues** (e.g. fragmenting into smallholdings that limit the implementation of policies, laws and regulations; and **climate variability and change** are other main underlying causes driving land degradation in the country.
3. The **long-term solution** is to incorporate SLM and biodiversity conservation into national land use planning, sectoral policies, and legal frameworks. Incorporated into SLM are CSA practices that help ensure the long-term sustainability of agricultural production at the community and producer levels, and which are supported through a set of nationally managed financial, technical, and information services. This long-term solution will entail strengthened institutional capacity for SLM, CSA, a strengthened PA estate, and biodiversity conservation that is mainstreamed into strengthened multi-sectoral policies and legal/regulatory frameworks. This long-term solution is essential for the sustainability of integrated landscape management, ecosystem services, and food security. However, the effective implementation of SLM and CSA practices and the mainstreaming of biodiversity conservation into production landscapes in Grenada is limited by the following barriers:
4. **Barrier 1:** Insufficient systemic and institutional capacity for integrated SLM and biodiversity conservation landscape-level planning. Gaps in policies and laws governing natural resources limit the capacity for integrated SLM and biodiversity conservation landscape-level planning. The PASP (2009-2014) did not address connectivity between protected areas and forest remnants in production landscapes, which limits the implementation of a landscape approach to biodiversity conservation. Similarly, there are no policies, regulations, or management arrangements for the use of non-treated water for agricultural purposes, which can constitute a reliable water source especially during periods of drought, and may contain nutrients that benefit agricultural production. Related to this, the Grenada Aligned National Action Programme for UNCCD (2015) defines the need to establish a National Drought Management Policy with supportive legislative instruments that could be a potential mechanism to address these water-sourcing needs for agriculture; such policy is lacking. There is also a lack of current detailed land use data, along with information of the status of biodiversity, land degradation, and land cover data upon which to make informed land use planning decisions. Finally, land use management in Grenada does not adequately incorporate the maintenance of ecosystem goods and services, such as water and coastal forest resources.
5. Limited cross-sectoral collaboration for land use planning and management, together with limited financial resources for personnel and technical capacity and inadequate training to monitor land degradation or proactively address potential impacts, limits the implementation of integrated landscape management at the national and watershed levels. Government supply of drip irrigation lines sold to farmers at cost is depleted, and soil and water quality testing for fertilizer use and planning is expensive and requires analysis that must be performed off the island. Biodiversity conservation and SLM-related skills are currently not incorporated into national training programmes or associated curricula. Although small community initiatives (e.g., the Integrated Climate Change Adaptation Strategies project [ICCAS]) exist that provide technical guidance to stakeholders on CSA, biodiversity, and SLM, community projects do not systematically address a complete range of SLM or CSA measures and do not link systematically with interventions in an enabling environment and institutional capacity. In addition, the National Water and Sewerage Authority (NAWASA) of Grenada manages water sources, focusing only on treated water supply for human consumption, without considering upstream water management. In addition to the limited services and capacity to implement SLM activities, public awareness of the importance of appropriate land use planning and implementation of SLM, both for biodiversity conservation and the maintenance of ecosystem services and agricultural production, is lacking.
6. **Barrier 2.** Lack of access to financial mechanisms and to technical services limits investment in sustainable agricultural planning and practices. Farmers’ access to microfinancing is limited, often due to a lack of collateral and/or high interest rates. In the current financial support system and credit arrangements, there is no integration of criteria or guidelines to support CSA and SLM. Financing is significantly challenging for those in the early stages or wanting to reenter the sector. The number of farmers reporting that they received credit has declined by 37%; 1.5% reported they used credit in 2012 compared to 1.9% in 1995.  High interest rates for short-term loans are available with no collateral needed (i.e., Axcel Finance, 1.6%/month), but rates are not feasible for the farmers. The Grenada Cocoa and Nutmeg Association gives small interest loans to active farmers of US$555-1,110, which can be paid back through deductions from sales, though only to cocoa farmers. Small loans may be available through the Grenville Cooperative Credit Union, the Grenada Development Bank, and the Public Service Co-operative Credit Union through the Marketing and National Importing Board (MNIB). MNIB offers credit to farmers who are registered with them, provides inputs (fertilizers, seeds, and boxes), and deducts loan payments from sales; however, farmers are often reluctant to commit to produce prices that may be lower than otherwise available. Interest loans with MNIB are also available for amounts greater than US$20,000, but a track record and collateral are needed, thereby limiting small farmers or new farmers who want to re-enter the market. Furthermore, there is a lack of incentives to invite investment to improve the sector with climate-resilient practices, including a lack of access to low-interest loans for small-scale farmers and climate insurance to protect their investment. Product quality is linked to loan and MNIB purchase agreements, but there are currently no finance arrangements that link or incentivize farmers to implement climate-resilient agricultural practices.
7. Certification systems to incentivize sustainable agricultural practices that would provide price premiums on certified crops are not readily available to small farmers. The Grenada Organic Agriculture Movement (GOAM) has already piloted Participatory Guarantee Systems (PGS); however, PGS are limited to select markets and there is limited capacity for certification in the country. Local accreditation/certification through the Caribbean Region/Bureau of Standards for organic production is accepted in Grenada; however, the lack of national regulations limits its implementation and the access of small farmers to the Caribbean markets. In addition, there is limited capacity within the Bureau of Standards for testing and certification. Finally, third-party certification (i.e., international accreditation/certification) is also being used in Grenada. For example, the Belmont Estate and the Grenada Organic Cocoa Farmers’ Co-operative Society Ltd., a cooperative of organic farmers in St. Patrick Parish, has third-party certification; however, the cost of certification is high for small farmers and the accreditation process takes at least 3 years.
8. There is limited access to climate-resilient crop varieties by small farmers. Germplasm banks in Grenada have been developed through the efforts of the Ministry of Agriculture and Lands through specific projects and South-South cooperation agreements. At present there are eight small germplasm banks in different locations within Grenada (e.g., the Mirabeau Propagation Station, Bolongue Propagation Station, Ashenden Propagation Station, Maran, Grand Bras Estate, Belair Carriacou, Caribbean Agricultural Research and Development Institute [CARDI] Station, and the Chinese Agricultural mission) that have provided a limited amount of plant material (e.g., fruit, spices, and vegetables) to farmers, including climate-resilient crop varieties. Germplasm is mainly collected for immediate use and is limited to fruit trees, tubers, and flowers; however, none is held for vegetables, which must be imported. Standard operating procedures (SOP) should govern and guide the maintenance of these banks to ensure their sustainability; however, the SOPs were developed for the management of germplasm banks in Grenada many years ago and these standards are not enforced and have not been updated. In addition, related data are stored manually and there is no procedure to systematically collect, store, or disseminate information. Germplasm banks are managed by individuals who have the technical knowledge on how to maintain them, but this knowledge is not consistently transferred to the workers who operate the germplasm banks. Most of the propagation stations are also ill-equipped; at times they have to operate with makeshift equipment or improvise to complete their tasks. This practice has the effect of increasing bacterial fungal infections, which decreases the success rate of the number of plants propagated. The lack of adequate storage and treatment of scion material, along with the delayed availability of inputs such as potting materials and fertilizers, reduces the success rate of propagation through scions. In addition, the propagation center buildings are not climate-proof, making them vulnerable to hurricanes, landslides, and flooding. Each propagation station has a training protocol in place; however, these protocols are incomplete. Additional deficiencies include the absence of prescribed training periods, lack of certification, training sessions that are disorganized and haphazardly convened, and the limited involvement of non-government employees as trainers. These limitations contribute to the low propagation success rate. Overall, the number of small farmers with access to climate-resilient crop varieties through the existing propagation centers is low.

**Barrier 3.** Limited awareness, understanding, and knowledge of CSA, SLM and biodiversity-friendly practices

1. There is limited awareness of the importance of CSA and SLM and understanding of implementation techniques. A 2011 survey on population-based knowledge, attitude, and practices revealed a generally low level of knowledge among the general population on land degradation and SLM. More than half of the population reported having no knowledge of land degradation (64%) and SLM (52%), and only approximately one-third of respondents (37%) stated that SLM was important or very important to Grenada’s development. Although farmers received 2.5 times more training on land management practices than other groups, their knowledge on land degradation and SLM was lower, with the exception of householders. Women, persons younger than 25 years old, and lower-income-level participants had less knowledge about land degradation and SLM compared to other participants. In addition, the technical capacity to plan, implement, and scale up climate-resilient agricultural techniques and to integrate biodiversity conservation into land use practices is limited at the national, sub-national, and local levels. This technical limitation is a result of insufficient capacity and training of staff employed in relevant departments and understaffing to provide SLM and CSA solutions, including extension services to work directly with farmers which limits mainstreaming of ecosystem and climate-smart management approaches to adaptation. Although there is recognition within growers’ associations of drought effects and related land degradation issues, there is often no experience with the application of irrigation techniques in the different systems (i.e., traditionally rain-fed cocoa and nutmeg in drying conditions). Integration of biodiversity conservation into these agricultural and agroforestry systems is rarely addressed, and coupled with a lack of understanding of its importance or the means to implement, it is overlooked in policy and planning. Finally, although there is awareness about the presence and impact of IAS, such as the small Indian mongoose and the bamboo, strategies have not been defined to address the increasing presence of IAS as part of integrated landscape management.

# Strategy

1. The project’s objective is to operationalize integrated agroecosystem management through mainstreaming biodiversity conservation in productive landscapes and increasing the resilience of agricultural systems. The project will use an integrated landscape management approach that will allow combining resilient agricultural and conservation practices in productive landscapes. This strategy will contribute to reducing the loss of biodiversity of global and local importance and the degradation of land in Grenada.
2. **Project Component 1** will focus on systemic and institutional capacity development for supporting integrated landscape management at the national level. An information management database and monitoring system and land use planning process that include biodiversity mainstreaming and SLM considerations will provide baseline information to support decision-making. This will include baseline support for revision of Grenada’s PASP, and the drafting of a National Drought Management Policy and the preparation of the necessary regulation. Strengthened information management capacity and an updated regulatory framework will be complemented with an improved biodiversity conservation and land use management capacity of the Forestry and National Parks Department and the Land Use Division, and the Ministry of Carriacou and Petit Martinique. These actions will provide a framework for mainstreaming biodiversity concerns into spatial management and promoting resilient agriculture, both climate-resilient and resilient by not depleting natural capital and not leading to biodiversity loss.
3. **Project Component 2** will allow building the national capacity for promoting and implementing CSA production, increasing the financing for supporting SLM and CSA, and the land areas under CSA while ensuring gender equity among beneficiaries of the training. This will include providing accessible financing for male and female farmers through financial support systems for incentivizing CSA, SLM, and conservation-oriented agricultural practices, primarily through certification of agricultural products that integrate CSA criteria and microcredit schemes. It will also include improving soil and water quality monitoring and providing services and information used by extension officers and farmers to support planning and monitoring of SLM and CSA practices. Technical services for CSA production will be enhanced through a national supply of climate-resilient crop varieties to be provided through five upgraded and climate-proof government propagation centers.
4. **Project Component 3** will focus on site-specific target areas and watersheds to implement CSA and SLM practices that will integrate biodiversity benefits, including biodiversity of global significance. These activities will demonstrate the generation of multiple benefits of integrated agroecosystem management. Project support will help reduce deforestation and environmental impacts, reduce erosion, and improve ground cover and access to sustainable livelihood opportunities. This will in turn augment existing good practices, test new innovative practices, and develop and support replication of these practices within 2,400 ha of areas including communities in the Great River Watershed, the La Sagesse Watershed, the Levera/Levera Pond/St Patrick watershed, and in Carriacou and Petit Martinique where CSA and improved rangeland management systems will be implemented. Biodiversity conservation will be expanded and integrated with CSA, and threats to endangered biodiversity from the presence of IAS will be reduced. This project component will also allow expanding Grenada’s network of PAs through the establishment of one tropical dry forest coastal site as national parks. Finally, the project will benefit at least 10 agroprocessing and agrotourism small community businesses, five of which will be women-owned, by providing technical assistance in production, labeling, and marketing of CSA products.
5. **Project Component 4** will focus on capturing both technical and educational knowledge and lessons learned during the implementation of the project, and will incorporate institutional strengthening and capacity-building initiatives that will support both current and future generations of professionals. This project will capture experiences and lessons learned, and produce outputs for institutional and private sector learning and ongoing implementation both during and after the project. Knowledge and experiences will be captured, shared, and disseminated to encourage the widespread adoption of CSA, SLM, biodiversity conservation practices, and gender mainstreaming. The project will ensure that experiences and lessons learned generated at the demonstration sites and from implementation of activities are systematically collected, analyzed, and disseminated throughout the country to facilitate awareness, replication, and scaling-up. Monitoring and evaluation (M&E) of project implementation, outcomes, and outputs will ensure the project effectively achieves the outlined goals and objectives.
6. The project´s Theory of Change (Figure 1) is based on the premise that by strengthening the institutional capacity for implementing integrated landscape management at the national level, and improving the national capacity to provide financial, technical, and information services to promote CSA production, Grenada will be better positioned for the operationalization of integrated agroecosystem management preventing further land degradation, and building a more climate-resilient agricultural system and sustainable livelihoods of the men and women in rural areas of Grenada. This premise will be tested through the implementation of resilient and sustainable agricultural practices together with biodiversity conservation in selected watershed in the islands of Grenada, Carriacou, and Petit Martinique. Lessons learned from the implementation of these practices will be captured, shared, and disseminated for their adoption in other watersheds and landscapes around the country. Enhanced skills in SLM and CSA practices and better access to CSA financial, technical, and information services will improve sustainable livelihood options for local farmers and small holdings and reduce negative impacts on the ecosystems within the watershed. This combined with improved capacity for integrated landscape management will lower the need to encroach forests and biodiversity-rich habitats and contribute to preserve the integrity of biodiversity habitats.
7. The project´s Theory of Change includes several key assumptions. It is expected that through project Component 1, the national government institutions will have the capacity to effectively promote and monitor biodiversity conservation, SLM, and CSA. The project will support the strengthening of the Forestry and National Parks Department, Land Use Division, and the Ministry of Carriacou and Petit Martinique positively impact the capacity of national governmental institutions to support biodiversity conservation, SLM, and CSA in the target landscapes (refer to Annex E. UNDP Social and Environmental Screening Procedure – SESP). Similarly, it is expected that farmers and producers’ organizations from the selected watersheds will be actively engaged in implementing CSA and sustainable production practices that contribute to ecological sustainability and SLM. The successful engagement of these stakeholders will depend on the availability of incentives, such as the certification of agricultural products with CSA criteria integrated (Output 2.1); accordingly, it is assumed that markets will exist for these products and premiums to be paid will be attractive enough for farmers to implement CSA and sustainable production practices (Output 3.1 and Output 3.3). It is assumed that climate change and variability will be within normal ranges and the project outcomes will not be affected. The occurrence of extreme climate events and natural hazards was identified as a risk to the project as part of the SESP conducted during the project design (Annex E); the project will support activities that promote SLM and biodiversity conservation, including climate resilient agricultural practices, among other activities, that will contribute to reducing this risk.

*Contribution to Sustainable Development Goals (SDGs) and to national development priorities*

1. The project is relevant to, and will contribute to, several of the SDGs: Goal 1: No poverty, by targeting vulnerable small farmers (men and women equally) and supporting CSA and sustainable agriculture that will contribute to food security and build resilience against climate-related disasters; Goal 5 – Gender equality, through gender equality and inclusion into SLM, agricultural/CSA and post-production activities, including all stakeholder engagement and participatory management; Goal 6 – Clean water and sanitation, by protecting and restoring riparian forests and coastal wetlands and promoting SLM and environmentally friendly agriculture that are conducive to reducing pollution in streams and rivers of selected watersheds; Goal 8 – Decent work and economic growth, by focusing on the agriculture sector that employs a large sector of the population and adding value to selected products and decoupling economic growth from environmental degradation; Goal 13 – Climate action, by implementing CSA and building resilience to climate change, and Goal 15 – Life on land, through mainstreaming biodiversity into policy and regulatory frameworks as well as integrated natural resource management actions and plans (such as watersheds), and strengthening biodiversity conservation through a strengthened protected area estate and direct action to remove threats to key biodiversity.
2. The project will also contribute to the United Nations Multi-Country Sustainable Development Framework in the Caribbean (UN MSDF; 2017-2021), in particular with Strategy Area 4 Outcome: Policies and programmes for climate change adaptation, disaster risk reduction and universal access to clean and sustainable energy in place.
3. The project builds on several ongoing initiatives being carried out by the Government of Grenada and is consistent with the Government’s priorities as set out in national policy documents and plans and projects. The Grenada Agriculture Policy sets forth the goal of ensuring an enabling environment that facilitates growth and the optimal use of the country's resources in the agricultural sector in a sustainable manner. The project will support the agricultural sector policy and plans that incorporate biodiversity: The National Agriculture Plan’s (2005) strategic objectives recognize the need for protected forests for integrated natural resource management (INRM; including water and biodiversity) as well as CSA. The Grenada National Water Policy outlines optimal and sustainable use of the country’s water. This project builds on and supports Government’s prioritization of integrated water resource management (IWRM) outlined in the Water Resources Management Unit and Action Plan for Implementation of the Grenada National Water Policy (2012). Project support for integrated watershed management supports the implementation of this Action Plan and the framework of IWRM as a best practice process, and mainstreaming biodiversity into the integrated watershed landscape in this project will further support this management framework and demonstrate biodiversity mainstreaming considerations into watershed management in the water sector.
4. The project also furthers the Grenada Declaration, where Grenada, at the 2006 8th Meeting of the Conference of Parties to the Convention on Biological Diversity (COP 8) pledged to effectively conserve at least 25% of its near-shore marine area and at least 25% of its terrestrial area by 2020 and contribute to the sustainable livelihoods for its people and the protection of the world’s biodiversity. This project also supports the 1999 Cabinet-approved Forest Policy for Grenada, Carriacou, and Petit Martinique, whose objectives include to conserve species, ecosystems, and genetic diversity, and to maintain and enhance forest ability to provide goods and services sustainably and optimize contribution of forest resources to the social and economic sectors (proposed for updating under the GEF project [GEF ID 5069] *Ridge to Reef Approach to Protecting Biodiversity and Ecosystem Functions within and Around Protected Areas* [the R2R Project]). The project also focuses on the formal designation of one proposed PA outlined in Grenada’s PASP (2009-2014), furthering protection of globally threatened coastal dry forest. The National Strategic Development Plan (2007), which proposes that environmental considerations should be integrally linked to national development, identifies the need to link livelihoods and environmental sustainability, and advocates for better enforcement of laws to protect biodiversity. In addition, the Tourism Master Plan (1997) and the National Environmental Policy and Management Strategy (NEMS, 2005) supports Grenada’s commitment to the 2000 St. George’s Declaration of Principles for Environmental Sustainability, including, but not limited to, achieving the long-term protection and sustained productivity of the region’s natural resource base and the ecosystem services it provides, which this project further supports. The project clearly aligns with Grenada’s climate change policies and plans, including Grenada's National Growth and Poverty Reduction Strategy (2014-2018), for which climate change adaptation is a pillar, as is the Cabinet’s decision that climate change considerations are integral to the new (2003-2021) National Physical Development Plan.
5. The proposed project also directly supports Grenada’s efforts to comply with the Convention on Biological Diversity (CBD) through addressing priority actions in the 5th Report (Aichi Targets) and the draft National Biodiversity Strategy and Action Plan (NBSAP, 2015). This project contributes to the Aichi Targets by mainstreaming biodiversity into government and civil society through integration into the agricultural sector (Targets #1 and 2); reducing pressures on biodiversity through increasing effective management of agriculture and forestry (Target #7); further safeguarding threatened species, ecosystems, and ecosystem services through strengthening the PA estate; reducing threats to biodiversity and species of global significance and (IAS/disease) (Targets #11 and 12); and restoring and safeguarding essential ecosystem services through improved integrated watershed management (Target #14). The project also promotes the objectives of the newly aligned National Action Plan (NAP, 2015) to support the UNCCD, which seeks to prevent land degradation, restore 10% of degraded land by 2020, and mitigate the effects of drought and other climatic shocks using an integrated approach for land degradation reduction and drought mitigation. This project also supports Grenada’s commitments to the RAMSAR Convention (entered into force in Grenada on 22 September 2012), focusing on the operationalization of the management plan of Grenada’s sole RAMSAR site at Levera. Project objectives and actions also support the 2006 (revised) St. George’s Declaration of Principles for Environmental Sustainability, whose overall aim is to foster equitable and sustainable improvement in the quality of life in the Organization of Eastern Caribbean States (OECS) region.

*Project area*

1. The project area of influence includes the La Sagesse Watershed, Great River Watershed, and Levera/Levera Pond/St Patrick Watershed. In addition, it includes prioritized landscapes on the islands of Carriacou and Petit Martinique where CSA and rangeland management systems will be implemented. These watersheds were selected by the Government of Grenada to benefit from the project as they include some of the most important agricultural areas of the country, including perennial and mixed cultures (mainly nutmeg, cocoa, and spices) in the northern/eastern part of the island and which are increasingly vulnerable to hurricanes as a consequence of the increased intensity and changed distribution of tropical cyclones associated with rising sea temperatures. In addition, these watersheds have high conservation value due the presence of threatened ecosystems, such as some of the last remnants of dry forest in the La Sagesse Watershed, and mangroves and coastal wetlands and lagoons in the Levera/Levera Pond/St Patrick Watershed. Carriacou and Petite Martinique present a dry climate with few surface water resources; these smaller islands are projected as being affected by increasingly erratic temporal rainfall patterns and overall trends towards higher temperatures, higher evapotranspiration, and longer and more severe dry seasons. A description of the project areas is provided in Annex L.

2,400 ha of under sustainable land management including agricultural and rangeland management practices supporting CSA)

960 ha under improved management to benefit biodiversity and ecosystem services

Improved conservation of two globally threatened species (the Grenada Frog and the Grenada Dove) through control of IAS/disease

Increased financing for SLM and CSA by 17% from the baseline amount

Nesting sea turtle beaches protection enhanced through improved enforcement

One tropical dry forest coastal site established as National Park covering 23 ha

**Project Impacts**

Operationalization of resilient agricultural practices

National capacity to provide financial, technical, and information services for CSA production in place

Systemic and institutional capacity for integrated landscape management at national level

Knowledge management for SLM, CSA and biodiversity conservation

**Project Outcomes**

CSA and SLM practices in St David, St Andrew and St Patrick parishes implemented

Technical knowledge captured, experiences and lessons learned disseminated

Financial support systems for incentivizing CSA, SLM, and conservation oriented agriculture practices strengthened / established / operationalized

Information management database and monitoring system in place

**Project Outputs**

Biodiversity conservation expanded and integrated with CSA and SLM measures implemented in five watersheds

Media products promote outreach and increased public awareness / environmental education of SLM, CSA and biodiversity conservation disseminated

Regulatory, coordination and planning framework strengthened, integrating SLM, CSA, and biodiversity conservation

CSA and rangeland management system in Carriacou and Petit Martinique demonstrated through operationalization of an upgraded propagation center

Soil and water quality monitoring and advisory programme enhanced

Monitoring and evaluation of project implementation conducted

Small businesses supported for agroprocessing and agrotourism, (processing CSA crops, support to sustainable rural livelihoods and education on CSA-SLM practices

Biodiversity conservation and land use management capacities improved

National supply of climate resilient crop varieties enhanced through 5 upgraded and climate-proofed government propagation centers

**Project Outcome 3**

**Project Outcome 2**

**Project Outcome 4**

**Project Outcome 1**

Grenada remains susceptible to external impacts, including from climate change disasters and fluctuations in tourism demand and commodity prices, despite recent development growth. Within this context, integrated agroecosystem management will be operationalized through mainstreaming biodiversity conservation in the production landscape and increasing resilience of agricultural system

**Development Challenge**

Limited awareness, understanding and knowledge of CSA and SLM techniques and practices integrated with biodiversity conservation

Lack of access to financial mechanisms and to technical and information services limits investment in sustainable agricultural planning and practices

Insufficient systemic and institutional capacity for integrated SLM and biodiversity landscape-level planning

**Barriers**

Habitat loss and fragmentation, clearing of the forested land for agricultural production and tourism and urban development, increase in pollution of surface and coastal waters, overexploitation of biological resources, presence of IAS, and increased vulnerability to climate change

Mechanisms to document knowledge and for replication and scaling-up of best practices for biodiversity conservation in production landscapes, SLM, and CSA are not available

Fragmented legal and institutional framework at the national level prevents integrated landscape/agroecosystem management

**Problems**

Figure 1. Theory of Change

# Results and Partnerships

Expected Results:

**Component 1: Systemic and institutional capacity increased for integrated landscape management at the national level**

Outcome 1.1: Biodiversity conservation mainstreamed in land use planning and management practices and agricultural sector policies and legislation, as a result of improved systemic and national institutional capacity for landscape management for biodiversity conservation

Outcome 1.2: Strengthened systemic and institutional capacity for promoting SLM

***Output 1.1****: A central geospatial biodiversity, ecosystem, and land use database and monitoring system to be assessed, updated, and operationalized within the national land management policy in the national and legal regulatory framework, with comprehensive land use survey to support land use planning, baseline terrestrial biological /ecological assessment, assessment of existing key biodiversity areas (KBAs), and a profile of water sources*

1. The project will support the development and initiation of a comprehensive land use survey to support land use planning, and a profile of water sources with monitoring programmes. To this end, the project will assess, update, and operationalize a central spatial information management database for SLM, CSA, and biodiversity and ecosystem conservation within the framework of the national land use policy. The project will build upon the existing Land Use Division (Ministry of Agriculture, Forestry & Fisheries) geographic information system (GIS) and its information related to land cover, soil types, agriculture, and PA coverage, as well as other databases within national agencies such as the National Water Information System. However, currently much of this information is outdated and limited, with no new land use survey data, biodiversity, or ecological assessment information or monitoring and tracking system. A LiDAR survey was recently completed under the Disaster Vulnerability Reduction Project supported by the World Bank that will allow developing thematic data including vegetation cover and land use maps. The project will conduct a needs/gap assessment of the existing database to identify what information is already available, and what the major information and technological gaps are. The needs assessment will also provide a baseline to propose a strategy and identify opportunities to bridge the existing gaps, as well as guide the design of the M&E system to support enhanced CSA, SLM, and biodiversity conservation. The M&E system will be based on optimizing the existing sources of information; the design of the M&E system and associated database will contribute to sound decision-making and participatory planning of natural resources use and conservation. Broad-based multi-stakeholder participation will be pursued to ensure proper appropriation and involvement of different users and beneficiaries. The Land Use Division of the Ministry of Agriculture, Forestry & Fisheries) will be responsible for managing, maintaining, and updating this database at project completion. In addition, the project will also make use of the Project Board, which includes representatives from several of the target ministries, to inform them about the database and promote its use.
2. The information management database and monitoring system will include a coordination mechanism to support data-sharing between agencies, ministries, universities, non-governmental organizations (NGOs), private interests, and other stakeholders with appropriate data-sharing protocols and security in place. The system will also serve as a point of reference when prospecting for new sites for foreign investments related to tourism, mining, and other sectors. The project will actively engage in achieving data-sharing agreements and facilitating emplacement of institutional systems to ensure sustainability, including the Ministry of Agriculture and Lands, the Ministry of Education, Human Resources and Religious Affairs, the Ministry of National Security, Public Administration, Home Affairs, Information, Communications and Technology (ICT), and the Ministry of Finance, Planning, Economic Development and Physical Development. The project will consider different data-capture methods such as crowd sourcing, employee input, and automated technology, and will assess tools such as a relational database to link field-based information with computer-based information management. Data management systems will be developed to examine issues of standardized methodologies and metadata protocols. The design of the information management database and monitoring system will be of national scope, considering a short-term implementation and operation targeted to the areas prioritized by the project and will be done in close collaboration with the Department of Statistics. The project will measure the efficacy of the different methods and strategies to operationalize the information management database and monitoring system, whose lessons learned and knowledge acquired would promote replication, scaling-up, improvement, and sustainability. In addition, the design of the central information management database and monitoring system will also consider the use of CSA-related tools such as the Climate Change, Agriculture and Food Security (CCAFS) CSA programming and indicator tool.
3. The project will also support the establishment and expansion of the national baselines and inventories of key indicators to monitor ecosystem health, climate impacts, Key Biodiversity Areas (KBAs; Mount Hartman, Perseverance, Beausejour/Grenville Vale, Woodlands, Mount Saint Catherine, Woodford, Grand Etang, and Bathway Beach) and biodiversity conservation that support CSA and SLM. The project will include a gap assessment on existing baseline data and update it for the priority areas targeted by the project, building on the Pilot Program for Climate Resilience forest inventory funded though the Climate Investment Fund. The project will generate baseline data to produce SMART indicators to assess ecosystem health (e.g., montane forest, riparian forest, dry forest, and mangroves) and monitor key indicator species such as the critically endangered Grenada Dove (*Leptotila wellsi*), whose last national inventory was developed more than 10 years ago, and the endangered endemic Grenada Frog (*Pristimantis euphronides*). Key indicators for other species of global and local importance will be considered. Baseline data will also support actions under Output 3.2 to reduce IAS threats to these species.
4. Other key species to be assessed within the four watersheds are the hawksbill (*Eretmochelys imbricata*) and leatherback (*Dermochelys coriacea)* sea turtles, which are severely impacted by illegal sand mining and excessive influxes of Sargassum seaweed in coastal ecosystems along the east coast in the parishes of St. David, St. Patrick, and St. Andrew. The project will identify and document the status of these threatened species to improve policy design, decision-making, and enforcement and will consider the use of Sargassum seaweed as fertilizer.
5. Ecosystem health and climate impacts will also be assessed in the five prioritized watersheds by developing baselines for availability of water resources and changes in land use/land cover, including changes in cover of the dry forest, cloud forest, mangroves, and other key ecosystems considered by the project. This information could lead to in-depth analysis of water services provided by the four project watersheds to develop enhanced profiles of non-NAWASA supply springs, and to support the interpretation and analysis of available NAWASA data. This activity will build upon existing satellite imagery within the Land Use Division obtained in 2017; additional satellite imagery and/or aerial photography will be obtained by the project as needed including using readily available satellite images (e.g. LANDSAT and Rapideye). This information will be further interpreted and analyzed by the project, and will become an integral part of the information management database and monitoring system.

***Output 1.2****: Regulatory, coordination, and planning framework strengthened, integrating SLM, CSA, and biodiversity conservation, with improved management of Grenada’s 7 KBAs and threatened species of national and global significance (i.e. 2 single island endemics)*

1. The project will contribute to strengthening the regulatory, coordination, and planning framework by integrating SLM, CSA, and biodiversity conservation into key policy instruments. The current PASP has not been reviewed or updated since 2009, although some actions are currently being performed under the GEF R2R Project to implement its recommendations. A formal plan review should occur every 7 years and should be conducted in a participatory manner; the project will update this policy document. The new PASP will include the following: a) an evaluation of what has been accomplished during this past 10 years; b) addressing the institutional and capacity constraints and propose alternatives to improve the current PA management strategy for biodiversity conservation; and c) review and update various international commitments such as the Caribbean Challenge Initiative, as well as the harmonization of the PASP with the multilateral environmental and other international agreements (e.g. the CBD, the Ramsar Convention, the International Plant Protection Convention, the Convention for the Protection of World Culture and Natural Heritage, and the United Nations Framework Convention on Climate Change [UNFCCC]), Sustainable Development Goals (SDGs), and Aichi targets.
2. The new PASP will also be conceived as a national strategy to comply with the Grenada Declaration, committing the Government to a national target of PA coverage of 25% nearshore and 25% terrestrial territory by the year 2020. Therefore, it will also review national conservation priorities and management categories, and propose a comprehensive long-term strategy to move from the current 6% towards achieving the 25% conservation threshold. Special priority will be placed on strengthening the protection status and management of the La Sagesse Local Area Planning (WDPA ID 14188) as a national park (IUCN Management Category II), thus providing additional protection to the last patches of natural habitat/dry forest of the critically endangered Grenada Dove [*Leptotila wellsi*]) and KBA; therefore, the new PASP will assess the feasibility for new PAs in Telescope, St David, and in the dry forest of the eastern corridor. This review will include recommendations for management plans that deal with changes to PA designation, such as upgrading forest reserves to national parks or the reverse; review of actions currently underway[[31]](#footnote-32) and establishment of new PAs; the ability of the PAs to generate sustainable revenue streams to finance their operations, and national land use decisions that preclude designation of proposed PAs because of higher priority needs. The new PASP will stress habitat conservation issues by improving connectivity/corridors/buffers, considering alternative conservation categories and management schemes that incorporate communities, private landowners, farmers, tourist operators, and other key stakeholders as well conservation in production landscapes and CSA.
3. In addition, the project will support the participatory development of the management plan for the proposed PA in La Sagesse that includes dry forest ecosystems and riparian zone conservation to be established through Output 3.2. The management plan for the La Sagesse coastal area (southern Grenada) will be developed in a participatory manner in coordination with the Forestry and National Parks Department. The planning process will ensure the participation of the local communities (men and women), local governments, the private sector, and other local and regional stakeholders. The plan will identify key priorities and activities to be supported by the project, supporting the conditions for the area to be gazetted and socialized at the local level once they receive approval. The management plan will include conservation objectives of the PA and guidelines for research, zoning (including the identification of ecologically sensitive areas), socioeconomic and cultural needs, monitoring of biodiversity, and exploring options for the financial sustainability of the PA through community management. Such options may include sustainable cattle grazing and controlled hunting of crabs and other wildlife (these activities are currently practiced in the state-owned lands within the site on a squatting basis), and generating income through bird watching, which is also an activity at the La Sagesse site. The project will also support the operationalization of the management plan of the Levera Nation Park, currently being development under the R2R Project (GEF ID 5069).
4. La Sagesse (23 ha) has a national PA designation as a Local Area Planning; this mangrove estuary along the southern coast is an important birding area. The area features three fine sand beaches edged with palm trees, a dry thorn scrub and cactus woodland, and a salt pond; the pond attracts an abundance of water and shorebirds. The Levera National Park (123 ha) is a Ramsar Site and KBA that was designated as a Wetland of International Importance in 2012. The Levera wetland is an almost pristine ecosystem, and includes a mangrove swamp, sandy beaches, coral reefs, seagrass beds, and an offshore island. These two management plans will benefit 146 ha of national area under conservation and will consider the lessons learned from the development of the management plans for Mt. St. Catherine, Mt. Gazo, Levera, Conference Bay, Isle La Rhode and White/Saline Islands, which are currently underway as part of the R2R Project (GEF ID 5069).
5. Under the OECS Project for Island Resilience (iLAND), supported by the Global Climate Change Alliance (GCCA), Grenada recently realized completion of the draft Land Use Policy. This policy provides the mandate and basis for a range of programmes, measures, and actions aimed at improving and rationalizing land use and management in Grenada. It also references the establishment of a National Resource Coordination Database for collection and dissemination of data relating to land use, soils, water, crop and livestock production, farming systems practices, etc., and which the project proposed herein will support through Output 1.1. Grenada will also be developing a comprehensive Environment Bill. To complement this work, and work to commence on developing a national drought plan through the UNCCD, the project will contribute to the development a national drought management policy that is harmonized with proposed policies under the UNCCD, given the emphasis on watershed management and the use of non-treated water sources for agriculture. The Land Use Policy calls for the development of community management plans for the conservation of soils, watersheds, and other vulnerable agricultural resources. In line with this policy, the project will support the participatory development of five watershed management plans (La Sagesse, Great River, and Levera/Levera Pond/St Patrick watersheds and two island watershed management plans for Carriacou and Petit Martinique). Watershed management plan development will include detailed environmental and socioeconomic characterizations (including gender analysis of women’s utilization of natural resources and ecosystems services and participation and leadership in decision making, and detailed mapping of community-based organizations) of each watershed; in addition, they will incorporate climatic projections and preparedness to extreme events through climate early warning systems. It will also support the establishment and/or strengthening of their watershed committees, including training to support data collection and management needs, making use of developing transferrable skills that support evidence-based decision-making, following the experience in the creation of a PA committee through the R2R Project (GEF ID 5069), and the active involvement of existing water management groups such as the Grenada Water Stakeholder Platform (GWaSP). Watershed committees will include representation from community-based organizations to assist with the co-management of watershed plans to ensure active support at the community level. Environmental and socioeconomic information obtain during the development of the watershed management plans will be used to and support community and conservation-level interventions in Component 3, including riparian zone protection and implementation of CSA and SLM practices.

***Output 1.3****: Biodiversity conservation and land use management capacities improved through training of personnel from the Forestry and National Parks Department, Land Use Division, Ministry of Carriacou and Petit Martinique. Training in biodiversity conservation and SLM skills will be institutionalized within the priority list of the Ministry of Education*

1. The project will build capacities within the Forestry and National Parks Department, Land Use Division, Extension Division, Physical Planning Unit, Ministry of Carriacou and Petit Martinique in biodiversity conservation and SLM, building on the capacity-building effort for PA management and the capacity development strategy to be design as part of the R2R Project (GEF ID 5069). Strengthened capacities will enable these agencies to improve delivery, increase coordination with other governmental bodies, create accountability, and facilitate community and private sector involvement and active participation to mainstream biodiversity conservation and land use management in the country. During the Project Preparation Grant (PPG) a capacity/needs assessment of the Forestry and National Parks Department, Land Use Division, and the Ministry of Carriacou and Petit Martinique was conducted using the United Nations Development Programme (UNDP)/GEF Capacity Development Scorecard. Assessment results indicated that all institutions are not operating with the necessary capacities to accomplish their mandate. Major gaps were found in capacities to manage and implement relevant sustainable actions/solutions to reduce pressures on biodiversity and land degradation as well as capacities to monitor and evaluate them, which is basically absent in their regular programming. Project support will focus on overcoming these major gaps.
2. Building on the capacity-building effort for PA management and the capacity development strategy to be designed as part of the R2R Project (GEF ID 5069), the project proposed herein will address capacity gaps in the Forestry and National Parks Department arising from the PASP (Output 1.2). It will harmonize training to support data collection needs, making use of developing transferrable skills that support evidence-based decision-making. It will also strengthen the ability of the Land Use Division, Physical Planning Unit, and the Ministry of Carriacou and Petit Martinique to conduct land use surveys (hydrography, geospatial information management, classification and analysis of satellite imagery, including ground-truthing and global positioning system [GPS] use); the project will provide hardware and software to support these tasks following an assessment of need. In addition, training will be conducted for agricultural technicians and organizations (e.g. MNIB, Grenada Cooperative Nutmeg Association, and the North-East Farmers’ Organisation - NEFO) in CSA and SLM, and irrigation design. To ensure longer-term and regular training available in these fields, the project will support the inclusion of biodiversity conservation and SLM‑related skills within national frameworks such as the Human Resources Priority List and the Priority Training Needs Assessment and associated curricula initiated in 2016 by the Ministry of Education; training will also be coordinated with the T.A. Marryshow Community College (TAMCC), the Grenada National Training Agency (NTA), and as part of vocational programs in Grenada. The project will provide support through strengthening curricula, development of teaching tools and provision of hardware for CSA, SLM, and biodiversity conservation training. To assess progress in capacity building to support biodiversity conservation and SLM in the target landscapes, the UNDP/GEF Capacity Development Scorecard will be applied by the project team (Project Manager and M&E Expert) at the mid- and end-points of the project.
3. A gender responsive public awareness program will be implemented in the St. David, St. Andrew, and St. Patrick parishes and in Carriacou and Petit Martinique using different media (social media, local radio, printed material, etc.) and methods and targeting local communities, local environmental authorities, producers’ associations, and other local stakeholders. This aims to achieve a greater understanding of the biodiversity conservation, SLM, and CSA objectives within the project’s prioritized landscapes and to build partnerships for the operationalization of resilient agricultural practices and the delivery of environmental benefits through Component 3. The awareness campaign will be developed and tested in one of the targeted parishes, and its effectiveness will be measured using a Knowledge, Attitude, Practice, and Behavior (KAP/B) Index. Such prior testing will allow fine-tuning messages and communication tools before the campaign is fully rolled out to ensure its effectiveness with the target audience. The design of the KAP/B Index will follow UNDP’s experience in Saint Lucia as part of the Japan-Caribbean Climate Change Partnership (J-CCCP).

**Component 2: National capacity built to provide financial, technical, and information services for CSA production**

Outcome 2.1: Increased financing for supporting SLM and CSA at the national level

Outcome 2.2: National level capacities enhanced for CSA production

***Output 2.1:*** *Financial support systems for incentivizing CSA, SLM, and conservation-oriented agricultural practices are strengthened/established/operationalized, including microcredit schemes and related certification of agriculture products with CSA criteria integrated*

1. The project will strengthen local accreditation and certification capacity for sustainable farming, CSA, quality management, and food safety through the Grenada Bureau of Standards (GBS). Specific activities subject to a final assessment of needs and validation will include *inter alia*, the following: a) conduct an assessment of the testing and certification services for GBS and develop an action plan for strengthening these services; b) provide assistance to testing laboratories for accreditation, which will include training on International Organization for Standardization (ISO) 17025, training technicians in relevant test methods, developing quality documentation of laboratory in accordance with ISO 17025 requirements, supporting implementation of procedures and test methods, and supporting participation in a proficiency-testing scheme; c) strengthen/set up management system certification schemes according to the needs identified and help implement ISO 17021; d) strengthen/set up product certification schemes and assist in compliance with ISO 17065; and e) assist GBS to develop and promote relevant standards as identified to support the production sectors, including support for championing regulation proposals in line with regional Caribbean standards for organic production. For the support to food processing enterprises, the project will consider training and coaching enterprises to implement good hygienic practices and food safety systems (Hazard Analysis and Critical Control Points/ISA [HACCP/ISO] 22000) depending on the needs, and liaising with MNIB, which is HAACP-certified. The approach would be to train a number of trainers cum counselors who will provide technical support to selected enterprises under the guidance of an international food safety expert.
2. The project will support the application of certification systems to incentivize agriculture products generated using CSA and sustainable agricultural practices. The schemes that the project will support will be based on market demand. A gender analysis of the value chain will be completed in conjunction with a complete market analysis of selected crops and a strategy and action plan to develop markets that address women’s under representation in the sector and ensure their participation in emergent markets. Domestic certified markets are emerging, with nascent demand for food products in the expanding tourism sector. With respect to the domestic market, many new hotels demand fruits and vegetables from local organic contract farmers. There is also emerging interest in innovative products such as nutraceuticals and natural medicines. A feasibility assessment conducted during the PPG phase with support from the International Trade Centre (ITC) and further consultations with farmer organizations indicated that the most suitable certification for these domestic markets is likely to be Participatory Guarantee Systems (PGS), which have already been piloted by the Grenada Organic Agriculture Movement (GOAM). As described by the International Federation of Organic Agriculture Movement (IFOAM), PGSs are “locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange.” PGS offer a low-cost, locally based system of quality assurance, with a heavy emphasis on social control and knowledge building.
3. The activities for supporting PGS include: a) selection of watershed farming systems and farmers’ organizations to implement certification systems with; b) gender responsive participatory design of an appropriate training program on PGS, including the training of GOAM inspectors; and c) training of farmers and lead farmers in practices to comply with certification, SLM, CSA, and biodiversity conservation. Women farmers’ underrepresentation in the value chain will be addressed through specialized training programmes identified through the needs assessment under the gender analysis of the value chains. These activities will cover the St. David, St. Andrew, and St. Patrick parishes (2,400 ha). The number of farms and agricultural extensions participating per watershed will be determined during the inception phase. The project aims to reach 50% of farmers in terms of participating in the project, with 40% women beneficiaries of certification of sustainable/CSA products.
4. The project will also explore the feasibility for the implementation of more formal third-party/international certification as a complement to PGS. The project will consider group certification or other cost-efficient schemes for farmers to be able to pay for the costs related to the certification process and maintenance, which is the major constraint for this type of certification in the country. Currently several initiatives are underway with respect to supporting the development of certified agricultural products in Grenada; for example, the Belmont Estate and its association of farmers has received CERES Certification of Environmental Standards accreditation for organic production of nutmeg, cocoa, and other products. The products that are suitable for third-party certification in the prioritized watersheds include nutmeg, mace, cocoa, and soursop; these are also the main export crops from Grenada. The inception phase and gender responsive market analysis will identify other potential crops. The final selection of crops will be made during the participatory workshop in the inception phase of the project. The final choice of certification will depend on the accompanying market analysis, and the certification systems that are in demand; this is most likely to be organic, fair trade, and/or Rainforest Alliance. The project will place emphasis on the training and empowerment of participating farmers to take active roles in valuing agroecosystems and CSA, and to understand the certification process, including the associated the costs and benefits of joining a certification process. Training will also be delivered to strengthen management and planning skills, which will be needed to comply with record-keeping systems as part of the certification/accreditation process. All training and associated activities will be gender responsive.
5. As part of the evaluation design of the certification of agriculture products/CSA, the project will include actions to learn about the impacts of certified agricultural products based on the recommendations included in the “Environmental Certification and the GEF – A STAP Advisory document.” The project will also ensure that strong certification standards are used, such as those recognized in the domestic and international markets and based on established methodologies (e.g., IFOAM). To this end, the following activities will be completed: a) training of lead farmers ensure compliance with certification schemes; b) conducting a market analysis to identify sufficient demand side interest in certified products, including developing baseline information on production capacity, local skills, processing infrastructure, and marketing channels; c) selection of catchment areas that ensure sufficient supply side interest; d) identify among the economically feasible sub-sectors of production, those with higher potential and with an emphasis on value-added activities (e.g. certification, branding and marketing); e) identify potential marketing outlets, including relevant trade flows, tariff and non-tariff barriers and regulations; and f) carry out a value chain analysis of the selected products identifying upgrading opportunities, strengths, weaknesses, opportunities, and threats. These activities will link closely with those under Output 3.4, namely the marketing of certified, branded products from Grenada.
6. An *ex ante* evaluation design will be undertaken to identify and collect data on the key factors that affect the outcomes to be measured; for example, the likelihood of farmers to enter PGS schemes, the impacts of the PGS schemes on female farmers and their households, and the key environmental benefits produced by the schemes (reduction of farm pollution, increased cover cropping and habitat for biodiversity, reduced soil erosion). Data will be collected to contribute to the understanding about pathways of impact on biodiversity conservation and SLM from use of certification. Changes in profitability derived from the adoption and implementation of PGS and/or third-party certified production would be established. Based on a premium price of between 10 to 50% for products sold under PGS, it is estimated that the project will generate a change in profitability of 10% for smallholder producers. To achieve this, during the first year of project implementation a financial and profitability analysis of the production units will be completed, which will serve as the baseline against which financial benefits at the end of the project will be compared. The comparative analysis will include variations in production costs and income derived from the implementation of PGS and certified production.
7. Farmers’ access to microcredit as a mechanism to incentivize CSA, SLM, and conservation-oriented agriculture practices will also be considered. The Grenada Development Bank and other credit unions provide credit to farmers, and the mainstreaming of SLM/CSA and biodiversity conservation is ongoing as part of the available lines of credit. In addition, in 2017 the Caribbean Development Bank and the International Fund for Agriculture Development (CDB/IFAD) approved a USD $5 million loan to support CSA and enterprise business development in Grenada. However, small farmers, especially female farmers, have limited access to credit due to their lack of adequate collateral required by the banks and their limited capacity to apply and manage loans. The project will develop innovative approaches to secure loans such as group lending, the use of moveable assets as collateral (e.g. livestock and crop production), and solidarity groups where members act as reciprocal guarantors following the experience of the Groundnut Basin Soil Management and Regeneration Project in Senegal (GEF Project ID 2511). The project will work closely with credit providers and farmers to build trust and will provide technical support to access loans and assess financial/repayment capacity. The project will conduct a gender analysis of credit schemes to identify the barriers to women’s access to agricultural credit and provide the necessary capacity building, including training, to address their limited access. This will include an assessment of resources required for high value and climate resilient crop varieties and whether women can get access to these markets with resources available through credit schemes. Training for financial/loan management will be provided and partnerships will be established with farmers’ organizations that can assist in providing technical and procurement support and could be a conduit to provide microcredits (e.g. provide tranche disbursement contingent upon certain conditions met) and to work based on inputs rather than cash.
8. Financial support systems for incentivizing CSA, SLM, and biodiversity conservation-oriented agriculture practices (microcredit schemes and certification) will be implemented in partnership with key stakeholders including Ministry of Agriculture and Lands, the Belmont Estate, Grenada Investment Development Cooperation, the Grenada Cocoa Association, MNIB, Grenada Ecological Research and Resilience Institute (GERRI), Agency for Rural Transformation (ART), GOAM, and the Petit Martinique Women’s Association, among others.

***Output 2.2:*** *Soil and water quality monitoring and advisory programme enhanced. National capacity to implement an upgraded soil and water sampling and testing programme, with information dissemination to support planning and monitoring of CSA and SLM activities*

1. The project will contribute to building the national capacity to implement an upgraded soil and water sampling and testing and advisory programme working closely with and augmenting the efforts of the ongoing national soil fertility mapping project funded by the Moroccan Agency for International Cooperation (AMCI; 2017 to 2019). The AMCI-funded project aims to build capacity to determine and ultimately manage the island’s soil fertility, establish a database, and develop a sound soil information system to speedily and effectively respond to needs and demand for fertilizers. A thorough assessment of the national soil fertility and water quality testing capacity will be conducted, giving due consideration to past assessment reports and building upon soil and water sampling and testing training done for the Forestry Department under the R2R Project (GEF ID 5069) and lessons learned from similar initiatives like the water quality assessment in the Moliniere-Beausejour Watershed under the Caribbean Aqua-Terrestrial Solution (CATS) programme funded by the German Federal Ministry of Economic Cooperation and Development (BMZ) between 2013 and 2017. The project will provide analytical equipment to the relevant public agency, for the establishment/accreditation of a soil and water analysis laboratory and support improvement in human resource technical capacity. A comprehensive programme will be developed to provide ongoing soil fertility and water quality testing and advisory services at the national level; beneficiaries from the program include farmers, as well as NAWASA, and other water suppliers (e.g., water bottling companies). Soil test results, which will be under the supervision of the Land Use Division, will provide information on soil nutrient content that can be used by farmers and technical extension service providers for crop production planning. The quality of water from streams in the priority watersheds that are used to support crop irrigation systems will be tested to determine chemical, nutrient, and sediment contents. These data would be integrated into the data management system (output 1.1). These tests will lead to the establishment of water quality and soil fertility standards for crop/CSA production operations with the participation of the GBS for the certification of standards developed. The project will also provide the tools and equipment to the Land Use Division for assessing soil erosion and sediment flows in the prioritized watersheds. Close working relationships will be forged between the Ministry of Agriculture and Lands, GBS, private landowners, and NGOs, especially community groups (e.g., Grenada Network of Rural Women Producers; Caribbean Agriculture Research and Development Institute; Grenada Association of Small Agro Processors; North East Farmers Organization; Grenada Association of Farmers and Fishermen Organization; and Grenada Community Development Agency) in the pursuit of these undertakings.
2. Because land degradation in Grenada is due mainly to soil erosion by water, there is an urgent need for strong institutional capacity to reduce and prevent it. The project will therefore support the strengthening of capacities among youth environmental NGOs, including young women, to engage land management and climate change resilience projects. They would be expected to have a close working relationship with farmers and other organizations and groups. Recommendations for involving youth organizations emerged from a Land Degradation Assessment (LADA) project funded by the Food and Agriculture Organization of the United Nations (FAO) in 2012 to determine the types, extent, severity, and impacts of land degradation, and to propose corrective and preventive measures. Once functional, these youth environmental NGOs will contribute to the institutional capacity that the country needs to sustainably pursue and fully benefit from CSA/SLM undertakings.
3. A training program for soil and water management will be developed to strengthen capacities for the use and imparting of knowledge. This program will facilitate training of agriculture extension technicians, farmers, and other relevant personnel in the private domain in the collection, analysis, interpretation and application of data and soil conservation measures on their crop production/CSA enterprises. The programme will combine application of field-testing kits with laboratory testing services. Appropriate manuals and toolkits will also be developed and disseminated in the simplest of language forms; in addition, the project will use a water quality manual developed under the R2R Project (GEF ID 5069). This program will incorporate different teaching/learning methods such as workshops, farmer field schools, etc. The TAMCC, through its agricultural training school, will serve as a strategic partner in this process.

***Output 2.3****: National supply of climate-resilient crop varieties enhanced through 5 upgraded and climate-proofed government propagation centers (4 in Grenada agricultural districts and 1 in Carriacou), combined with support to farmers field school network with extension officers trained*

1. The project will upgrade the five national propagation stations (Boulogne, Mirabeau, Maran, and Ashendeen in Grenada and Belair in Carriacou) in a climate-resilient manner, with enhanced water supply systems, incorporating rainwater harvesting structures, flood protection, and protective structures for extreme weather events. The facilities will be used to conduct research to identify climate-resilient varieties and selections, which will be field-tested in different climatic zones and archived and inventoried for future use. Support will be provided for improvement in the propagation facility at the CARDI’s station in Wester Hall, St. David. Agricultural extension technicians, farmers, and community groups will be trained in propagation techniques, maintenance, and documentation and support will be provided to systematically collect, store, and disseminate information. Support will also be provided for the establishment of a tissue culture lab at an appropriate location. All enhancement operations will be preceded by thorough assessments to determine status and needs and business/funding plans for each propagation station will be developed to ensure their sustainability.
2. Focus will be placed on germplasm collection, inventorying, and maintenance, especially of climate‑resilient species. This will involve a detailed national assessment of all germplasm resources. Emphasis will be placed on the maintenance of the germplasm banks, which includes all planting materials, and a substantial amount will be kept in established plots from which all types of vegetative planting materials can be extracted when needed. Part of the seeds will be stored in the 5 propagations stations (Boulogne, Mirabeau, Maran, and Ashendeen in Grenada and Belair in Carriacou) while the other part would be maintained on site (e.g., farms). A national germplasm management program will be developed, which will include the establishment of a database of all resources, training and research protocols, standard operating procedures (SOPs), a strategic document and associated plan. Particular consideration will be given to updating the existing SOP for the effective management of and maintenance of germplasm banks to ensure their sustainability. Equally important will be updating the training protocol of each propagation station and delivering needed training to overcome existing capacity gaps, which will be assessed during project implementation. Once the five stations are fully operational, they will benefit between 700 to 1,000 farmers annually.

**Component 3: Operationalization of climate-resilient agricultural practices.**

Outcome 3.1: Land area within 2,400 ha is managed under SLM supporting CSA

Outcome 3.2: Biodiversity conservation mainstreamed in the management of landscapes covering 960 ha

***Output 3.1:*** *CSA and SLM practices implemented in St. David, St. Andrew, and St Patrick parishes. This will include: (i) restoration of riparian buffer zones of higher and mid-belt native forest and agroforestry areas degraded by extreme weather events and unsustainable production practices; (ii) adaptive livestock management (e.g. through high protein plants used for fencing and fodder); (iii) adaptive agriculture practices for short crops and dry forest conservation in coastal areas. Demonstrations include 3 protective structures (including shade houses) for adaptive crop production located in different climatic zones, serving as national learning centers/model farms applying variety of crops and cultivation techniques, as well as demonstrating suitable business models for replication*

1. The project will support SLM and climate-smart practices in 2,400 ha as follows, guided by the respective watershed management plans developed under Output 1.2 as follows: 25 ha in the coastal low-belt of the La Sagesse watershed (St. David parish); 60 ha in the mid-belt of Ludbur-Mirabeau in the Great River watershed (St. Andrew parish); 40 ha in Snell Hall and Madays of the St. Patrick watershed (St. Patrick parish); and 2,275 ha in Spring Gardens in the high-belt of the Great River Watershed (St. Andrew parish). Demonstrations include two protective structures (including shade houses) for adaptive crop production located in different climatic zones, which will serve as national learning centers/model farms, applying a variety of crops and cultivation techniques, as well as demonstrating suitable business models for replication. SLM and CSA activities, including training, will benefit at least 200 farmers, 30% of whom will be women farmers; beneficiaries will be selected based on criteria developed by a multi-stakeholder group, considering aspects such as socioeconomic vulnerability and land tenure arrangements, among other factors. In the La Sagesse low-belt, emphasis will be placed on flood mitigation in coastal cropland. This will include promoting climate resilient crops such as corn, pigeon peas, beans, cassava, yams, sweet potato and other ground foods, and low growing tree crops such as citrus, mangoes, and cocoa, among others, that can withstand high winds. It will also include improvement in drainage, the establishment of water holding ponds for the storage of rainwater, and the clearing of the La Sagesse River to prevent restriction to flow. A model drip irrigation system fitted with solar-powered energy will be established. Revegetation of the bank of the stream will also be undertaken where appropriate. The project will also support the establishment of a central composting unit for the production and distribution of organic manure among participating farmers; lessons learned from the CATS Programme will be considered, which piloted composting-activities with NEFO. One protective shade structure will be installed as a research unit for testing the performance of new climate-resilient crop varieties. This shade house will serve as protective structure against extreme rainfall and heat levels. Lettuce for instance is intolerant to high heat levels and also excessive rainfall, which tend to drown them at the seedling stage; the shade house will protect this and other crops against these extremes. A program will be developed and implemented for reducing the use of synthetic agrochemicals and replacing them with organic inputs to minimize the runoff of harmful chemical residues into the streams, that are also detrimental to the coastal environment. The site will therefore be used as a model demonstration facility that will serve as a learning center to promote sustainable and CSA practices and conservation approaches in a lowland coastal environment, which includes dry forest. A partnership will be forged with a private farmer and the project and business plans will be developed to ensure the sustainability of the demonstration facility/protective shade structure.
2. In Spring Gardens in the upper-belt of the Great River Watershed, an assessment will be conducted on the sources and impact of waste from pig and poultry production facilities that are located in close proximity to streams. Three private farmers, whose farms will be used as demonstration sites for future replication, will be given support to manage the waste from their farms, which will include improved waste handling, discharge water treatment, and composting, among other options. Using this connection, the project will assess and support where feasible the establishment of biodigester units. Riparian buffer zones using local vegetative species will be established to prevent soil erosion, to reduce contaminant loading into the streams, and to restore areas degraded by pre- and post-extreme weather events. Soil erosion control activities such as gully plugging, planting of vegetative barriers, and enhancing ground cover will be undertaken on a private farm. Edible fruit-yielding agroforestry species and high protein species will be inter-planted within the sparsely vegetated area in the forest fringing cropland in Spring Gardens. These species are intended to serve as sources of food for wildlife inhabiting in the forest to reduce their encroachment into cropland and to be used for fencing and fodder for adaptive livestock management. This will be accompanied by the establishment of vegetative soil conservation structures within the forest and the rehabilitation of drains, which channel stormwater directly into farmland and cause erosion. The project will consider lessons learned from the implementation of the GEF project *Mainstreaming Biodiversity in Sustainable Cattle Ranching* (GEF ID 3574) regarding the use of agrosilvopastoral systems that combine trees, shrubs, and various herbaceous plant species to improve the sustainability and productivity of farms combining agriculture and cattle production, while creating an environment that is vastly more hospitable to biodiversity and is carbon-friendly. This may entail fodder banks planted with high densities to obtain foliage (leaves and green branches) for animal feed as well as for improving water quality and flow regulation in micro-catchments evidenced through reduced contamination and sedimentation levels.
3. In the Ludbur-Mirabeau mid-belt area of the Great River Watershed, soil erosion control measures will be applied to 10 small farm parcels in a community setting, which will be used as demonstration sites for future replication. These measures will include gully plugging, improvement in drainage systems, contour cultivation techniques, use of grass and other vegetative barriers, mulching, among others. Given the open environment and the drying impact of uncontrolled wind, windbreaks of economically beneficially plants will be established in critical wind-thrown areas. Support will be provided to the farmers to establish composting units. The recently installed rainwater harvesting system that was established to serve farmers in the area will be assessed to determine the possibility of expansion and/or the establishment of an additional unit. Given the sloping nature of the terrain and the potential to capture and store rainwater, the project will support the establishment of an earthen pond to serve the irrigation needs of the farmers. In addition, the project will support the provision of efficient drip irrigation/micro sprinkler systems to three farms. New climate-resilient crop varieties will be introduced to farmers for testing on selected plots. The area will serve as a model for the demonstration of best practices in soil and water conservation management. The demonstration sites to be promoted through the project will be used for implementing cross-learning activities among farmers living in different areas of the Great River Watershed and different climatic zones. The project will facilitate the formation of an organization among the farmers in the area as a means of sustaining interventions during and beyond the life of the project; grouping farmers in an organization will more easily establish links between the government, donors, and other farmer organizations, which will facilitate the CSA, SLM, and biodiversity conservation incentives through coordination and cooperation, and the exchange of knowledge and experiences in sustainable and climate-resilient production.
4. In the mid-belt Madays area of the St. Patrick watershed, support will be provided to a private farmer for the conversion of a vegetable and food crop farm to a sustainable CSA/SLM farm; the famer will be selected from among the group of farmers with whom the Ministry of Agriculture and Lands has had a long working relationship. This will include the installation of a solar-powered pump to replace a diesel-generated irrigation pump. This will be complemented with the supply of a drip irrigation system. The project will support the establishment of a climate-resilient protective shade house to be used for the testing and production of new climate-resilient crop varieties. One large composting unit will be installed for the recycling of farm organic waste into fertilizer. Efforts will be made to procure and test organic herbicides and pesticides to minimize the leakage of harmful residues from synthetic chemicals into the nearby river; 200 meters of vegetative soil conservation materials will be planted across the contour to reduce erosion. Support will be provided for the rehabilitation of old drains and the establishment of 100 meters of new drains to control runoff. A partnership will be forged with the private landowner to use the farm as a training and demonstration model facility.
5. In the Snell Hall area, support will be provided to a private farmer to rehabilitate 20 existing contour beds and establish 10 new ones to produce vegetable crops; 100 meters of grass and other vegetative buffer strips will be established. The area, which is prone to soil erosion will be used as a site for the demonstration of best practices in soil conservation; farmers from different areas within the St. Patrick watershed and from other prioritized watersheds (e.g., Great River Watershed and the La Sagesse watershed) will visit the demonstration site to learn and exchange experiences regarding soil conservation and management. The farmer will be selected following recommendations from the Agricultural Extension Division.
6. The activities that will be undertaken in each of the watersheds and under each of the agricultural strata is summarized as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Priority Watershed** | **Local Area Name** | **Type of Land Degradation** | **Cause** | **Proposed Intervention** | **Specific Actions** |
| La Sagesse | La Sagesse low-belt  Coastal cropland | * Flooding | * Poor drainage system | * Establishment of holding ponds * Stream cleaning * Climate resilient shade structure * Composting | * One flood water holding pond established * One climate resilient protective shade house installed * One composting unit established |
| Ashenden Propagation Station | * Damaged shade houses vulnerable to climate change * Poor irrigation structure | * Mechanical and climatic wear and tear * Inadequate materials use | * Installation of climate change resilient structures * Installation of efficient irrigation system | * One climate resilient protective shade house propagation facility. * One rain water harvesting (RWH) system installed |
| Great River | Spring Gardens/ St. James, upper-belt of the Great River Watershed | * Loss of habitat * Biodiversity loss | * Vegetation Destruction * Pest and disease infestation | * Agro-reforestation | * 500 fruit producing agro-forest trees inter-planted within 50 acres of forest. |
| * Water quality decline | * Animal waste contamination * Synthetic agro chemical pollution | * Riparian Buffering * Composting * Waste to energy conversion | * Three composting units installed. * 200 meters of buffer strips established. * Three bio-digester units installed |
| * Soil erosion (gully) | * Inadequate soil conservation measures * Deforestation | * Improve drainage * Improve ground cover * Gully plugging * Use of vegetative barriers | * 10 gullies plugged with vegetative and non- vegetative materials * 100 meters of vegetative barrier strips established |
| Ludbur-Mirabeau, mid-belt area of the Great River Watershed | * Gully erosion | * Poor cultivation practices | * Improve drainage * Improve ground cover * Gully plugging * Use of vegetative barriers * Terracing/Contour farming | * 300 meters of drains established or rehabilitated. * 30 gullies plugged * 200 meters of barrier strips established * 100 terraces rehabilitated and/or established. |
| * Decline in water quantity | * Unpredictable weather conditions | * Rain Water Harvesting (tank and Pond) * Efficient irrigation system | * One roof supplied RWH and one earth pond RWH system established. * Three efficient irrigation systems established |
| Mirabeau propagation station | * Damaged shade houses vulnerable to climate change * Poor irrigation structure | * Mechanical and climatic wear and tear * Inadequate materials use | * Installation of climate change resilient structures * Installation of efficient irrigation system | * One climate resilient protective shade house propagation facility fitted with an efficient irrigation system |
| St. Patrick’s | Madays & Snell Hall, mid-belt of St. Patrick’s watershed | * Pest and disease infestation | * Poor pest & disease control measures | * Use of pest resistant varieties * Integrated pest management * Inter/rotational cropping | * Data on the performance of new potentially climate resilient crop varieties * An integrated pest management plan |
| * Soil erosion | * Inadequate soil erosion control measures | * Improve drainage * Improve ground cover * Use of vegetative barriers * Contour cultivation | * 100 meters of drains established or rehabilitated * 300 meters of vegetative soil conservation strips established * 20 contour beds maintained and 10 new ones established |
| * Loss of soil life and natural fertility decline | * Limited use of natural fertility inputs | * Composting and use of organic matter | * One composting unit established |
| * Crop damage | * Extreme and unpredictable weather conditions | * Climate resilient shade housing * Use of efficient irrigation system * Solar pump technology | * One climate resilient protective shade house installed * One solar powered efficient irrigation system installed |
| Levera & Levera Pond | Levera & Levera Pond, coastal area | * Loss of Vegetative cover * Wetland pollution | * Deforestation * Siltation of pond from development-related excavation | * Establishment of coastal vegetation with species. | * Planting of 100 coastal native trees |

1. The above project activities will be linked with Grenada’s Land Degradation Neutrality (LDN) planning process that is being led by the Land Use Division. Accordingly, the project will contribute to achieving the following national voluntary national targets: a) increase the fertility and productivity of 580 ha of cropland by 2030; b) transform 800 ha of abandoned cropland into agro-forestry by 2030; implement soil conservation measures on 120 ha of land by 2030; c) rehabilitate 100 ha of degraded forests in Grenada and Carriacou by 2030; e) increase forest carbon stocks by 10% by 2030; and e) rehabilitate 100 ha of Degraded Rangeland in Carriacou by 2030 (refer to Output 3.3).

***Output 3.2:*** *Biodiversity conservation expanded and integrated with CSA and SLM measures in La Sagesse Watershed, Great River Watershed and Levera/Levera Pond/St Patrick Watershed in: (i) upland watershed areas buffering Grand Etang NP, (ii) lowland to upland riparian zone, and (iii) lowland dry forest areas (i.e. establishment of 1 tropical dry forest coastal site as national park). Landscape level threats to biodiversity reduced through IAS/disease control: i) Batrachochytrium (Chytrid fungus) in high mountain strata, ii) bamboo removal in the mid-level strata, and iii) control of Herpestes auropunctatus (small Indian Mongoose) in Grenada’s coastal dry forest ecosystem encompassing 5 KBAs, with native and endangered biodiversity impacted (i.e. CR Grenada Dove)*

1. The project will mainstream biodiversity conservation in two prioritized productive landscapes (upland watershed areas buffering Grand Etang Forest Reserve and Mt St Catherine’s [proposed] NP; and lowland to upland riparian zone in La Sagesse watershed) and will contribute to strengthening the terrestrial protected area estate of Grenada through the establishment of the La Sagesse Local Area Planning site as a national park providing additional protection to a tropical dry forest coastal site home the critically endangered Grenada Dove. This conservation strategy is coherent with the Conservation Gap Assessment developed for the country in year 2016. Biodiversity conservation in the prioritized production landscape will be integrated with CSA and SLM measures implemented in the La Sagesse Watershed, Great River Watershed and Levera/Levera Pond/St Patrick Watershed as part of Output 3.1. The specific sites where biodiversity conservation measures will be implemented will be confirmed during the first year of implementation.
2. In the upland watershed areas buffering Grand Etang Forest Reserve and Mt St Catherine’s (proposed) NP, activities will concentrate in areas surrounding the Grand Etang Forest Reserve, as the R2R Project (GEF ID 5069) will be implementing actions in the St. Catherine area (Figure 2). The priorities will be replacing bamboo in selected riparian areas with native species such as the Grenadian Gouti Tree (*Maytenus grenadensis*), the Grenadian Towel Plant (*Rhytidophyllum caribaeum*), *Lonchocarpus broadwayi*, and *Cyathea elliotti*. The project will provide nursery seedlings of native species and focus in strengthening existing governmental facilities in terms of infrastructure and operational capacity and complement them with a forestry nursery at Grand Etang as a propagation center for forest restoration with native species. The project will build on the lessons learned by forest rehabilitation of areas that were destroyed by Hurricanes Ivan (2004) and Emily (2005). The project will also seek engagement of private owners/farmers to promote connectivity patches and generate incentives to integrate biodiversity into SLM and CSA practices. The activities will have a demonstrative approach and will identify opportunities for replication.
3. In the lowland to upland riparian zone in La Sagesse watershed, sites will be prioritized based on their potential for expanding Grand Etang´s conservation corridors. This area is recognized as a priority both in the PA System Plan and the more recent Grenada National Protected Area System Gap Assessment. In Grenada, riparian zones are not a legal boundary, so people can just make free use of it. The project will seek a legal framework to protect riparian zones in line with Output 1.2. There is a need to work closely with private owners to promote riverbed restoration practices and identify incentives for replacing bamboo with native species. The project will assess the presence and extent of bamboo in riparian zones, and will identify priority areas where eradication and replacement is more cost effective and offers greater conservation value.

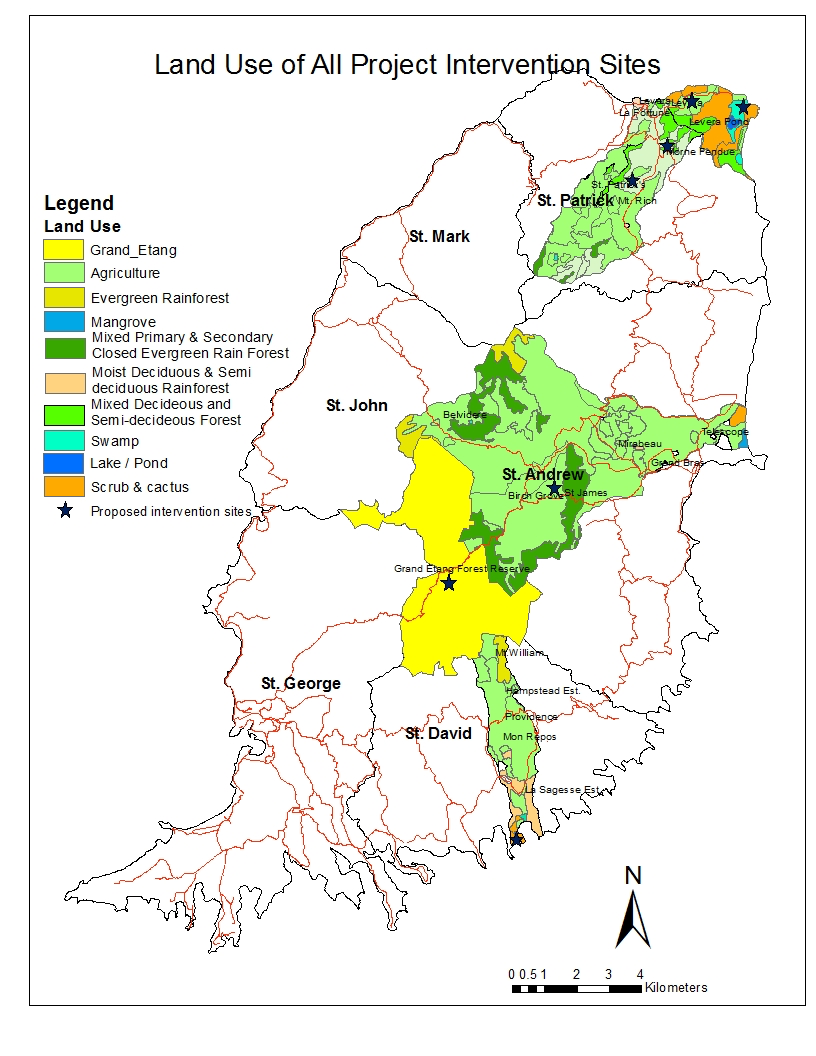


Figure 2: Areas of project intervention.

1. The project will also establish a tropical dry forest coastal site as national park, i.e., the La Sagesse Local Area Planning site covering 23 ha of terrestrial land under conservation of (Figure 3). The project will generate the technical tools and environmental and socioeconomic studies including a gender assessment of natural resources utilization and ecosystems services with the development of tools for gender responsive data collection, needed for the establishment of the PA as a national park and will develop its management plan, the latter as part of Output 1.2. Protecting Grenada’s cloud forest to dry forests is a national priority considering it is the habitat of the critically endangered Grenada Dove (*Leptotila wellsi*), and is one of the least represented ecosystems in Grenada’s PA system.

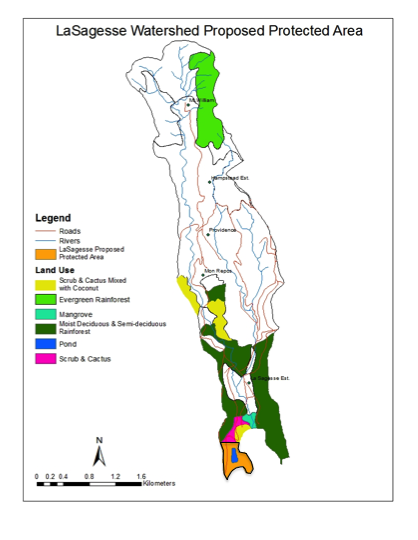


Figure 3: Tropical dry forest and coastal site to be established as National Park.

1. In addition, landscape level threats to biodiversity will be reduced through IAS/disease management and control: a) Batrachochytrium (Chytrid fungus) in high mountain strata (threat mapping, spread prevention); b) bamboo removal in the mid-level strata/riparian forests (reforestation with native species); and c) control of *Herpestes auropunctatus* (small Indian Mongoose) in Grenada’s coastal dry forest ecosystem encompassing 5 KBAs, with native and endangered biodiversity impacted (esp. the Grenada Frog / *Pristimantis euphronides* and the critically endangered Grenada Dove - *Leptotila wellsi).*
2. A critical situation analysis will be conducted for a more in-depth review of the national legislation and policies for IAS management and identifying key stakeholders currently engaged in IAS management and assessing their current level of coordination and collaboration and needs to improve coordination mechanisms. Since there is limited data available on the current status of these three IAS in Grenada, project support will also include performing baseline studies to understand current population, distribution, and impact to ecosystems and native biodiversity. Baseline studies will also include costs assessment and defining a financial strategy to address long-term concerns of IAS presence in the prioritized watersheds; this may include benefiting from the implementation of a national cost recovery financial mechanism for sustainable funding to combat IAS at the national level and joint public-private sector collaboration on IAS. To this end the project will build synergies with the GEF project *Preventing COSTS of Invasive Alien Species (IAS) in Barbados and the OECS Countries* (GEF Project ID 9408) where cost recovery mechanisms will be piloted in Antigua and Barbuda, Barbados and St. Kitts and Nevis. Also, recommendation will be made to strengthen the legal and policy framework for the prevention, management, and control of the three IAS targeted, and awareness activities among stakeholders (the public and private sectors as well as the general public) about the threats and impact of IAS and new controls and regulations will be conducted.
3. New baseline information would feed and refine key national policy tools such as the Plan for Control of Mongoose implemented by the Ministry of Health over a decade ago to generate awareness about the link between small Indian Mongoose and rabies. Predator control measures at dove sites were initiated in 2014, with over 1,045 mongooses trapped and removed at Mt Hartman in one year; the project will build on these initiatives in the control of IAS in the prioritized areas. Similarly, the project will consider lessons learned from the eradication of 40 ha of bamboo as part of the R2R Project (GEF ID 5069). Participatory community science and youth engagement (through the IMANI programme) will be a key tool in providing capacity through the Vector Control Unit to build, set and clear traps, and map mongoose capture in order to identify hotspots. The project will pilot low-cost trapping system following past experience in Grenada for the control of the mongoose and will assess its sustainability and propose alternative management and control strategies based on pilot results.
4. Baseline studies will provide the information to determine where is it more cost effective to undertake IAS control activities. These will include the two dry forest areas in the Levera wetland and La Sagesse watershed encompassing 5 KBAs (Mt St Catherine, Grand Etang, Levera, Perseverance, Mt Harman) for the control of the small Indian Mongoose with an expected target of at least 1,305 individuals trapped annually; and a pilot initiative for the selective eradication of bamboo and replanting with native species over 40 ha in selected riparian zones in La Sagesse watershed. This pilot activity was determined with stakeholders during the consultation process conducted during the PPG phase.
5. Regarding the chytrid fungus (*Bactrachochytrium dendrobatidis)*, which is a global threat to amphibians and has been reported to affect the endemic Grenada Frog, the incremental benefit of the project would be documenting and assessing its distribution, and how it is threatening amphibians in the landscapes prioritized by the project (in particular the Grand Etang forest area), which will be the basis for the development of control and management frameworks that emphasize risk management. Evidence of declining frog populations due to the presence of *Bactrachochytrium dendrobatidis* first emerged at the Grand Etang area (St. Andrew Parish) in 2007. This was confirmed by Harrison et al. (2011)[[32]](#footnote-33) who tested three species (including the endangered Grenada Frog) in four locations in 2009. *B.* *dendrobatidis* was found on all four sites for all three species. The authors concluded that chytrid fungus might pose the most imminent threat to the Grenada Frog as this species is found only at high elevations like the Grand Etang area where temperature and moisture regimes are ideal for the chytrid fungus. Since there is no proven method to control the disease in the wild to date, effort will focus on field-level assessment and monitoring of the population of the endemic Grenada Frog and mapping infected and non-infected areas; control efforts will concentrate on protecting uninfected areas and include the design and implementation of a community-focused information strategy to raise awareness about the importance of the conservation of the endemic Grenada Frog and other amphibian species and their habitat, and how to prevent the dispersal of the chytrid fungus that be transported from place to place in water or mud and moving frogs from one area to another. The field-level assessment and monitoring of the population of the endemic Grenada Frog will also serve as a basis for proposing a long-term mitigation strategy that may include a more permanent monitoring program of the frog populations, identifying mechanisms of disease suppression and adaptive management in field trials with natural populations.
6. The project will also contribute to the protection of four sea turtle species nesting on Grenada: the endangered green sea turtle (*Chelonia mydas*), the vulnerable loggerhead sea turtle (*Caretta caretta*), the critically endangered hawksbill sea turtle (*Eretmochelys imbricata*), and the vulnerable leatherback sea turtle (*Dermochelys coriacea*). This will be achieved through improved police enforcement and training, increased local community awareness, as well as through beach erosion control measures and control of the invading Sargassum seaweed to be defined as part of the watershed management plans as part of Output 1.2. Opportunity exists to convert the Sargassum into useful fertilizer, as successfully demonstrated in Saint Lucia through the GEF Small Grants Programme (SGP) and efforts from the Produce Chemistry lab exploring the use of liquid fertilizer from the Sargassum seaweed. Enforcement activities will include greater control of illegal sand mining activities impacting coastal ecosystems along the east coast that threaten nesting sea turtles. In addition, the implementation of CSA and SLM practices through Output 3.1 will contribute to reducing upstream erosion and pollution with a positive impact on key habitat for sea turtles.

***Output 3.3****: CSA and integrated rangeland management system in Carriacou and Petit Martinique demonstrated through operationalization of an upgraded propagation center (including climate resilient varieties) and establishment of 2 climate-resilient protective structures*

1. CSA and rangeland management in Carriacou and Petit Martinique will be supported, where intensive grazing has resulted in extreme land degradation and directly benefiting up to 100 farmers, 30% of whom will be women farmers, through the adoption of good practices and training. Beneficiaries will be selected based on criteria developed by a multi-stakeholder group, considering aspects such as socioeconomic vulnerability and land tenure arrangements, among other factors. The project will contribute to improving grazing practices and will include enhancing the government propagation facility in Belair, Carriacou, through the installation of new climate-resilient protective structures and the provision of propagating materials, tree seedling, and supplies. This will enable the island to become self-sufficient in the supply of planting materials to its farmers, thereby reducing their dependence on the mainland. The facility will be designed to accommodate harvesting and storage of rainwater to mitigate the impact of drought on the island. Support will be provided for the conduct of research on climate‑resilient varieties in this facility.
2. The original intent during the PIF development phase was to use the government livestock farm in Limlair as a pilot rangeland demonstration facility under the project. However, this is not possible due to the leasing of the farm to a private company. Alternatively, support will be provided to a pilot livestock farm facility following detailed assessments. The facility will be provided with fencing enclosure to accommodate a paddock rotational grazing system on which pastures will be established and/or rehabilitated. Support will also be provided for the installation of a rainwater harvesting system.
3. The project will also support the establishment of an integrated CSA/livestock demonstration facility in Carriacou. This will involve fencing with local materials such as *Gliricidia* spp. as post and bamboo as fencing; the establishment of a pond for the harvesting and storage of rainwater; the establishment of an efficient irrigation system; the establishment of a composting unit for the integration of animal waste with crop waste for the production of organic manure; and the installation of a climate‑resilient protective shade house for the testing and production of resilient crop varieties. The farm will include a cut-and-carry fodder system and the reuse of animal waste back into the crop production stream. The site will be used to demonstrate the mutual benefits that can be realized from the integration of livestock with climate-resilient crops in a sustainable manner.
4. The activities that will be undertaken in each site are summarized as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Carriacou | Belair (government farm/propagation facility) | * Reduction in water quantity * Crop damage | * Climatic variations * Extreme and unpredictable weather conditions | * Rain Water Harvesting * Propagation nursery enhancement | * One RWH system installed * One new climate resilient propagation unit/structure installed |
| Pilot rangeland demonstration facility | * Damaged propagation unit vulnerable to climate change * Poor irrigation system * Unreliable water supply system | * Mechanical and climatic wear and tear * Inadequate materials use | * Installation of climate change resilient structures * Installation of efficient irrigation system * Rehabilitate RWH system | * Fencing enclosure/grazing system installed * One water storage unit rehabilitated * Rainwater harvesting system |
| Integrated CSA/ livestock demonstration facility | * Bare ground-due to ground cover loss * Reduction in water quantity | * Over grazing * Climate variation | * Improved fencing * Rotational grazing * Pasture reestablishment * Rain Water Harvesting | * One integrated crop & livestock farm established * One rangeland small ruminant farm installed * Two RWH systems installed * Climate‑resilient protective shade house installed |

***Output 3.4****: Small businesses supported for agroprocessing and agrotourism, processing CSA crops and supporting sustainable rural livelihoods and education on CSA/SLM practices (including women, men, and youth). At least 8 agroprocessing and 2 agrotourism businesses will be supported with technical assistance in production, labeling and marketing of climate smart agricultural products*

1. The project will improve the competitiveness at least 10 registered small agribusinesses (including agroprocessors and agrotourism businesses, and their suppliers) implementing CSA/SLM initiatives. However, the agroprocessing value chain is under-developed, and although women are over-represented in number and proportion relative to the percentage of women in the agricultural sector, parish, and national population, income earnings for women are still lower than for men. In addition, the nascent nature of the agroprocessing industry, as it is still at the cottage industry level, and the dependence on male members of their families and partners for inputs, will make the agroprocessing livelihood vulnerable. Accordingly, the project will support women-operated small businesses for agroprocessing and agrotourism, thereby contributing to improving their earnings and reducing the vulnerability of their livelihoods. The specific activities will include support through training on CSA and SLM to small businesses and their suppliers (including rural women, men, and youth); and analyses and advice on marketing and branding strategies for Grenadian products and services relating to climate-smart development (e.g., sustainably produced agroproducts, climate-resilient tourism and planning) will be conducted. The support for marketing and branding will stimulate market demand for CSA and SLM practices and thus contribute to greater utilization of these practices. In addition, a partnership with a local business development agency (e.g., the Grenada Investment Development Corporation [GIDC]) will be established to provide complementary support. Also, marketing strategies to support the commercialization of certified (see Output 2.1) and non-certified SLM/CSA agricultural products will be designed according to the level of capacity and knowledge of each small business and related farming group. The project will build on existing official tourism promotion of the Grenada Tourism Authority branded as Pure Grenada (see [www.puregrenadanutmeg.com](http://www.puregrenadanutmeg.com)). Synergies will be established with the Regional Agriculture Competitiveness Project (P158958) with support form the World Bank that aim to enhance access to markets and sales for competitively selected farmers (and fishers), as well as their allied aggregators and agro-processors in Grenada.
2. In line with the recommendations from the Scientific and Technical Advisory Panel (STAP) of the GEF, the project will conduct a market analysis of domestic products and exports of Grenadian-certified climate-smart agroproducts. This includes analysis of mechanisms to incentivize the demand for value-added projects in local and/or international markets. The results of the analysis will be shared with small businesses and the government to support market development strategies. The project will build on this analysis to initiate concrete actions to incentivize demand from local and international markets for climate-smart, sustainable produce by building partnerships with local tourist hotels for direct sourcing of PGS-certified organic produce (see Output 2.1). In addition, the project will mentor and support the participation (75% co-funding) in international trade fairs, including the mission of 5-10 selected Grenadian small businesses to international trade fairs in the EU or US, depending on the target market selected.
3. As part of the support to 10 small businesses (agroprocessing and agrotourism businesses), the project will establish a grant instrument with the objective of supporting their CSA and SLM initiatives, which will contribute to the adaptation of farming systems to climate change; building disaster resilience; combating invasive species; improving the circular economy (e.g., recycling rates); enhancing waste management, water quality, watershed management, and air quality; and contributing to biodiversity conservation and education. Beneficiaries will be selected based on criteria developed by a multi-stakeholder group, considering aspects such as socioeconomic vulnerability and land tenure arrangements, among other factors. Grants will complement the capacity-building support to small businesses by eliciting innovative ideas from both the supported small businesses and other budding entrepreneurs with the potential to grow into small businesses. Grants awarded could cover a maximum of 70% of the total approved project budget for micro and small enterprises. The decisions to award funds will be made using a competitive basis and will follow a similar structure as the GEF/UNDP SGP model and other non-GEF small grants facilities available in the country, including grant approval time, programmatic and operational risk management, among other aspects, which has been used to establish local granting mechanisms. Recognizing the under development of the value chain and women’s high representation in the agro-processing segment, the project will provide training and support in the application and proposal process to ensure women are not impacted negatively and/or lose control of this segment of the value chain. The grant instrument will be managed by the Project Implementation Unit with an advisory committee made up of local stakeholders including the Ministry of Agriculture and Lands, private sector associations, leading businessmen and women, and aid agencies specializing in sustainable agriculture and natural resources management. Grants will be released following UNDP Guidance on Micro-Capital Grants. The grant mechanism will also provide business incubation services in the form of advice from existing entrepreneurs and the project team on business development, marketing, and branding; access to finance and financial management; as well as the preparation of awardees for the next phase of development through mentorship. In addition, the project will establish partnerships with leading local entrepreneurs who will provide guidance to incubate the entrepreneurs in receipt of the grants.
4. Activities related to this project output will be implemented in partnership with key stakeholders including inter alia Ministry of Agriculture and Lands, Belmont Estate, Grenada Investment Development Cooperation, the Grenada Cocoa Association, MNIB, GERRI, the GOAM, and the Petit Martinique Women’s Association.

**Component 4: Knowledge management for SLM, CSA, and biodiversity conservation.**

*Outcome 4.1: Knowledge and experiences captured, shared and encourage widespread adoption of CSA, SLM and biodiversity conservation practices.*

*Outcome 4.2: Monitoring and evaluation of project implementation, outcomes and outputs ensures project effectively reaches outlined goals and objectives.*

***Output 4.1****: Technical knowledge captured, experiences and lessons learned disseminated, and incorporated into institutional strengthening and capacity-building*. *A monitoring system will be developed to learn from the SLM, CSA, and biodiversity conservation interventions conducted by the project. Lessons learned and good practices will be compiled, collated, and packaged into several formats geared towards specifically targeted groups and audiences, using community groups and/or NGOs to assist in capturing lessons learned and good practices*

1. A monitoring system will be developed to learn from the SLM, CSA, and biodiversity conservation interventions conducted by the project, improving national, sub-national, and local technical capacities to plan, implement, and scale-up climate-resilient agricultural techniques and integrate biodiversity conservation into land use practices. The project’s Communication and Knowledge Management Expert, in collaboration with the Project Coordinator/Manager, the Project Board, the Project Execution Unit, will use the monitoring system to identify and systematize the project’s experiences and good practices in CSA, SLM, biodiversity assessment, and gender mainstreaming in CSA, among other topics. The systemization of the project’s experiences will be performed on an annual basis and will be used internally to inform the project management team in the execution of its functions; inform the Project Execution Unit in its implementation; and inform the project’s stakeholders and beneficiaries. The lessons learned will be input into the project iterative management process and will guide project management adaption. This systemization will occur at several levels, including at the project management level, stakeholder involvement and management level, and during the implementation of project activities to document good practices and knowledge generation at the local level.
2. The lessons learned and good practices will be compiled, collated, and packaged into several formats geared towards specifically targeted groups and audiences, using community groups and/or NGOs to assist in capturing lessons learned and good practices. Case studies and thematic reports will capture the good practices in CSA, SLM, funding in agroprocessing, and general project activities and interventions. These case studies and thematic reports will be geared towards the technical staff of the Ministry of Agriculture and Lands, other governmental ministries and departments, producer associations, CSOs, and NGOs. Printed and electronic products will be developed and disseminated to all the governmental and other technical stakeholders. The products will also be placed on the website of the Ministry of Agriculture and Lands and other Government of Grenada institutions. The Government of Grenada will recognize linkages to other GEF and government projects in climate change, social development, agriculture, SLM, and biodiversity conservation in the preparation of the case studies and thematic reports. The knowledge products produced will be linked to these other projects sites for their targeted groups’ use as well.
3. Lessons learned and experiences from gender mainstreaming in the agriculture sector will be systemized in stakeholder-specific formats. Case studies and thematic reports will be developed for technical personnel and for community and producers organizations with support from women groups participating in the project. These will also be disseminated to the Ministries and Departments of the Government of Grenada. The products will be placed on the website of the Ministry of Agriculture and Lands and other Government of Grenada websites, including the Division of Gender and Family Affairs of the Ministry of Social Development. The focus of the knowledge products on gender will include examples of successful women farmers and women agroprocessors, the project’s experience in gender mainstreaming in its grant recipients, tools used for gender mainstreaming and the mechanisms in the project cycle that allows gender mainstreaming, and the household-level impacts of the project on matrifocal households. Women groups will assist in compiling and sharing Lessons learned and experiences related to gender mainstreaming.
4. Quarterly knowledge forums will be held where the project will share lessons learned with the Project Board, project beneficiaries, governmental and other stakeholders, and implementers of similar projects in Grenada. The project will establish a project website where all thematic reports and case studies will be accessible. Alternatively, space will be sought on the Ministry of Agriculture and Lands website for the online storage and dissemination of reports and case studies. A Facebook page for the project and other social media will be established/used that will serve both for reports and case studies dissemination as well as public and community awareness. Community and/or NGOs will assist in sharing knowledge and lessons learned in coordination with the project Communications Expert.
5. Finally, project knowledge products will also be disseminated to other African, Caribbean, and Pacific Group of States (ACP) and Small Island Developing States (SIDS) countries as examples of good practices. The dissemination will occur via varied means, including posting on regional websites and knowledge forums, presentation at regional activities, and meetings on the subjects, including regional meetings on adaptation to climate change, agriculture, and efforts at combating desertification.

***Output 4.2****: Media products promote outreach and increased public awareness / environmental education of SLM, CSA, and biodiversity conservation disseminated through videos, photo essays, fact sheets, case studies, project web platform, training tools, television spots, newsletters, exchange site visits by communities and producers involved, and dissemination at regional events.*

1. Media products to increase awareness and promote outreach and education of project activities, knowledge, and lessons learned will include videos, photo essays, fact sheets, case studies, project web platform, training tools, television spots, newsletters, exchange site visits by communities and producers involved, and dissemination at regional events. Information on CSA and SLM good practices will be collected and formatted in farmer-specific formats. These formats will include radio/TV public service announcements, SMS (which has been shown to be an effective communication tool for farmers and fishermen in the Caribbean), and printed materials. A printed and or electronic toolkit for farmers on CSA would also be developed in a reader-friendly format providing information on the basics of CSA in Grenada. Additionally, a toolkit or handbook on the basic of agroprocessing will be produced.
2. Media products will also be developed, with assistance from community groups and/or NGOs, which target the stakeholders at the community and parish levels, including women and farmers’ groups. This information will be captured in printed forms, such as brochures and flyers, and electronic forms, including short videos and impact documentaries in jargon-free language and using local expressions. These products will serve both to build and enhance community stewardship and awareness of the project activities and for measuring the project’s impacts.
3. Gender responsive community-awareness campaigns products and activities will be implemented making use of Facebook, website, climate change walk, radio/TV public service announcements, billboards, murals, etc. These media products will target the general community of the country of Grenada, but more specifically the parishes and communities in which the project activities are implemented. The focus is both to create awareness and to build and encourage stewardship of the project in the communities. The messages should link the project activities to gender responsive community development and the building of sustainable communities, including directly or indirectly improving the livelihood and economic status of the men and women and their dependents in communities.

***Output 4.3****: Monitoring and evaluation of project implementation conducted for adaptive management*, *including periodic field visits, core indicators assessments, mid-term and final evaluations of project.*

1. M&E of the project’s implementation will be conducted following GEF and UNDP guidelines and according to the M&E plan described in Section VII of this project document. The main tasks of the M&E plan include an inception workshop, annual monitoring of indicators in project results framework, annual project implementation reports (PIR), annual NIM Audits, ongoing monitoring of environmental and social risks, ongoing monitoring of the Stakeholder Engagement Plan and the Gender Action Plan, Project Board meetings, oversight mission by the UNDP-GEF team, mid-term and terminal GEF7 core indicators updates, and an Independent Mid-term Review (MTR) and an Independent Terminal Evaluation (TE), among other activities.

Partnerships:

1. GEF currently supports a number of initiatives in Grenada that the project will coordinate with, including the GEF-5 project (ID 5069) *Implementing a Ridge to Reef Approach to Protecting Biodiversity and Ecosystem Functions within and Around Protected Areas* (i.e., the R2R Project) upon which the project proposed herein will build on the outputs, outcomes, and lessons learned. In 2015 the Government of Grenada began implementation of the R2R Project that serves as a key baseline initiative. That project will establish institutional frameworks that will also support this project’s implementation, including the operationalization of the National Parks Advisory Council, finalization of the Protected Area Forestry and Wildlife Act, and regulations for a visitor PA fee system. Consolidation of legal processes to include private lands in the PA system, along with regulations developed and implemented to prevent the spread of agriculture and housing in high-priority biodiversity habitats will support land management on private lands in this project. Although the R2R Project´s interventions are supporting the introduction of community-based SLM techniques in only one watershed (Beausejour, on the western coast), lessons learned from improved SLM and sustainable agriculture production, including capacity development and techniques, will be incorporated into this project.
2. GEF is also supporting the Development of a National Biodiversity Conservation Strategy and Action Plan and Grenada’s Country Report to the CBD, which this project’s biodiversity activities will support. The project will also build on the GEF (ID 4932) Implementing *Integrated Land, Water & Wastewater Management in Caribbean Small Island Developing States* (IWEco) project (2014-2019). The project will contribute to the preservation of Caribbean ecosystems that are of global significance and the sustainability of livelihoods through the application of existing proven technologies and approaches that are appropriate for small island developing states, through improved fresh and coastal water resources management, SLM, and SFM, that also seek to enhance resilience of socioecological systems to the impacts of climate change.
3. The GEF project (ID 9408) Preventing COSTS of Invasive Alien Species (IAS) in Barbados and the OECS Countries focuses on prevention, early detection, control, and management frameworks for IAS that emphasize a risk management approach by focusing on the highest risk invasion pathways of Barbados and OECS countries. Though there is no national component, Grenada will benefit from the regional component that focuses on strengthening institutional mechanism to address IAS. In addition, the project will share information on the mongoose trapping in Barbados.
4. This project will build on lessons learned and good practices of the now closed GEF/World Bank-supported *Grenada Dry Forest Biodiversity Conservation Project* (2001-2006) that identified and supported key biodiversity research with outreach and education regarding Grenada’s unique and threatened coastal tropical dry forests. In addition, the project will establish links with the GEF/UNDP-supported SGP (Grenada), which funding small community initiatives that address deforestation, land and soil degradation, and CSA, including rainwater harvesting, that this project can build upon. The following organizations related to the project have received SGP support: Grenada Cocoa Association, T.A. Marryshow Community College (TAMCC), St Patrick Environmental and Community Tourism Organisation (SPECTO), Grenada Organic Agriculture Movement (GOAM), Petit Martinique Women in Action, and Minor Spices Co-operative (MSC). During the project implementation, a complete social and economic assessment of the five watersheds prioritized by the project will be completed and that will allow to identify additional organizations.
5. The project will also build synergies with several non-GEF initiatives, including the *Japan-Caribbean Climate Change Partnership* (J-CCCP; 2015-2019), which is designed to strengthen the capacities of countries in the Caribbean to invest in climate change mitigation and adaptation technologies, as prioritized in their Nationally Appropriate Mitigation Actions (NAMAs) and National Adaptation Plans (NAPs). The J-CCCP has UNDP as an implementing partner, which will facilitate cooperation and exchange of information.
6. The *Climate Smart Agriculture and Rural Enterprise Programme (SAEP)*, a 6-year project expected to start in 2018 with support from the International Fund for Agricultural Development (IFAD), will contribute to improving the livelihoods of the beneficiaries through accessing new jobs, starting up businesses, or consolidating new businesses and adopting CSA practices in Grenada. Coordination between the SAEP initiative, hosted by the Ministry of Finance, and the project proposed herein will allow the exchanging of information and sharing of good practices related to agrobusiness development and CSA implementation by small farmers, and promoting gender equality and empowerment within the context of building resilience to climate change.
7. In 2017, The World Bank approved the *OECS Regional Agricultural Competitiveness* project with the objective of increasing market access and sales for selected farmers, fishermen/women, and agroprocessors from Saint Vincent and the Grenadines and Grenada. The project proposed herein will build synergies with the World Bank-funded project so that small farmers in the prioritized landscapes and small businesses can benefit from improved value chains, marketing opportunities for sustainable/climate-smart products, and general agricultural public services.
8. Lessons learned from the CATS Programme will also be considered, which was implemented by the German Federal Ministry of Economic Cooperation and Development (BMZ) between 2013 and 2017. The Programme adopted a ridge-to-reef management approach, with two main components: adaptation of rural economies and natural resources to climate change and management of coastal resources and conservation of marine biodiversity. In particular, the project will incorporate lessons learned regarding soil fertility and water quality testing and composting.
9. Lessons learned from the GEF project *Mainstreaming Biodiversity in Sustainable Cattle Ranching* (GEF ID 3574) implemented by the World Bank (2010-2015) will be considered, in particular regarding the use of agrosilvopastoral systems that combine trees, shrubs, and various herbaceous plant species to improve the sustainability and productivity of farms combining agriculture and cattle production, while creating an environment that is vastly more hospitable to biodiversity and is carbon-friendly. This may entail fodder banks planted with high densities to obtain foliage (leaves and green branches) for animal feed as well as for improving water quality and flow regulation in micro-catchments evidenced through reduced contamination and sedimentation levels. The aforementioned project had as its main objective to promote the adoption of environment-friendly silvopastoral production systems in Colombia cattle ranching in project areas to improve natural resource management, enhance provision of environmental services (biodiversity, land, carbon, and water) and raise the productivity in participating farms.
10. The synergies to be established with the above initiatives will also contribute to reduce project-related risks including limitations in the capacities of national governmental institutions to support biodiversity conservation, SLM, and CSA in the target landscapes, and climate change, among others (refer to Annexes E and H).
11. Risks and Assumptions:
12. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e., when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR. The detailed risk management strategy for the project is included in Annex H.
13. Key project assumptions are as follows: a) with project support the national government institutions will have the capacity to effectively promote and monitor biodiversity conservation, SLM, and CSA; b) farmers and producers’ organizations from the selected watersheds will be actively engaged in implementing CSA and sustainable production practices that contribute to ecological sustainability and SLM; c) incentives will be available for the production of agricultural products with CSA criteria integrated and markets will exist for these products; and d) climate change and variability will be within normal ranges and the project outcomes will not be affected.

Stakeholder engagement plan:

1. The successful implementation of the project will largely depend on the effective communication and coordination with the multiple project stakeholders and the implementation of mechanisms to ensure these stakeholders’ participation. The key national and sub-national stakeholders include the Forestry and National Parks Department, the Environment Unit, the Land Use Division, the Ministry of Agriculture and Lands, the Ministry of Tourism, the Ministry of Finance, the Ministry of Works (Physical Planning Unit), and NAWASA, among others. At the local level, the most relevant stakeholders are the parish governments (St. David, St. Andrew, and St. Patrick), organizations of small- and medium-size farmers, producers’ associations (e.g., nutmeg and cocoa), women’s groups, and local communities. Private sector agencies and financial institutions will play an active role in the project by promoting sustainable production and CSA, supporting marketing strategies for sustainable and certified products, and facilitating access to financial incentives for farmers. The project’s Stakeholder Engagement Plan is included in Annex F, and includes information summarizing the main PPG workshops convened and stakeholder meetings conducted, among other aspects; a list of people consulted during project development is included in Annex M.
2. Stakeholder’s participation will be key for mitigating project-related risks including limitations in the capacities of national governmental institutions to support biodiversity conservation, SLM, and CSA in the target landscapes; climate change; and the temporary or permanent physical displacement or economic displacement that may result from the establishment of the La Sagesse Local Area Planning site a national, among other risks (refer to Annexes E and H).

Gender equality and empowering women:

1. According to the UNDP Gender Marker Rating, the project is categorized as GEN2: gender equality as a significant objective. During the PPG, a gender analysis for the prioritized landscape and a detailed Gender Action Plan (included as Annex G) were developed to ensure gender mainstreaming in the project; specific gender-based indicators will be used for monitoring and a gender specialist will be part of the Project Management Unit (PMU) to facilitate improvements to gender equality and women’s empowerment.

South-South and Triangular Cooperation (SSTrC):

1. The project will promote south-south cooperation with the other countries in the region that are implementing similar initiatives (e.g., St. Vincent and the Grenadines, Dominica); this will be achieved through exchanges with the Country Offices and the Regional Office for Latin America and the Caribbean (LAC) of the UNDP. Technically qualified staff and groups of experts in the issues addressed by the project from these countries will have many opportunities to exchange experiences and knowledge. Finally, successful experiences will have a prominent place in the lessons learned that would be disseminated to ensure their widespread adoption and replication in other LAC countries.

Sustainability and Scaling-Up:

1. The environmental, social, and financial aspects of sustainability are closely related and will be addressed through an integrated project design combining institutional capacity-building at various levels with farm- and producer-level ground interventions by the project in an integrated manner. Environmental sustainability will be ensured through strengthening government capacities in land use and biodiversity conservation planning, information management, and monitoring tools and practices; through integrating SLM and biodiversity conservation principles in watershed-level planning and management processes; and through introducing a set of climate-resilient and sustainable land use practices at the farm level that will support soil, water, and biodiversity conservation. The project´s focus on traditional mixed agroforestry plantations (nutmeg, cocoa, spices, and fruits) with inherent biodiversity and soil and conservation values will also contribute to environmental sustainability. Social sustainability will be pursued through extensive involvement of Civil Society Organizations (CSOs) and producers’ associations using a gender focus, including in participatory watershed planning processes (which are also aimed at establishing local committees), and through consultations and training related to the provision of information and financial services and for the introduction of CSA-SLM techniques. Sustainability of the training programmes will be supported through the systematic capturing, analysis, and dissemination of the technical documentation, experiences and lessons learned by the dedicated knowledge management actions, and through inclusion of biodiversity conservation and SLM-related skills in the national Human Resources Priority List and Priority Training Needs Assessment and associated curricula managed by the Ministry of Education. Financial sustainability will be ensured through Component 2 by supporting the integration of CSA-SLM criteria to a set of financial support services and schemes (e.g., microcredit schemes and related certification of agricultural products with CSA criteria integrated), and through the establishment of business plans for the longer-term operation and maintenance of demonstration interventions and techniques introduced (e.g., government propagation stations, protective structures, and irrigation equipment). Furthermore, GEF investment in this project represents an important opportunity to impact SDGs – both directly and as a catalyst for other sources of financing and support. It can serve as a platform for the country to fulfill its SDG agenda through catalytic investment.
2. The project’s community-level interventions can be replicated in other watersheds on the island of Grenada, as well as within the sister islands of Carriacou and Petit Martinique. Replication and scaling-up of the CSA-SLM practices will be supported through the use of a network of farmers’ field schools and the participation of the TAMCC’s agricultural training school; through the strengthening of financial and information services for farmers (Component 2); and through knowledge management activities (Component 3). The replication of watershed management plans will be supported through land use planning-related capacity building and institutional strengthening measures. Dissemination of project results in the Caribbean region to support the broader replication of experiences will be pursued through the involvement of regional technical institutions (e.g., CARDI, University of West Indies, and the Caribbean Community Climate Change Centre). Furthermore, scaling-up will be supported by being attached to sustainability measures described for the training programmes (including the Human Resources Priority List and Priority Training Needs Assessment and associated curricula managed by the Ministry of Education), as well as the financial mechanisms supported and business plans prepared for the ground adaptation and demonstration measures (e.g., government propagation stations, protective structures, and irrigation systems).

# Project Management

Cost efficiency and effectiveness:

1. Cost efficiency of the project will be achieved through various means, including strong collaboration with ongoing initiatives. In addition, in-kind and cash cofinancing has been secured from the Government of Grenada, which will increase the cost efficiency and impact of the project.
2. Under Component 1, the project will strengthen cross-sectoral collaboration for land use planning and management benefits by establishing a coordination mechanism to support data-sharing between projects, ministries, universities, NGOs, private interests, and other stakeholders. In addition, data-sharing agreements will be established between key ministries that will facilitate emplacement of institutional systems to ensure sustainability and effectiveness in the development of an information management database and monitoring system to support integrated landscape management. Under Component 1, the project will also ensure that long-term and regular trainings are available in CSA, SLM, and biodiversity conservation, by supporting the inclusion of related skills within national frameworks such as the Human Resources Priority List and the Priority Training Needs Assessment and associated curricula initiated in 2016 by the Ministry of Education. By building this capacity, this project investment will prove to be cost-effective over the long run as a training capacity and will be readily available in-country to support future CSA, SLM, and biodiversity conservation initiatives and for the replication of project’s good practices and experiences.
3. Under Component 2, the project will prioritize the development of financial support systems for incentivizing CSA, SLM, and conservation-oriented agricultural practices based on market demand. Emphasis will be placed on emerging domestic certified markets using the PGS model, which offers a low-cost, locally based system of quality assurance, with a heavy emphasis on social control and knowledge-building. The project will also explore the feasibility for the implementation of more formal third-party/international certifications as a complement to PGS; the project will consider group certification or other cost-efficient schemes for farmers to be able to pay for the costs related to the certification process and maintenance. The project will also invest in facilitating farmers’ access to microcredit as a mechanism to incentivize CSA, SLM, and conservation-oriented agricultural practices. The project will focus on developing cost-effective innovative approaches to secure loans, such as group lending, the use of moveable assets as collateral, work based on inputs rather than cash, and solidarity groups where members act as reciprocal guarantors.
4. Under Component 3, the project will work closely with key stakeholders including the Ministry of Climate Resilience, Environment, Fisheries, Forestry and Disaster Management, the Ministry of Agriculture and Lands, the Belmont Estate, Grenada Investment Development Cooperation, the Grenada Cocoa Association, MNIB, GERRI, ART, and GOAM, to improve the competitiveness at least 10 small businesses (including agroprocessors and agrotourism businesses, and their suppliers) implementing CSA/SLM initiatives. By establishing partnerships with these stakeholders and making use of their experience in business development, marketing, and branding, the project will use a cost-effective approach to support emerging small agroprocessing and agrotourism businesses and supporting sustainable rural livelihoods. Under Component 3, the project will also pilot investments for the removal of IAS that are contributing to the loss of Grenada’s biodiversity. Considering that the removal of IAS is usually a expensive task, the project will make use of past experiences to optimize costs, including lessons learned from the R2R Project (GEF ID 5069) in the removal of bamboo from private and public lands and efforts by the Grenadian Ministry of Health for the control of the small Indian mongoose (*Herpestes auropunctatus*).
5. During implementation, the project will seek to maximize the financial resources made available for project activities. All activities will be included in AWPs, which will be discussed and approved by the Project Board to ensure that proposed actions are relevant and necessary, and to identify potential synergies with ongoing or planned actions under other projects and interventions. Cost-effectiveness will be taken into account throughout project implementation without compromising the quality of the outputs. When hiring third-party consultants/service providers, the project will follow standard UNDP recruitment and advertising processes to have at least three competitors for each advertised position. Selection will be based on the applicant’s qualifications, technical and operational experience, and as well as the cost-effectiveness of the financial proposals, to facilitate hiring the best consultants (individuals or organizations). Expenses will be accounted for according to UNDP rules and in line with GEF policy.

Project management

1. The Project Management Unit (PMU) will be based at the Ministry of Agriculture and Lands Headquarters in St. George’s. Project staff and consultants will travel to prioritized landscapes in Grenada and Carriacou and Petit Martinique as needed. The PMU will oversee the day-to-day execution of project activities and will have responsibility for, among others: a) operational planning, managing, and executing the project, including the direct supervision of project activities sub-contracted to specialists and other institutions; b) coordinating the management of financial resources and procurement; c) reporting on the application of resources and results achieved; d) preparing reports and any proposals for adaptive management of the project, if required, and based on inputs from the project M&E plan; e) promoting inter-institutional synergies; and f) disseminating project results. An administrative/financial assistant will be hired to provide operational support.
2. The PMU will liaise regularly with technical staff based in the Ministry of Climate Resilience, Environment, Forestry, Fisheries, and Disaster Management and the Ministry of Agriculture and Lands, and will therefore benefit from their expertise and time contribution. In addition, the National Climate Change Council in partnership with the Department of Economic and Technical Cooperation within the Ministry of Finance will provide overall strategic oversight to this project to further the harmonization with future programming and thus ensuring greater sustainability.
3. Agreement on intellectual property rights and use of logo on the project’s deliverables and disclosure of information**:** To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[[33]](#footnote-34) and the GEF policy on public involvement[[34]](#footnote-35).

# Project Results Framework

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| --- | --- | --- | --- | --- | --- |
| **This project will contribute to the following Sustainable Development Goal (s):** Goal 1 – End poverty in all its forms everywhere; Goal 5 – Achieve gender equality and empower all women and girls; Goal 6 – Ensure access to water and sanitation for all; Goal 8 – Decent work and economic growth; Goal 13 – Take urgent action to combat climate change and its impacts; and Goal 15 – Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss. | | | | | |
| **This project will contribute to the following country outcome included in the UNDAF/Country Programme Document (UN MSDF):** Strategy Area 4 Outcome:Policies and programmes for climate change adaptation, disaster risk reduction and universal access to clean and sustainable energy in place. | | | | | |
| **This project will be linked to the following output of the UNDP Strategic Plan:**1.4.1 Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains. | | | | | |
|  | **Objective and Outcome Indicators** | **Baseline** | **Mid-term Target** | **End of Project Target** | **Data Collection Methods and Risks/Assumptions** |
| **Project Objective:** To operationalize integrated agroecosystem management through mainstreaming biodiversity conservation in the production landscape and increasing resilience of agricultural system | Mandatory indicator 1: Number of new partnership mechanisms with funding for SLM/CSA solutions and for biodiversity and ecosystem services at national and/or sub-national level by project end | 0 | 0 | A least 2  (Target will be confirmed during the first year of project implementation) | Document content analysis  Signed agreements/MOU |
| Risks: Project team and Implementing Partner fail to engage new project partners  Assumptions:  Willingness by decision makers to incorporate objectives of biodiversity conservation and SLM in production landscapes |
| Mandatory indicator 2: Number of direct project beneficiaries with increased livelihoods created through CSA, SLM, and rangeland management in the project prioritized landscapes, disaggregated by sex, as a result of the project  GEF7 Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment | 0 | Male: between 245 and 319 annually  Female: between 105 and 137 annually  (Target will be validated during the first year of project implementation) | Male: between 700 and 910 annually  Female: between 300 and 390 annually  (Target will be validated during the first year of project implementation) | Farmer and household surveys/interviews (unstructured and/or semi structured)  Updated Gender Action Plan  Updated GEF7 Core Indicators |
| Risks: Landowners are reluctant to incorporate SLM or CSA activities on their private lands, in the lack of land use zoning and regulations  Assumptions: Government officials and farmers and producer organization in the prioritized watersheds will be actively engaged in CSA, SLM, and biodiversity conservation activities. |
| Indicator 3: Number of integrated watershed management plans integrating biodiversity conservation, SLM and CSA covering at least 50% of the 5 prioritized watersheds and operationalized | 0 | 2 | 5 | Document content analysis  Approved management plans and implementation reports  Updated Stakeholder Engagement Plan |
| Risks: Project team fails to engage stakeholders for participatory plan development  Assumptions:  Interest from the central government, private sectors and farmers in integrated watershed management |
| **Component 1:** Systemic and institutional capacity increased for integrated landscape management at the national level  Outcome 1.1: Biodiversity conservation mainstreamed in land use planning and management practices, and in the agricultural sector policies and legislation, as a result of improved systemic and national institutional capacity for landscapes management for biodiversity conservation  Outcome 1.2: Strengthened systemic and institutional capacity for promoting SLM | Indicator 4: Number of cross-sectoral collaboration/ agreements established for land use planning and management | 0 | 1 | 3 (signed Memorandum of Understanding with three of following: Ministry of Education; Grenada Tourism Authority; Ministry of Works/Physical Planning Unit; and Solid Waste Management Authority  (Target will be confirmed during project implementation) | Document content analysis  Signed agreements |
| Risks: Project team and Implementing Partner fail to engage key project partners  Assumptions:  Continued political will to strengthen the national governance framework to integrate SLM, CSA, and biodiversity conservation |
| Indicator 5: Change in the capacity of key government institutions for biodiversity conservation and land use management as measured through the UNDP Capacity Development Scorecard | Forestry and National Parks Department 16 (36%)  Land Use Division 14 (31%)  Ministry of Carriacou and Petit Martinique: 12 (27%) | Forestry and National Parks Department 43%  Land Use Division 38%  Ministry of Carriacou and Petit Martinique: 34% | Forestry and National Parks Department 51%  Land Use Division 46%  Ministry of Carriacou and Petit Martinique: 42% | UNDP Capacity Development Scorecard: focal group interviews |
| Risks: Knowledge drain and implementation capacity constraints at government due to the staffing limitations  Assumptions:  Sampling efforts are optimal  Beneficiaries apply additional knowledge acquired |
| Indicator 6: Change in the level of awareness among stakeholders in the St. David, St. Andrew, and St. Patrick parishes and in Carriacou and Petit Martinique about biodiversity conservation, SLM, and CSA objectives as measured through the KAP/B Index | To be determined during first year of project implementation | To be determined during first year of project implementation | To be determined during first year of project implementation | KAP/B Index updates: individual/group questionnaires |
| Risks: Some of the target population is not receptive to the awareness activities and can soon forget about biodiversity conservation, SLM, and CSA benefits  Assumptions:  Design of index and sampling efforts are optimal |
| **Component 2:** National capacity built to provide financial, technical, and information services for CSA production  Outcome 2.1: Increased financing for supporting SLM and CSA at the national level  Outcome 2.2: National level capacities enhanced for CSA production | Indicator 7: Financing for supporting SLM and CSA nationally | 6,000,000 USD[[35]](#footnote-36) | 6,600,000 USD | 7,200,000 USD (17% increase)[[36]](#footnote-37) | Individual and/or focal group structured interviews and document content analysis  Government financial/funding reports (Ministry of Finance, Ministry of Agriculture and Lands, etc.) |
| Risks: Target to may not be achieved because of decreasing national budgets and donor funding  Assumptions:  There is interest by the Government and donors investments in SLM and CSA |
| Indicator 8*:* Area (ha) within the watersheds of Great River, La Sagesse and St. Patrick where climate resilient crops are successfully implemented | 140 ha | 180 ha over the baseline | 300 ha over the baseline | Field and farmer surveys  Project and field reports |
| Risks: Landowners are reluctant to incorporate CSA activities on their private lands, in the lack of land use zoning and regulations  Assumptions:  There is willingness by farmers to adopt CSA practices  Environmental variability within normal range  Sampling efforts are optimal  In country capacity to implement CSA |
| Indicator 9: Number of women benefiting annually from demonstration activities and supply of climate-resilient crop varieties | 0 | Between 210 and 300 | Between 210 and 300 | Household gender-based surveys/interviews (unstructured and/or semi structured)  Updated Gender Action Plan  Project reports |
| Risks: Gender barriers are difficult to overcome limiting women participation  Assumptions: Continued interest from women to participate in the project  Demonstration and propagation centers timely upgraded and operating normally |
| **Component 3:** Operationalization of resilient agricultural practices  Outcome 3.1: Land area within 2,400 ha is managed under sustainable land management supporting CSA, evidenced by: and increased household income level with beneficiaries disaggregated by gender.  Outcome 3.2: Biodiversity conservation mainstreamed in management of landscapes covering 960 ha | Indicator 10: Soil erosion rate (ton/ha/year) in steep and upland areas in three prioritized watersheds: La Sagesse Watershed, Great River Watershed and Levera/Levera Pond/St Patrick Watershed | 7.11 ton/ha/year[[37]](#footnote-38)  (Baseline and targets to be confirmed during the first year of project implementation) | 6.57 ton/ha/year | 6.04 ton/ha/yr. | Revised Universal Soil Loss Equation (RUSLE) 1.06 (www.ars.usda.gov; assessment method will be confirmed during project implementation)  Project and field reports |
| Risks: Extreme climatic events and hazards jeopardize the SLM measures introduced  Assumptions:  Willingness by the farmers to incorporate environmental sustainability criteria/ Climate Smart Agriculture (CSA) as part of their production activities. Sampling/measurements are optimal |
| Indicator 11: Income level ($/year) of beneficiary households (disaggregated by gender) by project end | Farmers (crop and livestock production): 4,400 USD  Five (5) women-owned agroprocessing and agrotourism small business: X USD  (Baseline and target will be determined and/or confirmed during the first year of project implementation; data will be disaggregated by gender) | Farmers (crop and livestock production): 4,400 USD  Five (5) women-owned agroprocessing and agrotourism small business: X USD | Farmers (crop and livestock production): 5,500 USD  Five (5) women-owned agroprocessing and agrotourism small business: X USD | Household surveys/interviews (unstructured and/or semi structured)  Projections made based on the Grenada Census of Agriculture 2012.  (Methodology for data gathering will be revised during the first year of project implementation)  Project reports  Gender Action Plan |
| Risks:  Climate change jeopardize the SLM measures introduced and consequently cause declines in agricultural production and livelihoods  The time frame of the project is too short to shift people from their current livelihood activities  Gender barriers are difficult to overcome limiting women participation  Assumptions:  Interest from farmers in adopting CSA and sustainable production practice  There is interest from women owners to incorporate CSA and SLM practices as part of their businesses  Optimal sampling |
| Indicator 12: Change in area affected by major IAS species (bamboo and small Indian Mongoose) in six prioritized sites by end of project:  a) Bamboo removed in the mid-level strata/riparian zones of the La Sagesse Watershed  b) Removal *of Herpestes auropunctatus* (small Indian Mongoose) annually from dry forest areas including KBAs (Mt St Catherine, Grand Etang, Levera, Perseverance, Mt Harman) | 0  a) Bamboo: 0 ha  b) Small Indian Mongoose: 0 individuals | X% reduction  (Targets to be defined during the first year of project implementation)  a) Bamboo: 15 ha  b) Small Indian Mongoose: of at least 1,305 individuals removed | X% reduction  a) Bamboo: 40 ha  b) Small Indian Mongoose: at least 1,305 individuals removed | Bamboo: field/plot surveys  Small Indian Mongoose: Participatory trapping (e.g., cat live traps)  Baseline assessment reports  Field survey reports |
| Risks: Areas cleared of IAS are rapidly recolonized by the same species  Assumptions:  Removal of IAS is cost-effective  Sampling efforts are optimal |
| Indicator 13: Population of endangered species | Grenada Dove (*Leptotila wellsi*): 136 individuals\*  Grenada Frog (*Pristimantis euphronides*): X\*\*  Leatherback sea turtle (*Dermochelys coriacea*): X\*\*  Hawksbill sea turtle (*Eretmochelys imbricata*): X\*\*  \*Baseline and target to be confirmed during the first year of project implementation; baseline base on Rusk, B, 2017.  \*\* Baseline and target to be determined during the first year of project implementation | Grenada Dove (*Leptotila wellsi*): 136 individuals  Grenada Frog (*Pristimantis euphronides*): X  Leatherback sea turtle (*Dermochelys coriacea*): X  Hawksbill sea turtle (*Eretmochelys imbricata*): X | Grenada Dove (*Leptotila wellsi*): Up to 154 individuals  Grenada Frog (*Pristimantis euphronides*): X  Leatherback sea turtle (*Dermochelys coriacea*): X  Hawksbill sea turtle (*Eretmochelys imbricata*): X | Grenada Dove: censuses using territory mapping/spot mapping[[38]](#footnote-39)  Grenada Frog: seasonal visual counts and acoustic detection; trapping  Sea turtles: Individuals/nest nightly visual counts and patrols  Field survey reports |
| Risks: Lack of interest from government to further protect endangered species and their habitat (dry, coastal scrub-woodland, sandy beaches)  Assumptions:  Conservation efforts are effective  Optimal sampling |
| Indicator 14: Changes in cover (ha) of key ecosystems in five prioritized watersheds | Dry forest: X  Cloud forest: X  Mangroves: X  Riparian forest: X  Turtle nesting beaches: X  (Baseline and target to be determined during the first year of project implementation) | Dry forest: X  Cloud forest: X  Mangroves: X  Riparian forest: X  Turtle nesting beaches: X | Dry forest: X  Cloud forest: X  Mangroves: X  Riparian forest: X  Turtle nesting beaches: X | Change Detection Analysis (baseline will be determined using existing satellite imagery within the Land Use Division obtained in 2017).  Project reports and maps |
| Risks: Lack of Government and stakeholders to conserve critical ecosystems  Assumptions:  No changes in land use/Land cover change  Optimal sampling |
| Indicator 15 (GEF7 Core Indicator 4): Area (ha) of landscapes under improved practices | 0 | 890 | 2,963 | Land use surveys in prioritized watersheds Grenada) and in Carriacou and Petit Martinique  Field reports  Updated GEF7 Core Indicators |
| Risks: Changes to the use of lands and resources  Assumptions: There is willingness by farmers to incorporate environmental sustainability criteria as part of their production activities |
| Indicator 16 (GEF7 Core Indicator 6): Greenhouse gas emissions mitigated (metric tons of carbon dioxide equivalent) | 0 | 0 | 9,512[[39]](#footnote-40) | Updated FAO Ex-Ante Carbon-balance Tool (EX-ACT)  Updated GEF7 Core Indicators |
| Risks: changes in land use/cover  Assumptions: Environmental variability within normal ranges |
| **Component 4:** Knowledge management for SLM, CSA and biodiversity conservation  Outcome 4.1: Increased adoption of practices as a result of the dissemination of knowledge and best practices developed under this project. | Indicator 17: Number of documents on successful experiences about CSA, SLM and biodiversity conservation practices, and gender mainstreaming disseminated in national institutions and among Ministry of Agriculture and Lands extension centers that serve farmers around Grenada | 0 | 5 | 10 | Document content analysis  Project documents and reports  Documents with project lessons learned |
| Risks: NA  Assumptions: Wide-ranging and timely dissemination |
| Indicator 18: Number of sub-national or local institutions that adopt recommendations resulting from SLM, CSA, and biodiversity conservation interventions by project end | None, as the project has not yet begun implementation |  | At least 5 (one per watershed) | Document content analysis  Surveys/interviews with local authorities  Land use planning documents |
| Risks: Limited interest in replication  Assumptions:  Wide-ranging and timely dissemination of project results and lessons learned |

# Monitoring and Evaluation (M&E) Plan

1. The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.
2. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](http://www.undp.org/content/undp/en/home/operations/accountability/programme_and_operationspoliciesandprocedures.html) and [UNDP Evaluation Policy](http://www.undp.org/content/undp/en/home/operations/accountability/evaluation/evaluation_policyofundp.html). The UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the [GEF M&E policy](http://www.thegef.org/gef/Evaluation%20Policy%202010) and other relevant GEF policies[[40]](#footnote-41).
3. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Core Indicators for all GEF-financed projects in the country, including projects supported by other GEF Agencies.[[41]](#footnote-42)

**M&E Oversight and monitoring responsibilities:**

1. Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.
2. The Project Manager will develop annual work plans based on the multi-year work plan included in Annex, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. ESMP, gender action plan, stakeholder engagement plan, etc.) occur on a regular basis.
3. Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project’s final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.
4. Project Implementing Partner: The Implementing Partner is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used and generated by the project supports national systems.
5. UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the independent mid-term review and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.
6. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](http://www.undp.org/content/undp/en/home/operations/accountability/programme_and_operationspoliciesandprocedures.html). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.
7. The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF IEO.
8. UNDP-GEF Unit: Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.
9. **Audit**: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.[[42]](#footnote-43)

**Additional GEF monitoring and reporting requirements:**

1. Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;

b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;

c) Review the results framework and finalize the indicators, means of verification and monitoring plan;

d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;

e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; SESP, Environmental and Social Management Plan and other safeguard requirements; project grievance mechanisms; the gender strategy; the knowledge management strategy, and other relevant strategies;

f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and

g) Plan and schedule Project Board meetings and finalize the first year annual work plan.

1. The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.
2. GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.
3. The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year’s PIR will be used to inform the preparation of the subsequent PIR.
4. Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyze and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.
5. GEF Core Indicators: GEF7 Core Indicators 3, 4, 6, and 11 will be used to monitor global environmental benefits. The baseline/CEO Endorsement GEF7 Core Indicators (included as Annex B) – will be updated by the Project Manager/Team (not the evaluation consultants hired to undertake the MTR or the TE) and shared with the mid-term review consultants and terminal evaluation consultants before the required review*/*evaluation missions take place. The updated GEF7 Core Indicators will be submitted to the GEF along with the completed Mid-term Review report and Terminal Evaluation report.
6. Independent Mid-term Review (MTR): An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project’s duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](http://web.undp.org/evaluation/guidance.shtml#gef) (ERC). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.
7. Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](http://web.undp.org/evaluation/guidance.shtml#gef). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.
8. The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.
9. Final Report: The project’s terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

**Mandatory GEF M&E Requirements and M&E Budget:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GEF M&E requirements** | **Primary responsibility** | **Indicative costs to be charged to the Project Budget[[43]](#footnote-44) (US$)** | | **Time frame** |
| **GEF grant** | **Co-financing** |
| **Inception Workshop** | UNDP Country Office | USD 5,000 | USD 3,500 | Within two months of project document signature |
| **Inception Report** | Project Manager | None | None | Within two weeks of inception workshop |
| **Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP** | UNDP Country Office | None | None | Quarterly, annually |
| **Risk management** | Project Manager  Country Office | None | None | Quarterly, annually |
| **Monitoring of indicators in project results framework** | Project Manager  M&E and Safeguards Expert | Paid through Component 4 | USD 5,000 | Annually before PIR |
| **GEF Project Implementation Report (PIR)** | Project Manager and UNDP Country Office and UNDP-GEF team | None | None | Annually |
| **NIM Audit as per UNDP audit policies** | UNDP Country Office | USD 16,000 (Per year: USD 4,000) | None | Annually or other frequency as per UNDP Audit policies |
| **Lessons learned and knowledge generation** | Project Manager  Communications Expert | Paid through Component 4 | USD 10,000 | Annually |
| **Monitoring of environmental and social risks, and corresponding management plans as relevant** | Project Manager  M&E and Safeguards Expert | Paid through Component 4 | None | On-going |
| **Stakeholder Engagement Plan** | Project Manager  UNDP Country Office | Paid through Project Manager salary | None | On-going |
| **Gender Action Plan** | Project Manager  Gender Expert | Gender-based activities are included in the regular project budged (Components 1, 2, and 3). In addition, the salary of Gender Expert is paid through Component 4. | Budgeted as part of the cofinancing associated with Components 1, 2, and 3. | On-going |
| **Addressing environmental and social grievances** | Project Manager  UNDP Country Office | Paid through Project Manager salary | None | On-going |
| **Project Board meetings** | Project Board  UNDP Country Office  Project Manager | USD 2,000 (Per year: USD 500) | USD 4,000 (Per year: USD 1,000) | At minimum annually |
| **Supervision missions** | UNDP Country Office | None**[[44]](#footnote-45)** | None | Annually |
| **Oversight missions** | UNDP-GEF team | None44 | None | Troubleshooting as needed |
| **GEF Secretariat learning missions/site visits** | UNDP Country Office and Project Manager and UNDP-GEF team | None | None | To be determined. |
| **GEF7 Core Indicators to be updated by** | Local consultant | USD 8,000 | None | Before mid-term review mission takes place. |
| **Independent Mid-term Review (MTR) and management response** | UNDP Country Office and Project team and UNDP-GEF team | USD 26,000 | USD 7,500 | Between 2nd and 3rd PIR. |
| **Terminal GEF7 Core Indicators to be updated by** | Local consultant | USD 8,000 | None | Before terminal evaluation mission takes place |
| **Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response** | UNDP Country Office and Project team and UNDP-GEF team | USD 38,000 | USD 10,000 | At least three months before operational closure |
| **Translation of MTR and TE reports into English** | UNDP Country Office | NA | NA | As required. GEF will only accept reports in English. |
| **TOTAL indicative COST**  Excluding project team staff time, and UNDP staff and travel expenses | | **USD 103,000** | **USD 40,000** |  |

# Governance and Management Arrangements

1. Roles and responsibilities of the project’s governance mechanism: The project will be implemented following UNDP’s national implementation modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of Grenada*,* and the Sub-regional Programme Document*.*
2. The **Implementing Partner** for this project is the national Department of Economic and Technical Cooperation (DTC) of the Ministry of Finance, Economic Development, Planning and Physical Development*.* The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.
3. The Implementing Partner is responsible for:

* Approving and signing the multiyear workplan;
* Approving and signing the combined delivery report at the end of the year; and,
* Signing the financial report or the funding authorization and certificate of expenditures.

1. The project organization structure is as follows:

**PMU**

**Project Manager, Communication Expert, Gender Expert, M&E and Safeguards Expert, and Financial/Administrative Assistant, SLM Experts (2)**

**Project Board/Steering Committee**

**Senior Beneficiary:**

***IAGDO, Division of Gender and Family Affairs***

**Executive:**

***DETC***

**Senior Supplier:**

***UNDP Barbados & the OECS, Ministry of Agriculture and Lands, GBS***

***Ministry of Climate Resilience***

**Three Tier Project Assurance (country, regional and global)**

***UNDP Barbados & the OECS Office Programme Officer; Regional Technical Advisor; Principal Technical Advisor***

**Project Support**

**Technical consultants hired for specific roles and deliverables**

**Project Organization Structure**

1. **Project Board:** The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendations for UNDP/Implementing Partner approval of project plans and revisions, and addressing any project level grievances. In order to ensure UNDP’s ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager.
2. Specific responsibilities of the Project Board include:

* Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
* Address project issues as raised by the project manager;
* Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
* Agree on project manager’s tolerances as required;
* Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
* Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the workplan;
* Provide ad hoc direction and advice for exceptional situations when the project manager’s tolerances are exceeded; and
* Assess and decide to proceed on project changes through appropriate revisions.

1. The Project Board will be composed of UNDP, DETC, Inter Agency Group of Development Organizations (IAGDO), GBS, Ministry of Youth, Ministry of Agriculture and Lands, Department of Forestry, Ministry of Health, Ministry Social Development, Grenada Investment and Development Corporation (GIDC), NAWASA, Government Information Service (GIS), SAEP Project, and OECS Competitiveness Project, and their respective alternate members. The Board can be expanded, upon mutual agreement between the Parties. The will Ministry of Climate Resilience, Environment, Forestry, Fisheries, and Disaster Management represent the project ownership, chairing the Project Board and organizing its meetings at least once a year or upon request of either of the Parties. The Ministry of Implementation is also the institution responsible, within the government, for following up on the activities for this Project. The Ministry of Climate Resilience will appoint a National Project Director (NPD) who will be a senior staff member and will be responsible at the highest level for providing guidance on the technical feasibility of the project and ensuring its implementation leads to the achievement of project’s results. He/she will represent the Ministry of Climate Resilience on the Project Board. In addition, the Project Board will approve the appointment and responsibilities of a Project Manager who will be responsible for the daily project execution.
2. The composition of the Project Board must include the following roles:
3. Executive: The Executive is an *individual* who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP.
4. The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive’s role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher-level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and suppler.
5. Specific Responsibilities: (as part of the above responsibilities for the Project Board)

* Ensure that there is a coherent project organization structure and logical set of plans;
* Set tolerances in the AWP and other plans as required for the Project Manager;
* Monitor and control the progress of the project at a strategic level;
* Ensure that risks are being tracked and mitigated as effectively as possible;
* Brief relevant stakeholders about project progress;
* Organize and chair Project Board meetings.

1. Senior Supplier: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier’s primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Suppler is UNDP.
2. Specific Responsibilities (as part of the above responsibilities for the Project Board)

* Make sure that progress towards the outputs remains consistent from the supplier perspective;
* Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
* Ensure that the supplier resources required for the project are made available;
* Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
* Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

1. Senior Beneficiary: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary’s primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary role is held by a representative of the government or civil society. The Senior Beneficiary is: IAGDO and the Division of Gender and Family Affairs
2. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.
3. Specific Responsibilities (as part of the above responsibilities for the Project Board)

* Prioritize and contribute beneficiaries’ opinions on Project Board decisions on whether to implement recommendations on proposed changes;
* Specification of the Beneficiary’s needs is accurate, complete and unambiguous;
* Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary’s needs and are progressing towards that target;
* Impact of potential changes is evaluated from the beneficiary point of view;
* Risks to the beneficiaries are frequently monitored.

1. **Project Manager**: The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager’s prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.
2. The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner’s representative in the Project Board.
3. Specific responsibilities include:

* Provide direction and guidance to project team(s)/ responsible party (ies);
* Liaise with the Project Board to assure the overall direction and integrity of the project;
* Identify and obtain any support and advice required for the management, planning and control of the project;
* Responsible for project administration;
* Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
* Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors’ work;
* Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
* Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
* Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
* Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
* Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
* Capture lessons learned during project implementation;
* Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
* Prepare the GEF PIR and submit the final report to the Project Board;
* Based on the GEF PIR and the Project Board review, prepare the AWP for the following year.
* Ensure the mid-term review process is undertaken as per the UNDP guidance, and submit the final MTR report to the Project Board.
* Identify follow-on actions and submit them for consideration to the Project Board;
* Ensure the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Project Board.

1. **Project Assurance**: UNDP provides a three – tier supervision, oversight and quality assurance role – funded by the GEF agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and PMU by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager.  This project oversight and quality assurance role is covered by the GEF Agency.
2. **Governance role for project target groups**: Local project committees will be established at the Parish or watershed level for the three parishes where project activities will be implemented; and in Carriacou and Petit Martinique. Through these committees, local partners will have the opportunity to participate in decision making with regard to project management, including implementation of plans and project reviews, and also with respect to the technical aspects of the project. In addition, at the local level the communities, local organizations, and the private sector will have ample participation in decision-making, agreements, and dialogue for the promotion and implementation of CSA and environmentally friendly production practices in the of the prioritized landscapes.
3. **Project management**: The PMU will be located in the city of St. George’s, Grenada and housed in the Ministry of Agriculture and Lands headquarters, and made up of the Project Manager, a Gender Expert, a Communications Expert, an M&E and Safeguards Expert, and a Financial/Administrative Assistant.

# Financial Planning and Management

1. The total cost of the project is USD 17,752,775*.* This is financed through a GEF grant of USD 3,659,775 and USD 14,093,000 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only.
2. Parallel co-financing: The actual realization of project co-financing will be monitored during the mid-term review and terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Co-financing source** | **Co-financing type** | **Co-financing amount** | **Planned Activities/Outputs** | **Risks** | **Risk Mitigation Measures** |
| UNDP | Grant | 400,000 | Staff costs and general operation expenses for quality assurance and oversight and support to NIM functions | Low | NA |
| Ministry of Finance, Economic Development, Planning and Physical Development: loan from the International Fund for Agricultural Development (IFAD) and the Caribbean Development Bank: Climate Smart Agriculture and Market Access Program (PN: 2000001475) | Loan | 8,215,800 | All project components/outputs | Low | The UNDP Country Office will monitor the co-financing contributions to the project |
| Ministry of Finance, Economic Development, Planning and Physical Development: loan from the World Bank: OECS Regional Competitiveness Project (PN: P158958) | Loan | 4,792,550 | All project components/outputs | Low | The UNDP Country Office will monitor the co-financing contributions to the project |
| Ministry of Finance, Economic Development, Planning and Physical Development | In-kind | 684,650 | All project components/outputs | Medium –Dependent on annual budgeting and effective allocation of funds to the institution | The UNDP Country Office will monitor the co-financing contributions to the project |

1. UNDP Direct Project Services as requested by Government (if any): The UNDP, as International Agency for this project, will provide project management cycle services for the project as defined by the GEF Council. In addition, the Government of Grenada may request UNDP direct services for specific projects, according to its policies and convenience. The UNDP and the Government of Grenada acknowledge and agree that those services are not mandatory, and will be provided only upon Government request. If requested the services would follow the UNDP policies on the recovery of direct costs. These services (and their costs) are specified in the Agreement (Annex J). As is determined by the GEF Council requirements, these service costs will be assigned as Project Management Cost, identified in the project budget.
2. Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team to ensure accurate reporting to the GEF: a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more; b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.
3. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).
4. Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.
5. Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.[[45]](#footnote-46) On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.
6. Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.
7. Transfer or disposal of assets: In consultation with the NIM Implementing Partner and other parties of the project, UNDP programme manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file[[46]](#footnote-47).
8. Financial completion: The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).
9. The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

# Total Budget and Work Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Budget and work plan** | | | |
| Atlas Proposal or Award ID: | 00097452 | Atlas Primary Output Project ID: | 00101168 |
| Atlas Proposal or Award Title: | Climate-Resilient Agriculture for Integrated Landscape Management | | |
| Atlas Business Unit | BRB10 | | |
| Atlas Primary Output Project Title | Climate-Resilient Agriculture for Integrated Landscape Management | | |
| UNDP-GEF PIMS No. | 4970 | | |
| Executing agency | Department of Economic and Technical Cooperation (DETC), Ministry of Finance, Economic Development, Planning and Physical Development | | |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GEF Component/Atlas Activity** | **Responsible Party/**  **(Atlas Implementing Agent)** | **Fund ID** | **Donor Name** | **Atlas Budgetary Account Code** | **ATLAS Budget Description** | **Amount Year 1 (USD)** | **Amount Year 2 (USD)** | **Amount Year 3 (USD)** | **Amount Year 4 (USD)** | **Total (USD)** | **See Budget Note:** |
| **COMPONENT/**  **OUTCOME 1:**  Systemic and institutional capacity for integrated landscape management at national level. | **Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management** | **62000** | **GEF** | 71300 | Local Consultants | 104,500 | 82,500 |  |  | 187,000 | *1* |
| 71400 | Contractual Services – Individuals | 38,625 | 38,625 | 38,625 | 8,625 | 124,500 | *2* |
| 71600 | Travel | 4,750 | 4,750 | 4,750 | 4,750 | 19,000 | *3* |
| 72100 | Contractual Services-Companies | 135,750 | 150,750 | 45,750 | 30,750 | 363,000 | *4* |
| 72200 | Equipment and Furniture | 8,507 |  |  |  | 8,507 | *5* |
| 72500 | Supplies | 1,000 | 1,000 | 1,000 | 1,000 | 4,000 | *6* |
| 72800 | Information Technology Equipmt | 39,500 |  |  | 7,500 | 47,000 | *7* |
| 74200 | Audio Visual & Print Prod Costs | 3,750 | 8,750 | 18,750 | 3,750 | 35,000 | *8* |
| 74500 | Miscellaneous Expenses | 1,850 | 1,850 | 1,850 | 1,850 | 7,400 | *9* |
| 75700 | Training, Workshops and Confer | 4,500 | 11,500 | 9,000 |  | 25,000 | *10* |
|  |  |  |  | **Total Outcome 1** | **342,732** | **299,725** | **119,725** | **58,225** | **820,407** |  |
| **COMPONENT/**  **OUTCOME 2:**  National capacity to provide financial, technical, and information services for CSA production | **Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management** | **62000** | **GEF** | 71300 | Local Consultants | 40,500 | 50,500 | 20,000 |  | 111,000 | *11* |
| 71400 | Contractual Services – Individuals | 27,531 | 27,531 | 27,531 | 5,032 | 87,625 | *12* |
| 71600 | Travel | 3,750 | 3,750 | 3,750 | 3,750 | 15,000 | *13* |
| 72100 | Contractual Services-Companies | 22,375 | 41,125 | 41,125 | 22,375 | 127,000 | *14* |
| 72200 | Equipment and Furniture | 30,000 | 30,000 |  |  | 60,000 | *15* |
| 72300 | Materials & Goods |  | 67,500 | 67,500 |  | 135,000 | *16* |
| 74500 | Miscellaneous Expenses | 1,224 | 1,224 | 1,224 | 1,224 | 4,896 | *17* |
| 75700 | Training, Workshops and Confer | 2,000 | 10,250 | 5,750 |  | 18,000 | *18* |
|  |  |  | **Total Outcome 2** | **127,380** | **231,880** | **166,880** | **32,381** | **558,521** |  |
| **COMPONENT/**  **OUTCOME 3:**  Operationalization of resilient agricultural practices | **Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management** | **62000** | **GEF** | 71300 | Local Consultants | 25,000 | 77,000 | 47,000 | 27,000 | 176,000 | *19* |
| 71400 | Contractual Services – Individuals | 43,650 | 43,650 | 43,650 | 43,650 | 174,600 | *20* |
| 71600 | Travel | 60,000 | 10,000 | 10,000 | 10,000 | 90,000 | *21* |
| 72100 | Contractual Services-Companies | 25,500 | 122,700 | 122,700 | 122,700 | 393,600 | *22* |
| 72200 | Equipment and Furniture | 7,500 | 7,500 | 7,500 | 7,500 | 30,000 | *23* |
| 72300 | Materials & Goods | 19,507 | 222,500 | 165,000 | 165,000 | 572,007 | *24* |
| 72500 | Supplies | 1,250 | 1,250 | 1,250 | 1,250 | 5,000 | *25* |
| 72600 | Grants | 102,000 | 102,000 | 102,000 |  | 306,000 | *26* |
| 72800 | Information Technology Equipmt | 2,000 |  |  |  | 2,000 | *27* |
| 74200 | Audio Visual&Print Prod Costs |  | 7,500 |  |  | 7,500 | *28* |
| 74500 | Miscellaneous Expenses | 5,063 | 5,063 | 5,063 | 5,061 | 20,250 | *29* |
| 75700 | Training, Workshops and Confer | 12,375 | 24,625 | 15,875 | 15,875 | 68,750 | *30* |
|  |  |  | **Total Outcome 3** | **303,845** | **623,788** | **520,038** | **398,036** | **1,845,707** |  |
| **COMPONENT/**  **OUTCOME 4:**  Knowledge management for SLM, CSA and biodiversity conservation | **Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management** | **62000** | **GEF** | 71200 | International Consultants |  | 14,000 |  | 19,250 | 33,250 | *31* |
| 71300 | Local Consultants | 3,485 | 14,300 |  | 17,800 | 35,585 | *32* |
| 71400 | Contractual Services – Individuals | 32,400 | 32,400 | 32,400 | 32,400 | 129,600 | *33* |
| 71600 | Travel | 3,000 | 8,020 | 3,000 | 10,800 | 24,820 | *34* |
| 74100 | Professional Services | 4,000 | 4,000 | 4,000 | 4,000 | 16,000 | *35* |
| 74200 | Audio Visual&Print Prod Costs | 2,820 | 2,820 | 2,820 | 2,820 | 11,280 | *36* |
| 75700 | Training, Workshops and Confer | 5,500 | 1,680 | 1,000 | 2,150 | 10,330 | *37* |
|  |  |  | **Total Outcome 4** | **51,205** | **77,220** | **43,220** | **89,220** | **260,865** |  |
| **Project MANAGEMENT UNIT[[47]](#footnote-48)** | **DETC** | **62000** | **GEF** | 71400 | Contractual Services – Individuals | 21,593 | 21,594 | 21,594 | 21,594 | 86,375 | *38* |
| 71600 | Travel | 2,040 | 2,040 | 2,040 | 2,040 | 8,160 | *39* |
| 72200 | Equipment and Furniture | 1,000 |  |  |  | 1,000 | *40* |
| 72500 | Supplies | 500 | 500 | 500 | 500 | 2,000 | *41* |
| 72800 | IT Equipment | 3,750 |  |  |  | 3,750 | *42* |
| 74500 | Miscellaneous Expenses | 500 | 500 | 500 | 500 | 2,000 | *43* |
| 74596 | Direct Project Costs | 17,748 | 17,748 | 17,747 | 17,747 | 70,990 | *44* |
|  |  |  | **Total Management** | **47,131** | **42,382** | **42,381** | **42,381** | **174,275** |  |
|  |  |  |  | **PROJECT TOTAL** | | **872,293** | **1,274,995** | **892,244** | **620,243** | **3,659,775** |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Summary of Funds** |  |  |  |  | |  | |
|  |  | | | | | | Amount  Year 1 | | Amount  Year 2 | | Amount  Year 3 | Amount  Year 4 | Total |
|  | **GEF** | | | | | | 872,293 | | 1,274,995 | | 892,244 | 620,243 | **3,659,775** |
|  | **UNDP** | | | | | | 100,000 | | 100,000 | | 100,000 | 100,000 | **400,000** |
|  | **Ministry of Finance, Economic Development, Planning and Physical Development: loan from International Fund for Agricultural Development (IFAD) and the Caribbean Development Bank (Climate Smart Agriculture and Market Access Program (PN: 2000001475** | | | | | | 2,053,950 | | 2,053,950 | | 2,053,950 | 2,053,950 | **8,215,800** |
|  | **Ministry of Finance, Economic Development, Planning and Physical Development: loan from the World Bank (OECS Regional Competitiveness Project -**  **PN: P158958)** | | | | | | 1,198,138 | | 1,198,138 | | 1,198,137 | 1,198,137 | **4,792,550** |
|  | **Ministry of Finance, Economic Development, Planning and Physical Development** | | | | | | 171,163 | | 171,163 | | 171,162 | 171,162 | **684,650** |
|  | **TOTAL** | | | | | | **4,395,544** | | **4,798,246** | | **4,415,493** | **4,143,492** | **17,752,775** |

|  |  |
| --- | --- |
| **Budget note** | **Comments** |
| Component 1: Systemic and institutional capacity increased for integrated landscape management at national level. | |
| *1[[48]](#footnote-49)* | a) Information Management and Monitoring Expert to conduct a needs/GAP assessment of the existing Ministry of Agriculture and Lands’ GIS/database and design a strategy to bridge gaps for the development of an information management and monitoring system for SLM, CSA, and biodiversity conservation. Total cost: $10,000 during years 1 (Output 1.1).  b) Legal/Policy Expert for consultations and drafting data-sharing agreements to operationalize an information management and monitoring system for SLM, CSA, and biodiversity conservation. Total cost: $20,000 during year 1 (Output 1.1).  c) Supervisor of data entry for SLM, CSA and biodiversity conservation. Total cost: 4,000 during years 1 and 2 (Output 1.1)  d) Biodiversity Monitoring Expert to establish a baseline and develop SMART indicators and data collecting protocols for key indicator species: the critically endangered Grenada Dove, the endemic Grenada Frog, and the hawksbill and the leatherback sea turtles. Total cost: $45,000 during years 1 and 2 (Output 1.1).  e) Practicum supervisor for the collection of baseline data for key indicator species. Total cost: $26,000 during years 1 and 2 (Output 1.1).  f) Student practicums (stipends) to support the collection of baseline data for key indicator species: Grenada Dove, Grenada Frog, and the hawksbill and the leatherback sea turtles. Total cost: $20,000 during years 1 and 2 (Output 1.1).  g) Student practicums (stipends) for obtaining baseline data for availability of water resources and changes in land use/land cover in the project's prioritized landscapes. Total cost: $12,000 during years 1 and 2 (Output 1.1).  h) Protected Area Planning Expert for updating Grenada's PASP. Total cost: $30,000 during year 1 and 2 (Output 1.2).  i) Environmental Education Expert for the inclusion of biodiversity conservation and SLM related skills within national frameworks such as the Human Resources Priority List and the Priority Training Needs Assessment and associated curricula of the Ministry of Education. Total cost: $20,000 during year 2 (Output 1.3). |
| *2[[49]](#footnote-50)* | a) Project Manager (25%): Management support for systemic and institutional capacity for integrated landscape management at national level. Total cost: $34,500; $2,875/month during 12 months over four years (all outputs in component).  b) SLM Specialist for: a) establishing baseline data for availability of water resources and changes in land use/land cover, including changes in cover of the dry forest, cloud forest, mangroves, and other key ecosystems in the project's prioritized landscapes; and b) drafting the national drought management policy that is harmonized with proposed policies under the UNCCD. Total cost: $90,000 during years 1 to 3 (Output 1.1. and Output 1.2). |
| *3* | Travel costs (car rental and fuel) related to the development of a systemic and institutional capacity for integrated landscape management at national level. Total cost: $19,000 during years 1 to 4 (all outputs in component). |
| *4* | a) Development of the management plan for a proposed PA in the La Sagesse watershed that includes dry forest ecosystems and riparian zone conservation. Total cost: $30,000 during years 2 and 3 (Output 1.2).  b) Operationalization of the management plan for the Levera protected area. Total cost: $34,000 during years 1 to 4 (Output 1.2)  c) Development of five watershed management plans (La Sagesse, Great River, and Levera/Levera Pond/St Patrick watersheds, and two island watershed management plans for Carriacou and Petit Martinique), including detailed environmental and socioeconomic characterizations (including gender aspects) of each watershed. Total cost: $210,000 during years 1 and 2 (Output 1.2).  d) Design and implement a training program for staff from the Forestry and National Parks Department and Land Use Division, and the Ministry of Carriacou and Petit Martinique in biodiversity conservation and land use management based (including land surveys) on needs assessment, and physical and operational capacity development; and training for agricultural technicians in the Ministry of Agriculture and Lands and other Organizations in CSA/SLM, environmental certifications, and irrigation design. Total cost: $50,000 during years 1 to 4 (Output 1.3).  e) Design and implement a gender responsive public awareness programme (communication programme) to raise public awareness about the importance of biodiversity conservation, SLM, and CSA practices within the project’s prioritized landscapes and to build partnerships for the operationalization of resilient agricultural practices. Total cost: $39,000 during years 1 to 4 (Output 1.3). |
| *5[[50]](#footnote-51)* | a) Field equipment for collecting baseline data for key indicator species: Grenada Dove, Grenada Frog, and the hawksbill and the leatherback sea turtles. Total cost: $4,507 during year 1 (Output 1.1).  b) Field equipment for collecting baseline data for availability of water resources and changes in land use/land cover. Total cost: $4,000 during year 1 (Output 1.1). |
| *6* | Office, IT, and field supplies in support of Component 1 activities. Total cost: $4,000 during years 1 to 4 (all outputs in component). |
| *7* | a) Hardware and software to update GIS/databases to implement an information management and monitoring system for SLM, CSA, and biodiversity conservation. Total cost: $12,000 during year 1 (Output 1.1)  b) Hardware and software in support of the Land Use Division and the Ministry of Carriacou and Petit Martinique to conduct land use surveys. Total cost: $20,000 during year 1 (Output 1.3).  c) Satellite images/aerial photography to assess changes in land use/land cover in the project prioritized landscapes and to conduct land surveys. Total cost: $15,000 during year 1 and year 4 (Output 1.1 and Output 1.3). |
| *8* | a) Printing and production costs of Grenada's updated PASP. Total cost: $5,000 during year 2 (Output 1.2).  b) Printing and productions costs of the management plan for one new PA in the La Sagesse watershed. Total cost: $2,500 during year 3. (Output 1.2).  c) Printing and productions costs for five watershed management plans (La Sagesse, Great River, and Levera/Levera Pond/St Patrick watersheds, and two island watershed management plans for Carriacou and Petit Martinique). Total cost: $12,500 during year 3. (Output 1.2).  d) Audio visual & print production costs for a gender responsive public awareness programme (communication programme) to raise public awareness about the importance of biodiversity conservation, SLM, and CSA practices within the project’s prioritized landscapes and to build partnerships for the operationalization of resilient agricultural practices. Total cost: $15,000 during years 1 to 4 (Output 1.3). |
| *9* | Incidental expenses related to building a systemic and institutional capacity for integrated landscape management at national level. Total cost: $7,400 during 4 years (all outputs in component). |
| *10* | a) Consultation workshops and meetings for establishing data-sharing agreements to operationalize an information management and monitoring system for SLM, CSA, and biodiversity conservation. Total cost: $1,000 during year 1. (Output 1.1).  b) Training of student practicums for the collection of baseline data for key indicator species and availability of water resources and changes in land use/land cover. Total cost: $2,000 during year 1.  c) Stakeholder consultation workshops and meetings for updating Grenada's PASP. Total cost: $3,000 during years 1 and 2 (Output 1.2).  d) Workshops for the socialization of management plan for one PA in the La Sagesse watershed that includes dry forest ecosystems and riparian zone conservation. Total cost: $1,500 during year 3. (Output 1.2).  e) Consultation workshops and meetings for drafting the national drought management policy that is harmonized with proposed policies under the UNCCD. Total cost: $5,000 during years 2 and 3. (Output 1.2).  f) Workshops for the socialization of five watershed management plans (La Sagesse, Great River, and Levera/Levera Pond/St Patrick watersheds, and two island watershed management plans for Carriacou and Petit Martinique). Total cost: $10,000 ($2,000/plan) during years 2 and 3. (Output 1.2).  g) Consultation workshops and meetings for the inclusion of biodiversity conservation and SLM related skills within national frameworks such as the Human Resources Priority List and the Priority Training Needs Assessment and associated curricula of the Ministry of Education. Total cost: $2,500 during year 2 (Output 1.3). |
| Component 2. National capacity built to provide financial, technical, and information services for CSA production. | |
| *11[[51]](#footnote-52)* | a) Financial Expert to provide technical support to small farmers to access loans and assess financial/repayment capacity. Total cost: $60,000 during years 1and 3. (Output 2.1).  b) Field Assistants (2) for testing water quality (chemical, nutrient, and sediment content) from streams and soil nutrient content in the priority watersheds that are used to support crop irrigation systems. Total cost: $6,000 during years 1 to 2. (Output 2.2).  c) Financial Expert for a thorough assessment of status and needs and business/funding plan development for propagation stations to ensure their sustainability. Total cost: $10,000 during year 2 (Output 2.3).  d) CSA Expert to conduct a national assessment of all germplasm resources, design a national germplasm management program, updating the existing SOP for the effective management of and maintenance of germplasm banks to ensure their sustainability, and updating the training protocol of each propagation station and delivering needed training to overcome existing capacity gaps. Total cost: $35,000 during years 1 and 2 (Output 2.3). |
| *12[[52]](#footnote-53)* | a) Project Manager (15%): management support to develop national capacity to provide financial, technical, and information services for CSA production. Total cost: $20,125; $2,875/month during 7 months over 4 years. (all outputs in component)  b) SLM Specialist for: a) thorough assessment of the national soil fertility and water quality testing capacity and drafting of recommendations to fill gaps; b) conduct water and soil quality assessments and develop a comprehensive programme to provide ongoing soil fertility and water quality testing services at the national level; c) establishment of water quality and soil fertility standards for crop/CSA production operations following water and soil quality assessments; d) provide support to youth environmental NGOs to address land degradation and environmental issues. Total cost: $67,500 during years 1 to 3 (Output 2.2). |
| *13* | Travel costs related to improving national capacity by financial, technical, and information services for CSA production. Total cost: $15,000 during 4 years (all outputs in component). |
| *14* | a) Company to provide support services for certification of agriculture products with CSA criteria integrated to incentivize CSA, SLM and conservation oriented agriculture practices. Total cost: $89,500 during years 1 to 4. (Output 2.1), including:  i. Strengthen local accreditation and certification capacity for sustainable farming, CSA, quality management, and food safety through the GBS: assessment of testing and certification services and develop an action plan; assistance to testing laboratories for accreditation; strengthen/set up management system and product certification schemes in line with ISO 17021 and ISO 17065, respectively; and assist GBS to develop and promote relevant standards.  ii. Training and coaching enterprises to implement good hygienic practices and food safety systems (Hazard Analysis and Critical Control Points/ISA [HACCP/ISO] 22000).  iii. Conduct a gender analysis of the value chain.  iv. Support certification for domestic markets through PGS: selection of watershed farming systems and farmers’ organizations for certification; design a gender responsive and participatory training program on PGS; training of farmers and lead farmers in practices to comply with certification, SLM, CSA, and biodiversity conservation.  v. Assess the feasibility for the implementation of more formal third-party/international certification as a complement to PGS.  vi. Training and empowerment of participating farmers: value of agroecosystems and CSA, certification process, and management and planning skills (record-keeping systems for certification/accreditation process).  vii. Ensure that strong certification standards are used: training of lead farmers ensure compliance with certification schemes; market analysis to identify sufficient demand side interest in certified products; selection of catchment areas that ensure sufficient supply side interest; identify economically feasible sub-sectors of production with higher potential emphasizing on value-added activities; identify potential marketing outlets; value chain analysis of the selected products.  viii. Conduct an ex ante evaluation design to identify and collect data on the key factors that affect the outcomes to be measured  b) Develop and implement a soil and water management training program to strengthen capacities of extension technicians (Ministry of Agriculture and Lands), farmers, and the private sector to facilitate crop/CSA production, including application of field-testing kits with laboratory testing services and manuals and toolkits. Total cost: $37,500 during year 2 and 3 (Output 2.2). |
| *15[[53]](#footnote-54)* | a) Analytical equipment to strengthen the soil and water analysis laboratory capacity of the Land Use Division. Total cost: $10,000 during year 1 (Output 2.2).  b) Equipment and tools for assessing soil erosion and sediment flows in prioritized watersheds. Total cost: $10,000 during year 1 (Output 2.2).  c) Equipment and tools for testing water quality (chemical, nutrient, and sediment content) from streams in the priority watersheds. Total cost: $10,000 during year 1 (Output 2.2).  d) Equipment for the establishment of a tissue culture lab at the Maran Propagation Center. Total cost: $30,000 during year 2 (Output 2.3). |
| *16* | a) Materials and goods for rebuilding five (5) national propagation stations (Boulogne, Mirabeau, Maran, and Ashendeen in Grenada and Belair in Carriacou) in a climate-proof manner. Total cost: $125,000 ($25,000/station) during years 2 and 3 (Output 2.3).  b) Materials and goods for improvements to a propagation facility (CARDI’s station in Wester Hall, St. David parish). Total cost: $10,000 during year 2 (Output 2.3). |
| *17* | Incidental expenses related to improving national capacity by financial, technical, and information services for CSA production. Total cost: $4,896 during 4 years (all outputs in component) |
| *18* | a) Training workshops and meetings for financial/loan management by small farmers. Total cost: $6,000 during years 1 to 3 (Output 2.1).  b) Consultation workshops and meetings for the support of youth environmental NGOs to address land degradation and environmental issues. Total cost: $2,500 during year 2 (Output 2.2).  c) Workshops and meetings for the dissemination of soil test results/soil nutrient content to farmers and technical extension service providers for crop production planning. Total cost: $2,000 during year 2 (Output 2.2).  d) Training workshops for extension technicians from the Ministry of Agriculture and Lands, farmers, and community groups in propagation techniques, maintenance, and documentation. Total cost: $7,500 during years 2 and 3 (Output 2.2). |
| Component 3. Operationalization of resilient agricultural practices | |
| *19[[54]](#footnote-55)* | a) PA Expert to conduct environmental studies needed for the establishment of a PA as national park. Total cost: $7,500 during year 1. (Output 3.2).  b) Socioeconomic Expert to conduct socioeconomic studies needed for the establishment of PA as a national park. Total cost: $7,500 during year 1. (Output 3.2).  c) IAS Expert to address the long-term presence of IAS in the prioritized watersheds, including a critical situation analysis for a more in-depth review of the national legislation and policies for IAS management, financial sustainability strategy, and recommendation to strengthen the legal and policy framework for the prevention, management, and control of the three IAS targeted. Total cost: $40,000 during years 2 and 3. (Output 3.2).  d) Trainer to train local communities for the removal of small Indian Mongoose in prioritized dry forest areas and KBAs. Total cost: $21,000 during years 2 to 4 (Output 3.2).  e) Field Assistant to support the removal of small Indian Mongoose in prioritized dry forest areas and KBAs. Total cost: $30,000 during years 2 to 4 (Output 3.2).  f) Biodiversity/IAS Expert for field-level monitoring of the population of the endemic Grenada Frog and mapping of Chytrid fungus infected and non-infected areas. Total cost: $30,000 during years 2 to 4. (Output 3.2).  g) Communication Expert to develop and implement awareness raising activities among stakeholders (the public and private sectors as well as the general public) about the threats and impact of IAS and new controls and regulations will be conducted, including a community-focused information strategy to raise awareness about the conservation of the endemic Grenada Frog and other amphibian species and their habitat, and sea turtles nesting on Grenada beaches. Total cost: $30,000 during year 2. (Output 3.2).  h) Economics Expert to conduct a market analysis of domestic products and exports of Grenadian-certified climate-smart agroproducts. Total cost: $10,000 during year 1 (Output 3.4). |
| *20[[55]](#footnote-56)* | a) Project Manager (50%): project planning, day-to-day management of project activities, project reporting, maintaining key relationships among stakeholders. Total cost: $69,000; $2,875/month during 24 months (all outputs in component).  b) CSA/SLM Specialist to provide technical assistance and support for the operationalization of resilient agricultural practices. Total cost: $105,600; $2,200/month during 48 months (Output 3.1 and Output 3.3). |
| *21* | a) Travel costs (local transportation other than the control of the small Indian mongoose) related to the operationalization of resilient agricultural practices. Total cost: $30,000 during 4 years (all outputs in component).  b) Vehicle (4x4) and gas for the control of the small Indian mongoose. Total cost: $50,000 during year 1. (Output 3.2)  c) Gas for vehicle for the control of the small Indian mongoose. Total cost: $10,000 during years 2 to 4. (Output 3.2) |
| *22* | a) Removal of 40 ha of bamboo in the mid-level strata/riparian forests and reforestation with native species. Total cost: $183,600 during years 2 to 4 (Output 3.2)  b) Implementation of beach erosion control measures to protect sea turtle nesting beaches in the prioritized watersheds. Total cost: $108,000 during years 2 to 4 (Output 3.2).  c) Improve the competitiveness at least 10 small businesses (including eight agroprocessors and two agrotourism businesses, and their suppliers) implementing CSA/SLM initiatives, including training and analyses and advice on marketing and branding strategies. Total cost: $102,000 during years 1 to 4 (Output 3.4). |
| *23[[56]](#footnote-57)* | Field equipment (traps and bait) for the control of the small Indian Mongoose in prioritized dry forest areas and KBAs. Total cost: $30,000 during years 1 to 4 (Output 3.2). |
| *24* | a) Materials and goods for the implementation of CSA and SLM practices and rangeland management in farms in the prioritized watersheds. Total cost: $495,000 during years 2 to 4 (Output 3.1: $297,000 and Output 3.3: $198,00).  b) Materials for field-level monitoring of the population of the endemic Grenada Frog and mapping of Chytrid fungus infected and non-infected areas. Total cost: $2,007 during year 1 (Output 3.2).  c) Materials and goods for the installation of new climate-resilient protective structures and propagating materials and supplies for the government propagation facility in Belair, Carriacou. Total cost: $35,000 during years 1 and 2 (Output 3.3)  d) Materials and goods for upgrading a livestock farm in Carriacou to serve as a pilot rangeland demonstration facility. Total cost: $15,000 during year 2 (Output 3.3)  e) Materials and goods for the establishment of an integrated crop/livestock facility in Carriacou following. Total cost: $25,000 during year 2 (Output 3.3). |
| *25* | Office and field supplies in support of Component 3 activities. Total cost: $5,000 during years 1 to 4 (all outputs in component). |
| *26* | Grants to support ten small community-based businesses (agroprocessing and agrotourism businesses) in their CSA and SLM initiatives, which will contribute to the adaptation of farming systems to climate change, among other benefits. Total cost: $306,000 during years 1 to 3 (Output 3.4). Grants will be released following UNDP Guidance on Low-value Grants. |
| *27[[57]](#footnote-58)* | a) Computer CSA/SLM Specialist. Total cost: $1,500 (Output 3.1 and Output 3.2)  b) Digital camera (1). Total cost: $250.  c) Projector (1). Total cost: $250. |
| *28* | Audio visual & print production costs for a community-focused information strategy to raise awareness about the conservation of the endemic Grenada Frog and other amphibian species and their habitat, and sea turtles nesting on Grenada beaches. Total cost: $7,500 during year 2 (Output 1.3). |
| *29* | Incidental expenses related to the operationalization of resilient agricultural practices. Total cost: $20,250 during 4 years (all outputs in component) |
| *30* | a) Training of small farmers for the implementation of SLM/CSA activities and rangeland management systems in the 5 prioritized watersheds, including field visits to demonstration facilities strengthened/developed by the project. Total cost: $49,500 during years 1 to 4 (Output 3.1: $29,700; and Output 3.3: $19,800).  b) Consultation workshops and meeting for the establishment of a new PA as national parks. Total cost: $1,750 during year 1. (Output 3.2)  c) Workshops and meeting to raise awareness among stakeholders (the public and private sectors as well as the general public) about the threats and impact of IAS, including the conservation of the endemic Grenada Frog and other amphibian species and their habitat, and sea turtles nesting on Grenada beaches. Total cost: $3,500 during year 2 (Output 3.2).  d) Training workshops and field visits to improve policy enforcement to the protection of four sea turtle species nesting on Grenada. Total cost: $3,500 during year 2 (Output 3.2).  d) Support the participation (75% co-funding) in international trade fairs of 5-10 selected Grenadian small businesses. Total cost: $10,500 during years 2 to 4 (Output 3.4). |
| Component 4. Knowledge management for SLM, CSA and biodiversity conservation. | |
| *31* | a) Mid-term project review. Total cost: $14,000 during year 2 (Output 4.3).  b) Terminal project evaluation. Total cost: $19,250 during year 4 (Output 4.3). |
| *32* | a) Web page design for the project. Total cost: $3,485 during year 1 (Output 4.1 and 4.2).  b) Mid-term GEF7 Core Indicators update. Total cost: $8,000 during year 2 (Output 4.3).  c) Terminal GEF7 Core Indicators update. Total cost: $8,000 during year 4 (Output 4.3).  d) Mid-term project review. Total cost: $6,300 during year 2 (Output 4.3).  e) Terminal evaluation. Total cost: $9,800 during year 4 (Output 4.3). |
| *33[[58]](#footnote-59)* | a) Communications/Knowledge Management Expert (part time - 50%): Communication and awareness-raising activities, including support to the implementation of awareness activities among stakeholders (the public and private sectors as well as the general public) about the threats and impact of IAS and new controls and regulation, and documentation and systematization of lessons learnt and best practices. Total cost: $43,200 during years 1 to 4 (Outputs 4.1 and 4.2)  b) Gender Expert (part time -50%). Support and monitoring of gender mainstreaming (Gender Action Plan). Total cost: $43,200 during years 1 to 4 (all outputs in component).  c) M&E and Safeguard Expert (part time -50%): project monitoring including updating indicators in project results framework, monitoring of environmental and social risks, and establish a monitoring system to learn from the SLM, CSA, and biodiversity conservation interventions. Total cost: $43,200 during years 1 to 4 (Output 4.3). |
| *34* | a) Travel costs for mid-term project review (including daily subsistence allowance): Total cost: $5,020 during year 2 (Output 4.3).  b) Travel costs for terminal evaluation (including daily subsistence allowance): Total cost: $7,800 during year 4 (Output 4.3).  c) Travel costs for M&E of project activities: Total cost: $4,000 during years 1 to 4 (Output 4.3).  c) Travel costs for gender mainstreaming activities: Total cost: $4,000 during years 1 to 4 (all outputs in component).  e) Travel costs for communication and knowledge management activities: Total cost: $4,000 during years 1 to 4 (Outputs 4.1 and 4.2). |
| *35* | a) External audit (4). Total cost: $16,000 during 4 years (Output 4.3). |
| *36* | Publications and media products related to knowledge management and communication. Total cost: $11,280 during years 1 to 4 (Outputs 4.1 and 4.2). |
| *37* | a) Project Inception Workshop. Total cost $5,000 during year 1.  b) Knowledge forums to share lessons learnt and good practices with multiple stakeholders. Total cost: $1,500 during years 2 to 4 (Output 4.1).  c) Mid-term project review related workshops. Total cost: $680 during year 2 (Output 4.3).  d) Terminal evaluation related workshops. Total cost: $1,150 during year 4 (Output 4.3).  e) Project board meetings. Total cost: $2,000 during years 1 to 4 (Output 4.3). |
| Project Management Unit | |
| *38* | a) Project Manager (10%): project planning, day-to-day management of project activities, project reporting, maintaining key relationships among stakeholders. Total cost: $14,375; $2,875/month during 5 months.  b) Financial/Administrative Assistant: financial management of the project, accounting, purchasing, and reporting, etc. Total cost: $72,000; $1,500/month during 48 months. |
| *39* | Travel costs related to project management. Total cost: $8,160 during 4 years. |
| *40* | Office furniture. Total cost: $1,000. |
| *41* | Office and IT supplies. Total cost: $2,000 during 4 years. |
| *42[[59]](#footnote-60)* | a) Computer Project Manager. Total cost: $1,500  b) Computer Financial/Administrative Assistant: Total cost: $1,500  c) Printer (1). Total cost: $250  d) Digital camera (1). Total cost: $250.  e) Projector (1). Total cost: $250. |
| *43* | Incidental expenses related to project management. Total cost: $2,000 during four years. |
| *44* | Services to Projects. As stipulated in Annex J: Letter of Agreement for the Provision of Support Services, DPCs include the following:  a) $13,961.00 for 230 payments, disbursements, and other financial transactions @ $60.70/transaction;  b) $22,849.00 for selection and recruitment process of 5 staff @ $1,114.80/staff; one-time local personnel HR & benefits administration & management for 5 staff @ $355.00/staff; recurrent personnel management services for 5 staff over 4 years @ $775.00/staff/year  c) $13,776.00 for procurement of 32 consultants @ $430.50/consultant  d) $17,044.00 for procurement of services and equipment; disposal of equipment including 4 procurement processes involving local CAP @ $994.00/procurement process, and 18 procurement processes not involving local CAP @ $388.00/procurement process, including $507.00 for equipment disposal for 12 units  e) $3,360.00 for 30 travel arrangements @ $112.00/arrangement  Total cost: $70,990 during 4 years. |

# Legal Context

1. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Grenada and UNDP, signed on 17 May 1976. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”
2. This project will be implemented by the Ministry of Finance, Economic Development, Planning, and Physical Development (“Implementing Partner”) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.
3. Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

# Risk Management

1. Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
2. Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
3. Assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan.
4. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.
5. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml>.
6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).
7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.
9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
10. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a)UNDP Policy on Fraud and other Corrupt Practices and (b)UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.
11. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner’s (and its consultants’, responsible parties’, subcontractors’ and sub-recipients’) premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.
12. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.
13. Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP’s Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.
14. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.
15. Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.
16. *Note:* The term “Project Document” as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.
17. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.
18. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
19. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled “Risk Management” are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled “Risk Management Standard Clauses” are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

# Mandatory Annexes

1. Multi year Workplan
2. GEF7 Core Indicators at baseline
3. Overview of technical consultancies/subcontracts
4. Terms of Reference for Project Board, Project Manager, Chief Technical Advisor and other positions as appropriate
5. UNDP Social and Environmental and Social Screening Template (SESP) (see separate file)
6. Stakeholder Engagement Plan
7. Gender Analysis and Action Plan
8. UNDP Risk Log
9. Results of the capacity assessment of the project implementing partner and HACT micro assessment (see separate file)
10. UNDP Project Quality Assurance Report
11. Target Landscape Description
12. List of People Consulted During Project Development

M. Equipment Procurement Plan

N. Legal and Institutional Framework

P. Co-Financing Letters (see separate file)

O. Calculations of Greenhouse Gas Emissions Mitigated

## Annex A: Multi Year Work Plan

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Year 1** | | | | **Year 2** | | | | **Year 3** | | | | **Year 4** | | | |
| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Outcome 1: Systemic and institutional capacity for integrated landscape management at national level | | | | | | | | | | | | | | | | |
| *Output 1.1 A central geospatial biodiversity, ecosystem, and land use database and monitoring system to be assessed, updated, and operationalized within the national land management policy in the national and legal regulatory framework* | | | | | | | | | | | | | | | | |
| Conduct a needs/GAP assessment of the existing databases |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a coordination mechanism/ agreements to support data-sharing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Assess and expand the national baselines and inventories of key indicators to monitor ecosystem health, climate impacts, KBAs and biodiversity conservation that support CSA and SLM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop SMART indicators for key indicator species |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish baselines for availability of water resources and changes in land use/land cover in prioritized watersheds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 1.2. Regulatory, coordination and planning framework strengthened, integrating SLM, CSA, and biodiversity conservation* | | | | | | | | | | | | | | | | |
| Review and update the current PASP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a participatory management plans for proposed PA in the La Sagesse watershed for dry forest and riparian zone conservation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operationalize the management plan for the Levera PA. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contribute to the development a national drought management policy that is harmonized with proposed policies under the UNCCD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop 5 participatory watershed management plans (La Sagesse, Great River, and Levera/Levera Pond/St Patrick watersheds and two island watersheds for Carriacou and Petit Martinique) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 1.3. Biodiversity conservation and land use management capacities improved through training of personnel in biodiversity conservation and land use management* | | | | | | | | | | | | | | | | |
| Train staff from the Forestry and National Parks Department, Land Use Division, Ministry of Carriacou and Petit Martinique in biodiversity conservation and SLM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Strengthen the Land Use Division /Ministry of Agriculture an Lands and the Ministry of Carriacou and Petit Martinique to conduct land use surveys |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Training for agricultural extension in CSA and SLM, environmental certifications, and irrigation design |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inclusion of biodiversity conservation and SLM related skills within national frameworks (Human Resources Priority List and the Priority Training Needs Assessment and associated curricula) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement a gender responsive public awareness program in the St. David, St. Andrew, and St. Patrick parishes and in Carriacou and Petit Martinique to raise public awareness about the importance of biodiversity conservation, SLM, and CSA practice |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Outcome 2: National capacity built to provide financial, technical, and information services for CSA production | | | | | | | | | | | | | | | | |
| *Output 2.1. Financial support systems for incentivizing CSA, SLM and conservation oriented agriculture practices are strengthened / established / operationalized* | | | | | | | | | | | | | | | | |
| Provide support services for certification of agriculture products with CSA criteria integrated to incentivize CSA, SLM and conservation oriented agriculture practices. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide technical support to access loans and assess financial/repayment capacity, and training for financial/loan management, including women farmers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 2.2. Soil and water quality monitoring and advisory programme enhanced.* | | | | | | | | | | | | | | | | |
| Assess the national soil fertility and water quality testing capacity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide analytical equipment to Produce Chemist Laboratory/Ministry of Agriculture and Lands for the establishment of a soil and water analysis laboratory and support improvement in human resource technical capacity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a comprehensive programme to provide ongoing soil fertility and water quality testing services to users/farmers and water suppliers (e.g., NAWASA, other) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide the tools and equipment to the Land Use Division for assessing soil erosion and sediment flows in the prioritized watersheds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide support to youth environmental NGOs to address land degradation and environmental issues |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop and implement a soil and water management training program to strengthen capacities of extension technicians (Ministry of Agriculture and Lands), farmers, and the private sector to facilitate crop/CSA production, including application of field-testing kits with laboratory testing services and manuals and toolkits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 2.3. National supply of climate resilient crop varieties enhanced* | | | | | | | | | | | | | | | | |
| Rebuild the five (5) national propagation stations (Boulogne, Mirabeau, Maran, CARDI, and Ashendeen in Grenada and Belair in Carriacou) in a climate-proof manner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Improve the propagation facility at the CARDI’s station in Wester Hall, St. David parish |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Train extension technicians from the Ministry of Agriculture and Lands, farmers, and community groups in propagation techniques, maintenance, and documentation, etc. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Support the establishment of a tissue culture in an appropriate location |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a national germplasm management program including a database, training and research protocols, SOP, etc. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Outcome 3: Operationalization of resilient agricultural practices | | | | | | | | | | | | | | | | |
| *Output 3.1. CSA and SLM practices implemented in St. David, St. Andrew, and St. Patrick parishes* | | | | | | | | | | | | | | | | |
| Support SLM and climate-smart interventions in La Sagesse watershed, Great River Watershed, and St. Patrick watershed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish a model drip irrigation system fitted with solar-powered energy (La Sagesse watershed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Revegetation of stream banks (La Sagesse watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish a central composting unit for the production and distribution of organic manure among participating farmers (La Sagesse watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Install one protective shade structure as a research unit for testing the performance of new climate-resilient crop varieties (La Sagesse watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Support to manage the waste from pig farms, including improved waste handling, discharge water treatment, and composting, among other options (Great River Watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish riparian buffer zones using local vegetative species to prevent soil erosion and reduce contaminant loading into the streams (Great River Watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement soil erosion control activities including edible fruit-yielding agroforestry in degraded areas (Spring Gardens /Great River Watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement soil erosion control measures in 10 small farm parcels in a community setting, which will be used as demonstration sites for future replication. (Ludbur-Mirabeau mid-belt area/Great River Watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Support the establishment of composting units, the expansion of a rainwater harvesting system, the establishment of an earthen pond to serve the irrigation needs of the farmers, etc. (Ludbur-Mirabeau mid-belt area/Great River Watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Support the conversion of a vegetable and food crop farm to a sustainable CSA/SLM farm as a demonstration site (mid-belt Madays area/St. Patrick watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish a climate-resilient protective shade house to be used for the testing and production of new climate-resilient crop varieties (mid-belt Madays area/St. Patrick watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rehabilitate 20 existing contour beds and establish 10 new ones to produce vegetable crops in a demonstration farm and establish grass and other vegetative buffer strips (Snell Hall area/ St. Patrick watershed) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Train of small farmers for the implementation of SLM/CSA activities and rangeland management systems |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 3.2.* *Biodiversity conservation expanded and integrated with CSA and SLM measures in La Sagesse Watershed, Great River Watershed and Levera/Levera Pond/St Patrick Watershed.* | | | | | | | | | | | | | | | | |
| Mainstream biodiversity conservation in two prioritized production landscapes integrated with CSA and SLM measures implemented in the in La Sagesse Watershed, Great River Watershed and Levera/Levera Pond/St Patrick Watershed as part of Output 3.1. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a proposal to establish a tropical dry forest coastal site as a national park, i.e., La Sagesse site. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Undertake baseline studies of three IAS to understand current population, distribution, and impact to ecosystems and native biodiversity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Control of the small Indian Mongoose two dry forest areas in the Levera wetland and La Sagesse watershed encompassing in 5 KBAs (Mt St Catherine, Grand Etang, Levera, Perseverance, Mt Harman) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement a pilot initiative for the selective eradication of bamboo and replanting with native species in selected riparian zones in La Sagesse watershed. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Document and assess the distribution of the chytrid fungus, and how it is threatening amphibians in the landscapes prioritized by the project |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contribute to the protection of four sea turtle species nesting on Grenada through improved police enforcement and training, increased local community awareness, and beach erosion control measures and/or management of Sargassum seaweed. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 3.3. CSA and integrated rangeland management system in Carriacou and Petit Martinique demonstrated.* | | | | | | | | | | | | | | | | |
| Support CSA and rangeland management system in Carriacou and Petit Martinique |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Enhanced the government propagation facility in Belair, Carriacou, through the installation of new climate-resilient protective structures and the provision of propagating materials and supplies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adequate a private farm as a pilot rangeland demonstration facility (Mt. Pleasant or Windward, Carriacou) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish an integrated CSA/livestock facility in Carriacou |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 3.4. Small businesses supported for agroprocessing and agrotourism, processing CSA crops and supporting sustainable rural livelihoods and education on CSA-SLM practices (including women, men and youth)* | | | | | | | | | | | | | | | | |
| Conduct a market analysis of domestic products and exports of Grenadian-certified climate-smart agroproducts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Training on CSA and SLM to small businesses and their suppliers (including rural women, men, and youth) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conduct analyses and advice on marketing and branding strategies for Grenadian products and services relating to climate-smart development (e.g., sustainably produced agroproducts, climate-resilient tourism and planning) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design marketing strategies to support the commercialization of certified (see Output 2.1) and non-certified agricultural products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide support through grants to at least eight agroprocessing and two agrotourism businesses for the implementation of their CSA and SLM initiatives |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Support the participation (75% co-funding) in international trade fairs of 5-10 selected Grenadian small businesses. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Outcome 4: Knowledge management for SLM, CSA and biodiversity conservation | | | | | | | | | | | | | | | | |
| *Output 4.1. Technical knowledge captured, experiences and lessons learned and incorporated in institutional strengthening and capacity* | | | | | | | | | | | | | | | | |
| Establish a monitoring system to learn from the biodiversity conservation, SLM and CSA interventions conducted under the project |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Disseminate lessons learned and good practices biodiversity conservation, SLM and CSA, including gender mainstreaming |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 4.2. Media products promote outreach and increased public awareness / environmental education of SLM, CSA and biodiversity conservation* | | | | | | | | | | | | | | | | |
| Develop media products (e.g., videos, photo essays, fact sheets, case studies, project web platform, etc.) to increase awareness and promote outreach and education of project activities, knowledge, and lessons learned |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement a gender responsive community-awareness program |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Output 4.3. : Monitoring and evaluation of project implementation conducted for adaptive management* | | | | | | | | | | | | | | | | |
| Conduct M&E of the project’s implementation following GEF and UNDP guidelines and according to the M&E plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Annex B: GEF-7 Core Indicators

**Core Indicator 1: Terrestrial protected areas created or under improved management for conservation and sustainable use (hectares)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ha (expected at PIF)** | **Ha (expected at CEO Endorsement)** | **Ha (achieved at MTR)** | **Ha (achieved at TE)** |
| n/a | 23 |  |  |

*Figure at a given stage must be the sum of all figures reported under the two sub-indicators (1.1 and 1.2) for that stage.*

**1.1 Terrestrial protected areas newly created**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Ha (expected at PIF)** | **Total Ha (expected at CEO Endorsement)** | **Total Ha (achieved at MTR)** | **Total Ha (achieved at TE)** |
| n/a | n/a |  |  |

*Figure at a given stage must be the sum of all individual PAs reported in the next table, for that stage.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of Protected Area** | **WDPA ID** | **IUCN Category** | **Total Ha (expected at PIF)** | **Total Ha (expected at CEO Endorsement)** | **Total Ha (achieved at MTR)** | **Total Ha (achieved at TE)** |
| La Sagesse Local Area Planning | 14188 | Local Area Planning is a national designation with no reported IUCN Management Category. The project will establish the site as a national park (IUCN Management Category II). | 23 | 23 |  |  |

**Core 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)** |
| n/a | 3,860 |  |  |

*Figure at a given stage must be the sum of all figures reported under the four sub-indicators (4.1, 4.2, 4.3 and 4.4) for that stage.*

**4.1 Area of landscapes under improved management to benefit biodiversity (qualitative assessment, noncertified)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Ha (expected at PIF)** | **Qualitative description at PIF** | **Ha (expected at CEO Endorsement)** | **Qualitative description at CEO ER** | **Ha (achieved at MTR)** | **Qualitative description at MTR** | **Ha (achieved at TE)** | **Qualitative description at TE** |
| 960 | Biodiversity conservation mainstreamed in management of landscapes covering 960 ha, indicated by: (i) active management of riparian and gazette and management of dry forest conservation areas; (ii) reduction of IAS threats to biodiversity in dry forest areas; and (iii) stable or improved population and distribution of Grenada Dove. | 960 | Biodiversity conservation mainstreamed in management of landscapes covering 960 ha, indicated by: (i) active management of riparian and gazette and management of dry forest conservation areas; (ii) reduction of IAS threats to biodiversity in dry forest areas; and (iii) stable or improved population and distribution of Grenada Dove. |  |  |  |  |

*Add rows as needed.*

**4.2 Area of landscapes that meet national or international third-party certification and that incorporates biodiversity considerations**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Ha (expected at PIF)** | **Type of Certification at PIF** | **Ha (expected at CEO Endorsement)** | **Type of Certification at CEO ER** | **Ha (achieved at MTR)** | **Type of Certification at MTR** | **Ha (achieved at TE)** | **Type of Certification at TE** |
| n/a | n/a | 500 | Participatory Guarantee Systems (PGS) for domestic markets; Grenada Bureau of Standards (GBS) accreditation; Organic, Fair Trade, and/or Rainforest Alliance (third party certification) |  |  |  |  |

*Add rows as needed.*

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Ha (expected at PIF)** | **Description of Management Practices at PIF** | **Ha (expected at CEO Endorsement)** | **Description of Management Practices at CEO ER** | **Ha (achieved at MTR)** | **Description of Management Practices at MTR** | **Ha (achieved at TE)** | **Description of Management Practices at TE** |
| 3,135 | Sustainable land management in production systems (agriculture, rangelands, and forest landscapes) | 2,400 | Sustainable agroecological systems: agricultural and rangeland management practices supporting CSA, forestry and mixed systems |  |  |  |  |

*Add rows as needed.*

**Core Indicator 6: Greenhouse gas emissions mitigated (metric tons of carbon dioxide equivalent)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GHG emission type** | **Metric tons CO2-eq (expected at PIF)** | **Metric tons CO2-eq (expected at CEO ER)** | **Metric tons CO2-eq (expected at MTR)** | **Metric tons CO2-eq (expected at TE)** |
| **Lifetime direct project GHG emissions mitigated** |  | 9,512 |  |  |
| **Lifetime direct post-project emissions mitigated** |  |  |  |  |
| **Lifetime indirect GHG emissions mitigated** |  |  |  |  |

*Figure at a given stage must be the sum of all figures reported under the first two sub-indicators (6.1 and 6.2) for that stage.*

**6.1 Carbon sequestered or emissions avoided in the sector of Agriculture, Forestry and Other Land Use**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GHG emission type** | **Ha (expected at PIF)** | **Metric tons CO2-eq (baseline at PIF)** | **Ha (expected at CEO ER)** | **Metric tons CO2-eq (baseline at CEO ER)** | **Ha (expected at MTR)** | **Metric tons CO2-eq (above baseline at MTR)** | **Ha (expected at TE)** | **Metric tons CO2-eq (above baseline at TE)** |
| **Lifetime direct project GHG emissions mitigated** | n/a | n/a | 40 | 9,512  (to be confirmed during project implementation) |  |  |  |  |
| **Lifetime direct post-project emissions mitigated** | n/a | n/a | TBD | TBD |  |  |  |  |
| **Lifetime indirect GHG emissions mitigated** | n/a | n/a | TBD | TBD |  |  |  |  |

**6.2 Emissions avoided**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GHG emission type** | **Ha (expected at PIF)** | **Metric tons CO2-eq (baseline at PIF)** | **Ha (expected at CEO ER)** | **Metric tons CO2-eq (baseline at CEO ER)** | **Ha (achieved at MTR)** | **Metric tons CO2-eq (above baseline at MTR)** | **Ha (achieved at TE)** | **Metric tons CO2-eq (above baseline at TE)** |
| **Lifetime direct project GHG emissions mitigated** | n/a | n/a | n/a | n/a |  |  |  |  |
| **Lifetime direct post-project emissions mitigated** | n/a | n/a | n/a | n/a |  |  |  |  |
| **Lifetime indirect GHG emissions mitigated** | n/a | n/a | n/a | n/a |  |  |  |  |

**6.3 Energy saved (megajoules)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Intervention** | **MJ (expected at PIF)** | **MJ (expected at CEO Endorsement)** | **MJ (achieved at MTR)** | **MJ (achieved at TE)** |
| n/a | n/a | n/a |  |  |

*Add rows as needed.*

**6.4 Increase in installed renewable energy capacity per technology (megawatts).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Renewable Energy** | **MW (expected at PIF)** | **MW (expected at CEO Endorsement)** | **MW (achieved at MTR)** | **MW (achieved at TE)** |
| [biomass, geothermal,  ocean, small hydro, solar photovoltaic, solar thermal, wind power, and storage] | n/a | n/a |  |  |

*Add rows as needed.*

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number (expected at PIF)** | **Total number (expected at CEO Endorsement)** | **Total number (achieved at MTR)** | **Total number (achieved at TE)** |
| **Women** | n/a | 90 |  |  |
| **Men** | n/a | 210 |  |  |
| **Total** | n/a | 300 |  |  |

## Annex C: Overview of Technical Consultancies

| **Consultant** | **Time Input** | **Tasks, Inputs and Outputs** |
| --- | --- | --- |
| ***For Project Management / Monitoring & Evaluation*** | | |
| ***Local / National contracting*** | | |
| *Project Manager*  *Rate: $2,875/month* | *48 months / over 4 years* | *Tasks: overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. Lead the PCU and responsible for the day-to-day management of project activities and the delivery of its outputs. Support the Project Board and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. See the full TOR in Annex D for details.*  *Key Deliverables: annual work plans and budget; ToR and action plan of the staff and monitoring reports; quarterly reports and financial reports on the consultant’s activities, all stakeholders’ work, and progress; yearly PIRs/AWP; adaptive management of project.* |
| *Financial/Administrative Assistant*  *Rate: 1,500/month* | *48 months / over 4 years* | *Tasks: financial and administrative management of the project activities and assist in the preparation of quarterly and annual work plans and progress reports for review and monitoring by UNDP. See the full TOR in Annex D for details. See the full TOR in Annex D for details.*  *Key Deliverables: Planning, preparation, revisions, and budget execution documents; contracts of national / local consultants and all project staff, in accordance with the instructions of the UNDP Contract Office; quarterly and yearly project progress reports concerning financial issues.* |
| *Communications/Knowledge Management Expert (part time - 50%)*  *Rate: $1,800/month* | *24 months / over 4 years* | *Tasks: document, systematize, and disseminate lessons learned and project best practices, and promote south-south cooperation. Oversee the implementation of public awareness activities. See the full TOR in Annex D for details*  *Key Deliverables: project communications strategy / plan. Periodic documents with lessons learned and project best practices; monitoring reports assessing the impact of community-focused information strategies to raises awareness about biodiversity conservation.* |
| *Gender Expert (part time -50%).*  *Rate: $1,800/month* | *24 months / over 4 years* | *Tasks: support and monitoring of gender mainstreaming, including the implementation of the Gender Action Plan. See the full TOR in Annex D for details.*  *Key Deliverables: periodic documents with gender mainstreaming and assessment of indicators as established in the Gender Action Plan and the PRF.* |
| *M&E and Safeguards Expert (part time -50%)*  *Rate: $1,800/month* | *24 months / over 4 years* | *Tasks: project M&E, including PRF and GEF Core Indicators updates and other activities as per the M&E plan. Monitoring of environmental and social risks. See the full TOR in Annex D for details.*  *Key Deliverables: periodic documents with Project M&E results, including follow-up and updates relate to the PRF; update UNDP SESP and safeguard reports.* |
| *Web Page Designer*  *Rate: $781.25/week* | *4 weeks during year 1* | *Tasks: design the Web page for the project.*  *Key Deliverables: operational Project Web page.* |
| *M&E Expert*  *Rate: $8,000* | *Year 2* | *Tasks: update the mid-term GEF7 Core Indicators, in coordination with the M&E and Safeguards Expert.*  *Key Deliverables: updated GEF7 Core Indicators worksheets.* |
| *M&E Expert*  *Rate: $8,000* | *Year 4* | *Tasks: update the terminal GEF7 Core Indicators, in coordination with the M&E and Safeguards Expert.*  *Key Deliverables: updated GEF7 Core Indicators worksheets.* |
| *M&E Expert*  *Rate: $2,100/week* | *3 weeks / over 2 months (year 2)* | *Tasks: conduct the mid-term project review jointly with the International M&E Expert and following UNDP and GEF guidelines.*  *Key Deliverables: mid-term project review report.* |
| *M&E Expert*  *Rate: $2,450/week* | *4 weeks / over 3 months (year 4)* | *Tasks: conduct the terminal project evaluation jointly with the International M&E Expert and following UNDP and GEF guidelines.*  *Key Deliverables: terminal project evaluation report.* |
| ***International contracting*** | | |
| *M&E Expert*  *Rate: $3,500/week* | *4 weeks / over 2 months (year 2)* | *Tasks: conduct the mid-term project review jointly with the national M&E Expert and following UNDP and GEF guidelines.*  *Key Deliverables: mid-term project review report; management responses document.* |
| *M&E Expert*  *Rate: $3,850/week* | *5 weeks / over 3 months (year 4)* | *Tasks: conduct the terminal project evaluation jointly with the national M&E Expert and following UNDP and GEF guidelines.*  *Key Deliverables: terminal project evaluation report; management responses document.* |
| ***For Technical Assistance*** | | |
| ***Component 1*** | | |
| ***Local / National contracting*** | | |
| *Information Management and Monitoring Expert*  *Rate: $2,500/month* | *4 months during year 1* | *Tasks: conduct a needs/GAP assessment of the existing Ministry of Agriculture and Lands’ GIS/database and design a strategy to bridge gaps for the development of an information management and monitoring system for SLM, CSA, and biodiversity conservation (Output 1.1).*  *Key Deliverables: needs/GAP assessment report; document/strategy with recommendations for the development of an information management and monitoring system for SLM, CSA, and biodiversity conservation.* |
| *Legal/Policy Expert*  *Rate: $5,000/month* | *4 months during year 1* | *Tasks: conduct consultations and drafting data-sharing agreements to operationalize an information management and monitoring system for SLM, CSA, and biodiversity conservation (Output 1.1).*  *Key Deliverables: consultations and assessment report; drafts of data-sharing agreements.* |
| *Data Entry Supervisor*  *$2,000/year* | *Years 1 and 2* | *Tasks: supervise the data entry for SLM, CSA and biodiversity conservation (Output 1.1).*  *Key Deliverables: progress reports/communications regarding data entry for SLM, CSA and biodiversity conservation.* |
| *Biodiversity Monitoring Expert*  *Rate: $2,500/month* | *18 months during years 1 and 2* | *Tasks: establish the baseline and develop SMART indicators and data collecting protocols for key indicator species: the critically endangered Grenada Dove, the endemic Grenada Frog, and the hawksbill and the leatherback sea turtles (Output 1.1).*  *Key Deliverables: baseline data report on the status of the populations of the key indicator species; SMART indicators report; data collecting protocols for monitoring key indicator species.* |
| *Practicum supervisor*  *$13,000/year* | *Years 1 and 2* | *Tasks: collect baseline data for key indicator species (Output 1.1).*  *Key Deliverables: progress reports/communications regarding the collection of baseline data for key indicator species.* |
| *Student practicums*  *$10,000/year* | *14 months during years 1 and 2* | *Tasks: assist in the collection of baseline data for key indicator species: Grenada Dove, Grenada Frog, and the hawksbill and the leatherback sea turtles (Output 1.1).*  *Key Deliverables: field reports and databases related to the collection of baseline data for key indicator species* |
| *SLM Specialist*  *$30,000/year* | *Years 1, 2, and 3* | *Tasks: collect baseline data for availability of water resources and changes in land use/land cover, including changes in cover of the dry forest, cloud forest, mangroves, and other key ecosystems in the project's prioritized landscapes. (Output 1.1).*  *Key Deliverables: baseline data report, databases, and maps on the availability of water resources and changes in land use/land cover, including changes in key ecosystems.* |
| *Student practicums*  *$6,000/year* | *14 months during years 1 and 2* | *Tasks: assist in the collection of baseline data for availability of water resources and changes in land use/land cover, including changes in cover of the dry forest, cloud forest, mangroves, and other key ecosystems in the project's prioritized landscapes; and b) drafting the national drought management policy that is harmonized with proposed policies under the UNCCD (Output 1.1 and Output 1.2).*  *Key Deliverables: field reports and databases related to the availability of water resources and changes in land use/land cover, including changes in key ecosystems.* |
| *Protected Area Planning Expert*  *Rate: $2,500/month* | *12 months during years 1 and 2* | *Tasks: update Grenada's PASP (Output 1.2).*  *Key Deliverables: Updated PASP Documents.* |
| *Environmental Education Expert*  *Rate: $2,500/month* | *8 months during year 2* | *Tasks: include biodiversity conservation and SLM related skills within national frameworks such as the Human Resources Priority List and the Priority Training Needs Assessment and associated curricula of the Ministry of Education (Output 1.3).*  *Key Deliverables: document; with recommendations to include biodiversity conservation and SLM related skills within national frameworks; draft of curricula of the Ministry of Education with training in biodiversity conservation and SLM.* |
| ***Component 2*** | | |
| ***Local / National contracting*** | | |
| *Financial Expert*  *Rate: $2,500/month* | *24 months during years 1, 2, and 3* | *Tasks: provide technical support to small farmers to access loans; assess small farmers’ financial/repayment capacity. (Output 2.1).*  *Key Deliverables: reports and databases rated to access to loans; assessment report on the financial/repayment capacity of farmers.* |
| *SLM Specialist*  *$22,500/year* | *Years 1, 2, and 3* | *Tasks: a) thorough assessment of the national soil fertility and water quality testing capacity and drafting of recommendations to fill gaps; b) conduct water and soil quality assessments and develop a comprehensive programme to provide ongoing soil fertility and water quality testing services at the national level; c) establishment of water quality and soil fertility standards for crop/CSA production operations following water and soil quality assessments; d) provide support to youth environmental NGOs to address land degradation and environmental issues (Output 2.2).*  *Key Deliverables: assessment report with recommendations to fill gaps rated to national soil fertility and water quality testing capacity; water and soil quality assessments report; proposal for the development of comprehensive programme to provide ongoing soil fertility and water quality testing services at the national level.* |
| *Field Assistant (2)*  *Rate: $1,000/month* | *3 months during years 1 and 2* | *Tasks: test water quality (chemical, nutrient, and sediment content) from streams and soil nutrient content in the priority watersheds that are used to support crop irrigation systems (Output 2.2).*  *Key Deliverables: water quality and soil nutrient monitoring report.* |
| *Financial Expert*  *Rate: $2,500/month* | *4 months during year 2* | *Tasks: thorough assessment of status and needs and business/funding plan development for propagation stations to ensure their sustainability (Output 2.3).*  *Key Deliverables: status and needs report; business/funding plan.* |
| *CSA Expert*  *Rate: $2,500/month* | *14 months during years 1 and 2* | *Tasks: conduct a national assessment of all germplasm resources, design a national germplasm management program, updating the existing SOP for the effective management of and maintenance of germplasm banks to ensure their sustainability, and updating the training protocol of each propagation station and delivering needed training to overcome existing capacity gaps (Output 2.3).*  *Key Deliverables: national germplasm management program document; training protocols documents.* |
| ***Component 3*** | | |
| ***Local / National contracting*** | | |
| *CSA/SLM Specialist*  *Rate: $2,200/month* | *48 months / over 4 years* | *Tasks: Provide technical assistance and support for the operationalization of resilient agricultural practices, including the implementation of CSA and SLM practices in the St David, St Andrew and St Patrick parishes, as well as CSA and rangeland management systems in Carriacou and Petit Martinique. See the full TOR in Annex D for details (Output 3.1 and 3.3)*  *Key Deliverables: operational and annual work plans, CSA/SLM technical reports including lessons learned and best practices.* |
| *PA Expert*  *Rate: $2,500/month* | *3 months during year 1* | *Tasks: conduct environmental studies needed for the establishment of a PA (Output 3.2).*  *Key Deliverables: environmental assessment report for the La Sagesse Local Area Planning site.* |
| *Socioeconomic Expert*  *Rate: $2,500/month* | *3 months during year 1* | *Tasks: conduct socioeconomic studies needed for the establishment of a PA (Output 3.2).*  *Key Deliverables: socioeconomic assessment report for the La Sagesse Local Area Planning site.* |
| *IAS Expert*  *$20,000/year* | *Years 2 and 3* | *Tasks: develop recommendations for addressing the long-term presence of IAS s) in the prioritized watersheds, including a critical situation analysis for a more in-depth review of the national legislation and policies for IAS management, financial sustainability strategy, and recommendation to strengthen the legal and policy framework for the prevention, management, and control of the three IAS targeted (Output 3.2).*  *Key Deliverables: recommendations report to address presence of IAS in the prioritized watersheds; critical situation analysis report and recommendations.* |
| *IAS Trainer*  *$7,000/year* | *Years 2, 3, and 4* | *Tasks: train local communities for the removal of small Indian Mongoose in prioritized dry forest areas and KBAs (Output 3.2).*  *Key Deliverables: training protocols and reports.* |
| *Field Assistant*  *Rate: $1,000/month* | *30 months during years 2, 3, and 4* | *Tasks: assist in the removal of the small Indian Mongoose in prioritized dry forest areas and KBAs (Output 3.2).*  *Key Deliverables: Field reports and database regarding the removal of the small Indian Mongoose in prioritized dry forest areas and KBAs.* |
| *Biodiversity/IAS Expert*  *Rate: $2,500/month* | *12 months during years 2, 3, and 4* | *Tasks: field-level monitoring of the population of the endemic Grenada Frog and mapping of Chytrid fungus infected and non-infected areas (Output 3.2).*  *Key Deliverables: field reports and database on the status of the population of the endemic Grenada Frog; maps and databases indicating the distribution of the Chytrid fungus in the prioritized watersheds.* |
| *Communication Expert*  *Rate: $2,500/month* | *12 months during year 2* | *Tasks: develop and implement a community-focused information strategy to raise awareness about the conservation of the endemic Grenada Frog and other amphibian species and their habitat, and sea turtles nesting on Grenada beaches (Output 3.2).*  *Key Deliverables: community-focused information strategy documents and materials to raise awareness about the conservation of the endemic Grenada Frog and other amphibian species and their habitat, and sea turtles nesting on Grenada beaches.* |
| *Economics Expert*  *Rate: $2,500/month* | *4 months during year 1* | *Tasks: conduct a market analysis of domestic products and exports of Grenadian-certified climate-smart agroproducts (Output 3.4).*  *Key Deliverables: market analysis report.* |

## Annex D: Terms of Reference

**1. Terms of Reference for the Project Board**

The Project Board will serve as the project’s decision-making body. It will meet according to necessity, at least twice each year, to review project progress, approve project work plans and approve major project deliverables. The Project Board is responsible for providing the strategic guidance and oversight to project implementation to ensure that it meets the requirements of the approved Project Document and achieves the stated outcomes. The Project Board’s role will include:

* Provide strategic guidance to project implementation;
* Ensure coordination between various donor funded and government funded projects and programmes;
* Ensure coordination with various government agencies and their participation in project activities;
* Approve annual project work plans and budgets, at the proposal of the Project Manager;
* Approve any major changes in project plans or programmes;
* Oversee monitoring, evaluation and reporting in line with GEF requirements;
* Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
* Negotiate solutions between the project and any parties beyond the scope of the project;
* Ensure that UNDP Social and Environmental Safeguards Policy is applied throughout project implementation; and, address related grievances as necessary.

These terms of reference will be finalized during the Project Inception Workshop.

**2. Terms of Reference for Key Project Staff**

**National Project Director**

Background

The National Project Director (NPD) will be appointed by the Ministry of Climate Resilience, Environment, Forestry, Fisheries, and Disaster Management, who will be accountable to the Director of Economic and Technical Cooperation, Ministry of Finance, Economic Development, Planning and Physical Development and UNDP for the achievement of objectives and results in the assigned Project. The NPD will be part of the Project Board and answer to it. The NPD will be financed through national government funds (co-financing), whose appointment will be made by the Ministry of Climate Resilience, Environment, Forestry, Fisheries, and Disaster Management, in consultation with the UNDP CO.

Duties and Responsibilities

* Serve as a member of the Project Board.
* Supervise compliance with objectives, activities, results, and all fundamental aspects of project execution as specified in the project document.
* Supervise compliance of project implementation with DETC policies, procedures and ensure consistency with national plans and strategies.
* Facilitate coordination with other organizations and institutions that will conduct related biodiversity conservation, SLM, and CSA activities in same target landscapes or same themes from elsewhere in Grenada especially related to building climate resilience in Grenada.
* Participate in project evaluation, testing, and monitoring missions.
* Coordinate with national governmental representatives on legal and financial aspects of project activities.
* Coordinate and supervise government staff inputs to project implementation.
* Coordinate, oversee and report on government cofinancing inputs to project implementation.

**Project Manager**

Background

The Project Manager (PM) will be locally recruited following UNDP procedure, with input to the selection process from the Project partners. The position will be appointed by the Project implementing agency and funded entirely from the Project. The PM will be responsible for the overall management of the Project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. The PM will report to the NPD in close consultation with the assigned UNDP Programme Manager for all of the Project’s substantive and administrative issues. From the strategic point of view of the Project, the PM will report on a periodic basis to the Project Board, based on the NPD’s instruction. Generally, the PM will support the NPD who will be responsible for meeting government obligations under the Project, under the NIM execution modality. The PM will perform a liaison role with the government, UNDP and other UN agencies, CSOs and project partners, and maintain close collaboration with other donor agencies providing co-financing. The PM will work closely with the Project Implementation Unit Coordinators.

Duties and Responsibilities

* Plan the activities of the project and monitor progress against the approved work-plan.
* Supervise and coordinate the production of project outputs, as per the project document in a timely and high quality fashion.
* Coordinate all project inputs and ensure that they are adhere to UNDP procedures for nationally executed projects.
* Supervise and coordinate the work of all project staff, consultants and sub-contractors ensuring timing and quality of outputs.
* Coordinate the recruitment and selection of project personnel, consultants and sub-contracts, including drafting terms of reference and work specifications and overseeing all contractors’ work.
* Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments, or reimbursement using the UNDP provided format.
* Prepare, revise and submit project work and financial plans, as required by Project Board and UNDP.
* Monitor financial resources and accounting to ensure accuracy and reliability of financial reports, submitted on a quarterly basis.
* Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log.
* Liaise with UNDP, Project Board, relevant government agencies, and all project partners, including donor organizations and CSOs for effective coordination of all project activities.
* Facilitate administrative support to subcontractors and training activities supported by the Project.
* Oversee and ensure timely submission of the Inception Report, Project Implementation Report, Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, and other oversight agencies.
* Disseminate project reports and respond to queries from concerned stakeholders.
* Report progress of project to the Project Board, and ensure the fulfillment of Project Board directives.
* Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally.
* Assist community groups, women organizations, parishes, CSOs, staff, farmers, producer associations, and others with development of essential skills through training workshops and on the job training thereby increasing their institutional capabilities.
* Encourage staff, partners, and consultants such that strategic, intentional and demonstrable efforts are made to actively include women in the project, including activity design and planning, budgeting, staff and consultant hiring, subcontracting, purchasing, formal community governance and advocacy, outreach to social organizations, training, participation in meetings; and access to program benefits.
* Assists and advises project staff and consultants for activity implementation in the target sites.
* Carry regular, announced and unannounced inspections of all sites and the activities of the project staff and consultant.

Required skills and expertise

* A university degree (MSc or PhD) in a subject related to biodiversity conservation, SLM or CSA.
* At least 10 years of experience in biodiversity conservation or SLM (preferably in the context of building climate resilience).
* At least 5 years of demonstrable project/programme management experience.
* At least 5 years of experience working with ministries, national or provincial institutions that are concerned with biodiversity conservation, SLM and/or CSA.

Competencies

* Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects.
* Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies.
* Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project.
* Ability to coordinate and supervise multiple Project staff and consultants in their implementation of technical activities in partnership with a variety of subnational stakeholder groups, including community and government.
* Strong drafting, presentation and reporting skills.
* Strong communication skills, especially in timely and accurate responses to emails.
* Strong computer skills, in particular mastery of all applications of the MS Office package and Internet search.
* Strong knowledge about the political and socio-economic context related to biodiversity conservation, SLM and/or CSA in Grenada at national and subnational levels.
* Excellent command of English.

**Project M&E and Safeguards Expert**

Under the overall supervision and guidance of the Project Manager, the M&E and Safeguards Expert will have the responsibility for project monitoring and evaluation. The M&E and Safeguards Expert will work closely with the Communications Expert on knowledge management aspects of the project. Specific responsibilities will include:

* Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards;
* Ensure project’s M&E meets the requirements of the Government, the UNDP Country Office, and UNDP-GEF; develop project-specific M&E tools as necessary;
* Oversee and ensure the implementation of the project’s M&E plan, including periodic appraisal of the Project’s Theory of Change and Results Framework with reference to actual and potential project progress and results;
* Monitoring of environmental and social risks;
* Evaluate social risks that may emerge and/are triggered by project activities and provide recommendations on mitigation strategies;
* Periodically update the UNDP SESP;
* Prepare safeguard reports as needed;
* Support the Project Manager in documenting and addressing environmental and social grievances;
* Oversee/develop/coordinate the implementation of the stakeholder engagement plan;
* Oversee and guide the design of surveys/ assessments commissioned for monitoring and evaluating project results;
* Facilitate mid-term and terminal evaluations of the project, including management responses;
* Facilitate annual reviews of the project and produce analytical reports from these annual reviews, including learning and other knowledge management products;
* Support project site M&E and learning missions;
* Visit project sites as and when required to appraise project progress on the ground and validate written progress reports.

The Project M& E Officer will be recruited based on the following qualifications

* Masters degree, preferably in the field of environmental or natural resources management;
* At least five years of relevant work experience preferably in a project management setting involving multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset;
* Significant experience in collating, analyzing and writing up results for reporting purposes;
* Very good knowledge of results-based management and project cycle management, particularly with regards to M&E approach and methods. Formal training in SLM, CSA, and/or biodiversity conservation will be a definite asset;
* Knowledge and working experience of the application of gender mainstreaming in international projects;
* Understanding of biodiversity conservation, SLM, and CSA and associated issues;
* Very good inter-personal skills;
* Proficiency in computer application and information technology;
* Excellent language skills in English (writing, speaking and reading).

**Project Gender Expert**

Under the overall supervision and guidance of the Project Manager, the Gender Expert will have the responsibility for the implementation of the Gender Action Plan. The Gender Officer will work closely with the M&E and Safeguards Expert, and Communications Officer on related aspects of project implementation, reporting, monitoring, evaluation and communication. Specific responsibilities will include:

* Monitor progress in implementation of the project Gender Action Plan ensuring that targets are fully met and the reporting requirements are fulfilled;
* Oversee/develop/coordinate implementation of all gender-related work;
* Review the Gender Action Plan annually, and update and revise corresponding management plans as necessary;
* Work with the M&E and Safeguards Expert to ensure reporting, monitoring and evaluation fully address the gender issues of the project.

The Project Gender Officer will be recruited based on the following qualifications:

* Master’s degree in gender studies, gender and development, environment, sustainable development or closely related area;
* Demonstrated understanding of issues related to gender and sustainable development; at least 5 years of practical working experience in gender mainstreaming, women’s empowerment and sustainable development in Grenada and/or the Caribbean region;
* Proven experience in gender issues in Grenada and/or the Caribbean region;
* Previous experience with UN projects will be a definite asset;
* Demonstrated understanding of the links between sustainable development, social and gender issues;
* Experience in gender responsive capacity building;
* Experience with project development and results-based management methodologies is highly desired/required;
* Excellent analytical, writing, advocacy, presentation, and communications skills;
* Excellent language skills in English (writing, speaking and reading).

**Project Communications Expert**

Under the overall supervision and guidance of the Project Manager, the Communications Expert will have the responsibility for leading knowledge management outputs in Component 4 and developing the project communications strategy at the project outset and coordinating its implementation across all project components. The Communications Expert will work closely with the M&E Expert on knowledge management aspects of the project. Specific responsibilities will include:

* Develop a project communications strategy / plan, incorporate it with the annual work plans and update it annually in consultation with project stakeholders; coordinate its implementation;
* Coordinate the implementation of knowledge management outputs of the project;
* Coordinate and oversee the implementation of public awareness activities across all project components, including support to the implementation of awareness activities among stakeholders (the public and private sectors as well as the general public) about the threats and impact of IAS and new controls and regulation;
* Facilitate the design and maintenance of the project website/webpages and ensure it is up-to-date and dynamic;
* Facilitate learning and sharing of knowledge and experiences relevant to the project.

The Project Communications Expert will be recruited based on the following qualifications:

* A Bachelors degree, preferably in the field of community development or natural resource / environmental management;
* A communications qualification (diploma, Bachelors degree);
* At least three years of relevant work experience of communications for project or programme implementation, ideally involving international donors. Previous experience with UN projects will be a definite asset;
* Previous experience in developing and implementing communications strategies for organizations or projects;
* Strong professional working capacity to use information and communications technology, specifically including website design and desk top publishing software;
* Understanding of, biodiversity conservation, SLM, CSA, and associated issues;
* Very good inter-personal skills;
* Excellent language skills in English (writing, speaking and reading).

**Project Financial/Administrative Assistant**

Under the guidance and supervision of the Project Manager, the Project Financial/Administrative Assistant will have the following specific responsibilities:

* Keep records of project funds and expenditures, and ensure all project-related financial documentation are well maintained and readily available when required by the Project Manager;
* Review project expenditures and ensure that project funds are used in compliance with the Project Document and Government of Grenada financial rules and procedures;
* Validate and certify FACE forms before submission to UNDP;
* Provide necessary financial information as and when required for project management decisions;
* Provide necessary financial information during project audit(s);
* Review annual budgets and project expenditure reports, and notify the Project Manager if there are any discrepancies or issues;
* Consolidate financial progress reports submitted by the responsible parties for implementation of project activities;
* Liaise and follow up with the responsible parties for implementation of project activities in matters related to project funds and financial progress reports;
* Assist the Project Manager in day-to-day management and oversight of project activities;
* Assist the M&E officer in matters related to M&E and knowledge resources management;
* Assist in the preparation of progress reports;
* Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by PB, TAC, UNDP, project consultants and other PMU staff;
* Provide PMU-related administrative and logistical assistance.

The Project Financial/Administrative Assistant will be recruited based on the following qualifications:

* A Bachelors degree or an advanced diploma in accounting/ financial management;
* At least five years of relevant work experience preferably in a project management setting involving multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset;
* Proficiency in the use of computer software applications particularly MS Excel;
* Excellent language skills in English (writing, speaking and reading).

**CSA/SLM Specialist**

The project CSA/SLM Specialist (2) will be responsible for providing technical assistance and support for the operationalization of resilient agricultural practices under the supervision of the Project Manager. Specific responsibilities will include:

**Specific Duties**

* Assist the Project Manager in the preparation of an Operational Work Plan for the duration of the project and corresponding Annual Work Plans in relation to the operationalization of resilient agricultural practices;
* Provide direction and technical assistance for the implementation of CSA and SLM practices in the St David, St Andrew and St Patrick parishes, as well as CSA and rangeland management systems in Carriacou and Petit Martinique;
* Coordinate and monitor the activities in the field as described in the Operational Work Plan;
* Assist the Project Communications Expert in collecting and analyzing lessons learned and best practices;
* Assist the Project Manager in organizing CSA/SLM technical reporting activities to the GEF, UNDP, and Executing Agencies, ensuring adherence to the Agencies’ technical reporting requirements;
* Promote the Project and seek opportunities to leverage additional co-funding at the local level; and
* Represent the Project at meetings and other project-related fora at the local and national levels, as required.

**Qualifications (indicative)**

* An academic degree in areas relevant to CSA and SLM;
* At least 5 years of working experience in CSA and SLM or a directly related field;
* Experience facilitating consultative processes, planning and monitoring at the local level (preferably in CSA and SLM);
* Ability to work both independently and as a member of a team;
* Demonstrable ability to organize, facilitate, and mediate technical activities with multiple stakeholders to achieve stated project objectives at the local level;
* Familiarity with logical frameworks and strategic planning;
* Strong computer skills;
* Flexible and willing to travel as required;
* Excellent communication and writing skills in English; and
* Previous experience working with a GEF-supported project is considered an asset.

## Annex E: UNDP Social and Environmental Screening Procedure (see separate file)

## Annex F: Stakeholder Engagement Plan

*Stakeholder Engagement Process Framework*

The project will adopt an adapted multi-stakeholder engagement process consisting of four progressive stages (see Figure 1). The output of each stage enables the subsequent stage, with a progressively wider group of stakeholders participating at each stage. Adequate representation of the diversity of perspectives and interests will be ensured throughout the process, making it effective and transparent. At the onset of the process, when the number of stakeholders involved is smaller, care will be taken to ensure that the diversity of interests related to the issues are represented as best as possible.

Figure 1: Stages of the proposed stakeholder engagement process.

*Scoping*

In the scoping stage, research and data collection activities will assist in the development of facts based on the issue to be addressed throughout the process. This stage will deliver information about the key stakeholders related to the issues, and any segmentation based on their roles, interests, perspective on the issue, and other factors. This will involve the conduct of research based mostly on data from secondary sources and key informants, but augmented as necessary with primary data collection. Emphasis was placed on ensuring that duly qualified persons conduct the research that is objective, comprehensive, and cost-effective. This was achieved through due diligence in recruitment, planning research, and reviewing outputs thereof.

*Diagnostic*

This phase requires wider engagement on the issue, and is informed by the research and data from the first stage. This stage will involve participation by a core set of stakeholders who have the closest relationship to the issue. This group is diverse, but it is anticipated that owing to their strategic role in the sector, several key stakeholders would need to participate regardless. The intention of engagement at this stage is the collaborative identification of high-priority issues and the design of options for evidence-based solutions to the project. Ideally, all the key stakeholders who are expected to implement the solutions should be involved at this stage, but it is recognized that participation of these stakeholders at this stage would be best through representatives. It is therefore essential that these representatives ensure adequate interface with their constituents for the proper representation from an informed position. At this stage, “buy-in” and ownership by the stakeholders is secured.

*Validation*

The third stage of the stakeholder engagement process is validation, where the options for solutions discussed at stage 2 will be discussed with a further expanded group of stakeholders for validation and refinement. This stage will strengthen the proposal and determine the design and focus of the public engagement process towards finalization of the proposed solutions. This stage should also further build stakeholder ownership of the solutions and stir individual and joint actions for implementation by stakeholders. The main activity of this stage is the proposal validation workshop, which will seek final inputs from the main stakeholders regarding the project design and associated activities.

*Public Engagement and Communication*

The final stage of the stakeholder framework is ensuring public engagement with the proposal for wider support, input for its implementation, and ownership for its sustainability. This stage will provide key information to support the implementation of the solutions through critical public feedback mechanisms. A variety of mechanisms, tools, and media will be utilized at this stage to reach as wide a cross section of the public as is possible. Attention will be placed on ensuring that stakeholders who will be most impacted by implementation of the solution are fully engaged at this stage to augment informed representation that would have been made on their behalf in the earlier stages. It recognizes the limitations of official representations and attempts to ensure that all who are impacted or affected are aware of the project activities and are given an opportunity to have an input.

Engaging stakeholders early, often, and through participatory means is key to ensuring and maintaining transparency, and building and sustaining trust. The process will be implemented iteratively to design solutions for each of the issues identified as priority to be addressed throughout the project. This process for arriving at decisions or results by repeating rounds of analysis to achieve the desired solution is critical, especially in activities that require changes in public or private policy to be addressed.

Objectives of the Stakeholder Engagement Plan:

1. To identify the roles and responsibility of all stakeholders and ensure their participation in the complete project cycle
2. To input the knowledge, experience, and skills of stakeholders to enhance the design and implementation of the project
3. To devise a plan of action that clearly identifies the means and frequency of engagement
4. To allocate budgetary and other resources in the project design, project implementation, and monitoring and evaluation (M&E) for stakeholder engagement and participation

*Stakeholder Engagement during the PPG*

The PPG team engaged in a series of consultations in the preparatory stage of the project. In the development of the final project proposal, several governmental and nongovernmental stakeholders were consulted through meetings. An inception mission was conducted from November 6-10, 2017 by the PPG team. Meetings and consultations were held with various stakeholders, governmental, nongovernmental, community groups, and farmers. The team met collectively with some governmental, quasi-governmental, nongovernmental and civil society groups, NGOs, CBOs; including farmers’ groups and cooperatives and a private sector member. Individual members of the team also met with stakeholders who were relevant to their role in the PPG. Annex M of this Project Document includes the list of the stakeholders consulted. From Feb 19-23, 2018, the project team held a second mission and a two-day Project Results Framework Workshop.The objectives of the workshop were the following: 1. Define the Project Results Framework, including the revised project outputs, indicators, baseline information, targets, verification mechanisms, and assumptions; 2. Outline the project activities for each output/outcome; and 3. Preliminary project costing, including co-financing. The workshop saw the participation of the representatives of the major stakeholders of the sectors of society. Annex M of this Project Document includes the list of the stakeholders who participated in the workshop. Several field visits were undertaken in both missions to consult with local stakeholders in their own settings as well as to garner primary data.

The project design phase was an intimate, collaborative process with national and local stakeholders. Government ministries, key donor agencies, and other international NGOs working in Grenada in promoting biodiversity conservation, SLM, and CSA were directly involved in the development of the project design. Consultations with co-financing institutions were conducted to ensure their endorsement of the project and the delivery of signed co-financing letters.

Consultations used the method of representatives of the government agencies or Ministries in the case of governmental stakeholders. The PPG team therefore met with numerous Permanent Secretaries who are the chief administrative officers of their ministries. For the governmental agencies, the team or members of the team met with the Chief Executive Officer of the agency. In the case of NGOs and community groups, the team met with their duly representatives, in most cases; the President and or Secretary of the organization and or members of the executive. For famers’ groups and cooperatives, the team met with their representatives in consultations in the office and in the fields. Consultations were conducted at the local level in the parishes selected for project activities. In these instances, the project team met with the direct members of farming groups and their representatives.

The socioeconomic assessment of the project used a gender-responsive approach and gender was an important consideration in all consultations. All efforts were made to have women represented and consulted in all the general consultations. Women’s organizations were consulted as part of the gender assessment and gender action plan. The women’s organizations were consulted at the level of their presidents and executive members. Several of the NGOs consulted were headed by females and included female executive members.

A Project Validation Workshop was held on June 20th, 2018 to present, discuss, and validate with relevant stakeholders the concept, results framework, activities, and implementation arrangements of the project proposal to be summited to the GEF. Recommendations from the workshop participants were considered in the development of the final draft of this Project Document. Annex M of this Project Document includes the list of the stakeholders who participated in the workshop.

*Stakeholder Engagement and Participation Approach*

Stakeholder engagement will be held according to the following principles identified as critical by the UNDP stakeholder engagement guidelines:

| **Principle** | **Stakeholder participation will:** |
| --- | --- |
| Adding Value | Be an essential means of adding value to the project. |
| Inclusivity | Include all relevant stakeholders. |
| Accessibility and Access | Be accessible and promote access to the process. |
| Transparency | Be based on transparency and fair access to information. |
| Fairness | Ensure that all stakeholders are treated in a fair and unbiased way. |
| Accountability | Be based on a commitment to accountability by all stakeholders. |
| Constructive | Seek to manage conflict and promote the public interest. |
| Redressing | Seek to redress inequity and injustice. |
| Capacitating | Seek to develop the capacity of all stakeholders. |
| Needs-Based | Be based on the needs of all stakeholders. |
| Flexible | Be designed and implemented in a flexible manner. |
| Rational and Coordinated | Be rationally planned and coordinated, rather than ad hoc. |
| Excellence | Be subject to ongoing selection and commitment. |

*Stakeholder Engagement Plan*

The vigorous and extensive stakeholder consultations and engagement that began during the PPG phase will be continued throughout the project cycle. To achieve this the project design has several mechanisms. Among these are:

1. Project Inception Workshop

The project inception workshop will present the official project document and contract to both direct stakeholders and the public. The project inception is also the official launch of the project and presents stakeholders with the work plan of the project. The inception workshop is the final display of commitment to the project before stakeholders begin to delve into the activities of the project.

1. Project Board

The Project Board is the main governance body of the project that will ensure the continued participation of key stakeholders in the project planning, implementation, and M&E. The Project Board will be comprised of representatives of the governmental agencies, private sector, and special interest groups. The Project Board will approve the work plans, be represented on recruitment processes, and provide overall strategic guidance to the project.

Whilst it is expected that the Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management will lead the project implementation and chair the Project Board; others may chair at different stages of the project cycle in an alternating situation. Other stakeholders may also be invited to participate in meetings of the Project Board, during which strategic guidelines and work plans will be discussed, negotiated, and approved by executing parties.

During the initial phase of project implementation, agreements will be made regarding the development of each of the expected activities. DETC will take the lead for most of the activities, and may include other institutions as partners in the implementation of the activities based on their roles and mandates within the environmental, forestry, natural resources, agriculture, agro-processing, financial, and other sectors related to the project. It is suggested that the Gender Division has a seat on the Project Board to ensure gender mainstreaming. The composition of the Project Board should also strive for gender equality/equity.

1. Project Management Unit (PMU)

The PMU is the operational center of the project and has direct responsibility for its implementation. The PMU is responsible for the implementation of the stakeholder engagement plan, communications plan, gender action plan, grievance redress mechanisms, and M&E. Led by a Project Manager who receives guidance from the Project Board, the PMU ensures the participation of all stakeholders and addresses stakeholder conflicts.

1. Communications and Dissemination of Information

The PMU will implement a stakeholder’s communication plan to ensure communication with all stakeholders. The medium will be stakeholder specific and utilize both traditional methods such as meetings and telephone calls with newer methods such as a listserv, WhatsApp broadcast messaging, SMS, etc. Attention will be given to jargon-free language and translation of technical information into local dialect. The unit will engage the services of communication specialists to achieve the objectives of the plan. Additionally, the PMU will have active knowledge management with the documentation of processes and lessons learned, which will be shared with all stakeholders. Component 4 of the project is devoted to knowledge management.

1. Local Committees to facilitate local stakeholder participation.

Local project committees will be established at the Parish or watershed level for the three parishes where project activities will be implemented; and in Carriacou and Petit Martinique. These will provide mechanisms for the project to share approaches and strategic actions with local stakeholders, and at the same time provide a forum in which stakeholders can express their concerns, interests, and suggestions on the project activities prompting transparency and local ownership. It will also encourage participation in the project activities and enhance local ownership. This is especially important for Carriacou and Petit Martinique where stakeholders can become estranged from the project due to distance from the PMU, which will be in mainland Grenada. At the Parish level they can provide the same function.

1. Gender Action Plan

This will secure the involvement of both genders, but especially women who are often marginalized in the wider society and whose participation in agricultural and natural resource-based activities is low compared to men. The Gender Action Plan will address the impacts of project activities and account for their specific means. It will also seek to empower women to not only participate in the sector but to extend their social nurturing roles in to advocacy for better environmental practices. The Gender Action Plan, included as Annex G of this Project Document, will be guided by the principle of equality or equity.

1. Grievance Mechanism

A grievance mechanism will be established and published so that all stakeholders are aware of its existence. The project coordinator/manager will be responsible for documenting all grievances and ensuring they are addressed in a timely manner.

1. Activities, Training, and Engagement Plans

All training programmes and engagement plans will use a participatory approach that is rights-based and integrates the perspectives of all users using bottom-up approaches, integrating the different views of local stakeholders and beneficiaries with those of institutions, authorities, and decision makers. It will also be gender-responsive.

1. Decentralized M&E

Project M&E will be done through decentralized assessments including meetings with the local committees, interviews of direct beneficiaries and their representative organizations, local, and national workshops, with local and national stakeholders, as well as meetings with special groups such as women to verify indicators. The Annual Work Plan (AWP) and outputs will be the main tool used for monitoring and tracking indicators, with stakeholder participation monitored in progress evaluations. Progress towards achieving the objectives will be evaluated in terms of the quality and timeliness of products, using appropriate participatory methods that ensure the timely and appropriate adjustment of the project implementation strategy. M&E will be conducted according to UNDP and GEF guidelines and following the project’s M&E Plan.

**STAKEHOLDER PARTICIPATION**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **STAKEHOLDER PARTICIPATION PLAN** | | | | | | |
| **Stakeholder Type** | **Stakeholder** | **Role in the Project** | **Actions** | **Results** | **Component** | **Duration** |
| **Government institutions, Implementation Agency responsible for project outputs** | | | | | | |
| Government institution, Implementation Agency responsible for project outputs | Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management | The Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management is the main implementing agency and the chair of the Project Board. It will be a responsible party for project implementation including stakeholder engagement and project management through the PMU. | * Implementation of the project through the establishment of the PMU. (Project Management) * Communication and coordination with the GEF and UNDP. (Project Management) * Technical knowledge and expertise to strengthening and supporting the themes of the project: CSA, biodiversity conservation, SLM, and gender and youth mainstreaming, etc. (all project components) * Lead the Project Board and provide guidance and management of the PMU to achieve the objectives and goals of the project. (Output 4.3) * Will promote the exchange of lessons learnt from other GEF projects implemented in Grenada. (Output 4.1) * Ensure that the project is framed within the national policies and norms related to agricultural, environmental, and biodiversity conservation, and SLM. (Output 4.3) * Ensure that the project complies with GEF safeguard policies, including considerations of gender, and national social policies through the participation of the Gender Division. (Output 4.3) * Ensure broad-based stakeholder participation. (all project components) | * Appropriate communication with the GEF and UNDP to guide the project actions. * Project is implemented and executed in all its aspects: planning, operational, technical, administrative, and related to gender. * Appropriate coordination with the project stakeholders to successfully achieve the project outcomes and outputs. * Gender focal points and the Gender Division coordinate to facilitate implementation of the project’s Gender Mainstreaming Plan. | 1, 2, 3, and 4 | 4 years |
|  | Forestry and National Parks Department | The Forestry and National Parks Department is directly responsible for conservation and management of forested landscape, national parks and protected areas, biodiversity, invasive alien species (IAS) and ecosystems functions, including watersheds and water sources. | - Contribute to education and awareness about conservation and management issues. (Output 1.3 and Output 3.2)  - Provide technical assistance in watershed management. (Output 1.2)  - Assist with stakeholder management and participation in SLM and watershed management issues. (Output 3.1 and Output 3.3)  - Assist in training through its field staff, including rangers.  (Output 3.1 and Output 3.3) | - Guidance provided to the PMU on conservation management issues.  -Watershed management expertise and training developed.  -Stakeholders actively involved in all project activities. | 1, 2,3, and 4 | 4 years |
|  | Environment Unit | Agency responsible for climate change policies, programmes, and initiatives; will contribute to the activities throughout this project, including enhancing management and conservation of biodiversity and ecosystems functions in Grenada. | * Contribute information and data to the information management database and monitoring system established and operationalized within a land use planning process. (Output 1.1, Output 2.2)   Technical skills in the field. | * Project Board functioning and possesses diverse stakeholders. * Environmental data and information incorporated into database monitoring system. * Incorporation of environmental laws and regulations adhered to in project activities. * International conventions observed and mainstreamed. | 1, 2, 3, and 4 | 4 years |
|  | Land Use Division, Ministry of Agriculture and Lands | Division responsible for the Ministry’s geographical information system (GIS) and spatial database of land use, agriculture, water resources, ecosystems and forest cover, population and political boundaries/ geographic information. | * Provide input and project preparation direction related to land use, water resources, database/GIS development, soil management, and use. (Output 1.1 and Output 2.2) | * Information management database and monitoring system established and operationalized within a land use planning process. * Project activities informed by database and information including GIS and maps. | 1, 2, and 3 | Years 1 to 3 |
|  | Extension Division, Ministry of Agriculture and Lands | This agency maintains direct relationships with farmers (crop and livestock) for the purpose of administering government support and for rendering technical advisory services with respect to sustainable agricultural technologies and practices. | * Provide inputs into training activities including language, mediums, and schedules for training. (Output 3.1 and Output 3.3) * Provide access to the stakeholders and knowledge of stakeholders. (Output 3.1 and Output 3.3) * Technical advisory services with respect to sustainable agricultural technologies and practices. (Output 2.3, Output 3.1 and Output 3.3) | * Participatory training programmes and activities developed that reach all the relevant stakeholders. * Training programs that are reflective of local needs and in local language and are culturally sensitive. | 2 and 3 | 4 years |
|  | Pest Management, Ministry of Agriculture and Lands | Responsible for preventing and controlling invasive pest species in Grenada, including those affecting agricultural crops. | * Provide technical advisory services with respect to pest control management. (Output 2.3, Output 3.1, and Output 3.3) * Input into training programs and activities. (Output 3.1 and Output 3.3) * Technical knowledge and skills in pest management. (Output 2.3, Output 3.1 and Output 3.3) | * Participatory training programmes and activities developed that reach all the relevant stakeholders. * Training programs that are reflective of local needs and in local language and are culturally sensitive. * Capacity developed in pest management. | 2, 3 | 4 years |
|  | Physical Planning Development Control Authority,  Physical Planning Unit  Ministry of Communication, Works, Physical Development, Public Utilities, ICT, and Community Development | Responsible for controlling the exploration of aggregates from landscapes and seascapes and which authority through the Physical Planning Development Control Authority (PPDCA) is responsible for ensuring land and building construction and development. | * This Ministry’s input will be key for project design related to land use and regulatory processes and the financial incentives. (Output 1.2) * Liaise with the GEF, UNDP, and the Government of Grenada on financial obligations of the project. (Output 4.3) | * Project financial management is efficient. * Obligations to the GEF and UNDP are met. * Financial incentives are reflective of the Government of Grenada policies. | 1, 4 | 4 Years |
|  | Ministry of Social Development, Housing, and Community Development | The provision of services geared towards the resolution of individual and family problems, the alleviation of poverty, rehabilitation of the disabled, disadvantaged, and deprived and those affected by crisis and natural disasters. | * Provide inputs and monitor that Government of Grenada social safeguards are reflected and observed in all project activities. (Output 4.3) * Ensure that project activities do not negatively impact the vulnerable in society. (Output 4.3) * Ensure gender and youth mainstreaming in all project activities. (All project components) | * Project social safeguards are implemented inclusive of gender and youth mainstreaming, the establishment of grievance mechanism. | 1, 2, 3, and 4 | 4 years |
|  | Gender Bureau  **Division of Gender and Family Affairs**  Ministry of Social Development, Housing, and Community Development | The Division of Gender and Family Affairs has the responsibility to coordinate activities to create a gender balance society.  To achieve this goal, the Division plans and coordinates activities and programmes that would educate and highlight critical issues that affect the family as it continues to promote gender equality and fairness in our society. | * Provide gender inputs into the design of project training materials. (Output 1.3, Output 2.1, Output 3.1, Output 3.3) * Ensure gender equity in the recipients of project benefits (Components 1, 2, and 3) | * Gender Mainstreaming Plan implemented in all project activities inclusive of governance. | 1, 2, 3, and 4 | 4 years |
|  | National Water and Sewerage Authority (NAWASA), Statutory Body | Responsible for management of water supply for Grenada, ensuring that the water source is adequately protected from threats that would compromise potable water quality. | - Provide technical advisory role and data related to water use, management, and supply of non-treated water for agricultural purposes. (Output 1.2 and Output 2.2) | -Information management database and monitoring system established and operationalized within a land use planning process with data reflective of water use management and supply of non-treated water**.** | 1 and, 2 | Years 1 to 3 |
|  | Ministry of Tourism, Civil Aviation, and Culture | Responsible for management of historical components of National Parks and some tourism attractions. | * Provide overall guidance regarding tourism-related activities and its accordance with national policies and plans. (Output 3.4) * Provide inputs in the development of potential visitor functions in the dry forest that are to be gazetted. (Output 3.2) * Provide input and guidance into agritourism activities and sub-projects. (Output 3.4) | * Visitor functions developed and reflective of all land users and stakeholders. | 3 | 4 years |
| **Agricultural Statutory Bodies** | | | | | | |
| Agricultural Statutory Bodies | Grenada Cocoa/Nutmeg Associations; for marketing products of Tree-crop agriculture (Commodity Boards).  Marketing and National Importing Board (MNIB); for marketing of agricultural products produced by small-crop farmers. | The national marketing and regulatory agent for tree crops in Grenada. Responsible for the purchasing and export of nutmeg and cocoa. | * Provide inputs into the management of the micro-credit and certification services for farmers. (Output 2.1) * Provide access to farmers for training in all components of the project. * Will have a role related to Component 2, Operationalization of resilient agricultural practices. * Assist in development and definition of activities and actions for Components 2 and 3. | * Certification schemes and micro-credit facilities established and are socially inclusive. * Wide cross-section of farmers participating in project activities. | 1 and 2 | 4 years |
| **Civil Society and Private Sector** | | | | | | |
| Civil Society and Private Sector | Belmont Estate | A private 300-hectare organic farm that is engaged in sustainable agricultural practices. | * Can be used as a model farm in the implementation of activities related to CSA. (Output 3.1). | * Model farm and pilot sites established. | 1 and 2 | Years 2 to 4 years |
| **Nongovernmental Organizations (NGOs)** | | | | | | |
| Nongovernmental Organizations (NGOs): | Organizations such as ART, GRENCODA, People in Action (PIA), St Patrick Environmental and Community Tourism Organisation (SPECTO), and GOAM are private, non-profit institutions set up for the purpose of delivering technical assistance and facilitator services with the goal of empowering individuals and communities. | NGOs’ main goal is empowering individuals and communities and the protection of the environment. | * Assist in the implementation of the project activities. * Lead in the implementation of local-level activities. (all outputs in Component 3) * Provide local and traditional knowledge for input into project activities. (All outputs in Components 2 and 3) * Provide direct access to stakeholders and beneficiaries. (All outputs in Components 2 and 3) * A source of project beneficiaries. * Members of the local project committees. | * Project activities and governance is multi-stakeholder, participatory, and reflective of civil society perspectives. | 1 and 2 | 4 years |
| **Community-based and Producer Organizations** | | | | | | |
| Community-based and Producer Organizations | Local area vested interest groups such as the N/W Farmers’ Organization; NEFO; Grenada Federation of Agriculture and Fisheries Organizations; MAREB; Grenada Association of Poultry Producers (GAPP); Grenada Network of Rural Women Producers/GRENROP; Minor Spice Cooperative; and Carriacou Association of Small Agro Processors (CASAP) | Representational organizations of producers and other community groups involved in a number of activities including in agriculture, agri-tourism, women’s issues and advocacy, environmental management, and biodiversity conservation, | -Participation in watershed planning, training, and community-level implementation. (Output 1.2, Output 2.1, Output 3.1, Output 3.3, Output 3.4)   * Lead in the implementation of local-level activities (CSA, SLM, soil and water quality monitoring, composting, etc.). (Output 3.1, Output 3.3, Output 3.4 * Provide local and traditional knowledge for input into project activities. (Output 1.2, Output 2.1, Output 3.1, Output 3.3, Output 3.4) * Provide direct access to stakeholders and beneficiaries. (Output 1.2, Output 2.1, Output 3.1, Output 3.3, Output 3.4) * Assist in capturing and sharing knowledge (Output 4.1 and Output 4.2). | * Community-based and producer organizations have been consulted, informed, and trained, to facilitate the implementation of CSA and SLM practices and rangeland management systems, and biodiversity conservation. | 1, 2, 3 and 4 | 4 years |
| **Women’s Organizations** | | | | | | |
| Women’s Organizations | Grenada National Organization of Women, and Petit Martinique Women in Action.  These are key stakeholders who will participate in the project and whose opinions and needs will be considered in the processes of biodiversity conservation, SLM, and CSA. | * Participate in all decision-making opportunities and activities. * Provide support in the participatory processes of the project. * Facilitate, jointly with the project and the Gender and Family Affairs Division, the incorporation of gender focus and social inclusion into the project actions and the empowerment processes for women derived from the trainings for the beneficiaries. * Encourage gender equity in the project and women’s participation. | * Active participation of women’s organizations in the project interventions. (Output 1.2, Output 2.1, Output 3.1, Output 3.3, Output 3.4) * Appropriate empowerment of women with respect to participation in leadership positions and opportunities for decision-making. (Output 1.2, Output 2.1, Output 3.1, Output 3.3, Output 3.4). * Will participate in the implementation of the Project Gender Action Plan (Annex G). * Assist in capturing and sharing knowledge (Output 4.1 and Output 4.2). | * Gender mainstreaming in project governance, activities, and beneficiaries. | 1, 2, 3 and 4 | 4 years |
| **Local communities and agricultural producers** | | | | | | |
| Local communities and agricultural producers | Local communities and agricultural producers living in the 5 prioritized watersheds in the St David, St Andrew and St Patrick parishes, where CSA and SLM practices will implemented, and in Carriacou and Petit Martinique where CSA and rangeland management systems will be demonstrated | * Will participate in the development of the management plan for the proposed PA in La Sagesse * Will participate in the development of five watershed management plans (La Sagesse, Great River, and Levera/Levera Pond/St Patrick watersheds and two island watershed management plans for Carriacou and Petit Martinique). * Will participate in watershed management committees * Will participate in the implementation of CSA and SLM practices and rangeland management systems | * Beneficiaries of financial support systems for incentivizing CSA, SLM, and conservation-oriented agricultural practices (Output 2.1) * Beneficiaries of extension services and CSA germplasm to be provided through upgraded national propagation stations (Boulogne, Mirabeau, Maran, and Ashendeen in Grenada and Belair in Carriacou) (Output 2.3) * Beneficiaries CSA and SLM practices and rangeland management systems (Output 3.1 and 3.3) * Active participants in the implementation of management plans for PAs and the control IAS (Output 3.2) * Beneficiaries of improved competitiveness for 10 registered small agribusinesses (including agroprocessors and agrotourism businesses, and their suppliers) implementing CSA/SLM initiatives, including through grants to complement the capacity-building support to small businesses (Output 3.4) | Local communities and agricultural producers have been consulted, informed, trained, and benefit from the implementation of CSA and SLM practices and rangeland management systems, and biodiversity conservation | 1, 2, and 3 | 4 years |
| **Special initiatives/ collaborations** | | | | | | |
| Special initiatives/ collaborations (e.g., SGP, GIZ, World Bank, IFAD) | International conservation and development organizations that can contribute to a landscape-based approach to the project and implementation of CSA, SLM, and biodiversity conservation. | * Provide technical assistance and knowledge about landscape management and CSA * Lessons learnt and other knowledge products. | * Collaboration in some project activities related to CSA, SLM, and biodiversity conservation and sharing of lessons learned and knowledge (Project components 1, 2, and 3) | Agencies leading the implementation of initiatives related to the project have been consulted, and synergies and cooperation have been established. | 1, 2 and 3 | 4 years |
| **Educational institutions and centers of excellence** | | | | | | |
| Educational institutions and centers of excellence | TBD | * Leverage knowledge and mechanisms that can be expanded upon or incorporated into this project, including CARDI, St. Georges University (SGU), and regional institutions such as University of the West Indies (UWI), CARIWIN. * These institutions will be engaged in project implementation, providing technical advisory for the different components and to ensure their contribution to the knowledge management and communication component. | * Extensive educational and training activities that reach all levels of stakeholders and education levels and learning types. (Output 1.3, Output 2.1, Output 2.2, Output 3.2) | Training activities and products that utilize different learning approaches and literacy levels. | 1, 2, 3, and 4 | 4 years |

## Annex G: Gender Analysis and Action Plan

**Gender Analysis**

Gender relations in Grenada are heavily influenced by tradition and socialization[[60]](#footnote-61). Traditional gender stereotypes and beliefs about masculinity and femininity affect both men and women. Positive and negative beliefs that both undermine and promote gender equality can be found in Grenadian culture[[61]](#footnote-62). Social institutions of the media and religion play powerful roles in reinforcing and changing the beliefs, values, and stereotypes. Men dominate the public sphere whilst women are perceived as homemakers and caregivers who occupy the private sphere, which is mainly the home. In the agricultural sector there is gender inequality with women as the disadvantaged sex. The gender inequality issues can be summarized broadly as follows:

1. Access, ownership, and control of material and productive resources;
2. Gendered occupational segregation with women in the lower income earning occupations;
3. Access to credits and loans;
4. Lack of a gender responsive approach and gender data for plans and policies; and
5. Limited female involvement in leadership and decision-making.

**1) Access, Ownership, and Control of Material and Productive Resources**

In the agricultural and natural resources sector land is the primary economic factor. Male land ownership in Grenada is higher than female land ownership, with 532 males owning land compared to 199 women. In the case of leased land and family ownership, there were 210 males to 49 female owners and 339 males to 86 females, respectively. There may exist a situation where many small female landowners are without official titles to land.[[62]](#footnote-63) As in the case of female versus young male unemployment, there is the general perception that the situation of land ownership is equalizing. However, the recent agricultural census, conducted in 2012 and published in 2015[[63]](#footnote-64), failed to disaggregate the data on land ownership by gender. In the fisheries sector, the ownership of boats and other equipment is mostly owned by men rather than jointly or family-owned. Inheritance and transfer of property from men to their wives and female next of kin is recognized. However, common-law relationships are generally unrecognized and women in these relationships may be at a disadvantage in the inheritance of property. There are movements to address this inequality. The situation at the watershed level is reflective of the national situation. Female ownership of land is also low, and they mostly control the agroprocessing component of the agricultural value chain. This component does not require ownership of land but uses the resources of their partner’s or family member’s farm.

**2) Gendered Occupational Segregation**

The household is both the main economic and social unit of the society and a microcosm of gender relations. Male-headed households comprise 58.9% or 20,339 of all households in Grenada, while female-headed householdscomprise 41.1% or 14,178 (Central Statistical Office, GOGR, 2011 Population Census[[64]](#footnote-65)). Although there are more male-headed than female-headed households, the number of female-headed households is relatively high. More importantly, the female-headed households are more likely to be single-parent households. Single-parent households are also more likely to be poor. In male-headed households, men are the income earner singly or in other situations with a co-female income earner. Male-headed households afford the possibilities of distribution of household chores or duties with the female partner, or the male works outside of the home and the female is responsible for household tasks. In female-headed households, women are the income earners and are also responsible for the social responsibilities of the households. There are also some households where men migrate outside of the community and country to seek economic opportunities, leaving the women for long periods with both tasks of providing for the household economically and social duties and functions.

67.4% of men participate in the formal economy, compared to a labour force participation of 53.5% for women[[65]](#footnote-66). Unemployment among women is higher than men. There is a general perception in society that male youth unemployment is higher than female unemployment and young female employment. This perception is attributed to what researchers define as the high visibility of male social issues, especially among young males.[[66]](#footnote-67),[[67]](#footnote-68) There is also a pay gap in all income groups with earnings between EC 400-799[[68]](#footnote-69), with males earning 30% more. The wage gap was especially pronounced in the higher income groups.

In the agricultural sector, male employment is higher than female employment, with 71% of the country’s 9,206 farmers being male.[[69]](#footnote-70) Unemployment in the sector is low at 2.4%. The agricultural census showed a decline in direct employment in the sector, which was attributed to the increased use of farming implements and machinery. It can be surmised that this decline in employment did not significantly affect women’s employment in the sector since they are involved in tasks such as planting of seedlings and clearing of weeds, which have not become mechanized to date. Whilst men dominate in the farming component of the agriculture value chain, women occupy 65% of agroprocessing, which consists of 265 small-sized and nine medium-sized processors operating at the cottage level. Agroprocessing at the household level in the parishes and watershed allows women to earn an income and carry out their household reproductive unpaid work, and is a significant reason why women gravitate towards it. The cost of childcare limits women from considering employment outside of the home, even in multi-generational households. This is an important consideration in any intervention to increase women’s involvement in the sector. However, in the agroprocessing sector women are also limited by lack of credit to expand production, lack of markets for their products, product development and innovation, and basic business management acumen. The fisheries sector and value chain are mostly male, with women participating in the selling of fish. The National Census reports that there are 1,500 fisherfolks, 40 of whom are female fish vendors. In the case of Carriacou and Petit Martinique, women are mainly limited to the domestic sphere because of limited opportunities outside of the fishing economy.

**3) Access to Credits and Loans**

The Caribbean Development Bank (CBD; 2014) notes that males in Grenada accessed 100% of the loans for the agricultural and fishing sectors and surmised that women may not have the collateral base to access loans.[[70]](#footnote-71) Even in the micro-sector, wherein women constitute the majority, they were only able to access 9% of the loans. The data therefore show that women’s access and participation in credit facilities is much lower than men, and it is linked to their lack of collateral such as land and house ownership. Attention will be given in the project to ensure that there is gender equity in the recipients of credit assistance. In the parishes and especially the rural parishes, women’s access to credit is almost nonexistent as they do not have collateral such as land and they are mostly informally employed. They also are often not aware of credit opportunities.[[71]](#footnote-72)

**4) Lack of Gender-responsive Approach in Plans and Programmes**

There is a marked absence in the recognition of gender dimensions in the agricultural sector in Grenada as noted by the CBD (2014[[72]](#footnote-73)). The Grenada National Agriculture Plan (2015) and the National Agriculture Census (2012) have also failed to address the gender issues in agriculture. Land ownership and other data are still not disaggregated by sex. This is an important deficit that needs addressing and is against the National Strategic Development Strategy Plan 2012-2017, which not only identifies gender as a priority but proposes several strategies to address these inequalities, including inequalities in the agricultural sector. Promotion of gender equality in the agricultural sector recognizing men’s and women’s complementary roles in agriculture and rural development was the major recommendation of the Country Gender Assessment Report.[[73]](#footnote-74) The project must therefore stress the gender-responsive approach to activities, especially the collection of sex-disaggregated data and gender data including indicators of age, income levels, sources of livelihoods, tenureship and use of natural resources and ecosystem services

Legal and Policy Framework Related to Gender: Grenada is a signatory country to several international conventions. Among these international commitments are: the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), (1990); the 1995 Beijing Declaration and Platform for Action; the Inter American Convention on the Prevention, Punishment, and Eradication of Violence (Belem do Para); Commonwealth Plan of Action on Gender Equality; the Universal Declaration on Human Rights, Brasilia Consensus (2010); Relevant International Law and Conventions; the Universal Declaration on Human Rights (1948); the International Covenant on Economic Cultural and Social Rights (1966); and the International Covenant on Civil and Political Rights (1966). Grenada has also ratified the major ILO Conventions that impact women and girls and are currently in force. They include: C111: Discrimination (Employment and Occupation) Convention, ratified in 1979; Protection of Wages, CO 19: Equality of Treatment (Accident Compensation); and C097 Migration for Employment, ratified in 1979. Grenada also recognizes the global Sustainable Development Goals and the Commonwealth Plan of Action 2005-2015.

In addition, the government is also a signatory to several Multilateral Environmental Agreements, including the United Nations Convention on Biodiversity (UNCBD) in 1992, the United Nations Convention to Combat Desertification (UNCCD) in 1994, and the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, known as the Rio Conventions. The Rio Conventions acknowledge the importance of gender equality in addressing climate change, biodiversity conservation, and combating desertification. At the recent COP meeting of the UNFCCC in November 2017, a Gender Action Plan was adopted to support a gender-responsive approach to address climate change[[74]](#footnote-75). Similarly, the UNCBD addresses gender and recognizes the importance of women’s roles in achieving objectives of the conservation and sustainable use of biodiversity. The COP of the UNCBD urges the participation of women in biodiversity conservation and its sustainable use, particularly in agricultural diversity, and the Nagoya Protocol recognizes the “vital role that women have in sharing access and benefits,” traditional knowledge, capacities, mechanisms, and financial resources. The National Biodiversity Strategy and Action Plan 2016-2020 does not mention gender and does not include gender mainstreaming[[75]](#footnote-76). The draft version of the National Climate Change Adaptation Plan (NAP) for Grenada, Carriacou, and Petite Martinique (2017-2021) mentions several efforts at gender mainstreaming, including making sure the process of its development was gender-sensitive, gender-mainstreaming in the committees established including the National Climate Change Committee, and engendering its monitoring and evaluation processes[[76]](#footnote-77). The NAP itself was developed with 40% female participation of the 160 stakeholders who participated in its development. The National Climate Change Policy for Grenada, Carriacou, and Petite Martinique (2017-2021) recognizes the role of women as users of water and their importance in conservation efforts[[77]](#footnote-78).

The National Strategic Development Strategy Plan 2012-2017 identifies gender as one of the 12 priority programme areas. The plan, with the objectives of ensuring non-discrimination between males and females in accessing benefits from national development, addresses the gendered division of labour and gender issues in education and other critical areas such as at the household and community levels, introducing measures to address current imbalances and eradicate all forms of gender-based violence, and recognizes that there has been inadequate attention to gender issues in policy and planning. Policies and planning are particularly affected by the lack of gender-disaggregated data. The lack of gender-disaggregated data is a serious deficit in the country’s attempts to achieve gender equality. The lack of gender data prevented the determination of Grenada’s Gender Index of the UNDP Human Development Reports[[78]](#footnote-79).

There is a specific framework for addressing gender disparity in the country—the Gender Equality Policy and Action Plan 2014-2024 (GEPAP). It provides a roadmap for all sectors of the public sector, private sector and labour, and civil society. Based on both the human rights/human development approach, it seeks to ensure that the State provides the enabling environment for self-development and social progress. The main thrust of the policy is to promote gender equality, equity, social justice, and sustainable development in Grenada. The policy focuses on a number of key areas, of which Gender Labour and Employment and Agriculture and Tourism are included. In terms of labour and employment, the policy aims to “foster the equitable participation of and benefits for men and women in the labour force, while recognizing the contribution of unwaged reproductive work to national development.”[[79]](#footnote-80) In the agricultural sector, the policy commits to promoting gender equality in agriculture by equitable access to productive resources and opportunities for entrepreneurial development within the context of the national goals of agricultural diversification, food security, economic growth, poverty reduction, and sustainable development. However, whilst the intentions of the policy are noble, the mettle will be in the incorporation of gender in all sectors commencing with the collection of gender-disaggregated data. Presently, even though Grenada has several environmental, climate change, disaster, and natural resources management programmes and projects being implemented and has embarked on “green economy” and “blue economy” strategies, gender equality is often not mentioned in these or policy-making, planning, and development programmes. There therefore seems to be a lag in the mainstreaming of the GEPAP.

The Gender and Family Affairs Division of the Ministry of Social Development and Housing is the agency responsible for coordinating the implementation of Grenada’s GEPAP, in collaboration with all Ministries/Agencies across the public sector and in partnership with civil society and the private sector. Among the ministries that are key stakeholders are the Ministries of Agriculture, Lands, Forestry, Fisheries, and the Environment; the Ministry of Carriacou and Petite Martinique Affairs and Local Government, Communications, Works, Physical Development, Public Utilities, ICT and Community Development, Education and Human Resource Development, Economic Development, Trade and Planning, Finance and Energy, Foreign Affairs, Ministry of Health, Social Security and International Business, Labour and Co-operatives, Legal Affairs, Tourism, Civil Aviation and Culture, and Youth, Sports, and Religious Affairs. GEPAP proposes Gender Focal Points (GFPs) and the National Gender Equality Commission (NGEC). The Ministry of Agriculture and Lands is an implementing partner in the GEPAP. These structures are yet to be established. The division’s work was hampered in past years by the lack of technical staff; at present there is a national coordinator and two researchers.

**5) Governance and Leadership**

At the national level, Grenada has managed to secure 33% of female representatives in the lower house of parliament with five out of 15 or 33.3% and two out of 13 or 15.4% in the Senate[[80]](#footnote-81). The country is currently ranked at 32 out of 142 democracies in the Inter-Parliamentary Union world classification. There are presently four female ministers in the present cabinet. Both the minister and permanent secretary for the Ministry of Agriculture and Lands, which is responsible for agriculture, are women. However, the visibility in government is not reflected in the same manner in civil society, which see women roles aligned with the gendered division of labour and care for families and communities.

In civil society, women occupy leadership roles in several non-governmental and community-based organizations (CBOs), including farmers’ groups and cooperatives. In the Petit Martinique, the Petit Martinique Women in Action is a women-led organization that works in agriculture and environmental issues. Similarly, the Proactive Nation Builders is a women-led social organization in the Parish of St. David. The Parish St. Andrew possesses female leadership in its many community groups and organizations, including St. Andrew Development Organization the Monlonge Group, Clozier Group, and most notably in the NGO People in Action. Women are also represented in the many cooperatives, including fisheries cooperatives (mainly in the secretary position).

Anecdotal information gathered during the PPG suggests that women are both leaders and also the majority in CBOs that are focused on advocacy and social assistance programmes, including those focused on environmental and climate change issues. In the farmers’ groups and fishermen’s cooperatives women are involved, and there is at a minimum one female executive member, who is usually the secretary. Women’s leadership and involvement in advocacy of societal issues through the NGOs and CBOs, largely unpaid work and sometimes at great personal sacrifice, has led to the perception of an increased leadership in society in general. Men in focus groups often point to this visibility of women’s presence as overall indication of “women taking over.” However, responsibility for family and childcare continues to be a significant barrier to participating in leadership and decision-making at all levels.

**Gender-based Violence**

Women’s participation in the agricultural and natural resources sector may be in-directly and directly affected by the high gender-based violence in Grenada[[81]](#footnote-82). The violence, perpetuated mainly by men and boys against women, also includes sexual assault and incest. There are inadequate mechanisms to address the issues and support victims of violence. However, a recent body was established, a national committee to combat child sexual abuse.

**Conclusion**

Like other societies, Grenadian women face challenges to participate equally in the agricultural and natural resources sector. These challenges range from social and cultural norms to equal access to and ownership of resources. Gender mainstreaming is limited within the society, despite the recent establishments of plans, policies, and machinery to effect it. Gender mainstreaming seems handicapped by lack of resources to effect it rather than political will. Donor-funded initiatives, with the requirement of environmental and social safeguard mechanisms including gender considerations, offer unique opportunities for the mainstreaming of gender. Researches have indicated, for example, that international agencies’ requirement for environmental safeguards was the main driver of environmental mainstreaming in some developing countries[[82]](#footnote-83).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender Action Plan** | | | | | | | |
| **Component 1**: Systemic and institutional capacity for integrated landscape management at the national level. | | | | | | | |
| **Output 1.1.** A central geospatial biodiversity, ecosystem, and land use database and monitoring system to be assessed, updated, and operationalized within the national land management policy in the national and legal regulatory framework. | | | | | | | |
| Gender-related activity | Indicator | Target | Baseline | | Budget (USD) | Timeline | Responsibility |
| Provide Gender equality sensitization training to major project stakeholders including policy makers and local level stakeholders for gender mainstreaming in the project. | Level of understanding among policy makers and local level stakeholders of gender issues | 100% of participants achieve a 75% score in the post training test as a demonstration of their understanding of the same | 0% | | 5,000 | *Year 1* | Project Gender Expert  Gender Bureau,  Division of Gender and Family Affairs  Ministry of Social Development, Housing, and Community Development |
| Develop gender responsive tools for the collection of relevant gender-specific data on land use, biodiversity, natural resources management and ecosystem services use in project watershed areas to inform a gender responsive analysis of project watershed areas | Availability of gender responsive tools for the collection of data | A suite of gender responsive data collection tools developed | No tools have been developed | | 25,000 | *Year 1* | Gender Expert  Land Use Division, Ministry of Agriculture and Lands |
| Conduct a participatory gender responsive analysis of land use, biodiversity, natural resources management and ecosystem services use in project watershed areas in Grenada | Number of gender responsive analysis completed of land use, biodiversity, natural resources management and ecosystems services benefits in project watershed areas | 5 watershed areas with gender responsive analysis of land use, biodiversity, natural resources management and ecosystems services benefits (La Sagesse Watershed, Great River Watershed and Levera/Levera Pond/St Patrick Watershed, Carriacou, and Petit Martinique) | Gender responsive analysis does not exist at the watershed level | | *Year 1* | Gender Expert  Land Use Division, Ministry of Agriculture and Lands |
| Conduct gender responsive training and capacity building for the collection of gender specific data and use in the development of policies to build national and local/watershed capacity. | Number of gender responsive training events for the collection of gender specific data in support of project activities | At least 4 training events: 2 national level (e.g., Ministry of Agriculture and Lands, agricultural statutory bodies) and 2 at the local/watershed level (community-based and producer organizations, private sector) | 0 | | *Year 1* | Gender Expert  Gender Bureau,  Division of Gender and Family Affairs  Ministry of Social Development, Housing, and Community Development |
| Include sex disaggregated data for the five prioritized watersheds into the project supported information management database | Percent of sex disaggregated data by sage, diversity of women and men, community, income levels, social status, cultural factors, land tenure, natural resources and ecosystem uses for the five prioritized watersheds included in the information management database | 100% of gender responsive data collected, included in the information management database | 0% (information management database has not been developed) | | *Year 1* | Gender Expert  Land Use Division, Ministry of Agriculture and Lands |
| **Output 1.2.** Regulatory, coordination, and planning framework strengthened, integrating SLM, CSA, and biodiversity conservation. | | | | | | | |
| Input gender responsive socioeconomic indicators into the PASP development | Gender responsive PASP addresses the different needs and vulnerabilities of women and men and with mechanism to promote their participation in its implementation | Gender-responsive PASP developed | PASP has not been developed | 5,000 | | *Year 1* | Gender Expert  Forestry and National Parks Department  PA Planning Expert |
| Include gender considerations into the management plan for La Sagesse PAs | Number of management plans that address women and other socially vulnerable groups’ needs, and with mechanisms to promote women’s participation and the sustainable use and conservation of dry forest | One (1) gender-responsive management plan for prioritizes dry forest site/PA | Management plan have not been developed | 2,500 | | *Years 1 and 2* | Gender Expert  Forestry and National Parks Department |
| Identify and develop gender indicators for the management plan for La Sagesse dry forest site/PA as well as for monitoring and evaluation purposes | Number of management plans with gender responsive indicators | One management plans with gender responsive indicators developed | Management plans have not been developed |
| Include gender considerations in the National Drought Management Policy and related legislative instruments | Gender responsive National Drought Management Policy | Gender responsive National Drought Management Policy developed | National Drought Management Policy and related legislative instruments have not been developed | 5,000 | | *Years 1 and 2* | Gender Expert  Land Use Division, Ministry of Agriculture and Lands |
| Include gender considerations into the management plans for project prioritized watersheds | Number of management plans for prioritized watersheds which address women and men, and other socially vulnerable groups’ needs, and with mechanisms to promote women’s participation and the sustainable use and conservation of dry forest/PAs | Five (5) gender-responsive watershed management plans: La Sagesse, Great River and Levera/Levera Pond/St Patrick watersheds and 2 island watershed management plans for Carriacou and Petit Martinique | 0 (watershed management plans have not been developed) | 2,500 | | *Years 1 and 2* | Gender Expert  Land Use Division, Ministry of Agriculture and Lands |
| Establish watershed-level committees (La Sagesse, Great River, and Levera/Levera Pond/St. Patrick watersheds and Carriacou and Petit Martinique) with women representation | Level of women participation in watershed-level committees/ | A minimum of 50% female membership and female participation in leadership in watershed-level committees | Watershed-level committees not established | 500 | | *Year 2* | Gender Expert  Land Use Division, Ministry of Agriculture and Lands |
| **Output 1.3.**Biodiversity conservation and land use management capacities improved through training of personnel in biodiversity conservation and land use management. | | | | | | | |
| Develop materials to document women experiences and to raise public awareness about women/s needs expectations regarding SLM, biodiversity conservation and CSA | Percent of training and public awareness materials and curricula produced that include women’s experiences and information disaggregated by gender | A minimum of 30% of training materials, public awareness materials, and curricula developed in SLM, biodiversity conservation, and CSA include women experiences information disaggregated by gender | Training materials not developed | 5,000 | | *Year 1* | Communication and Knowledge Management Expert  Gender Expert |
| Ensure that the selection of attendees for outreach training includes women | Percent of women participation in all training | A minimum of 30% of the training recipients are females | Recipients not selected | No associated cost | | *Year 1* | Project Team  Land Use Division, Ministry of Agriculture and Lands |
| Provide training and outreach in communities that is conducive to women’s participation, including possible assistance with childcare | Percent of training events in communities with child care assistance being provided if needed | A minimum of 50% of the training conducted in communities with childcare assistance if needed | Training not commenced | 2,000 | | *Years 1 to 3* | Project Team  Land Use Division, Ministry of Agriculture and Lands |
| **Component 2**: National capacity built to provide financial, technical, and information services for CSA production. | | | | | | | |
| **Output 2.1.** Financial support systems for incentivizing CSA, SLM, and conservation-oriented agricultural practices are strengthened/established/operationalized. | | | | | | | |
| a. Conduct a gender analysis of CSA, SLM and conservation oriented agricultural practices segment of the value chain.  b. Conduct a market analysis and develop an action plan to ensure that women have access to incentives to promote CSA, SLM, and conservation-oriented agriculture practices | Proportion of women with access to microcredit, certification of agriculture products, and markets | Minimum of 40% of beneficiaries of incentives and access to markets to promote CSA, SLM, and conservation-oriented agriculture practices are women | Access to incentives and markets for agriculture products as a result of the project yet to commence | 3,000 | | *Years 2 to 4* | Company providing certification-related services  Financial Expert |
| **Output 2.2.** Soil and water quality monitoring and advisory programme enhanced. | | | | | | | |
| Provide support for strengthening of capacities among youth environmental NGOs to engage in undertake land management and climate change resilience projects | Percent of women beneficiaries from support to youth environmental NGOs | A minimum of 30% of beneficiaries are young women | Support for youth environmental NGOs yet to commence | 1,250 | | *Year 1* | SLM Specialist |
| Disseminate soil test results/soil nutrient content farmers and technical extension service providers for crop production planning. | Percent of women farmers benefiting from soil test results/soil nutrient content information to improve crop production planning | A minimum of 30% of beneficiaries are women | Analysis of soils and nutrient content yet to commence | 750 | | *Year 2* | SLM Specialist |
| Provide training to farmers, and community groups in loan management and in propagation techniques, maintenance, and documentation | Percent of women farmers benefiting from training | A minimum of 30% of beneficiaries are women | Training not commenced | 8,250 | | *Years 1 to 3* | Company providing training services with support from project  Gender Expert |
| **Output 2.3.** National supply of climate-resilient crop varieties enhanced. | | | | | | | |
| Conduct demonstration activities in propagation stations enhanced by the project and supply climate-resilient crop varieties | Number of women benefiting annually from demonstration activities and supply of climate-resilient crop varieties | Between 210 and 300 | Training not commenced | 5,000 | | *Years 1 to 3* | Extension Division, Ministry of Agriculture and Lands |
| **Component 3**: Operationalization of climate-resilient agricultural practices. | | | | | | | |
| **Output 3.1.** CSA and SLM practices will be implemented in St. David, St. Andrew, and St. Patrick parishes. | | | | | | | |
| Gender-related activity | Indicator | Target | Baseline | Budget (USD) | | Timeline | Responsibility |
| Support the implementation of CSA and SLM practices, including women farmers, in St. David, St. Andrew, and St Patrick parishes | Level of participation of women in the implementation CSA and SLM practices | A minimum of 30% of beneficiaries implementing CSA and SLM practices are women | Beneficiaries not selected | 98,000 | | *Years 2 to 4* | CSA/SLM Specialist  Gender Expert |
| Training of small farmers for the implementation of SLM/CSA activities, including women | Percent of women farmers benefiting from training | A minimum of 30% of beneficiaries are women | Training not commenced |
| **Output 3.3.** CSA and integrated rangeland management system in Carriacou and Petit Martinique demonstrated. | | | | | | | |
| Support the implementation of CSA and rangeland management initiatives, including women farmers, in Carriacou and Petit Martinique | Level of participation of women in CSA and rangeland management initiatives | A minimum of 30% of beneficiaries are women | Recipients not selected | 65,340 | | *Years 2 to 4* | CSA/SLM Specialist  Gender Expert |
| Training of small farmers, including women farmers, for the implementation of CSA and rangeland management initiatives | Percent of women farmers benefiting from training | A minimum of 30% of beneficiaries are women | Training not commenced |
| **Output 3.4.** Small businesses will be supported for agroprocessing and agrotourism, processing CSA crops, and supporting sustainable rural livelihoods and education on CSA-SLM practices (including women, men, and youth). | | | | | | | |
| Support ten small community-based businesses agroprocessing and agrotourism businesses in their CSA and SLM initiatives, which will contribute to the adaptation of farming systems to climate change, among other benefits | Number of grants benefiting women-owned agroprocessing and agrotourism small business | 5 | 0 | 153,000 | | *Years 1 to 3* | Multi-stakeholder group selection committee |
| Capacity building and support for women-owned agroprocessing and agrotourism small business receiving technical assistance in production, labeling, and marketing of CSA products and collaboration with and support of community-based and producer organizations | Number of women-owned agroprocessing and agrotourism small business receiving technical assistance | 5 | 0 | 51,000 | | *Years 1 to 4* | Company to improve the competitiveness of small community-based businesses  Gender Expert |
| **Component 4**: Knowledge management for SLM, CSA, and biodiversity conservation. | | | | | | | |
| **Output 4.1.** : Technical knowledge captured, experiences and lessons learned disseminated, and incorporated into institutional strengthening and capacity-building. | | | | | | | |
| Gender-related activity | Indicator | Target | Baseline | Budget | | Timeline | Responsibility |
| Integrate women’s experiences into knowledge products that will incorporate institutional strengthening and capacity building initiatives, for continued institutional and private sector learning and activity implementation | Percent of knowledge products reflecting women’s portrayal and lessons learnt featuring women’s experiences | 100% | No knowledge products developed | 5,640 | | *Years 1 to 4* | Communication and Knowledge Management Expert  Gender Expert |
| Establish a monitoring system to learn from the SLM, CSA, and biodiversity conservation interventions, including gender-based indicators | Monitoring system to learn from the SLM, CSA, and biodiversity conservation interventions | Monitoring system includes gender-based/SMART indicators | Monitoring system not developed | 10,800 (estimated as 25% of the salary of the project M&E Expert) | | *Year 1* | Communication and Knowledge Management Expert  Gender Expert |
| **Output 4.2.** Media products will promote outreach and increased public awareness/environmental education of SLM, CSA and biodiversity conservation. | | | | | | | |
| Ensure that the materials produced encourage the use of inclusive gender-neutral language and that women are depicted | Percent of materials produced use inclusive language with depictions of women | 100% | Media products not produced | 5,640 | | *Years 1 to 4* | Communication and Knowledge Management Expert  Gender Expert |
| **Output 4.3.** M&E of project implementation conducted for adaptive management. | | | | | | | |
| Monitor indicators in the project results framework, including gender related indicators data disaggregated for men and women | Level of women participation in monitoring and evaluation activities | 100 % of project M& E activities with women participation | None, project M&E activities have not started | 10,800 (estimated as 25% of the salary of the project M&E Expert) | | *Years 1 to 4* | Gender Expert  M&E Expert |
| Gender Expert  M&E Expert |
| Ensure a proportionate number of men and women respondents are included in the project surveys and robust baseline data collected, where possible | Gender Expert  M&E Expert |
| Establish during the mid-term and final evaluations and other M&E activities, differentiated spaces for consultation and dialogue, only with female referents on the one hand and male referents on the other | 2,915 (determined as 50% of the cost of MTR and TE workshops and travel costs or M&E Expert) | | *Years 1 to 4* | Independent Evaluators  M&E Expert |
| *Total budget allocation (% or amount):* | | | | USD 473,885 | |  | |

## Annex H: UNDP Risk Log

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Description** | **Date Identified** | **Type** | **Impact &**  **Probability** | **Countermeasures / Mngt response** | **Owner** | **Submitted, updated by** | **Last Update** | **Status** |
| 1 | Extreme climatic events and hazards (e.g. hurricanes, tropical storms, prolonged drought) jeopardize the SLM measures introduced and consequently cause declines in agricultural production and livelihoods | At PIF | Environmental | Adverse impacts of extreme climatic events (e.g., hurricanes and drought) can affect natural areas, biodiversity and the livelihoods of local communities living in the prioritized project landscapes  P = 2  I = 4 | While adaptation to climate change is at the core of the proposed project, it will address mitigation of this risk by incorporating climatic projections in the watershed level plans, support preparedness to extreme events through climate early warning systems, incorporate in the design of farm level and site specific measures potential impacts of extreme events (e.g. techniques ensuring deep root structure of agroforestry plants, or climate –proof design of installations – propagation stations and protective structures). | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 2 | Landowners are reluctant to incorporate SLM or CSA activities on their private lands, in the lack of land use zoning and regulations | At PIF | Regulatory | Reluctance by landowners to incorporate SLM or CSA activities will limit the sustainability of the project outcomes and may lead to further biodiversity habitat fragmentation and land degradation/  P = 2  I = 4 | Implementation of SLM activities on degraded lands, both outside protected areas and in watershed areas, are essential for addressing land degradation. The current R2R Project (GEF ID 5069) will explore a model for addressing land development of co-management of private lands for protection or with restrictive land development control, which can be incorporated into this project. This project though, will actively promote public buy-in for SLM activities on private lands, particularly focusing on private abandoned agricultural lands and inaccessible watershed areas, demonstrating impacts of activities that result in land degradation and downstream impacts. In addition, the project will develop participatory watershed management plans that will include land use zoning by providing a regulatory basis for implementing SLM and CSA.  Project design included multiple consultations with landowners and farmers from the watersheds during which the project socioeconomic and environmental were explained. Awareness raising activities have been included to maintain the interest of these stakeholders in the project. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 3 | Knowledge drain and implementation capacity constraints at government due to the staffing limitations (overall staff reduction) and limited incentives among different government agencies to work as a team | At PIF | Structural | P = 3  I = 3 | As part of the sustainability measures on institutional the capacity building, the proposed project will support the systematic capturing, analysis and dissemination the technical documentation, experiences and lessons learnt by the dedicated knowledge management actions, and through inclusion of biodiversity conservation and SLM related skills in national HR priority list and Priority Training Needs Assessment and associated curricula managed by the Ministry of Education. Implementation arrangements have been defined in a way that would complement existing government capacities in the delivery of activities in the target agricultural areas (e.g., hiring of two local CSA/SLM Specialists and the use of student practicums, a student supervisor, and data manager supervisor to undertake field work and build local capacity), and will strengthen the function of propagation stations for advisory and local coordination functions. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 4 | Limitations exist in the capacities of national governmental institutions to support biodiversity conservation, SLM, and CSA in the target landscapes. There is a risk that those institutions will not be able to fulfill their roles in the project. | At PIF | Institutional | Limitations exist in the capacities of national governmental institutions that may prevent adequate support biodiversity conservation, SLM, and CSA in the target landscapes.  I = 3  P = 4 | The project will finance capacity strengthening at the institutional, community and producer level. Targeted capacity will be based on capacity needs identified during the project formulation phase; more specifically, a capacity assessment of the Forestry and National Parks Department, Land Use Division, and the Ministry of Carriacou and Petit Martinique was conducted using the UNDP/GEF Capacity Development Scorecard. Major gaps were found in capacities to manage and implement relevant sustainable actions/solutions to reduce pressures on biodiversity and land degradation as well as capacities to monitor and evaluate them. Project activities have been included to overcome these gaps (Output 1.3). To assess progress in capacity building to support biodiversity conservation, SLM, and CSA in the target landscapes, the UNDP/GEF Capacity Development Scorecard will be reapplied at mid- and end-points of the project. In addition, progress in capacity building will also be monitored annually as part of the project implementation reports (PIRs). | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 5 | Some farmers (landowners and landholders) who will be supported by the project are poor and vulnerable, with limited education. They might struggle to understand their rights in the context of the project, and there could be tensions between farmers who implement CSA and sustainable management practices and those who do not. | At CEO Endorsement | Social | Project credibility may be in question and delivery of GEBs may be limited  I = 3  P = 1 | Project activities will benefit small farmers (landowners and landholders) in five prioritized watersheds. Consultations were held during the PPG with farmers and farmer’s organizations to inform and consult with them about the project and its objectives. The project will hold additional consultations during project implementation as part of development of participatory watershed management plans to ensure that the famers participating in the project have additional opportunities to raise any concerns regarding their rights. Farmers not participating directly in the project and who are not interested in implementing CSA and sustainable management practices will also be invited to express their views, to reduce tensions among farmers. A more detailed socioeconomic analysis of the prioritized watersheds will be conducted during the initial phase of project implementation that will allow better understanding of existing conflicts between farmers. In addition, as part of the Stakeholder Engagement Plan (Annex F), a mechanism for addressing complaints, grievances, and suggestions will be developed that will serve to prevent or address conflicts that the project’s actions may generate. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 6 | The project may not effectively incorporate gender considerations, thereby limiting women’s participation in project implementation and access to benefits (CSA, incentives, training, etc.) | At CEO Endorsement | Operational | I = 3  P = 1 | The project includes a Gender Action Plan that contains activities and indicators disaggregated by sex to ensure gender mainstreaming. A gender specialist will be hired with project resources to ensure the implementation of the plan and to ensure women’s participation in the project.  The project will also have support from the Gender Division of the Ministry of Climate Resilience, Environment, Forestry, Fisheries and Disaster Management (i.e., Project Executing Agency) to ensure that gender is effectively mainstreamed. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 7 | The project may potentially cause adverse impacts to habitats and /or ecosystems (forests) and ecosystem services (water provision and soil productivity in prioritized watersheds) and critical habitats and environmentally sensitive areas (including a forest reserve, national park, and a proposed forest reserve), if proposed activities are not carried out correctly. | At PIF | Operational | Project activities to protect biodiversity and natural resources may be undermined  I = 3  P = 1 | The project will implement CSA, agroforestry and improved range management practices that incorporate soil and water conservation measures, will contribute to restoring degraded riparian forests, and that will support biodiversity and improve habitat and ecosystem connectivity in production landscapes surrounding protected areas.  All activities will be to improve environmental sustainability and biodiversity conservation. Project activities will support legal protection of threatened ecosystem, biodiversity assessments in and adjacent to legally protected areas, will reduce threats to key species in critical habitats (i.e., IAS control / mongoose), and reduce land degradation in and adjacent to protected areas, including reforestation and the rehabilitation of selected riparian buffer zones using native species and contributing to prevent soil erosion and reduce contaminant loading into the streams. Specialists in these fields, under expert guidance, will undertake the work. Given the nature of the project to deliver global, national, and local environmental benefits, and the small scale of the activities proposed, it is anticipated that if any habitat or protected area is adversely impacted, the impact will be low and could be reversed as part of the project’s adaptive management capacity. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 8 | Shifts from current cultivation practices to sustainable agroforestry practices and CSA bears the potential risk of impacting habitats, ecosystems (including an adjacent forest reserve and a proposed national park), and/or livelihoods of the farmers participating in the project. | At PIF | Operational | Project activities to protect biodiversity and natural resources may be undermined  I = 3  P = 1 | The project will support changes in the use of resources that will have limited impact on habitats, ecosystems, and/or livelihoods. The project will not involve changes to land use. More specifically, the project will provide positive impact to cultivation initiatives by supporting production of sustainable agroforestry practices, including supporting mixed strata agroforestry with native species that incorporate soil and water conservation measures and that support biodiversity and benefits livelihoods. The project will also minimize potential threats of unsustainable clearing practices by promoting mixed native / agroforestry planning and sustainable methods for plot preparation (alternatives to slash and burn). | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 9 | The project will support the reforestation of degraded riparian forests that, if done incorrectly, could affect biodiversity | At PIF | Operational | If reforestation is not done with native species threats to biodiversity may increase limiting project impact  I = 1  P = 4 | The project will support active reforestation of degraded areas. Small scale reforestation efforts using biodiversity-friendly and SLM practices will be carried out with native species (in and adjacent to protected areas or critical habitats), and restoration of agroforestry will incorporate multi-strata agroforestry mixed with native species. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 10 | The upgrading of five national propagation stations/shade houses may pose potential safety risks to local communities and potential risks and vulnerabilities related to occupational health and safety due to physical construction. | At CEO Endorsement | Operational | If the selection of materials for construction includes hazardous products, the health of members of local communities and/or construction workers may be affected.  P = 1  I = 2 | The project will undertake small-scale construction activities to install climate change-resilient structures in five national propagation stations. Construction activities will consist of upgrading existing stations by enhancing water supply systems, incorporating rainwater harvesting structures, flood protection, and protective structures for extreme weather events. Materials to be used for this purpose will not include harmful or toxic materials and will consist of materials regularly used for construction purposes in Grenada. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 11 | The establishment of a national park may result in temporary or permanent physical displacement or economic displacement. | At CEO Endorsement | Operational/ Political | The project will establish the La Sagesse Local Area Planning site covering 23 ha as a national park to provide additional protection for a tropical dry forest, which may result in result in economic displacement.  P = 3  I = 3 | There are no residential settlements in the proposed designated area; therefore, there is no risk of physical displacement. A single private landowner owns the non-state lands in the area; therefore, acquisition proceedings would be bilateral and based on consideration of private land property rights. The major economic activities in the proposed designated area are cattle grazing on a squatting basis, bird watching, and hunting of crabs and other wildlife. During project implementation, consideration will be given to protecting this area through a management category that will not restrict public access but rather regulate it (e.g., IUCN Category VI: Protected area with sustainable use of natural resources). This option will be discussed during the project inception workshop so that a decision can be reached from the start of the project. In addition, the management plan of the protected area will be developed through participatory means and will include actions to minimize or eliminate risk of displacement | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |
| 12 | The proposed Project may affect land tenure arrangements land tenure arrangements of the participating landowners/famers. | At CEO Endorsement | Operational | Project credibility may be in question and delivery of GEBs may be limited  I = 2  P = 1 | The project will work with local area vested interest groups (e.g., community-based established farmer/producer organizations) and agricultural statutory bodies (e.g., Grenada Cocoa/Nutmeg Associations) that represent producers’ interests and rights, to ensure that the project will not affect land tenure arrangements of the participating landowners/famers It is worth noting that 90% of the total land area in Grenada is privately owned and the remaining 10% are crown lands (mainly forest reserves). There are no community-based property rights/customary rights to land, territories, and/or resources in the country. The predominance of private ownership implies that there are more secure and transferable property rights. In addition, as part of the Stakeholder Engagement Plan (Annex F), a mechanism for addressing complaints, grievances, and suggestions will be developed to prevent or address conflicts that the project’s actions may generate. | Project Manager; Implementing Partner | UNDP | At CEO Endorsement | No change |

## Annex I: Results of the capacity assessment of the project implementing partner and HACT micro assessment (see separate file)

Pursuant to the UN General Assembly Resolution 56/201 on the triennial policy review of operational activities for development of the United Nations system, UNDP adopted an operational framework for transferring cash to government and non-government Implementing Partners (IP). Its implementation will significantly reduce transaction costs and lessen the burden that the multiplicity of UN procedures and rules creates for its partners.

Financial regulation.27.02 (Definitions) of the UNDP Financial Regulations and Rules (FRR) defines National Implementation Modality (NIM) as: "The overall management of UNDP programme activities in a specific programme country carried out by an eligible national entity of that country.” National implementation is used when there is adequate capacity in the national authorities to undertake the functions and activities of the programme or project.

National implementation is considered to be the norm since it is expected to contribute most effectively to:

* Greater national self-reliance by effective use and strengthening of the management capabilities, and technical expertise of national institutions and individuals, through learning by doing;
* Enhanced sustainability of development programmes and projects by increasing national ownership of, and commitment to development activities;
* Reduced workload and integration with national programmes through greater use of appropriate national systems and procedures.

The Agencies will assess the risks associated with transactions to an IP, before initiating cash transfers under the harmonized procedures.

* Micro Assessment*:* This assesses the risks related to cash transfers to the partner and is done once every programme cycle, or whenever a significant change in the Implementing Partner’s organizational management is noticed. Assessments should be done for partners (government or NGO) that receive or are expected to receive cash transfers above an annual amount (usually US$ 100,000 combined from all Agencies. The micro assessment reviews the Implementing Partner’s system of accounting, reporting, auditing, and internal controls.

The Micro Assessments serve two objectives:

* Development objective*:* The assessments help Agencies and the Government to identify strengths and weaknesses in the PFM system and the financial management practices of individual Implementing Partners, and identify areas for capacity development.
* Financial management objective*:* The assessments help Agencies identify the most suitable resource *transfer* modality and procedures, and scale of assurance activities to be used with each Implementing Partner.

After assessing the national procurement and financial systems and the capacity of implementing partners, UNDP will adopt a risk management approach and select the most suitable funds transfer modality. In addition, UNDP will define steps to ensure the proper use of the funds provided. This will approach will ensure greater convergence between the assistance provided and the priorities and needs of each country.

*Micro Assessment: Department of Economic and Technical Cooperation (DETC), Ministry of Finance, Economic Development, Planning and Physical Development, Grenada.*

The Micro Assessment will be completed by October 15th, 2018.

## Annex J: UNDP Project Quality Assurance Report

## Included as a separate attachment.

## Annex K: Target Landscape Description

**Great River Watershed**

*Environmental Characteristics*

The Great River Watershed, the largest in Grenada covers an area of 4,574 ha or 14.5% of the total land area of Grenada. It has the widest topographic, climatic, soil, and land use variations in the country. The soils in the watershed are dominated by Capital Clay Loam (figure 1), which has different phases, based on stoniness and deepness. It constitutes 82% of all soils in the watershed. This soil is found mainly in the mountain areas of very steep slopes and high rainfall. It is often subject to the loss of the whole of the shallow soil above the parent material by landslides, making it moderately erodible. It is moderately to well drained, with good water retention and high natural fertility. The watershed has a very steep topography (figure 2), having only 6% of flat to gently sloping (0-50) and 73% of extremely steep land (300) land.

The Great River Watershed feeds a major natural lake of volcanic origin, i.e., the Grand Etang. Upland portions of the watershed (majority of it) falls within the Grand Etang Forest Reserve (1,700 ha) that together with the Annandale Forest Reserves (approximately 240 ha) occupies the majority of the watershed. Both Forest Reserves are critical areas for water supply for the local surrounding communities. Grand Etang in particular is the upper headwaters of some 10 steep-sided valleys, and the upper basin and recharge area of a major tributary of Great River and Black Bay River. The Annandale Forest Reserve includes the headwaters of a major tributary of the Beausejour River.

Based on the most recent 2009 land cover mapping survey, the land use in the watershed was dominated by abandoned cropland (36%), followed by maintained agriculture (27%) and forest (35%) (figure 3). Though not scientifically assessed, recent visual observation has revealed that there has been significant reversion of abandoned cropland back to productive use.

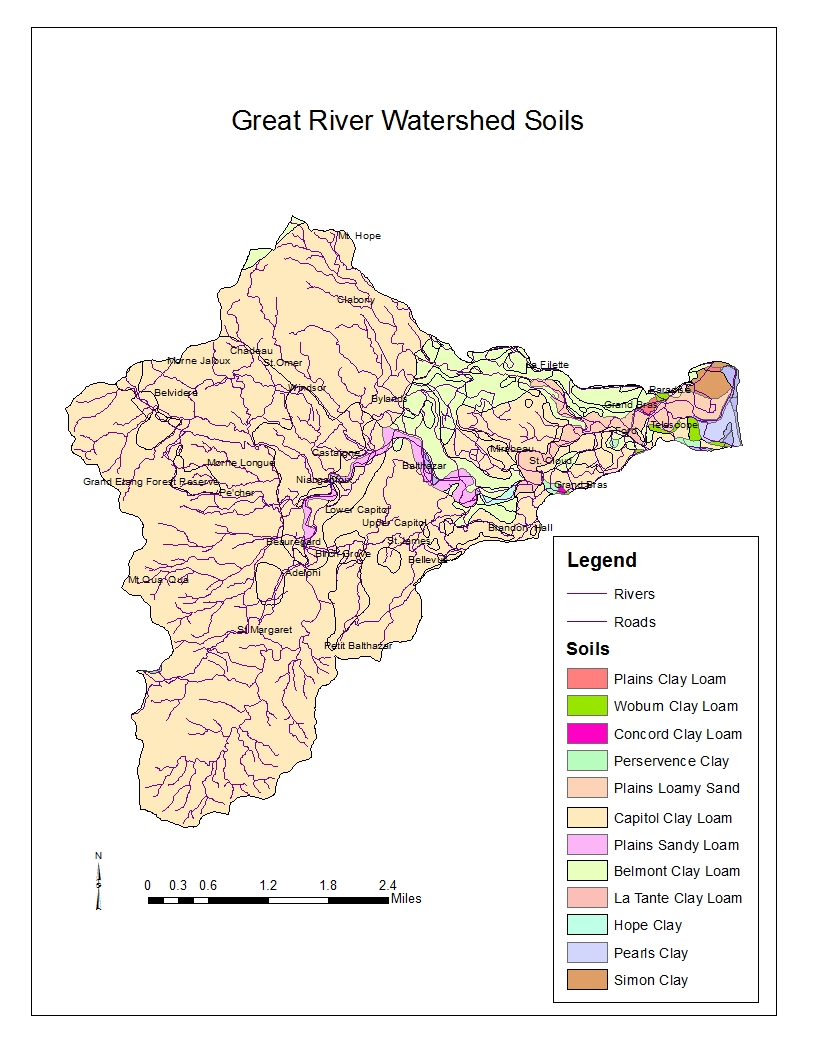
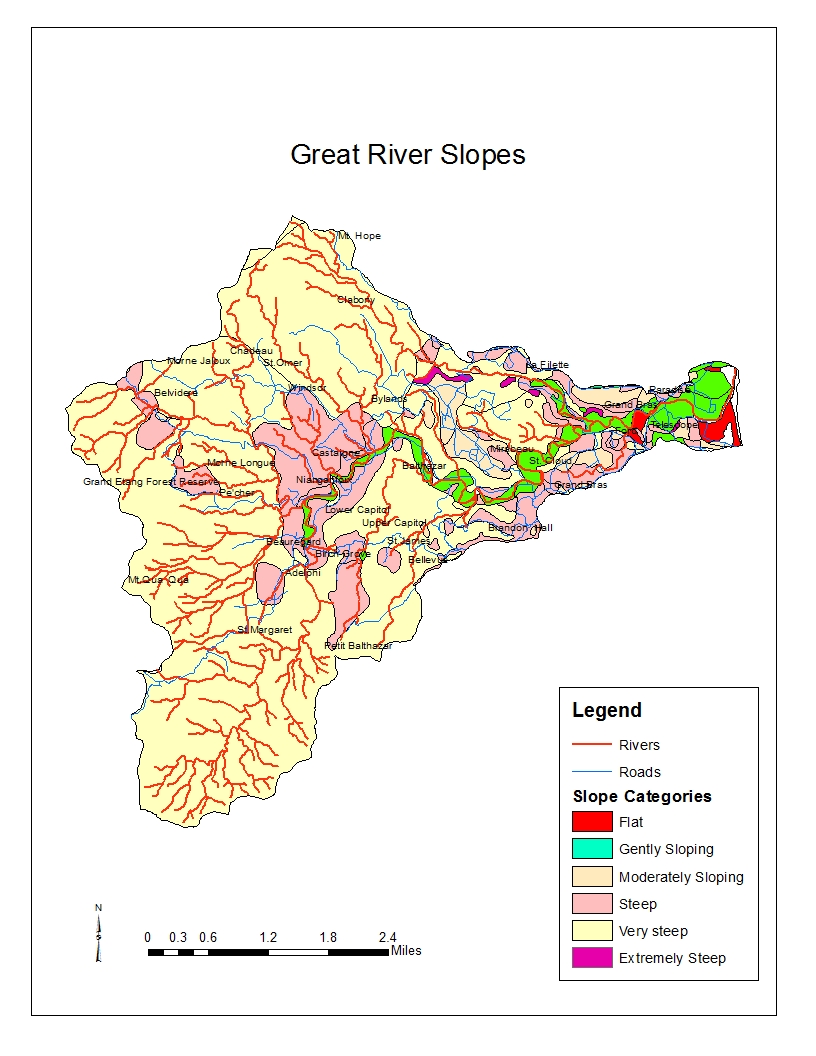
 

Figure 1: Soils in the Great River Watershed Figure 2: Slopes in the Great River Watershed

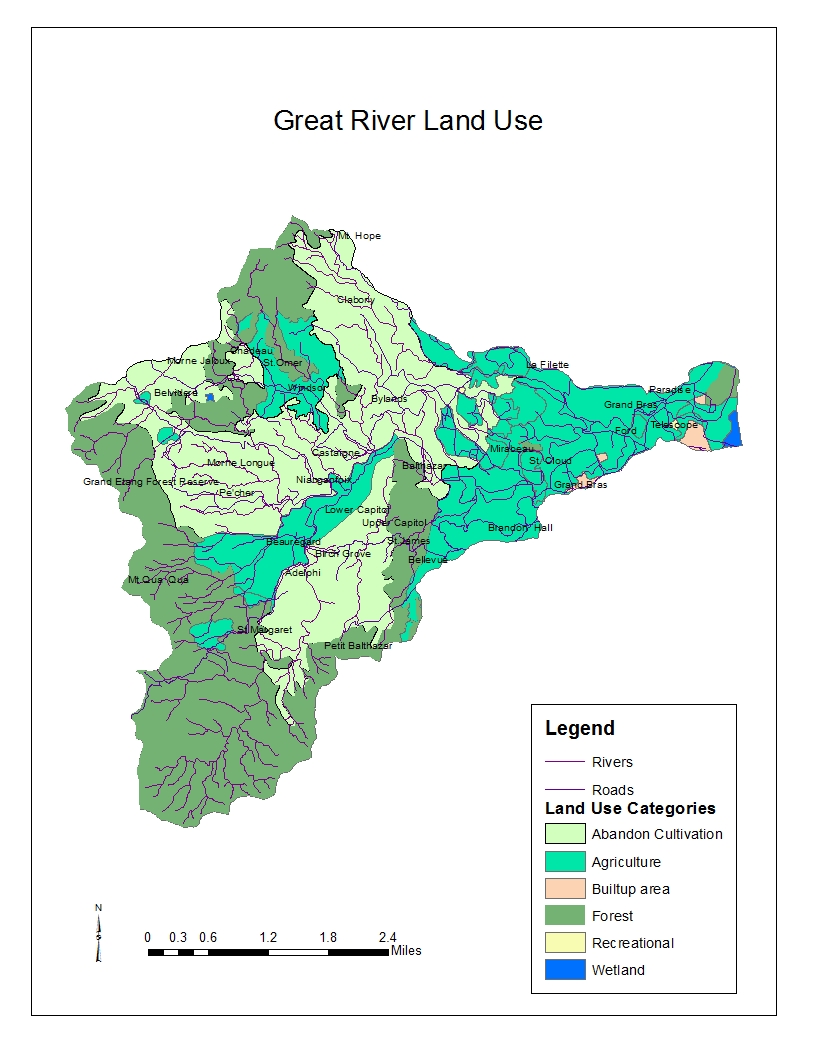


Figure 3: Land Use in the Great River Watershed

*Social and Economic Characteristics*

The Great River Watershed and surrounding settlements are located on the eastern side of the island in the parish of St. Andrew, the largest of Grenada’s six parishes with a population of approximately 22,425 persons dispersed through 52 settlements. The largest settlement in the parish is that of Grenville with a population of 2,822 people, making it an established urban centre; a small seawall is constructed along the urban centre, which also has a school, police station, fish market and church. Pearl’s Airport, the local air space facility, is located one mile north from Grenville. Grenville has deep archaeological significance for the local Caribs of the parish. The population demographics for the Great River Watershed as of 2001 indicated that the area accounts for a population of 3,164 persons. At the time it had relatively young population with 552 and 519 males and females respectively making up the age cohort of less than 15 years old, an evenly balanced work-force of 901 to 898 males to females as well as a balanced old age population. This information will be updated during project implementation since there are no recent statistics available,

The Great River Valley, which is the largest in Grenada, is one of the most fertile and productive areas of the country and serves as an active commercial and trading centre. The public utilities in the area are described as adequate with the presence of schools, postal offices, stable communication lines, road network and transportation systems. The Great River and its tributaries flow to the west of Grenville, causing frequent flooding in the nearby settlement of St. Cloud Area, blocking the access to and from the settlement which is a cause of concern for its surrounding residents.

St Andrew has the second largest number of households engaged in farming in the country with 8,337 of the 33,217. It ranks first in farming as the main livelihood activity of the households with 3,019 of the 9,233 households countrywide. Farming is mostly at a subsistence level though there are some medium and large plantations. The average size of farming plots is 1.7 acres and the main crops grown are vegetables such as carrots, cabbage, lettuce, tomatoes, ochroes, etc.

There has been some livelihood displacement in the farming community as a new group of farmers of foreign origin are buying and renting lands in the areas surrounding the marinas of the parish. The foreign farmers farm short-term crops such as cabbage and cucumbers, which are sold to restaurants and visitors including yachts at the marina. Their farming practices are more sustainable and environmentally friendly, and they identify their products as clean foods. The foreign farmers are able to capitalize on the educated local population that pay premium for organic produce. This has negatively impacted the market of the local farmers. In addition, the foreign farmers have not established relationships with local farmers, leading to some resentment. The ability of the non-Grenadian farmers to create a niche shows that there is an existing market for organic and sustainable agricultural produce.

There are a small number of women farmers that are involved in the entire agriculture value chain. Women mainly assisting in the clearing of plots and planting of seedlings on their spouse’s farm or are recruited specifically for this task. Women preponderate in the agroprocessing end of the value chain. They process agricultural produce into various value-added products which is then marketed local or regionally. This activity also allows them to engage in a livelihood activity.

In addition to farming, some households are engaged in fishing, which is also done mostly at a subsistence level. Fishing is mainly done by older males and some younger males. Women are not generally involved in the cleaning and selling of fish. Many of the residents of St. Andrew work in St George’s in the government sector, private sector and service sector as public servants of all categories, service and sales workers and elementary workers.

Development of marinas on the coast of the parish has led to some livelihood activities for both males and females. Women and men work in the restaurant and other services. Men are also able to obtain job such as yacht-assistants and mechanics. However, these jobs tend to be short-term and seasonal. The development of marinas may have led to the displacement of poor residents from the waterfront.

Migration rates in the parish is high with mainly males migrating both to other parishes, other OECS) and Caribbean Community (CARICOM) countries and even to the United States and Europe. Male migration leaves women at home for long periods to eke out a livelihood for the family. Women often have to do several jobs and livelihoods to manage the households.

Even in cases where the males are present, men and women tend to act economically independent of each other. There is seldom pooling of communal resources instead each is contributing to a particular household need. Males tend to own both agricultural lands and household properties.

**La Sagesse Watershed**

The La Sagesse Watershed is a relatively small watershed covering an area of 691 ha. Like the Great River Watershed, its soils are dominated by Capital Clay Loam, which constitutes 60% of all soils, followed by Woburn Clay Loam, which constitutes 30% (figure 4). The Woburn Clay Loam is found in relatively dry areas. It has very poor water retention capacity and moderate natural fertility. Like the Great River watershed, this watershed has a very steep topography (figure 5), with 80% of slopes in excess of 30 O. In 2009, the land use in the watershed was dominated by agriculture (67%) and forest (30%) (figure 6). At the time of the land cover mapping survey in 2009, there was minimal abandoned cropland, however recent visual observation has revealed significant amounts of abandoned lands.

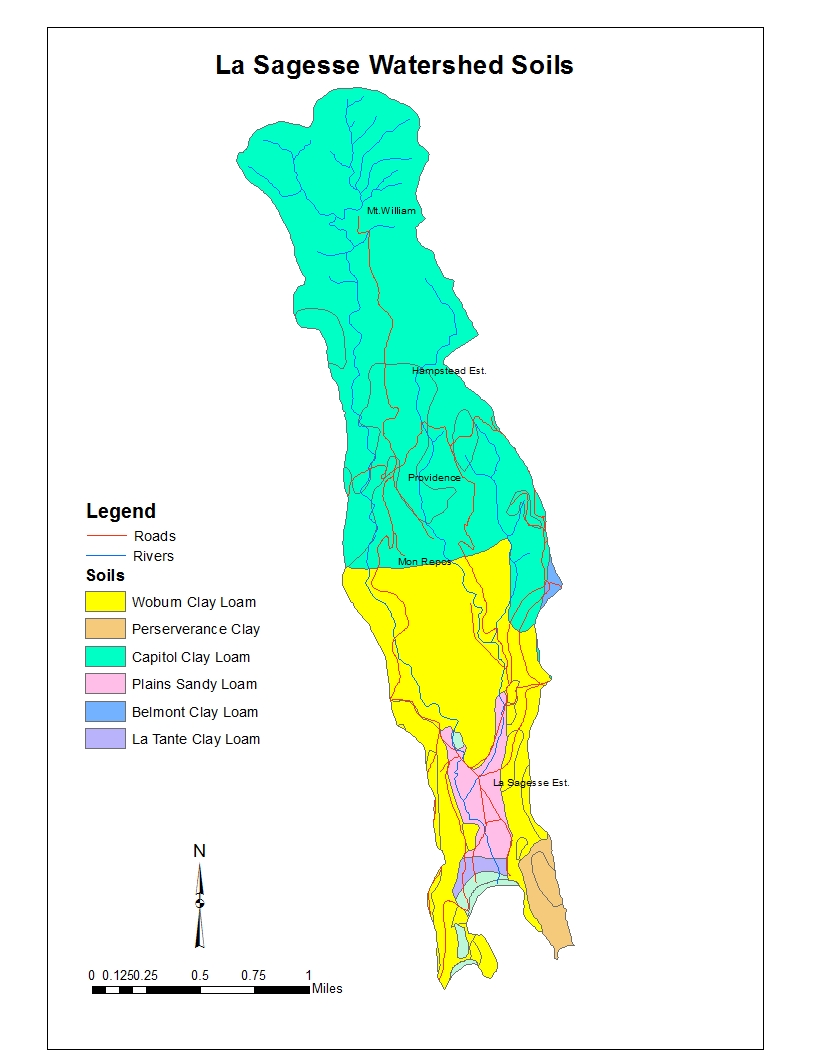
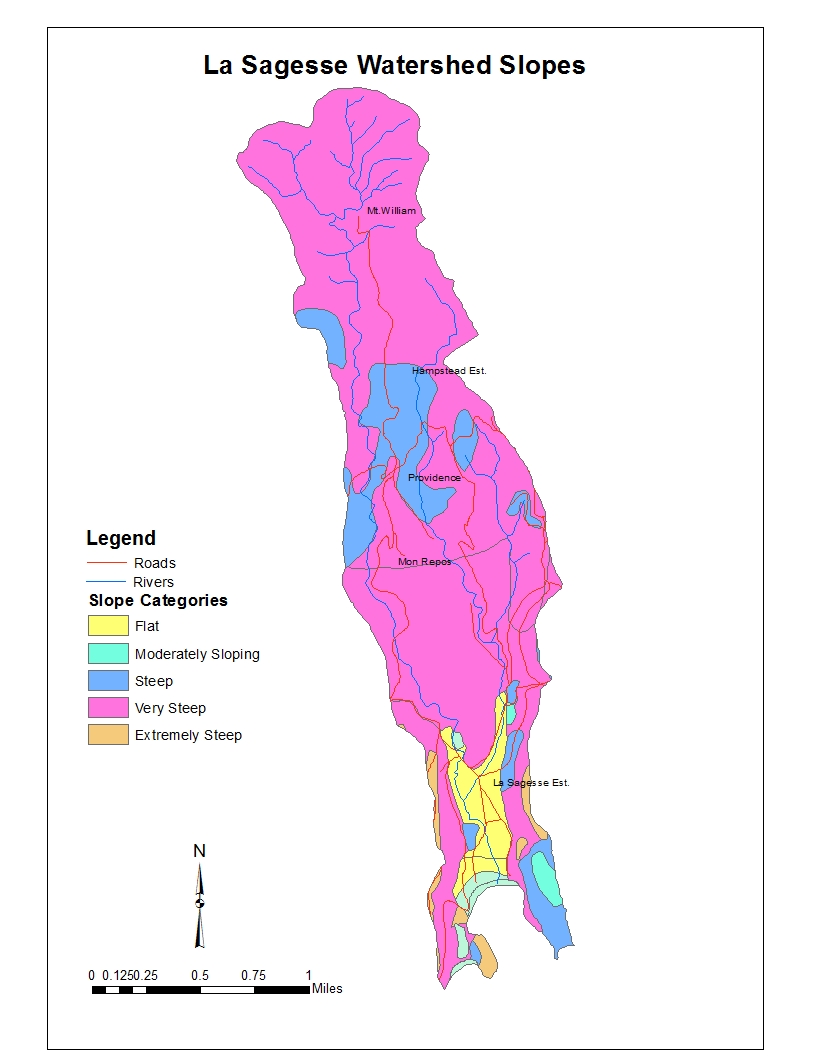
 

Figure 4. Soils in the La Sagesse Watershed Figure 5. Slopes in the La Sagesse Watershed

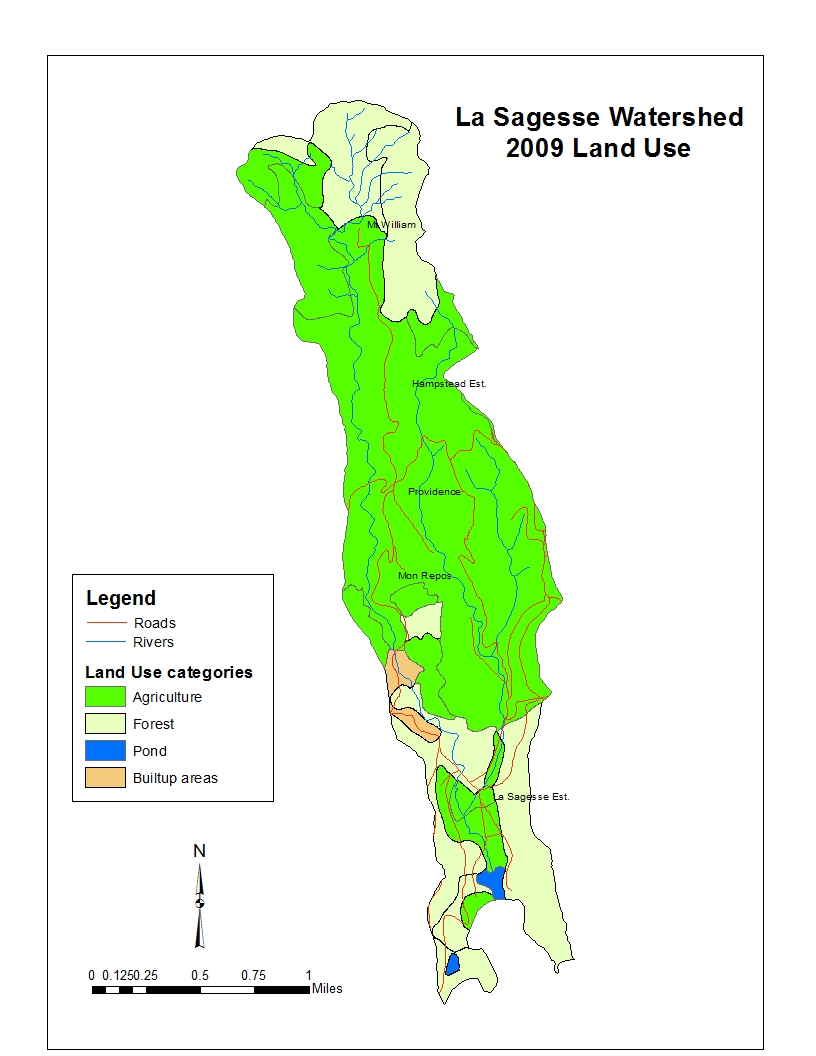


Figure 6. Land Use in the La Sagesse Watershed

*Social and Economic Characteristics*

The La Sagesse watershed is located within the St. David parish, which is the fourth largest of the [parishes of Grenada](https://en.wikipedia.org/wiki/Parishes_of_Grenada) with a population of 12,877 residents. Without a main town, it consists mainly of small settlements. Due to its lack of a town and the “greenness” of the parish along with the lack of infrastructural development, it is often known locally as “The Virgin Parish". Physically, the parish is in the southern end of the country with a coastline that has many spectacular [bays](https://en.wikipedia.org/wiki/Headlands_and_bays) and [inlets](https://en.wikipedia.org/wiki/Inlet) that help to provide the parish with a variety of small secluded [beaches](https://en.wikipedia.org/wiki/Beach).

29.5 % of the households in St. Patrick were deemed poor[[83]](#footnote-84) and 5,730 of its citizens were deemed to be vulnerable to food insecurity. 17.8 % of its households listed agriculture as their main livelihood activity. Some of the main farming communities include Aprestout-194 residents, Belle Isle-241 residents, Mt.Tranquilli -96 residents, Dudmar -270 residents and Beaton- 281 residents. Crops grown include the staples of nutmeg and cinnamon. Also grown are vegetable crops such as carrots, cabbage, lettuce and tomatoes. Residents of this Parish are gainfully employed in a wide range of activities inclusive of farming, fishing, construction and sales. St. David hosts the third highest percentage of farming households on the island. There are several community-based groups, farmers group, and environmental and social organizations in the Parish.

**St. Patrick, Levera, and Levera Pond watersheds.**

*Environmental Characteristics*

Given the close geographic proximity of the watersheds to each other, and their geophysical similarities they will be handled here as one watershed. The three watersheds cover an area of 1698 ha. The soils in the watersheds are dominated by Belmont Clay Loam (56%), followed by Woburn Clay Loam (22%) (figure 7). Often referred to as the “brown earth”, the Woburn Clay Loam is found mainly in the mountain areas of very steep slopes and high rainfall and are often subject to the loss of the whole of the shallow soil above the parent material by landslips. It is moderately to well drained, with good water retention and only moderately erodible. It has high natural fertility. Like the previous watershed, this watershed has very steep topography with extremely steep slopes (>30O) occupying 58%, followed by steep slopes, which occupy 27% (figure 8). Based on the 2009 land use map, land use is dominated by agriculture 70% and forest 25% (figure 9), and to a lesser extent rivers, beaches, lakes, and mangroves.

The Levera National Park is located with the Levera Pond watershed, it was established in 1994 and comprises 450 acres around the Levera Pond, a large mangrove swamp and one of the most important wildlife habitats on the island, and three ecologically important offshore islands. Levera is promoted as Grenada's most scenic and spectacular coastal area, with a bird sanctuary, turtle nesting beaches and sites of historic interest.

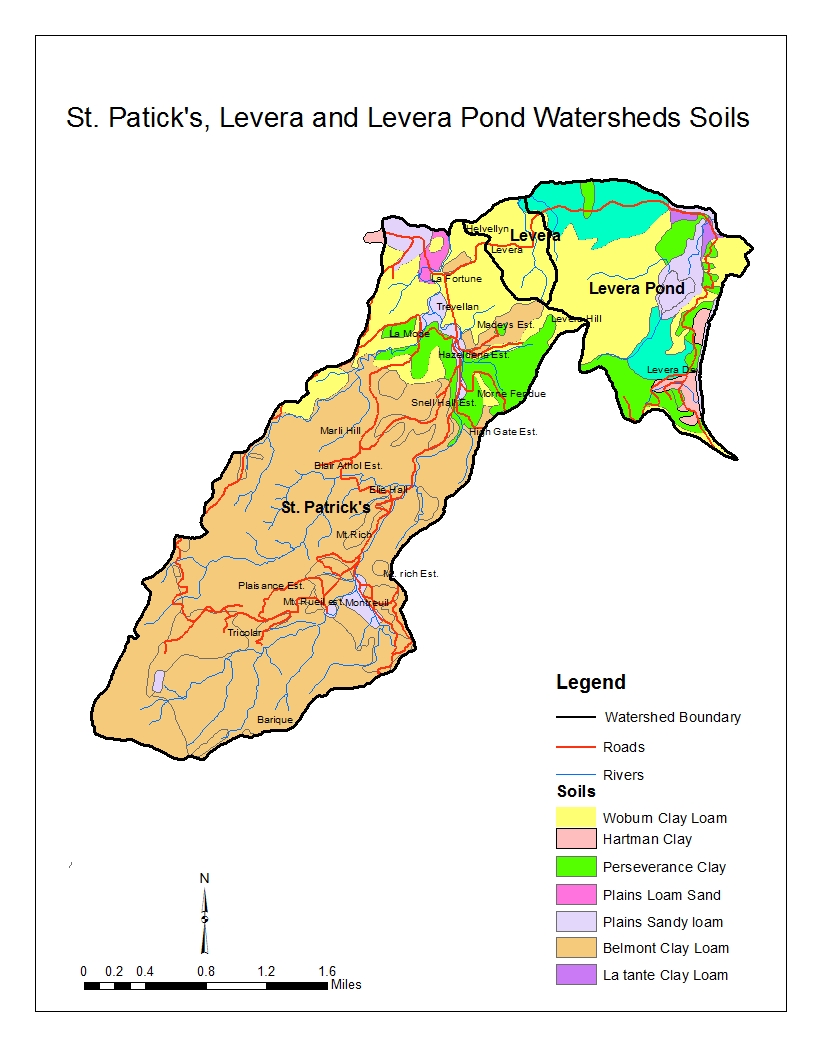
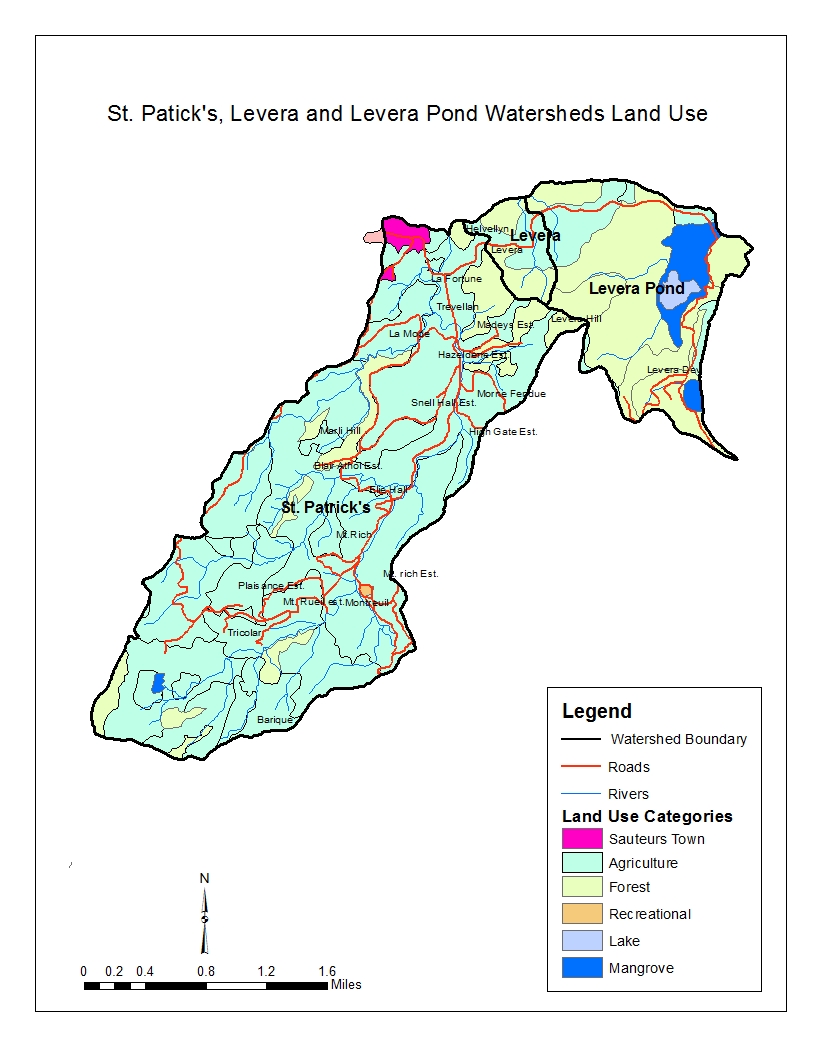
 

Figure 7. Soils in the St. Patrick, Levera, and Levera Pond Watershed Figure 8. Slopes in the St. Patrick, Levera & Pond Watershed

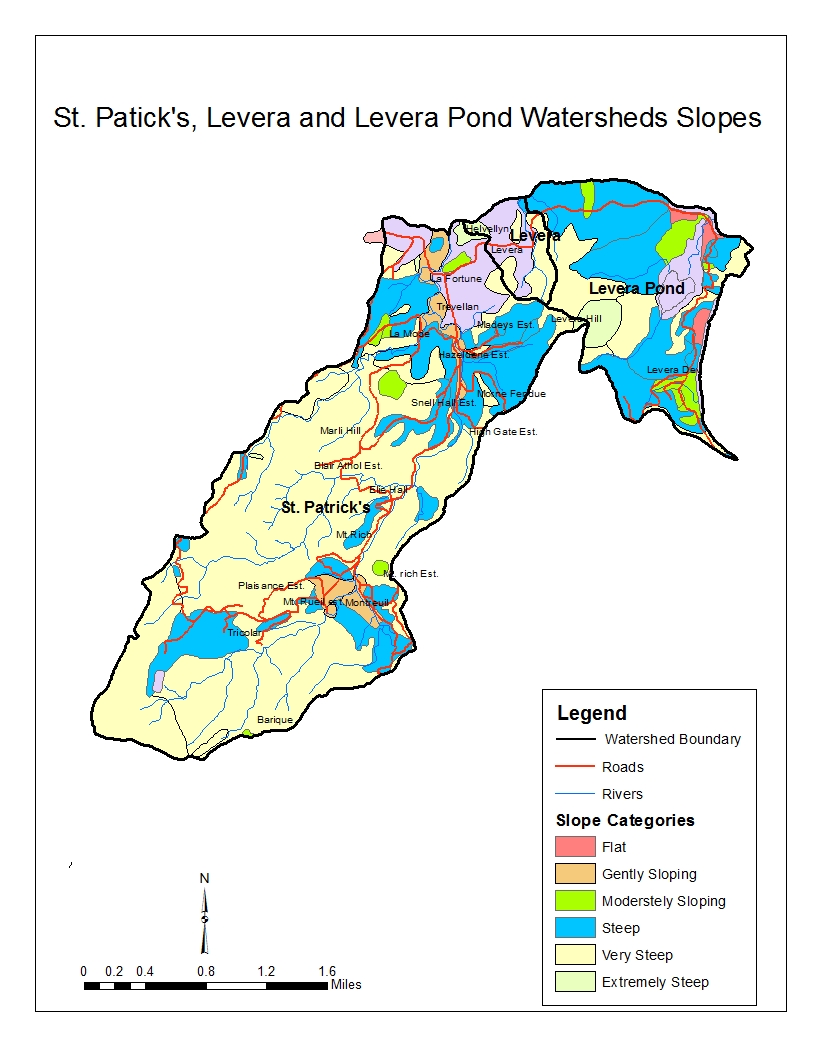


Figure 9. Land Use in the St. Patrick, Levera & Levera Pond Watershed

*Social and Economic Characteristics*

One of the northern parishes of the country, Saint Patrick is the location of three watersheds, the St. Patrick’s watershed, Lavera watershed and the Lavera pond watershed. It has a coastline with bays and several small islands to the north; its most well known beach is Bathway. The Parish has a population of 10,503 residents.

St. Patrick’s has about a dozen small communities. The beaches are popular with residents, especially on weekends, and the area’s tourism potential has recently received considerable attention. The principal town in St. Patrick is [Sauteurs](https://www.familysearch.org/wiki/en/index.php?title=Sauteurs&action=edit&redlink=1). The northern town of Sauteurs has a population of about 700 people. It offers a typical variety of services, commerce and amenities. Most businesses are owned by the residents including gas stations, tire repair, hardware, agricultural supplies, feed, general goods, and vegetable market. There are primary and secondary schools, a community and training centre, credit union, cooperative and commercial bank.

Farming, rather than fishing, is the main economic pursuit of the Sauteurs area, as it is for St. Patrick’s generally. Fishery participants live in Sauteurs or its outskirts. Approximately 3,587 households in the parish are engaged in farming; farming is mostly at a subsistence level. There are several cocoa and nutmeg estates in this parish. The Belmont Estate, a 300-acre organic farm is located in this parish. In addition, to nutmeg and cocoa, farmers are engaged in citrus and vegetables such as tomatoes, cabbage, cucumber and lettuce. Average farm size is between 1 and 1.5 acres. In addition to farming, there is also some subsistence fishing in the parish.

Tourism is also seen as an up and coming sector within the parish, from which blooms opportunities and conflicts. The parish has various tourism attractions, e.g. turtle watching at Levera Beach, historical and cultural tours at Carib Leaps in Sauters and along the various Amerindian trails present. The emergence of possible nutraceuticals micro-enterprises, utilizing the locals’ traditional knowledge of indigenous herbs and plants as well as empowering women and vulnerable groups within society to earn a livelihood, that is both sustainable, rewarding and climate resilient (Rare, 2009). Historical and cultural tours have the potential to create the following livelihoods in the Parish: interpretive guides, ecotourism promoters, a market for niche agroprocessed products such as pepper sauces and spices, local cultural entertainers, turtle watching tour operators, and water taxi tours and operators.

The Belmont Estate, a local 300-acre, organic agrotourism business is located in the Parish and employs its workers from surrounding areas. The estate manufactures local organic goat cheese and chocolate and is a very good model of an agricultural social enterprise. The Parish also possesses an environmental organization; St. Patrick Environment Community Tourism Organization (SPECTO) is a non-profit environmental and community tourism advocacy group based in the parish of St. Patrick’s, Grenada. Founded with a mandate from the Ministry of Fisheries and Government of Grenada, SPECTO’s goal is to engage the community in the protection and conservation of the endangered leatherback turtle species and develop alternative livelihoods based in environmental conservation and activism.

**Carriacou and Petit Martinique**

*Environmental Characteristics*

Carriacou and Petit Martinique cover a total land area of 3,400 ha. The soils are dominated by Woburn Clay Loam (65%), followed by Limlair Clay (16%) (figure 10). Limlair Clay is a dark grayish-brown soil, derived from ash and agglomerate colluviums. It is a moderately drained, deep soil on gently sloping land, with high water retention capacity, high resistance to erosion and moderate natural fertility.

Like Grenada, the island of Carriacou is dominated by very steep (41%) and steep (27%) slopes (figure 11) and stretches from Pegus Point, in the South to Gun Point in the North. The highest point on the island is High Point North which lies 291 m above sea level. There are no surface water sources on the island, so islanders rely solely on rainwater harvesting. Some 2 ½ miles north of Carriacou lies the tiny island of Petit Martinique. The island covers an area of 2.37 km2 and its highest point is a steep volcanic core rising 750 feet above sea level and the coastline is lined with a combination of sharp, rocky cliff faces and stretches of white sand beaches.

Based on the most recent 2001 land use survey, the landscape of Carriacou and Petit Martinique was dominated by forest, which occupied over 60% of total land area, followed by controlled pasture and grazing land (12%) and cropland (10%) (figure 12). Islanders refer to the island as the land of reefs owing to the multitude of reefs that surround the island.

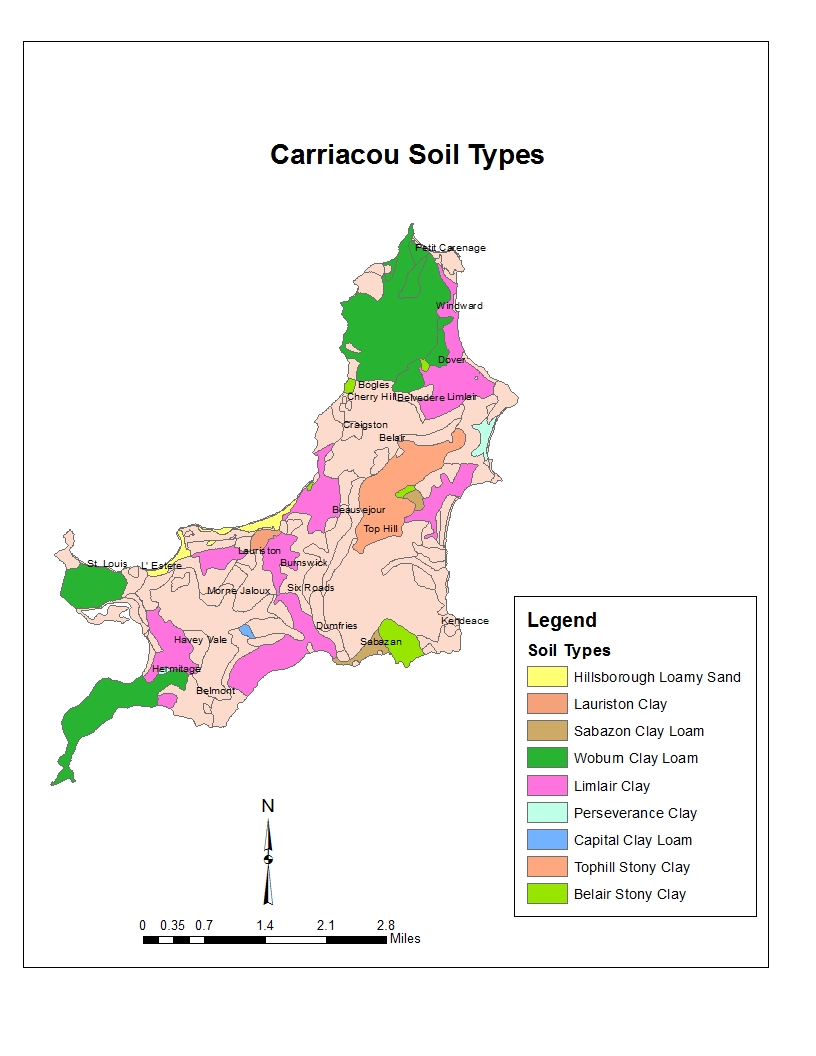
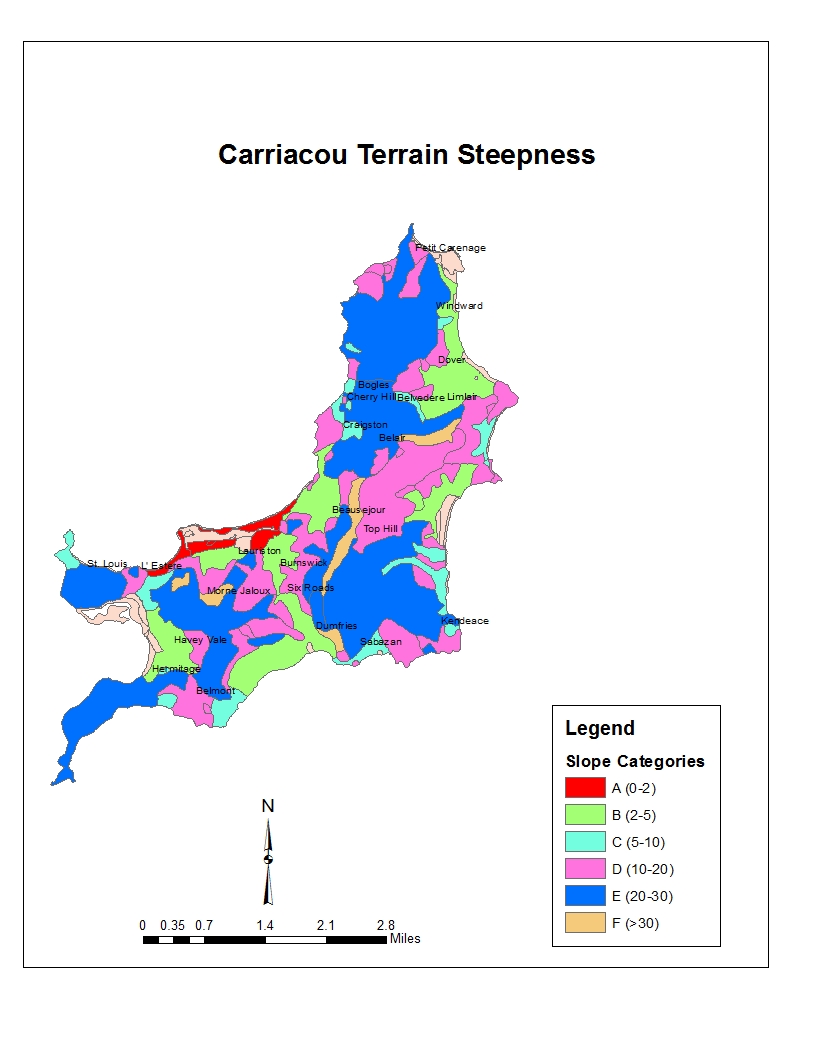
 

Figure 10. Soils in Carriacou Figure 11. Slopes in Carriacou

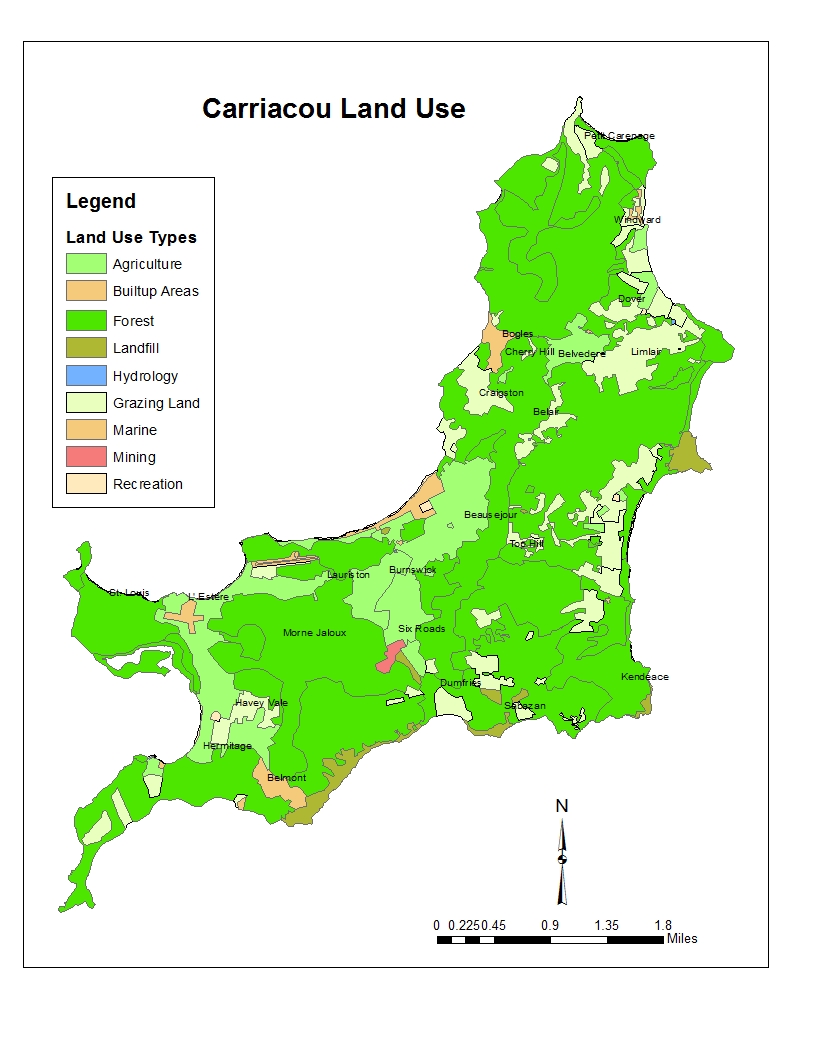


Figure 12. Land Use in Carriacou

*Social and Economic Characteristics*

Carriacou. The largest island in the Grenada Grenadines, Carriacou is home to approximately 8,000 persons. Hillsborough is Carriacou’s largest town and serves as the retail and administrative centre for Petit Martinique as well with a population of 1,000. Other settlements include L'Esterre, Harvey Vale, and Windward.

Construction, fishing and entrepreneurship (small business owner, owner of boutique, owner of a shop) are the three main occupations for income generation. On a smaller scale, water taxiing, sailing and housekeeping are also primary sources of income for some households, with 17% of the area’s population relying on construction as the main source of income. 64.8% of females are involved in an income generating activity; females are involved in activities ranging from housekeeping, teaching, administrative work, catering, work within the tourism sector, bar tending and care taking to entrepreneurship (small business owner especially food businesses). However, the main income generating activities are construction and cooking (17.2%), teaching (10.3%) and housekeeping/domestic work (9.7%). 39.3% of the population in Carriacou has at least one member of the family involved in the numerous social groups within the community; e.g. the 4H Club, the Grenada Union of Teachers, and the Mt. Pleasant Youth Group.

More than 90 percent of the fishermen own their own boats. Fishermen in Carriacou reported a monthly income on average in excess of 1,000 USD; fishing is therefore a lucrative livelihood. Most households also own their homes, though ownership is predominantly male. Fishermen’s knowledge of conservation and environment issues were high; however, the industry has become constrained by the depletion of the marine environment, which results in low fish stocks. Whilst there are a few women engaged in fishing, women are generally not involved in the fishing value chain except in the cleaning and selling of fish. Many women saw fish selling asa derogatory livelihood and preferred to work outside. Women are also heavily involved in the small business sector especially the food business where they often utilize fish caught by their spouses.

Agriculture in Carriacou began as plantation agriculture, sugar, and coconut. However, there was a decline in agriculture for many years post breaking up of the plantations. The division of the estates led to a subsistence type of agriculture with small farm holdings. It also led to a more intensive agricultural practice including the incorporation of livestock production with crop production mainly corn, beans and vegetables. Farms were further sub-divided from generation to generation. It is estimated that there are more than 7,354 individual plots of land.[[84]](#footnote-85) In addition to the subdivision of property, limited land led to the practice of free ranging of animals, a poor and unsustainable land use practice. Known traditionally as “leggo beast season”, free ranging was originally limited to the dry season but became a year-round practice. This practice led to intense land erosion because of overgrazing and is expected to increase with projected climate change conditions. Stray animals contribute significantly to land degradation from overgrazing. A 1995 agricultural census estimates the livestock population of 7,200, an equivalent of 2,444 Tropical Cattle. Land pressure is also driven by returning residents from North America and Europe who establish holiday homes on the island. The pressure from the holiday homes exacerbates the scarcity of land on the island for other purposes including agriculture.

Carriacou is home to many harbours, Internet cafes, banks, wholesale and retail stores, schools, churches and several recreational grounds. The two most important marine recreational activities in which members of households engage are bathing (24.1%) and fishing (13.8%). Other activities include swimming, diving, snorkeling and sailing.

In a survey conducted as part of the Caribbean Marine Biodiversity Program (CMBP) in 2016, gender perceptions were high and positive. More than 90% of the males interviewed said that women should be engaged in any livelihood activity of their choice and women should be able to work outside of the home if they so desired.

Petit Martinique. The island covers an area of 2.37 km2 and is home to some 900 persons. The island hosts one road that runs from north to south on the western side of the island. The northern part of the island is considered the countryside while the southern part is the ‘town’. Palm beach is the local hotspot and only major beach on the island and is found on the northern edge of the island.

Fishing is the primary economic activity of the households of Petit Martinique. Fishing is followed by water-taxi, which transports residents and tourists around the Grenadines. Petit Martinique also has a thriving boat making industry, which supports the fishing industry. The boat makers are so skilled in their craft that persons from various locations in the Grenadines use it as their source of vessel.

Almost all the land in Petit Martinique is privately owned and they share a similar agricultural history with Carriacou. The defunct estates were divided between the occupants of the island with increasing numbers of smaller units per generation. There is limited agricultural production on the island. There is a women’s group that is interested in shade house and or green house agriculture projects.

The island because of its smallness and limited availability of jobs have a high migration rate for both males and females. Males migrate to Grenada seasonally and permanently, the Grenadines and other OECS countries. In other countries they are employed with the fishing and boat industry, construction and other skilled and technical jobs. Women also migrate from the island since female unemployment rates are also high. Outside of the few public service jobs on the island such as teaching there are few livelihood opportunities for women who are on the fringe of the fishing value chain. Women migrate for service jobs such as housekeepers for wealthy North Americans who own houses in the Grenadines. They also serve in various service capacities associated with the yachting industries. Male migration is a source of economic support for women in the form of remittances.

Males are organized in several social and economic groups. The Carriacou and Petit Martinique Water Taxi organization is an organization that serves the interest of water-taxi operators. Since men of the water taxi operators are also fishermen they jointly belong to the Carriacou Fishermen’s Cooperative. Both organizations are presently involved in various alternative livelihood training associated with the Caribbean Marine Biodiversity Project. The groups have also been trained in conservation topics, issues and methods such as fish aggregating device (FAD) fishing.

Male migration leads to matrifocal households with the women having to bear the burden of supporting the households by eking out a living from the limited opportunities on the island. This usually leads to added stress on women and other social issues such as extra-marital relationships.

There is a women’s organization on the island, the Petit Martinique Women in Action, whose main objective is supporting women to gain livelihoods through skills training and linking women with livelihood opportunities. Women also use the church both for social support and as a space for organizing social assistance to other vulnerable members of the society.

## Annex L: List of People Consulted During Project Development

Inception Mission

|  |  |  |  |
| --- | --- | --- | --- |
| **Denyse Ogilvie** | 1-473-423-4912 | Grenada Ecological Research and Resilience Organization (GERRI) | Education, training, capacity building, permaculture design certification, agroprocessing, emerging technology, community leadership |
| **Mr. De Gale** | NA | Spring Garden Land Owner | Fair trade farmer, banana exporter (potential land bank candidate) |
| **Garvin Pierre** | 473-534-1086 | Poultry/Crop Farmer | NA |
| **Michael Neckles** |  | GERRI | NA |
| **Prince Matthew** | 473-406-8505 | Agriculture Extension Officer |  |
| **Claudius Pierre** | 473-415-0793 | Grenada Fair Trade Farmers Association |  |
| **Franklyn Young** | NA | NA | NA |
| **Kudjo** | NA | Contract Farmer for Billy Ocean | NA |
| **Grenada Agriculture Farmers Organization** | 534-1086 [farmboyball@gmail.com](mailto:farmboyball@gmail.com) | Garvin Pierre | Poultry & Crops |
| **St Patricks Fisherman’s Association** | 421-0082 [stpatricksfishers@gmail.com](mailto:stpatricksfishers@gmail.com) | Paul Williams |  |
| **Senator Keith Clouden** | 404-0711 | Agriculture Senator |  |
| **Deniel Ross** | 533-3640 | GARFOR - Tempe and Mardigras farmer | Short rotation crops |
| **Godwin Williams** | 418-3773 | Farmer with. St. Andrews Progressive Farmers Association | Short rotation crops |
| **Jenson Phillip** | 418-5140 | GARFOR/Poultry Farmers | LaBorie |

|  |  |
| --- | --- |
| Agency/Organization | Stakeholder |
| GEF Focal Point, Ministry of Finance | * Mr. Fitzroy James- Director of Technical Cooperation, Ministry of Finance |
| Ministry of Agriculture and Lands | * Merina Jessamy, Permanent Secretary * Daniel Lewis - Chief Agriculture Officer * Gregory Delsol- Chief Planning Officer |
| Forestry Division | * Anthony Jeremiah-Chief Forestry Officer * Joseph Noel - Project Officer, Ridge to Reef * Sabrina Compton - Project Finance/Admin - Ridge to Reef * Mel Turner - Technical Advisor, Ridge to Reef Project. |
| Meeting with Ambassador Friday | * Ambassador Friday |
| Ministry of Social Development | * Jicinta Alexis- Gender Specialist |
| Grenada Investment and Development Corporation (GIDC) | * Che Keens Douglas- Chief Executive Officer * Kiesha Mitchell- VP of Business Development * Lexander Kasterine- UNDP |
| Forestry Department (Baseline Data) | * Gordon Patterson, Forestry Officer at the Forestry Department. |
| Agriculture Associations: GARFOR Farmers Group | * Gavin Pierre- Grenada Agriculture Farmers Association * Paul Williams- St. Patrick’s Fisherman’s Association * Senator Keith Clouden- Agriculture Senator * Deniel Ross- GRFOR- Tempe and Mardi Gras farmer * Godwin Williams- Farmer with St. Andrew Progressive Farmer’s Association * Jenson Phillip- GARFOR/Poultry farmer |
| Farmers Association II- Cocoa, Nutmeg and Marketing and National Importing Board (MNIB) | * Andrew Hastick, Grenada Cocoa & Nutmeg Associations/General Manager & Board Member (representing approx. 4000 farmers) * Ruel Edtwards, CEO, Marketing and National Importing Board (MNIB) |
| St. Andrew’s Watershed Farmers’ Meeting | * Denise Olgilvile- Grenada Ecological Research and Resilience Organization (GERRI). * Mr. De Gale- Spring Garden Land Owner. * Garvin Pierre- Poultry Farmer. * Michael Neckles- GERRI. * Prince Matthew- Agriculture Extension Officer. * Claudius Pierre- Grenada Fair Trade Farmers Association. * Franklyn Young. * Kudjo- Contract farmer for Billy Ocean. |
| National Water and Sewerage Authority (NAWASA) | * Mr. Whyme Cox, Planning Manager, Planning and Development Department, NAWASA |
| People in Action | * Denyse Oligive |
| Annade Trotman-Joseph, Lawyer member of Grenada National Organization of Women | * Annade Trotman-Joseph |
| Clozier Youth Farmers Cooperative | * Iva Williams |
| The Petite Martinique Women in Action | * Keisha Clarke, President |
| Other Meetings | * Grenada Industrial Development Corporation which included Che Keens Douglas, GIDC CEO and Keisha Mitchell, VP Business Development |

Intermediate Stakeholder Consultations (Project Results Framework Workshop)

|  |  |  |  |
| --- | --- | --- | --- |
| Isabelle Slinger | The Tower Estate | 407-4487 | [thetowerestategrenada@gmail.com](mailto:thetowerestategrenada@gmail.com) |
| Magali Bongrand | GIZ | 417-7631 | [magali.bongrand@giz.de](mailto:magali.bongrand@giz.de) |
| Nealla Frederick | Nature Conservancy | 435-0231 | [nfrederick@tnc.org](mailto:nfrederick@tnc.org) |
| Simone Lewis | GEF Small Grants Program | 440-7445 | [simone@unops.org](mailto:simone@unops.org) |
| Natasha Joseph | Grenada Development Bank | 440-2382 | [natasha.joseph@gddbank.org](mailto:natasha.joseph@gddbank.org) |
| Shelda Hosten | MoA Environment Division | 440-2708 | [sheldah9394@gmail.com](mailto:sheldah9394@gmail.com) |
| Titus Antoine | MoF Economic Development and Planning | 459-0027 | [titus\_antoine@yahoo.com](mailto:titus_antoine@yahoo.com) |
| Trevor Thompson | MoA Land Use | 417-2405 | [trevor\_lud@yahoo.com](mailto:trevor_lud@yahoo.com) |
| Albiness Rowlette | MoA Extension | 449-6485 | [junbila56@gmail.com](mailto:junbila56@gmail.com) |
| Cassandra Mitchell | Caribbean Association for Youth Development | 538-4260 | [caydgren@gmail.com](mailto:caydgren@gmail.com) |
| Annlyn McPhie | UNDP | 423-4141 | [annlyn.mcphie@undp.org](mailto:annlyn.mcphie@undp.org) |
| Benedict Peters | MoA | 405-5046 | Benedict Peters |
| Benjamin Vivas | UNDP Consultant |  | [vivasmb@gmail.com](mailto:vivasmb@gmail.com) |
| Claudius Pierre | Fair Trade Farmers Association | 415-0793 | [claudiuspierre@hotmail.com](mailto:claudiuspierre@hotmail.com) |
| Denyse Ogilvie | Grenada Ecological Resilience Research Institute | 414-3122 | [denyse.ogilvie@gmail.com](mailto:denyse.ogilvie@gmail.com) |
| Bonnie Rusk | Biologist/ UNDP PIFF Author | 403-3361 | [blrusk@gmail.com](mailto:blrusk@gmail.com) |
| Dhanroy Ramlchelawan | Ministry of Health | 457-2416 | [deryck\_3@hotmail.com](mailto:deryck_3@hotmail.com) |
| Valerie Joseph | MoF Economic Development and Planning | 435-8889 | [valt.joseph@gmail.com](mailto:valt.joseph@gmail.com) |
| Dunstan Campbell | Grenada Organic Agriculture Movement (GOAM) | 305-7029 | [goamgrenada@gmail.com](mailto:goamgrenada@gmail.com) |
| Amanda Boldeau | Grencoda/ 5 C’s Project | 410-9338/444-8400 | [marsha.boldeau@gmail.com](mailto:marsha.boldeau@gmail.com) |
| Nichole Gellineau | Principal Legal Consultant - Environment, Climate Change | 421-7520 | [nichole\_gellineau@yahoo.com](mailto:nichole_gellineau@yahoo.com) |

Validation Workshop

|  |  |  |  |
| --- | --- | --- | --- |
| Participant | Stakeholder Group | Contact | Email |
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## Annex M: Equipment Procurement Plan

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| --- | --- | --- | --- | --- | --- |
| **No.** | **Description)** | **Cost (USD)** | **Responsible Party** | **Expected Bid-Opening Date** | **Comments** |
| Component 1: Systemic and institutional capacity increased for integrated landscape management at national level. | | | | | |
| 1 | Field equipment for collecting baseline data for key indicator species | $4,507 | DTC | Year 1 |  |
| 2 | Field equipment for collecting baseline data for availability of water resources and changes in land use/land cover | $4,000 | DTC | Year 1 |  |
| 3 | Hardware and software to update GIS/databases to implement an information management and monitoring system for SLM, CSA, and biodiversity conservation | $12,000 | DTC | Year 1 |  |
| 4 | Hardware and software in support of the Land Use Division and the Ministry of Carriacou and Petit Martinique to conduct land use surveys | $20,000 | DTC | Year 1 |  |
| 5 | Satellite images/aerial photography to assess changes in land use/land cover in the project prioritized landscapes and to conduct land surveys | $15,000 | DTC | Year 1 |  |
| Component 2. National capacity built to provide financial, technical, and information services for CSA production. | | | | | |
| 6 | Analytical equipment to strengthen the soil and water analysis laboratory capacity of the Land Use Division | $10,000 | DTC | Year 1 |  |
| 7 | Equipment and tools for assessing soil erosion and sediment flows in prioritized watersheds | $7,500 | DTC | Year 1 |  |
| 8 | Equipment and tools for testing water quality (chemical, nutrient, and sediment content) from streams in the priority watersheds | $7,500 | DTC | Year 1 |  |
| 9 | Equipment for the establishment of a tissue culture lab at the Maran Propagation Center | $30,000 | DTC | Year 2 |  |
| Component 3. Operationalization of resilient agricultural practices | | | | | |
|  | Field equipment (traps and bait) for the control of the small Indian Mongoose in prioritized dry forest areas and KBAs | $30,000 | DTC | Years 1 |  |
| 10 | Computer CSA/SLM Specialist | $1,500 | DTC | Year 1 |  |
| 11 | Digital camera (1) | $250 | DTC | Year 1 |  |
| 12 | Projector (1) | $250 | DTC | Year 1 |  |
| Project Management Unit | | | | | |
| 13 | Computer Project Manager | $1,500 | DTC | Year 1 |  |
| 14 | Computer Financial/Administrative Assistant | $1,500 | DTC | Year 1 |  |
| 15 | Printer (1) | $250 | DTC | Year 1 |  |
| 16 | Digital camera (1 | $250 | DTC | Year 1 |  |
| 17 | Projector (1) | $250 | DTC | Year 1 |  |

## Annex N: Legal and Institutional Framework

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| **Biodiversity Policy, Legal, and Institutional Framework** | |
| *1. Policy Framework*: Grenada ratified the CBD on August 11, 1994. In keeping with its obligations under Article 26 of the Convention Grenada has submitted five (5) national reports. | |
| National Environmental Policy and Management Strategy (2005) | It recognizes that the “forest and forest resources play an essential role in the economic, social and cultural development of Granada”. The strategic plan covers the 10 years’ period from 2000 to 2009. The document proposes a series of strategic objectives that must be carried out by various departments and units (Forestry and National Parks Department, Forest Conservation Unit, Upland Watershed Management Unit, Forest Recreation Unit, Tree Establishment and Management Unit, Heritage Conservation Unit). For each of the units and departments, strategic objectives are proposed, which in turn are disaggregated into sub objectives that establish the activity and the maximum dates in which they must be executed. The National Environmental Policy and Management Strategy is Grenada’s formal expression and commitment to arrest and reverse trends of environmental degradation and to ensure that sound environmental management is fully integrated into the national development policy framework. |
| National Biodiversity Strategy and Action Plan 2016-2020 | The objective of the strategy is to provide a holistic and practical framework for actions on conservation and sustainable use of national biodiversity for enhanced human wellbeing and livelihoods. The strategic priorities to achieve the goal and objective are: a) enhanced national capacity for biodiversity conservation and sustainable use (governance, education and public awareness, knowledge management and capacity building and institutional frameworks); and b) key national ecosystems restored and sustainably managed (Forest biodiversity, agriculture biodiversity, freshwater biodiversity and coastal and marine biodiversity). |
| Land and Marine Management Strategy | The overall goal of the strategy launched in 2011 is to, “achieve integrated national development that is environmentally sustainable.” The integrated vision of this strategy and the goals it intends to achieve are: a) sustainably managed areas, where competing demands and pressures have been taken into account and the social and economic needs of society have been reconciled with the need for conservation of the natural and historic environment; b) a clear policy and regulatory framework into which the principles of a holistic and coordinated approach are embedded; c) a new strategic management approach in the marine environment which is effectively integrated with the management of the land. More consistent application of the best management practices and principles of sound holistic and coordinated management around the coast; d) a management approach that builds on existing structures and responsibilities while encouraging organizations to improve relationships coordinate work plans; e) a flexible management approach, which supports local initiatives and solutions to address local circumstances within an overall regulatory framework; and f) appropriate and effective stakeholder and local community involvement throughout management processes. |
| Grenada Protected Area System Plan (2009-2014) | The Grenada Protected Area System Plan (PASP, 2009-2014) mentions that some of the four watersheds of the project have been considered as areas of interest and priority for local area planning and expected to be considered as protected areas in the future. Eleven areas of interest have been considered for protected area status as part of the overall local area planning process, a detailed protected area proposal should be prepared for each recommended site and presented for approval. To ensure opportunities were not prior to and during the initiation of any local area plan, notations of interest should be established on Crown lands within the identified areas of interest.  Regarding the management of protected areas, the second part of the System Plan provides an alternative to those existing administrative and management programs to address stated and recognized challenges. More specifically, it outlines a strategy to address issues regarding conflicting legislation, lack of clear policy direction and inter-agency coordination, and lack of resources, both human and financial. |
| Other relevant policies | In addition, several sectoral policies have been developed and each includes elements of environmental management concerns. The National Climate Change Policy, National Agricultural Policy, Tourism Master Plan, National Forest Policy, Poverty Eradication Strategy and the Energy Policy have included, albeit in rather broad terminology, the issue of environment management. The National Climate Change Policy, for example, includes a section on the direct linkages between climate change and biological diversity. |
| *2. Legal Framework.* Grenada has an extensive legislative framework with respect to biodiversity conservation. However, lack of enforcement as the key challenge. This is compounded by a lack of leadership on various levels and the lack of appreciation on the long term impacts of biodiversity loss and the role that biodiversity can play in addressing society's social and economic problems. The following are the most relevant laws related to the project. | |
| National Parks and Protected Areas Act (1990) | The National Parks and Protected Areas Act establishes a national parks system for Grenada. Under the Act any government land may be declared to be a national park. The Act is aimed at the preservation and protection of environmentally sensitive areas. Under this Act, the Governor General is responsible for the national parks system and has the responsibility of declaring an area a national park, which may then be declared a protected area by the Minister of Agriculture, Lands, Forestry, Fisheries and the Environment. The act was amended in 1991, 2007 and 2009. |
| Physical Planning and Development Control Act (2002) | The Physical Planning and Development Control Act includes an objective to protect and conserve the natural and cultural heritage of Grenada. The Minister responsible for the Act, currently the Minister of Finance, may give general policy direction to national or community plans to achieve that objective by designating a heritage conservation area or an environmental area. |
| Forest, Soil and Water Conservation Act | The Forest, Soil and Water Conservation Act allows Crown land to be established as a forest reserve.  Separate legislation can be used to establish protected areas. This process has been used for designating forest reserves such as Grand Etang and Annandale. |
| Draft Environmental Management Act (2005) | The Draft Environmental Management Act provides a comprehensive framework for environmental management in Grenada. The Act makes provision for the establishment of a Department of the Environment, the establishment of an Environmental Trust Fund, the development of an Environmental Management Plan, the establishment of a Sustainable Development Council (SDC), among other provisions. It is worth noting that although the Act has not been enacted into law the SDC is actively operating. |
| Carriacou Land Settlement and Corporation Development Control Act (1976) | This Act has specific application to the prevention of coastal erosion, the prevention of landslides and the protection and preservation of sensitive mangroves areas from indiscriminate destruction by the makers of charcoal. |
| Crown Lands Act (1986) | The Act developed vests the Governor-General with the power to make rules for the management of Crown lands. This Act relates only to Government lands and there is some overlap with existing forestry legislation. This Act is a good example of the incidental application of environment law. The Act was passed primarily to regulate the conduct and management of fisheries. At the same time, it makes provision for the protection of marine areas and the adjacent or surrounding land. These provisions are relevant to the management of the coastal zone with respect to coastal erosion, the protection of reefs, aquatic and marine plants and animals, oil pollution and mangrove forest on the near shore. |
| Territorial and Maritime Boundaries Act (1989) | The Act focuses particularly with respect to regulating the behavior of persons with respect to the territorial sea, archipelagic waters, exclusive economic zone and continental shoreline. The Act defines the extent of Grenada Sovereignty, but it also provides for the protection of the marine environment. This Act therefore can be utilized to assist in the management of the coastal zone. Section 34 (1) provides the Minister with the power to make rules for among other things, the preservation of the marine environment. |
| Beach Protection Act (1990) | This Act prohibits the unauthorized removal of sand, stone, shingle and gravel from the seashore. This is specific to the concerns of coastal erosion, salt-water intrusion, and the protection and preservation of coastal infrastructure. |
| Other relevant legislation | Other Acts of relevance that together govern the protection and management of Grenada’s forests and biodiversity include: Birds and Other Wildlife Act; Pesticide Control Act; Public Health Act; Town and Country Planning Act; Fisheries Act, the Forest, Soil and Water Conservation Act and Wild Animals and Birds Sanctuary Act. |
| *3. Institutional Framework*: In Grenada the management of biological diversity is under the jurisdiction of several governmental and quasigovernmental agencies each having a legal mandate for its area of responsibility, and guided by policy prescribed by the government. Occasionally closely related responsibilities may be shared or may even be separated between or among agencies by selected legal instruments such as regulations or orders. | |
| Ministry of Agriculture and Lands | Responsible for ensuring that the policy and legal frameworks are in place for effective management of natural resources, specifically biodiversity and ecosystems services. Serves as the focal point for biodiversity related conventions, including the CBD. |
| Forestry and National Parks Department: directly responsible for conservation and management of forested landscape, national parks and protected areas, BD, IAS and ecosystems functions, including watersheds and water source; can contribute to education and awareness on conservation and management issues |
| Environment Unit: responsible for climate change policies, programmes and initiatives, and will contribute to the activities throughout this project, including to enhanced management and conservation of the BD and ecosystems functions in Grenada |
| Land Use Division: responsible for the management of the Ministries’ geographic information system (GIS) and spatial database of land use, agriculture, water resources, ecosystems and forest cover, population and political boundaries/ geographic information. |
| Ministry of Tourism | The ministry of Tourism has a responsibility for contributing to the process of expansion of the network of protected area in the country and for facilitating the institutionalization of such parks within the protected areas network. The Ministry of Tourism manages important tourism sites, including the visitor complex in the Grand Etang Forest Reserve. |
| Ministry of Communications, Works Physical Development, Public Utilities, ICT and Community Development | Responsible for controlling the exploration of aggregates from landscapes and seascapes; through the Physical Planning and Development Authority, it supervises the implementation of the Physical Planning and Development Control Act # 23 (2016) which makes provisions for the control of physical development, the preparation of physical plans for Grenada, Carriacou and Petite Martinique and the protection of the natural and cultural heritage. |
| National Water and Sewerage Authority (NAWASA) | Responsible for management of water supply for Grenada, ensuring that the water source is adequately protected from threats that would compromise potable water quality, contributing public health and environmental benefits. |

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| **Land Degradation Policy Legal, and Institutional Framework** | |
| *1. Policy Framework*: There are a number of land related policy and strategy instruments that directly or indirectly enable SLM and CSA. These policies in varying ways govern the way in which land and its resources are used and managed. Grenada ratified the UNCCD, on May 28, 1997. | |
| National Forest Policy | The 1999 National Forest Policy is the only land-related policies that have been endorsed by the Parliament of the country. The goal of the Forest Policy is to maximize the contribution of forests to environmentally sound social and economic development. The four objectives of the policy are to: a) Conserve species, ecosystems, and genetic diversity; b) Maintain, enhance and restore the ability of forests to provide goods and services on a sustainable basis; c) Optimize the contribution of forest resources to social and economic development; and d) Maintain a positive relationship between the Grenadian people and their forest environment. Implementation of the policy has been constrained by the lack of supporting legislation. It is however undergoing review towards finalization under a European Union (EU) funded Organisation of Eastern Caribbean States Project (OECS CCA/SLM). It should also be noted that legislation is being developed simultaneously. |
| National Water Policy | The National Water Policy was approved in 2007. A key objective of the policy is to provide a framework for the integrated and rational use, management and regulation of water resources and services, with a view to supporting sustainable development of the sector. A key element of the policy is the separation of the institutional responsibilities for the provision of water services from management of the resource, both of which are presently handled by NAWASA. Among it outcomes, the policy proposes the establishment of a National Integrated Water Management Plan that encompasses both water resources and water services that shall be reviewed on a regular, periodic basis. Although the policy does not speak specifically to water for agriculture and in particular CSA pursuits, it proposes the equitable distribution, allocation and availability of water for all sectors. |
| Draft National Land Policy | In 2015, a draft National Land Policy (2) was developed under the EU funded OECS CCA/SLM project. The goal of the policy is to provide a coherent framework to guide, regulate, facilitate and support the sustainable use of Grenada’s land resources. In the context of agriculture, the draft policy proposes the: a) allocation and protection of land for food production purposes in same manner by which land is designated as forest reserves; b) establishment of a National Agricultural Land Bank to spur the reversion of abandoned lands back to productive use; c) restriction of non-agricultural development on moderately suitable to highly suitable agricultural lands in support of National Food Security; d) implementation of a systematic public awareness and education program beginning at the pre-school level to promote the importance of agriculture to national development; and e) the implementation of a national soil and water sustainability program to strengthen resilience of the agricultural sector to climatic and other shocks. The finalization of the policy and the development of enabling legislation are currently being undertaken under the EU OECS CCA/SLM project. It is anticipated that the final policy and supporting legislation will be completed by April of 2018. |
| National Climate Change Policy | This policy, developed in 2017, is intended to facilitate resilience in thematic areas such as water supply and sewage management; agriculture, agri-business and food security, biodiversity and ecosystems; human health and coastal zone management. It also advocates for the strengthening of capacity of the Grenada Meteorological Office, so that it can provide all sectors and types of organization with accurate and reliable climate data and information that will help them to build resilience to a changing climate. It is also intended to promote and incentivize renewable energy and energy efficiency in the electricity, transport and waste sectors and the sequestration of carbon through afforestation/reforestation activities. The policy is expected to generate a number of outcomes, among which are widespread uptake of climate smart agriculture techniques and technologies and establishment of four climate-smart agriculture demo sites highlighting different technologies and techniques; 60% of agriculture officers are advising farmers to implement climate-smart agriculture practices; and climate change focal points are established in priority ministries, such as the Ministry of Agriculture and Lands, the Energy Division of the Ministry of Finance, Ministry of Communication and Works, and the Ministry of Housing, with clear roles and responsibilities for agriculture, forestry, land use planning, water resources, weather data, among other relevant thematic areas. |
| Other enabling instruments | A number of SLM enabling plans and strategies have been developed over the years. These include the 2000 Forestry and Wildlife Management Strategy and Action Plan, the Integrated Physical Development and Environmental Management Plan for Carriacou and Petit Martinique, the 2003 National Physical Development Plan, the National Disaster Management Plan, the 2000 Grenada Biodiversity Strategy and Action Plan, the 1997 Tourism Master Plan, the 2011 Land and Marine Management Strategy, the National Environmental Policy and Management Strategy, the 2001 Crown Lands Management Policy, integrated Watershed Management Policy, National Hazard Mitigation Policy, and the National Environment Policy and Management Strategy.  Probably the most important of these plans in terms of land management is the UNCCD National Action Program (NAP). The NAP was developed in 2005 and was aligned to the UNCCD ten-year strategy in 2014. The NAP is the country’s guide to the implementation of its obligations under the UNCCD, which is to prevent land degradation and mitigate the impact of drought by implementing SLM measures and practices. Though no concerted efforts have been made to implement the NAP holistically, it was used as a guide to the development and implementation of relevant elements in ongoing projects. In 2014, the country’s NAP was aligned to the UNCCD first Strategy, which expires in 2018 (2008-2018). Unlike the first Strategy, which did not have a tangible future goal, the new Strategy encourages county parties to strive towards Land Degradation Neutrality (LDN)[[85]](#footnote-86) by 2030. Based on these changes, Grenada’s aligned NAP has to be reviewed and realigned so that it can confirm to the new strategy, especially in the context of LDN. |
| Land Degradation Neutrality | In 2014, Grenada participated in the South Korea funded UNCCD Global Pilot LDN Project. The project was aimed at assisting the pilot countries in setting national voluntary target to achieve Land Degradation Neutrality. Grenada Target setting exercise was guided by the findings from its Land Degradation Assessment (LADA) study in 2012. The project was designed to test three of the UNCCD’s progress indicators (now impact indicators) namely trends in land cover, trends in land productivity and trends in carbon stocks above and below ground in land use systems over a ten year period (2000-2010 for Grenada). Due to the unavailability of data, only the organic carbon indicator was used. In response to the negative trends that were observed during the project, the following corrective measures, were proposed as voluntary national targets: a) increase the fertility and productivity of 580 ha of cropland by 2030; b) transform 800 ha of abandoned cropland into agro-forestry by 2030; implement soil conservation measures on 120 ha of land by 2030; c) rehabilitate 383 ha of degraded land at Bellevue South in Carriacou by 2030; d) rehabilitate 100 ha of degraded forests in Grenada and Carriacou by 2030; e) increase forest carbon stocks by 10% by 2030; and e) rehabilitate 100 ha of Degraded Rangeland in Carriacou by 2030. |
| *2. Legal Framework*: The land related legal framework in Grenada can be likened unto a dusty library cluttered with legislation and regulations that have been enacted in responses to problems that dates back to colonial times, the relevance of some having long receded. There is therefore no shortage of direct land related or associated laws in the country; what is lacking is their relevance and applicability. If the legislative framework is to be judged purely on the numbers and content of the legislations, it can be considered relatively strong; however a number limitations hamper its effectiveness. These include, the lack of legal provisions for civil society participation in land management and sustainable environmental management; a number of these laws are outdated and need to be revised to meet current development needs and trends; several laws are not accompanied by the relevant regulations for their effective implementation; public awareness and education on critical legal framework is limited; there is insufficient enforcement of existing legislation; environmental violations relating to environmental degradation and attendant punitive measures are not well defined in legislation and regulations.  The following are the most relevant laws related to the project. | |
| Revised Physical Planning and Development Control Act (2015) | This is by far the most expansive and applied land related statute in Grenada. This Act makes provision for the control of physical development. Its main objectives are: a) to ensure that appropriate and sustainable uses are made of all public and private lands in the public interest; b) to maintain and improve the quality of the physical environment in Grenada; c) maintain and improve the standard of building construction so as to secure human health and safety; and d) to protect and conserve the natural and cultural heritage in the country. The Act makes provision for the establishment of the Physical Planning and Development Authority, which reviews applications and grants permission for development. Enforcement of the legislation is skewed towards physical development activities and not development of land for all activities, even though it is a requirement. |
| Forest, Soil and Water Conservation Act (1984) | This Act makes provision for the conservation of the forest, soil, water and other natural resources. Its main objective is to prevent flooding and soil erosion. It also makes provision for the prevention of squatting on crown lands. The act is limited in geographic coverage as it is designed to protect only lands under forest. |
| Grand Etang Forest Reserve Act (1906) | Under this act, the Grand Etang Forest area was declared a protected forest reserve. In this Act, the Grand Etang Forest Reserve is declared forever to be part of Government land and shall be strictly reserved and set aside for the public purposes as a forest conservation area. |
| Draft Environmental Management Act (2005) | The draft of this Act provides a comprehensive legal framework for environmental management in Grenada. The Act makes provision for the establishment of a Department of the Environment, the establishment of an Environmental Trust Fund, the development of an Environmental Management Plan, the establishment of a Sustainable Development Council (SDC), among other provisions. It is worth noting that although the Act has not been enacted into law the SDC is actively operating. The act is presently undergoing review, towards finalization and enactment by June 2018 under the OECS/GCCA/CCA/SLM project. |
| Crown Lands Act (1896) | Under this Act, the lands vested in the Governor General for the public uses of Grenada are called “Crown lands”. Subject to the National Parks and Protected Areas Act, the Governor General may grant, sell, exchange or lease any Crown Lands or any right or easement over them, for such price or consideration or rent and for such estate or term of years as he/she may think fit. The Act grants the Crown the rights to mines and alluvial deposits, and deposit of precious metals and minerals. The act makes provision for the resumption of possession of forts for military purposes. This act is possibly in conflict with the Physical Planning Act by virtue of which the forts may be declared an area of historical interest. This Act is generally archaic and in need of revision both in principle and language. |
| Land Acquisition Act (1970) | This Act authorizes the acquisition of land for public purposes (good). The Act empowers the Government, through the Governor General to acquire land in accordance with the procedures set out therein for public interest, with due compensation paid to the seller. However, compensation is rarely paid promptly and duly. In fact, the records would show that Government is yet to make full compensation to agricultural estate landowners whose lands have been acquired way back in the 1970s. This act was amended in 1991 and 1998. |
| Deeds and Land Registry Act (1904) | This Act makes provisions for the establishment and operations of a Land Registry for the registration of deeds and other instruments. This Act is lacking in its failure to make provision for the linking of deeds to the registration of associated parcels that contain real world geographic location, which is a basis for boundary related disputes. The Act was amended in 1987, 1995 and 2009. |
| *3. Institutional Framework*: Four key Government institutions are directly involved in the administration and management of land in Grenada. These are the Ministry of Agriculture and Lands with its various Divisions and Units; the Physical Planning Unit of the Ministry of Works; the Valuation Division of the Ministry of Finance and the Land and Deeds Registry of the Ministry of Legal Affairs. | |
| Ministry of Agriculture and Lands | Lands and Surveys Department: responsible for the lease, sale, management and use of all crown lands. Its functions include surveying, documenting, distributing and regulation of land use on state lands. It is also responsible for the verification of all surveyed plans, including those of private lands before they are forwarded to the Land and Deeds Registry for recording. This activity is however rarely carried out due to the limited capability of the Department and a lack of public compliance with the prevailing regulations. The record keeping system in the Department is still very much manual. Its failure to properly monitor and regulate land use activities, have resulted in unauthorized occupation (squatting) and unsustainable use of crown lands. The deficiencies in the Department include a shortage of human resource capacity, especially license surveyors and lack of a proper data management system. |
| Forestry Department: responsible for the management of forest reserves on state-owned lands and any development or exploitation schemes taking place within them; management of national parks, protected areas and eco-tourism sites. The staff of the Department has declined significantly over the years with the retirement and non-replacement of senior officers. |
| Land Use Division & Extension Division: responsible for the provision of technical support on land use planning, land and crop suitability assessment, irrigation management and mapping, while the Extension Division is responsible for the provision of technical services on crop and livestock production. |
| Physical Planning Unit (PPU)/ Ministry of Works | Responsible for overseeing all land development activities throughout the country. It provides technical advice to the Physical Planning and Development Authority, which is responsible for the granting of permission for the development of land. The Physical Planning and Development Control Act guides the operations of the PPU and the Authority |
| The Lands and Deeds Registry (LDR) | The LDR is simply a registry of deeds and does not provide a means for identifying the real world geographic location of any parcel of land. The Registry, therefore, stands apart from most other institutions for administering land in Grenada. |
| The Valuation Division/ Ministry of Finance | Established by the Land Transfer Valuation Act of 1992 is responsible for valuing property for the application of taxes. |

## Annex P: Co-Financing Letters (see separate file)

## Annex O: Calculations of Greenhouse Gas Emissions Mitigated

Carbon sequestration estimates were computed using the Ex-Ante Carbon-Balance Tool (EX-ACT) Version 7 – Multilingual Edition, developed by FAO. The project involves the restoration of 40 ha of degraded forest using native species. Over a period of 10 years, approximately 9,512 tCO2eq will be sequestered through the project’s intervention. The FAO EX-ACT result sheet is included as a separate file to this Project Document..

1. http://www.bb.undp.org/content/barbados/en/home/countryinfo/grenada.html [↑](#footnote-ref-2)
2. Land Use Division of the Ministry of Agriculture, 2000. [↑](#footnote-ref-3)
3. https://www.cbd.int/countries/profile/default.shtml?country=gd [↑](#footnote-ref-4)
4. 4th National Report of Grenada to the CBD. [↑](#footnote-ref-5)
5. https://www.cbd.int/countries/profile/default.shtml?country=gd [↑](#footnote-ref-6)
6. https://www.cbd.int/countries/profile/default.shtml?country=gd [↑](#footnote-ref-7)
7. Caribsave, 2012. [↑](#footnote-ref-8)
8. Hawthorne et al., 2004- Note that these taxons have not yet been assessed for the IUCN Red List. [↑](#footnote-ref-9)
9. The IUCN Red List of Threatened Species. Version 2017-3. <[www.iucnredlist.org](http://www.iucnredlist.org/)>. Downloaded on 26 March 2018 [↑](#footnote-ref-10)
10. Henderson and Berg, 2011. [↑](#footnote-ref-11)
11. Fifth National Report to the Convention on Biodiversity (2014). [↑](#footnote-ref-12)
12. <https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=1759>. Accessed April 2018. [↑](#footnote-ref-13)
13. Government of Grenada - Convention on Biological Diversity, 2014. [↑](#footnote-ref-14)
14. Aucion, 2013. [↑](#footnote-ref-15)
15. Willette and Ambrose, 2009. [↑](#footnote-ref-16)
16. IUCN, 2013. [↑](#footnote-ref-17)
17. <http://www.imf.org/en/News/Articles/2017/05/23/NA230517-Grenada-Sets-Stage-for-Sustainable-Growth>. Accessed April 2018. [↑](#footnote-ref-18)
18. Hurricane Ivan damaged or destroyed 90% of Grenada’s 555,000 nutmeg trees, and is currently only 36% of pre-Ivan levels. Prior to the hurricanes in 2004 and 2005, Grenada, also known as the Spice Island, was the second largest producer and exporter of nutmegs in the world after Indonesia, with post-Ivan exports declining to 1/5 (500 tons) of pre-Ivan levels (the country also produces cinnamon, ginger, and cloves). The cocoa industry declined by 70%, now at only 40% pre-Ivan production levels. [↑](#footnote-ref-19)
19. World Bank; CIAT; CATIE. 2014. Climate-Smart Agriculture in Grenada. CSA Country Profiles for Latin America Series. Washington, D.C.: The World Bank Group. [↑](#footnote-ref-20)
20. Country Poverty Assessment: Grenada includes the islands of Carriacou and Petit Martinique 20017/2008. The Caribbean Development Bank. [↑](#footnote-ref-21)
21. Idem. [↑](#footnote-ref-22)
22. IFAD. Climate-Smart Agriculture and Rural Enterprise Programme (SAEP). Design completion report: Main report and appendices. Latin America and Caribbean Division Programme Management Department. [↑](#footnote-ref-23)
23. From 24% of GDP in 1980, the share of agricultural production in Grenada's economy fell to just 3.5% in 2013 (IADB, 2013). [↑](#footnote-ref-24)
24. Edward Niles. 2013. Grenada, Carriacou and Petite Martinique. Land Policy Issues Paper. Prepared for the Social and Sustainable Development Division (SSDD) of the Organization of Eastern Caribbean States (OECS). Note: the country has not carried out recent detailed land use change surveys. [↑](#footnote-ref-25)
25. Grenada National Protected Area System Gap Assessment. Available at <https://www.cbd.int/doc/pa/tools/Grenada%20National%20Protected%20Area%20System%20Gap%20Assessment.pdf>. Accessed April 2018. [↑](#footnote-ref-26)
26. Ibid. [↑](#footnote-ref-27)
27. National Environmental Summary Grenada. 2010. [↑](#footnote-ref-28)
28. Global Environment Facility GEF (2015). Implementing a “Ridge to Reef” Approach to Protecting Biodiversity and Ecosystem functions within and around Protected Areas in Grenada. [↑](#footnote-ref-29)
29. Edward Niles. 2013. Grenada, Carriacou and Petite Martinique. Land Policy Issues Paper. Prepared for the Social and Sustainable Development Division (SSDD) of the Organization of Eastern Caribbean States (OECS.) [↑](#footnote-ref-30)
30. Grenada National Action Programme. 2006. [↑](#footnote-ref-31)
31. Under the R2R Project (GEF ID 5069), management plans for the following PAs are being developed: a) Terrestrial PAs (TPAs): Mt. St. Catherine, Mt. Gazo, and Levera; and b) Marine PAs (MPAs): Conference Bay, Isle La Rhode, and White/Saline Islands. In addition, the management plans for the following PAs are under review: Moliniere-Beausejour, Sandy Island-Oyster Bay, Mt. Hartman, Perseverance, and Grand Etang–Annandale. A review of marine and terrestrial legislation is also underway. [↑](#footnote-ref-32)
32. Harrison B, Berg CS, Henderson RW (2011). The Grenada Frog (Pristimantis euphronides): An endemic species in decline and the combined effects of habitat loss, competition, and chytridiomycosis. *IRCF Reptiles & Amphibians*, 18, 66–73. [↑](#footnote-ref-33)
33. See http://www.undp.org/content/undp/en/home/operations/transparency/information\_disclosurepolicy/ [↑](#footnote-ref-34)
34. See https://www.thegef.org/gef/policies\_guidelines [↑](#footnote-ref-35)
35. Local Funding: Support to Soil and Water Conservation; Grant Funding: a) Climate Change Mitigation & Sustainable Livelihoods Project (Forestry, b) GEF R2R Project, c) German GIZ Integrated Climate Change Adaptation Strategies (ICCAS), d) EU GCCA/OECS Climate Change Adaptation and Sustainable Land Management Project, e) USAID Funded Climate Change Adaptation Program (CCAP), f) Moroccan funded Soil Fertility Mapping Project, g) World Bank Funded Pilot Program for Climate Resilience (PPCR/DVRP) Project, and h) IFAD/CDB Funded Market Access and Rural Enterprise Project. [↑](#footnote-ref-36)
36. New funding sources may include: a) World Bank Regional Competitiveness Project, b) IFAD/CDB Funded Climate Smart Agriculture and Rural Enterprise Programme (SAEP), and c) Annual local budget allocation for soil and water conservation activities. [↑](#footnote-ref-37)
37. Estimated base on: a) An integrated approach to land and water Resources Management in the Caribbean: <http://www.fao.org/docrep/004/Y1717E/y1717e21.htm>; b) Soil Erosion by water in the Tropics: <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/RES-024.pdf>; c) Soil erosion in the humid tropics: A systematic quantitative review: <https://www.sciencedirect.com/science/article/pii/S0167880915000468>; and d) Soil erosion in the humid tropics with particular reference to agricultural land development and soil management: <http://hydrologie.org/redbooks/a140/iahs_140_0221.pdf>. [↑](#footnote-ref-38)
38. See Rusk, B. 2017. Long-term population monitoring of the Critically Endangered Grenada Dove (Leptotila wellsi) on Grenada, West Indies. The Journal of Caribbean Ornithology Special Issue: Status of Caribbean Forest Endemics Vol. 30(1):49–56. [↑](#footnote-ref-39)
39. Carbon sequestration estimates have been calculated using the Ex-Ante Carbon-Balance Tool (EX-ACT) Version 7 – Multilingual Edition, which was developed by FAO. The forest type selected for the calculations is Tropical Moist Deciduous Forest, building on a baseline of degraded land in a Wet Tropical climate. The soil type generally consists of fertile Clay Loams derived from volcanic materials, albeit degraded through prior deforestation activity and subsequent overgrazing/ agriculture. The project involves the restoration of 40 ha of degraded forest using native species. Over a period of 10 years, approximately 9,512 tCO2-eq will be sequestered through the project’s intervention (EX-ACT: 2. Land Use Change. 2.2. Afforestation and Reforestation). The FAO EX-ACT result sheet is included as Annex P. [↑](#footnote-ref-40)
40. See <https://www.thegef.org/gef/policies_guidelines> [↑](#footnote-ref-41)
41. See <https://www.thegef.org/gef/gef_agencies> [↑](#footnote-ref-42)
42. See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx> [↑](#footnote-ref-43)
43. Excluding project team staff time and UNDP staff time and travel expenses. [↑](#footnote-ref-44)
44. The costs of UNDP Country Office and UNDP-GEF Unit’s participation and time are charged to the GEF Agency Fee. [↑](#footnote-ref-45)
45. see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx> [↑](#footnote-ref-46)
46. See <https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default>. [↑](#footnote-ref-47)
47. Should not exceed 5% of total project budget for FSPs and 10% for MSPs. PMU costs will be used for the following activities: Full time or part time project manager (and or coordinator); Full time or part time project administrative/finance assistant; Travel cost of the PMU project staff; Other General Operating Expenses such as rent, computer, equipment, supplies, etc. to support the PMU; UNDP Direct Project Cost if requested by Government Implementing Partner; Any other projected PMU cost as appropriate. Audit should be funded under Outcome 4 on KM and M&E or under project outcomes. [↑](#footnote-ref-48)
48. Please refer to Annex C for further details on local consultancies such as proposed rate and level of effort. [↑](#footnote-ref-49)
49. Please refer to Annex C for further details on local consultancies such as proposed rate and level of effort. [↑](#footnote-ref-50)
50. Please refer to Annex N for further details on equipment procurement. [↑](#footnote-ref-51)
51. Please refer to Annex C for further details on consultancies, such as proposed rate and level of effort. [↑](#footnote-ref-52)
52. Please refer to Annex C for further details on consultancies, such as proposed rate and level of effort. [↑](#footnote-ref-53)
53. Please refer to Annex N for further details on equipment procurement. [↑](#footnote-ref-54)
54. Please refer to Annex C for further details on consultancies, such as proposed rate and level of effort. [↑](#footnote-ref-55)
55. Please refer to Annex C for further details on consultancies, such as proposed rate and level of effort. [↑](#footnote-ref-56)
56. Please refer to Annex N for further details on equipment procurement. [↑](#footnote-ref-57)
57. Please refer to Annex N for further details on equipment procurement. [↑](#footnote-ref-58)
58. Please refer to Annex C for further details on contractual services and consultancies, such as proposed rate and level of effort. [↑](#footnote-ref-59)
59. Please refer to Annex N for further details on equipment procurement. [↑](#footnote-ref-60)
60. Government of Grenada, GENCAP, 2014-2024. [↑](#footnote-ref-61)
61. Ibid. [↑](#footnote-ref-62)
62. Government of Grenada 2012 /Caribbean Development Bank, 2014, Country Gender Assessment, Grenada. [↑](#footnote-ref-63)
63. Government of Grenada 2015, Fifth Agriculture Census 2012. [↑](#footnote-ref-64)
64. Ibid. [↑](#footnote-ref-65)
65. GOGR, Population and Housing Censuses 2001 and 2011. [↑](#footnote-ref-66)
66. Ibid. [↑](#footnote-ref-67)
67. Caribbean Development Bank (CBD), 2014, Country Gender Assessment Grenada. [↑](#footnote-ref-68)
68. Ibid. [↑](#footnote-ref-69)
69. James, Fitzroy, 2015, National Agriculture Plan 2015-2030. [↑](#footnote-ref-70)
70. Ibid. [↑](#footnote-ref-71)
71. Anecdotal information during interview of women NGO leaders. [↑](#footnote-ref-72)
72. Ibid. [↑](#footnote-ref-73)
73. Ibid. [↑](#footnote-ref-74)
74. http://www.unwomen.org/en/news/stories/2017/11/announcement-first-ever-gender-action-plan-on-climate-action-adopted. [↑](#footnote-ref-75)
75. Government of Grenada, 2016 National Biodiversity Strategy and Action Plan 2016-2020. [↑](#footnote-ref-76)
76. Government of Grenada, 2017 National Climate Change Adaptation Plan (NAP) for Grenada, Carriacou and Petite Martinique (2017-2021). [↑](#footnote-ref-77)
77. The National Climate Change Policy for Grenada, Carriacou and Petite Martinique (2017-2021). [↑](#footnote-ref-78)
78. http://hdr.undp.org/en/countries/profiles/GRD. [↑](#footnote-ref-79)
79. Government of Grenada, 2014, GENCAP. [↑](#footnote-ref-80)
80. Inter-Parliamentary Union World Classification http://archive.ipu.org/wmn-e/classif.htm accessed on January 4th, 2017. [↑](#footnote-ref-81)
81. CBD 2014. [↑](#footnote-ref-82)
82. Marschinski and Behrle (2007) http://iasc2011.fes.org.in/papers/docs/627/submission/original/627.pdf. [↑](#footnote-ref-83)
83. Poverty is defined in the social safety net policy as EC$ 5842 per annum per adult. [↑](#footnote-ref-84)
84. Carriacou Inland Revenue Department, 2012. [↑](#footnote-ref-85)
85. Land Degradation Neutrality: “a state whereby the amount and quality of land resources, necessary to support ecosystem functions and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems.” [↑](#footnote-ref-86)