



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Naoko Ishii
CEO and Chairperson

April 18, 2018

Ms. Kelly West
GEF Executive Coordinator
United Nations Environment Programme
Nairobi 00100, Kenya

Dear Ms. West:

I am pleased to inform you that I have approved the medium-sized project detailed below:

Decision Sought:	Medium-sized Project (MSP) Approval
GEFSEC ID:	9667
Agency(ies):	UNEP
Focal Area:	Land Degradation
Project Type:	Medium-Sized Project
Country(ies):	Dominica
Name of Project:	Sustainable Land Management in the Commonwealth of Dominica
Indicative GEF Project Grant:	\$1,776,484
Indicative Agency Fee:	\$168,766
Funding Source:	GEF Trust Fund

This approval is subject to the comments made by the GEF Secretariat in the attached document. It is also based on the understanding that the project is in conformity with GEF focal areas strategies and in line with GEF policies and procedures.

Sincerely,

Naoko Ishii
Chief Executive Officer and Chairperson

Attachment: GEFSEC Project Review Document
Copy to: Country Operational Focal Point, GEF Agencies, STAP, Trustee



GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Medium-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

For more information about GEF, visit TheGEF.org

PART I: PROJECT INFORMATION

Project Title: Sustainable Land Management in the Commonwealth of Dominica			
Country(ies):	Commonwealth of Dominica	GEF Project ID: ¹	9667
GEF Agency(ies):	UNEP	GEF Agency Project ID:	01479
Other Executing Partner(s):	PISLM Support Office	Resubmission Date:	March 27, 2018
GEF Focal Area (s):	Land Degradation	Project Duration (Months)	36
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/> Corporate Program: SGP <input type="checkbox"/>		
Name of Parent Program	NA	Agency Fee (\$)	168,766

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Focal Area Objectives / Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
LD-1 Program 1	Outcome 1.1: Improved agricultural, rangeland and pastoral management	GEFTF	250,000	2,400,000
LD-2 Program 3	Outcome 2.2: Improved forest management and/or restoration	GEFTF	501,484	6,713,999
LD-3 Program 4	Outcome 3.2: Integrated landscape management practices adopted by local communities based on gender sensitive needs	GEFTF	1,025,000	4,300,000
Total project costs			1,776,484	13,413,999

B. PROJECT DESCRIPTION SUMMARY

Project Objective: Establishment of landscape level planning, information and coordination frameworks to support sustainable agriculture and sustainable watershed management in Dominica						
Project Components / Programs	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
1. Enabling 'whole island' landscape framework to plan, monitor and adapt land management	TA	1.1 Framework to support development, monitoring, and adaptation of land management submitted to government 1.2 Institutions are capable of promoting enhanced sustainable land management in Dominica	1.1.1: Four Parish land-use plans designed, with associated guidelines of implementation 1.1.2: Land Information decision support system is available for use in land use planning, assessment of environmental conditions and trends, and policy development 1.1.3: Multi-sector platform for land use planning developed 1.1.4: At least one Protocol established for monitoring and evaluation of SLM practices 1.2.1: One Strategic Training plan developed and implemented (Beneficiaries: institutions with sectorial responsibilities for development and conservation, regulatory authorities, relevant CSOs, community partners; indicators: # of training sessions, # of beneficiaries, increased capacity score from 21 to 32)	GEFTF	492,500	2,283,589

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#) and [CBIT programming directions](#).

³ Financing type can be either investment or technical assistance.

			1.2.2: At least two knowledge publications on SLM practices disseminated within Dominica and in the sub-region			
2: Reducing the effects of land degradation on ecosystem services through sustainable land management	TA / INV	2.1 Increase in adoption of SLM practices in targeted parishes	2.1.1: Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions 2.1.2: At least 1,500 ⁴ farmers and local communities with strengthened capacities to implement SLM approaches & technologies in agriculture 2.1.3: SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated for farmers of at least 40 farms 2.1.4: Degraded watersheds in at least 8 villages rehabilitated with native vegetation based on site specific rehabilitation plans developed in collaboration with local communities 2.1.5: Increased public understanding and awareness of LD issues and associated SLM options, and increased support for land use regulations	GEFTF	1,018,685	10,660,065
			M&E	GEFTF	107,600	20,000
			Subtotal		1,618,785	12,963,654
			Project Management Cost (PMC) ⁵	GEFTF	157,699	450,345
			Total project costs		1,776,484	13,413,999

C. CONFIRMED SOURCES OF [CO-FINANCING](#) FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for [co-financing](#) for the project with this form.

Sources of Co-Financing	Name of Co-financier	Type of Co-Financing	Amount (\$)
Recipient Government	Ministry of Health and Environment (PSIP) – Pilot Project Climate Resilience	Grant	7,000,000
Recipient Government	Ministry of Health and Environment (Recurrent Expenditure)	In-kind	200,345
Recipient Government	Ministry of Agriculture and Fisheries (PSIP) - Soil Fertility Mapping	Grant	233,589
Recipient Government	Ministry of Agriculture and Fisheries (PSIP) - Support to Farmers	Grant	2,222,222
Recipient Government	Ministry of Agriculture and Fisheries (PSIP) – Expansion of Vegetable Production	Grant	2,268,313
Donor Agency	Ministry of Agriculture and Fisheries (PSIP) - GCCA Project on CA & SLM in OECS Member States	Grant	1,089,530
Others	Partnership Initiative for Sustainable Land Management (PISLM) Support Office	Grant	400,000
Total Co-Financing			13,413,999

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee ^{a)} (b) ²	Total (c)=a+b
UNEP	GEFTF	Dominica	Land Degradation		1,776,484	168,766	1,945,250

⁴ Estimate of the total number of farmers in 5 parishes is 3,907. The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used to reconfirm this figure.

⁵ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Total Grant Resources	1,776,484	168,766	1,945,250
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a) Refer to the [Fee Policy for GEF Partner Agencies](#)

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁶

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	6,000 hectares ⁷

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/CBIT Trust Fund) in Annex D.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF⁸

Changes to Project Objective, Components, Outcomes, Outputs and Co-financing: The wording of some elements of the project framework has been changed, primarily to reflect more accurate descriptions of the project approach. The table below provides an explanation of these changes:

PIF Text	CEO ER Text	Explanation for changes
Component 1: Enabling ‘whole island’ landscape framework to plan, monitor and adapt land management	Component 1: Enabling ‘whole island’ landscape framework to plan, monitor and adapt land management	No change
Outcome 1.1: Government approved framework to plan, monitor and adapt land management	Outcome 1.1: Framework to support development, monitoring, and adaptation of land management submitted to government	The project cannot guarantee that the Govt. will approve a policy/legal framework, therefore the wording has been revised to clarify that the project will ensure that policy and legal changes are developed and submitted to government
Output 1.1.1: A Comprehensive Land Management and Land Use Plan (CLMLUP) developed <ul style="list-style-type: none"> Land Information decision support system for INRM is available for use in EIA, policy development, and land use planning Multi-sector planning platform developed 	Output 1.1.1: Four Parish land-use plans designed, with associated guidelines of implementation	National partners, including the Physical Planning Division and the Environmental Coordinating Unit, confirmed that a comprehensive national land use plan is not required as the recently approved NLUP and NPDP represent Dominica’s approach to national-level planning. Instead, these partners identified the urgent need for local area (e.g. Parish-level) land use plans, which will constitute actual on-the-ground implementation of the broader NLUP and NPDP documents.
	Output 1.1.2: Land Information decision support system is available for use in land use planning, assessment of environmental conditions and trends, and policy development	Originally an activity under Output 1.1.1 in the PIF, the Land Information decision support system is considered by national stakeholders to be an important output in its own right, in particular since in addition to supporting the land use plans under 1.1.1, it will also provide broader support to land use and development planning at the national level.

⁶ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the project per the *Corporate Results Framework* in [GEF-6 Programming Directions](#) will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

⁷ 2,000 hectares of agricultural land and 4,000 hectares of restored watersheds

⁸ For questions A.1 –A.7 in Part II, if there are no changes since PIF, no need to respond, please enter “NA” after the respective question.

	Output 1.1.3: Multi-sector platform for land use planning developed	Similar to 1.1.2 above; this planning platform is an important output, and it will provide oversight and guidance to land use planning at the national level
Output 1.1.2: Protocols established for monitoring and evaluation of SLM practices	Output 1.1.4: At least one Protocol established for monitoring and evaluation of SLM practices	Slight change to show quantitative target
Outcome 1.2: Institutions are capable of promoting enhanced sustainable land management in Dominica through INRM	Outcome 1.2: Institutions are capable of promoting enhanced sustainable land management in Dominica	INRM is a broad category of interventions, whereas SLM more accurately identifies the focus of the proposed project and links it more clearly to the GEF LD Focal Area and the UNCCD
Output 1.2.1: Institutions with sectoral responsibilities for development and conservation, together with regulatory authorities and relevant CSOs and community partners, have strengthened authority and capacity for SLM and enforcement and prosecution of land crimes	Output 1.2.1: One Strategic Training plan developed and implemented (Beneficiaries: institutions with sectoral responsibilities for development and conservation, regulatory authorities, relevant CSOs, community partners; indicators: # of training sessions, # of beneficiaries, increased capacity score from 21 to 32)	The word prosecution has been removed because in Dominica land use violations are typically dealt with through payments of fines to relevant agencies, and not through the court system. The word “crime” was removed because in Dominica the word has a great deal of socio-cultural connotations and its use could generate controversy and / or opposition to elements of the proposed project
Output 1.2.2: Knowledge on SLM practices disseminated within Dominica and in the sub-region	Output 1.2.2: At least two knowledge publications on SLM practices disseminated within Dominica and in the sub-region	Wording changed at request of GEF
Component 2: Reducing the effects of land degradation on ecosystem services through sustainable land management	Component 2: Reducing the effects of land degradation on ecosystem services through sustainable land management	No change
Outcome 2.1: Increase in adoption of SLM practices in targeted parishes	Outcome 2.1: Increase in adoption of SLM practices in targeted parishes	No change
Output 2.1.1: Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions	Output 2.1.1: Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions	No change
Output 2.1.2: Farmers and local communities with strengthened capacities to implement SLM approaches & technologies	Output 2.1.2: At least 1,500 ⁹ farmers and local communities with strengthened capacities to implement SLM approaches & technologies in agriculture	Quantitative target added at request of GEF. Capacity building on SLM approaches for watershed restoration has been moved to Output 2.1.4 so as to link the relevant capacity building and field-level activities
Output 2.1.3: SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated	Output 2.1.3: SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated for farmers of at least 40 farms	Quantitative target added at request of GEF
Output 2.1.4: Degraded watersheds in at least 8 villages ¹⁰ rehabilitated with native vegetation based on site specific rehabilitation plans developed in collaboration with local communities	Output 2.1.4: Degraded watersheds in at least 8 villages rehabilitated with native vegetation based on site specific rehabilitation plans developed in collaboration with local communities	No change
Output 2.1.5: Increased public (targeting schools and agriculture	Output 2.1.5: Increased public understanding and awareness of LD	Because land degradation issues are so important for Dominica, and the need for public

⁹ Estimate of the total number of farmers in 5 parishes is 3,907. The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used to reconfirm this figure.

¹⁰ Villages listed in Annex 2; but to be confirmed during project preparation

training institutions) understanding and awareness of LD issues and associated SLM options, and increased support for land use regulations	issues and associated SLM options, and increased support for land use regulations	understanding and awareness of the links between LD processes and the severity of impacts from extreme weather events is critical for generating public support for increased resilience, the scope of the project's public education and awareness activities has been expanded beyond schools and agriculture training institutions to the general public.
Co-financing		
PIF Indicated Co-financing: US\$ 14,700,000	CEO ER Confirmed Co-financing: US\$ 13,413,999	Due to the post-Hurricane Maria recovery, some co-financing did not realize so the committed co-financing less than indicated in the PIF. The Implementing and Executing Agencies will however endeavour during project implementation to increase the committed co-financing and will report on the co-financing through the Project Implementation Reports.

A.1. Project Description. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area¹¹ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and co-financing; 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

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

Overview & Environmental Context

The Commonwealth of Dominica is an island nation in the Lesser Antilles region of the Caribbean Sea, south-southeast of Guadeloupe and northwest of Martinique, with a population of 72,301 at the 2014 census. Dominica, which has a territory of 75,000 ha, is a highly mountainous country largely covered by rainforest and with many waterfalls, springs, and rivers. Some plants and animals thought to be extinct on surrounding islands can still be found in Dominica's forests. Dominica is among the wettest islands in the Caribbean; rainfall is highest in the interior, which receives more than 10,000 mm annually, and drops off substantially to 1,200 mm per year on the leeward (western) side of the island. Land use in Dominica is dictated by topography (see map in Annex R); the mountainous character of the island means that human settlements and physical development are highly concentrated in coastal areas (particularly in the south and west of the island), so that a significant proportion of Dominica's population and physical assets are highly vulnerable to high-intensity rainfall, flooding, wind and storm surge events.

Land degradation is a major concern in Dominica, driven mainly by development pressures, livelihoods challenges, and meteorological events in a physically vulnerable landscape. Dominica's location as the most northerly of the Windward Islands places it well within the Atlantic hurricane belt; this fact, combined with the steep topographic conditions that dominate the island's landscape, make the country highly vulnerable to natural disasters arising from meteorological events. In the past ten years, several major storms, including Tropical Storm Erika in 2015 and Hurricane Maria in 2017, have done considerable damage to the physical landscape of Dominica. Major landslides in the upper elevations, flood waters in low-lying areas, and rivers overtopping their banks and changing course have resulted in the destruction of farms and the relocation of entire communities.

Despite the importance of agriculture for Dominica's economy, the mountainous terrain of the country and variations in soil quality mean that only a small percentage of the land (20%) is suitable for agriculture (although an estimated 24.7%

¹¹ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

of the land is being farmed¹²⁾ due to erosion risks and potential water saturation during heavy rainfall.¹³ The narrow flat floodplains of the major rivers in the country have seen the most intensive land utilization (predominantly agriculture), although cultivation also extends into the mid-elevation hillside areas along roads. However, because of landslides caused by heavy rains, some farming areas (e.g. Petite Savanne and parts of Good Hope) have been abandoned and the farmers relocated to areas further inland and upslope. Many coastal ridges and mountains, along with portions of Dominica's largest river (Layout River), are centres for the mining of stones, sand, pumice and other construction materials. Urbanization is mostly confined to the narrow coastal fringe, although newer settlements have been expanding into the interior along the rural road network, putting increased pressure on many protected areas. Use of private land is largely unregulated and multiple land uses (residential, commercial, agricultural or industrial) occur in close proximity; some areas are dominated by squatting and unregulated development. Increasingly these activities are occurring on steep slopes as coastal areas are destroyed by flooding or used for large infrastructure development such as roads and commercial development.

In terms of forest cover, the central mountainous zone remains heavily forested and provides critical water catchment services as well as most of the protected landscapes in the country, while lower elevations continue to lose forest cover. Overall forest cover on the island declined from 65% to 61% between 1990-2000 (mostly due to conversion to agriculture or housing). Forested areas, which ranges from dry scrub woodland on the west coast to lush, tropical rain forest in the interior, fall into five categories: Forest Reserves, National Parks, Unallocated State Lands, the Carib Territory, and Privately-owned Land. 25% of Dominica's forest area is legally protected either as forest reserves or National Parks, including two Government Forest Reserves -- the Central Forest Reserve (1,013 acres) established in 1951 and the Northern Forest Reserve (21,770 acres) established in 1977 -- both of which are located in the north-central part of the island. Although these reserves are large (covering over 11% of Dominica's land area), they are still subject to encroachment and timber harvesting. The Carib Territory (or Carib Reserve) is a 1,500 ha district that was established by British colonial authorities in 1903 for the indigenous Carib people; legal residents share communal ownership of all land within the Carib Territory, which has its own local government in the form of the Carib Council and headed by the Carib Chief. The land in the Carib Territory is mostly of poor quality, with the worst soil erosion on Dominica and deforestation that has caused many streams in the Territory to dry up.¹⁴

The foregoing describe an island that is experiencing significant land degradation. Article 5 of the Convention to Combat Desertification (CCD) calls on country parties to combat desertification and mitigate the effects of drought and provide an enabling environment by strengthening, as appropriate, relevant existing legislation and, where they do not exist, enacting new laws and establishing long-term policies and action programs. In keeping with this obligation, the Government of Dominica is seeking assistance from the GEF to implement the project "Sustainable Land Management in the Commonwealth of Dominica", whose objective is to develop an integrated approach to land management that includes agricultural, forestry and natural resources management practices that generate development and critical environmental benefits in tandem.

Socio-Economic Context

Hydro-meteorological disasters have historically imposed significant costs on the Dominican economy, leading to major declines in GDP growth and general productivity. The Commonwealth Vulnerability Index rates Dominica as having the sixth (out of 111 countries evaluated) most vulnerable economy (to external shocks and natural hazards) in the world, and the most vulnerable in the Caribbean. Average annual economic losses associated with extreme hydro-meteorological events are equivalent to roughly 7.4% of GDP. Dominica's agricultural sector remains painfully vulnerable to natural disasters and climate variability. Every year, farmers lose a significant portion of their crops and livestock during the six-month hurricane season, and the World Bank reports that agriculture's share of GDP in Dominica has fallen consistently with each major natural disaster, with the sector failing to recover previous levels of relative importance.¹⁵ Agricultural

¹² Dominica National Action Plan, 2014

¹³ Shanks & Putney (1979) Dominica Forest and Park System Plan

¹⁴ [Kossek 1994](#), p. 184; [Honychurch 1998](#), p. 84 attribute this to overuse as a consequence of the communal land ownership. [Patterson & Rodriguez 2003](#), p. 72 further theorize that this is because of rapid tenant turnover, which eliminates most incentives for long term land conservation

¹⁵ <http://www.ipsnews.net/2014/02/race-save-caribbeans-banana-industry/>

production, including bananas as well as other crops, takes place on steep and vulnerable slopes to a degree greater than most countries in the region. The past ten years have produced a repeated series of highly destructive storm impacts in Dominica. In 2007, Hurricane Dean caused extensive damage to the island, estimated at 58% of GDP, or US\$162 million, with significant damage to buildings and infrastructure; in 2011, record flooding and landslides associated with heavy rain caused in excess of US\$100 million in damage; in 2013, heavy rains caused landslides and flooding early in the year, and heavy rains later in the year caused widespread damage to infrastructure and housing, with damage estimates in the range of US\$20 million; and in 2015 tropical storm Erika produced an extraordinarily rainfall event and high intensity winds that resulted damage and losses of US\$ 483 million, equivalent to over 90% of Dominica's gross domestic product (GDP).¹⁶ Most recently, Hurricane Maria, which made landfall in Dominica in September 2017 as a Category 5 hurricane with maximum sustained winds of 160 mph (260 km/h), devastated the country's infrastructure, ecosystems, and economic production. Flooding and damage from winds destroyed or damaged the vast majority of the country's buildings, roads and other infrastructure. The storm's winds, which were the most extreme to ever impact the island, defoliated nearly all vegetation, splintering or uprooting thousands of trees and decimating the island's lush rainforests. The agricultural sector was almost completely wiped out: 100% of banana and coconut plantations were lost; vast numbers of farm animals were killed; large amounts of farm equipment were destroyed; all of the country's agricultural and forestry stations / nurseries were either destroyed or severely damaged; and the Agriculture Division and Forestry Department lost much of their equipment and computer and paper records. Estimates of the total damage to agriculture sector are around US\$500 million, including \$20 million for infrastructure¹⁷.

Dominica's economic performance over the past ten years has reflected its vulnerability to natural hazards and economic shocks as real growth averaged less than 2% per annum (as compared to approximately 3.5% in the wider Caribbean and non-Asian emerging markets). Agriculture remains by far the most important economic sector in the country; over the past decade, agriculture contribute on average 18.5% of GDP, employed 40% of the labour force, and accounted for 70% of total export earnings and 60% of foreign exchange (through exports of bananas, vegetable and root crops, coconut and citrus, and other crops). The agriculture sector, which grew by 9.9% in 2016, is thus a key driver in generating foreign exchange, providing employment, contributing to food security, and acting as a stimulant to other economic activities. Bananas dominated agricultural production in the past, but as a result of reduced European Union (EU) banana trade preferences, banana production in Dominica declined from 76,872 tons in 1988 to 23,403 tons in 2013 (around the level at which it has held relatively steady for the last decade).¹⁸ In response to this challenge, the government has diversified the agricultural sector by promoting the production of coffee, patchouli, aloe vera, cut flowers, and exotic fruits such as mango, guava, and papaya. Other former banana production lands have been developed for housing and commercial infrastructure, as well as for tourism facilities.

Ecosystem services in Dominica include local food supply, which comes in the form of wild meat, fish (from rivers and sea), fruits, root crops and a wide range of domestic agriculture products; water provision and regulation; energy in the form of fuel wood and charcoal; raw materials for the craft industry; timber for the local market; and a host of products that contribute to the quality of life in Dominica. Dominica's net greenhouse gas (GHG) emissions indicate that the country is a sink for GHG, largely attributed to the extensive forest cover on the island.

Dominica has a growing mining and quarrying industry, an active educational sector (including several international medical schools located on the island), and is actively exploring prospects in tourism and developing the production of geothermal energy. Dominica is mostly volcanic and has few beaches; therefore tourism has developed more slowly than on neighbouring islands. Nevertheless, Dominica's mountains, rainforests, freshwater lakes, hot springs, waterfalls, and diving spots make it an attractive eco-tourism destination. Cruise ship stopovers have increased following the development of modern docking and waterfront facilities in Roseau, the capital.

Policy / Legal Context

¹⁶ Government of Dominica, Rapid Damage and Impact Assessment Tropical Storm Erika –August 27, 2015. A Report by the Government of the Commonwealth of Dominica, September 25, 2015

¹⁷ Personal communication, Agriculture Division, December 2017.

¹⁸ <http://en.actualitix.com/country/dma/dominica-banana-production.php>

Two key policy documents relative to land use planning and management have been formulated in recent years in Dominica. One of these is the National Land Use Policy (NLUP), which was developed under a project funded by the Caribbean Development Bank (CDB) and approved by Cabinet in 2015. The NLUP, which is a general policy document rather than a detailed guide to land use planning, specifies the principle aims and objectives with respect to directing development and land uses in Dominica and outlines the broad direction for land use planning in the country, including *inter alia*: support for hazard mitigation and climate change adaptation; protection of prime agricultural lands; support for sustainable use and management of natural resources; addressing sustainable rural and urban development with attention on reducing land use conflicts, alien land holding and urban sprawls and squatting; and supporting the development of an integrated water resource management plan while protecting marine and coastal zone resources.

The NLUP is complimented by the National Physical Development Plan (NPDP) (completed but still awaiting cabinet approval), which establishes Dominica's land management goals through 2035, including *inter alia*: (i) retention of forest cover of over 65% of the land mass, including protected National Parks and Forest Reserves; (ii) an internationally recognized eco-tourism destination renowned for its pristine natural environment, environmental features, and high-quality tourism facilities; (iii) resilience to the impacts of climate change and natural hazards with development and infrastructure located in the safest areas, and designed and constructed based on best practices, (iv) safe location of settlement made up of well-organized residential neighbourhoods with parks, open space, and community facilities; and (v) strong agricultural areas that sustainably produce healthy food for local use and for high-value exports. The NPDP is the primary implementation tool of the policies and directions outlined in the NLUP. The NPDP is to be implemented through collaboration among Government agencies and in conjunction with other sector policies and plans, strategic approaches, cooperation and coordination with private landowners and the public, as well as public education. This multifaceted approach to implementation will allow both the NLUP and NPDP to guide the positive growth and development of Dominica, including the implementation of sustainable land management approaches. Under the NPDP, land use is divided into residential, commercial, industrial, institutional, agricultural, tourism and urban development, wildlife, conservation/forestry, and protected lands (with some overlap among categories). An overarching principle guiding land management in Dominica is that despite the country's limited area, its land must be used to provide the growing population with its most basic needs of food, water, fuel, clothing and shelter.

A key land use issue for Dominica is the need to balance the demands of a growing population and environmental stewardship, and in particular the struggle between conflicting uses, the concerns of specific land users, and the common good, in particular as agricultural land is lost to housing and industry, and the development of new farmland degrades forests, wildlife habitat and water catchment areas. The Physical Planning Act # 5 (2002) is intended to ensure this balance and mandates that developers addresses construction practices and includes provisions for prohibitions on land use activities that remove vegetation or disturb soils and geological resources, as well as the deposit of refuse or waste materials on land or causing environmental damage or actions affecting the health or safety of persons. The National Agriculture Policy Framework 2014 – 2025 guides agriculture development in Dominica under the Ministry of Agriculture. The directives of this policy are intended for all involved in agriculture in Dominica, however the dissemination and enforcement of this policy are weak. The National Forest Policy is designed to guide the sustainable management of the forest resources of Dominica, while maintaining or improving the present area of forest cover. Strategies for the sustainable management of Dominica's forests hinge on the vision that all sectors of society must share the responsibility of safekeeping the forests, the nation's most valuable resource.

Dominica's Draft Policy Framework for Integrated (Adaptation) Planning and Management addresses problems associated with climate change and rising sea levels. taking into account, *inter alia*, beach and shoreline stability, destruction of wetlands/coastal ecosystems, reduced fish catch resulting from sedimentation of fishing banks and destruction of fish habitats, and impacts on tourism (waterfalls, lakes and rivers). The draft policy outlines the critical risk management measures required to be taken by Government and the public to minimize the negative potential impacts of Global Climate Change on major vulnerable sectors including, *inter alia*, agriculture, human settlements and infrastructure, tourism, and finance.

Dominica's medium-term Growth and Social Protection Strategy (GSPS) 2014-2018 represents a broad strategic framework for sustainable development and economic transformation over a five-year period. The priorities outlined in this document are intended to be guided by sound economic and environmental considerations as the main route to poverty reduction. The GSPS is the Government's overarching framework for macro-economic policies, sector strategies

and plans, the structural reform agenda, the annual Public Sector Investment Programmes (PSIP), the annual budgets and social protection and poverty reduction strategies. Dominica also has a Agriculture Disaster Risk Management Plan 2014-2019 (which has been endorsed by the Ministry of Agriculture and Fisheries) but is still waiting for Cabinet approval), which summarizes existing hazards and vulnerabilities; identifies development, disaster risk management (DRM) sectoral policies and strategic plans pertinent to the ADRM planning process; and presents the strategic framework for the country's ADRM plan.

A number of laws and regulations in Dominica provide the framework for sustainable land management activities in the country. The Physical Planning Act, No. 5 of 2002 is the overarching piece of legislation that makes provision for the orderly and progressive development of land in both urban and rural areas and to preserve and improve the amenities thereof, and the grant of permission to develop land and for other powers of control over the use of land. A new Physical Planning Bill was drafted under the Organization of Eastern Caribbean States (OECS) facility to support implementation of the National Land Use Policy and to strengthen physical planning capabilities; this bill is currently awaiting approval and enactment. Other critically important laws include the State Land Act, 1958 (Amended by 24 of 1960 and 12 of 1999), Cap. 53:01, which provides for the administration and disposal of State Lands, and the Land Management Act, 1973 (Amended by 35 of 1973 and 6 of 1980), which established a Land Management Authority for Dominica.

In addition to the laws above, which form the core of the legislative framework for sustainable land management in Dominica, a number of other laws and regulations govern the administration of specific types or areas of land. The Forest Act (1958) focuses on forest management and authorizes the legal establishment of forest reserves on Crown Lands and protected forests on private lands. Provisions for the declaration of these protected forests address the issue of private lands within a protected forest, including providing for the liability of, and compensation for, the landowner, and voluntary forest protection is also addressed. The Forest Ordinance Cap. 80, 1959 covers the designation of forest reserves and includes the designation of private lands as protected forest for water or soil conservation or other public purposes, under which a water catchment area on private land was declared a protected forest (Stuart Hall Catchment Rules No. 11, 1975). The Forest Rules (SRO 17, 1972), subsidiary legislation of the Forest Ordinance, specifies prohibited activities in forest reserves and gives details on the issuing of licenses and permits for harvesting forest produce. The National Parks and Protected Areas Act No. 16 of 1975 (Cap. 42:02), amended by Acts 54 of 1986, Act 12 of 1990, and Act 8 of 2001 is the principal piece of legislation relating to the management of national parks in Dominica. The Act provides for the declaration of both national parks and PAs, leasing of land for PAs, the establishment of a System of National Parks and Protected Areas. Finally, the Crown Lands Ordinance (No. 60) and the Crown Lands Regulations (1961) govern the sale and release of government land; the Land Acquisition Act (1953) is administered by the Lands & Survey Department and provides for private land acquisition for use beneficial to the State, and the Environmental Health Services Act (No. 8 of 1997) makes provision for the conservation and maintenance of the environment in the interest of health generally and in relation to places frequented by the public.

Institutional Context

Responsibility for environmental conservation and natural resource use in Dominica is shared among a number of ministries and their respective agencies/divisions/units, as well as civil society and community groups. Additionally, Dominica has a National Environmental Committee, which functions as an advisory committee to Cabinet on matters of environment, and a Biodiversity (BD) Committee, which is the most well-established and functional mechanism for practical coordination on environmental issues among government institutions and other stakeholders. The BD Committee consists of the following members: ECU, Ministries of Agriculture and Fisheries, Finance, Tourism, Planning, and the Dominica National Council of Women. The members of the BD Committee are typically high-ranking representatives of their agencies / institutions, and the committee is considered an important mechanism for making recommendations to Government on policy and program directions.

Within the Ministry of Health and the Environment, the Environmental Coordinating Unit (ECU) was established in 1999 through Cabinet Decision, with the mandate to function as the “coordinating, facilitating, administering and collaborating body for all environmental and sustainable development management programmes, projects, and activities in the Commonwealth of Dominica.” The ECU coordinates environmental activity and acts as the technical focal point for all MEAs, with responsibility for providing strategic guidance and coordinating the activities of government institutions and non-governmental stakeholders relevant to the implementation of MEAs. To date, the ECU has operated without any legal

jurisdiction, and as a consequence, it has limited enforcement powers and its staffing levels are not sufficient to carry out its mandate. The regular operations of the ECU are primarily focused on implementing internationally supported projects, including programs to implement the Rio Conventions (e.g. the ECU is responsible for the development of the National Action Plans (NAP) reporting to CCD). In support of this mandate, the ECU manages informal coordination mechanisms to bring together key stakeholders, and carries out public education programs to raise awareness nationally about environmental issues and their consequences. The Environmental Health Department, also within the Ministry of Health and the Environment, is responsible for the health of the public through monitoring of the environment and instituting intervention measures to prevent impacts on health, including those related to natural resources, such as solid and liquid waste management, vector control, and water quality control.

The Ministry of Agriculture and Fisheries (MoAF) includes the Department of Forestry, Wildlife and Parks, the Agriculture Division, and the Agricultural Investment Unit. Within the Agriculture Division, the Agricultural Extension Unit has 35 staff members with varying levels of technical training. The extension unit serves the entire island – officers are assigned to specific districts where they deliver technical support to farmers, including training in crop selection, planting techniques, soil management and harvest and post harvest management of crops. The extension unit also delivers inputs such as fertilizer and planting materials to farmers. The effectiveness of the extension unit is limited by a shortage of equipment and materials and high levels of staff rotation. The Forestry Division within MoAF has 22 staff with varying levels of training and different areas of competence including biodiversity management, ecosystem management, forest management, watershed management etc. This Forestry Division works closely with the agricultural extension unit to deliver land management services. Management and control of the national parks system in Dominica is vested under the National Parks and Protected Areas Act (NPPAA) to the Division of Forestry, Wildlife and National Parks (DFWNP) within MoAF, which is responsible for the conservation, management and sustainable resource use of all Forest Reserves, National Parks, nature sites and the Waitukubuli National Trail (WNT) in the country, as well as soil and water conservation, enforcement of forestry, wildlife and national parks legislation, research and monitoring, public relations and environmental education, and the upgrading and developing the infrastructure, institutional capacity and resources for implementing the Division's mandate. The Ministry of Tourism is responsible for implementation of the 2013 Tourism Master Plan and 2010 Tourism Policy for Dominica, which includes a major focus on the development of natural and cultural resources as part of the tourism product. The Ministry co-manages some nature / recreation sites in partnership with the National Parks Unit (NPU).

The Physical Planning Division is the executing arm of the Physical Planning and Development Authority and is responsible for land use planning, assessments (EIA), development control, regulation of mining operations, and physical development in general. The authority to perform these duties is provided by the Physical Planning Act of 2002, which makes provision for the orderly and progressive development of land in both urban and rural areas and to preserve and improve the amenities thereof; for the grant of permission to develop land and for other powers of control over the use of land; for the regulation of the construction of buildings and related matters; to confer additional powers in respect of the acquisition and development of land for planning purposes and for other matters connected there. Other supporting legal instruments include the Quarry Bill and Regulations of 2013 and the 1996 Draft Building code. The Physical Planning Department has a Geographic Information System (GIS) Unit that generates and houses information used to provide solutions to Physical Planning and land use issues, track subdivisions of land, provide environmental assessments, and create maps relevant to General Land Use, Settlement, Rainfall and Hydrology, Soil details, Vegetation, Protected Lands, Marine Resources and Hazards. While the GIS unit prepares maps and other data, decisions on land use planning are made by the Development and Planning Corporation. This body, which meets once per month, includes the chief physical planner, the commissioner of lands and surveys, the chief environmental health officer, representatives from the Architect's Association and the Engineering Association, the director of Agriculture, and a physical planner.

The Ministry of Lands, Housing Settlement and Water Resource Management includes the Division of Lands and Surveys, which manages all unallocated State lands, carries out surveying/mapping, and maintains records of land sales and mining permits. This Ministry facilitates development in key sectors of the economy such as agriculture, tourism, road improvement and construction, water supply (increasing efficiency and effectiveness in water distribution services), and improving sanitation management, all relevant to natural resource and land management and issues of land degradation. The Dominica Water and Sewerage Company Limited (DOWASCO) manages all elements of the country's water supply, including storage, distribution, , water quality monitoring, and forecasting and advance planning to ensure supply. Water quality monitoring includes visual site inspections and laboratory analysis for microbes and dissolved

chemicals according to WHO specifications. DOWASCO's staff includes highly trained senior officers and its technical staff serves the entire island and is provided with a fleet of vehicle to make this possible.

Project Sites

Additional information on the project sites, including overviews of the four target parishes, details on the implementation of SLM approaches in agriculture (including situation analyses and proposed project activities at demonstration farms and other communities/farms), and details on the implementation of SLM approaches for watershed conservation (including situation analyses and proposed project activities) is provided in Annex Q.

Overview of Project Sites

Project activities under Component 2 will take place in four Parishes -- St. David, St. Patrick, St. Paul, and St. Joseph -- which together encompass 40,460 ha. Parish-level land use plans will be developed and implemented for each of the four parishes (see Output 1.1.1). Within the four parishes, at least 30 farms (covering at least 2,000 ha) located in 12 communities will be selected where the project will support on the ground pilot SLM measures and capacity building related to agricultural production (see Output 2.1.3). In addition, other farms within the four parishes will benefit from capacity building in the form of site visits to demonstration farms to learn about potential SLM measures (see Output 2.1.2). Finally, watershed restoration using SLM approaches will be piloted in three watersheds covering 4,000 ha within the four target parishes.

Figure 1: Parishes of Dominica



SLM approaches in Agriculture

Demonstration Farms: Two farms have been identified as potential sites for demonstration of SLM approaches in agriculture; these sites can be used to test different SLM measures and to provide training and knowledge transfer for other farmers who will visit the sites. The first site is a two-acre farm located in the community of Sineku in the parish of St. David (Carib Territory) that is owned by Mr. Bernard Etien. This farm was the location of previous activities (under a FAO-supported project) to address land degradation through SLM approaches, and therefore the project can build on the baseline of what has already been achieved at this site. The second site is a five-acre plot in St. David parish that is owned by Mr. Maurice Dupigny.

Sites for the implementation of SLM Practices in Agriculture: Twelve communities have been tentatively identified as project sites for the implementation of SLM approaches in agriculture. The ECU and the Ministry of Agriculture will finalize the selection of communities, and farms within them, for SLM approaches to agriculture according to the following criteria:

- Communities with significant land degradation problems, especially those recovering from the impacts of natural disaster, including a mix of sites with different types of land degradation (e.g. flatlands with fewer erosion

problems but significant soil degradation from overuse of chemicals, highland areas where soil erosion is the paramount problem, etc.

- Communities within the specified parishes with active NGOs, particularly women's groups, which are also seeking assistance for agriculture projects and SLM related activities
- Communities with pilot farming activities using organic principles
- Communities bordering streams/rivers (especially streams providing potable water)
- New communities resulting from relocation occasion by disaster
- Communities with existing demonstration projects that can provide baseline data

Sites for implementation of SLM approaches in watershed restoration: Three sites have been identified for SLM approaches in watershed restoration:

Coulibistrie: Coulibistrie is a farming community in the northeastern part of Dominica, and the Coulibistrie River serves as the source of potable water not only for Coulibistrie, but several communities on the west coast of Dominica. During the passage of Tropical Storm Erika in 2015, significant flooding of the Coulibistrie River occurred, which impacted the entire river valley and caused widespread damage along the riverbanks, to the community of Coulibistrie, and to the water systems two intakes. In addition, the characteristics of the river valley were completely changed due to large-scale erosion, deposition of soils and rocks, the movement of huge boulders, etc. In the early part of 2017, a project was undertaken by DOWASCO to restore water service from the new system, including activities to unearth and clear the intakes, laying of temporary flexible pipelines on the ground surface, and restoration of the access road. Additional interventions are now required to stabilize the riverbanks and hillsides in order to mitigate against potential negative impacts on the pipeline and access road.

Salisbury: Salisbury is a coastal community in the west of Dominica that supports a variety of agricultural products ranging from vegetables to melons to tree crops. Significant forest clearing for agriculture, as well as planting on steep slopes and tillage practices that do not promote soil conservation, have resulted in on-going soil erosion and land slippage problems in the watershed. In addition, Tropical Storm Erika produced significant flooding of the Batalie River, resulting in complete destruction of DOWASCO's water intake and a section of the pipeline that supplied water to the community of Salisbury. The heavy precipitation and flooding in the watershed also caused a significant amount of land slippage, which continues to contribute toward high silt levels in the river following rainfall. This increase in turbidity continues to affect the quality of the water supply, and the riverbanks continue to deteriorate in the absence of supporting structures like vegetation cover or head drains. A temporary intake was constructed and the supply line repaired in order to restore water service to the community and a new project will be undertaken under the Basic Needs Trust Fund Programme to construct a new intake and section of the supply pipeline. However, additional measures are required in the catchment to reduce turbidity levels in the river and protect the riverbanks.

La Plaine: The community of La Plaine is situated in the southeast of Dominica. During the passage of Tropical Storm Erika, significant flooding of the Ouayaneri River occurred, resulting in complete burial of DOWASCO's water intake and destruction of a section of the pipeline that supplied water to the community of La Plaine. The heavy flooding caused drastic changes in the watercourse and parts of the wider watershed, and also triggered land slippage causing localized damage at certain points. The storm diverted the course of the river away from the intake and the riverbed level was lowered in elevation due to erosion.

Threats / Causes of Land Degradation

According to the Dominica National Action Plan (NAP) to Combat Land Degradation¹⁹, approximately 14% of the country's total land area is vulnerable to land degradation processes from anthropogenic origin, and the productivity of accessible agricultural land has shown significant declines. The NAP highlighted a number of indicators that demonstrate the importance and scope of land degradation in Dominica, including: extensive soil erosion; increased landslides (particularly adjacent to roads); declines in river flows (notable examples are the Castle Comfort, Roseau, Layou and Geneva rivers) and increased river siltation; reductions in crop yields and increased need for fertilizers and excessive use

¹⁹ Government of Dominica, National Action Programme to Combat Land Degradation Roseau 2004

of herbicides and other pesticides; and extensive coastal erosion. However, the quantification of land degradation processes in Dominica is a difficult task in the absence of documentation assessing the extent of changes in land conditions and the lack of statistical data on land use in the country.²⁰ In addition, it must be noted that Dominica has not developed specific indicators to monitor land degradation in the country, and thus measurable indicators are limited to data on socio-economic factors (farmer incomes), soil fertility, agricultural production, meteorological data, environmental indicators of coastal changes, and human habitation patterns and activities.²¹ Nevertheless, a number of key drivers of land degradation were identified during the formulation of Dominica's NAP, and were based on extensive community and regional consultations carried out during that process. Additional details on these drivers of land degradation processes were describe in an expert report issued more recently in 2014,²² and are summarized below.

Land Slippage: Land slippage and erosion is an issue of major concern in Dominica due to its steep slopes (86% of the country's land mass has a gradient of >20°), many swift flowing rivers originating in high elevations, and high levels of rainfall and frequent extreme weather events. Dominica's National Action Plan (NAP) states that unsustainable management practices, including unsustainable logging practices, the movement of agriculture to steeper slopes, improper agricultural and irrigation practices on slopes, mining and quarrying, and the setting of bush fires during the dry season, all contribute to removing vegetative cover on slopes and are therefore major contributors to land slippage, as well as contributing to flash flooding, resulting in considerable damage to the country's infrastructure. Morne Trois Pitons National Park (MTPNP) includes four of Dominica's seven mountain ranges and the headwaters of most of the major streams and rivers in the southern half of the island. During the passage of Tropical Storm Erika in 2015, heavy precipitation and flooding in these watersheds caused significant amounts of land slippage in the areas of Coulibistrie, La Plain and Antrim. In July 2011, a dam on the Layou River failed, flooding the entire Layou Valley, destroying the Glo Chaud Bridge, and dumping huge quantities of sand all across the valley floor and riverbed.

Deforestation: Agricultural and urban expansion, and to a lesser extent timber harvesting, have resulted in the removal of extensive areas of forest vegetation on both private and public lands in Dominica. The clearance of natural forests for agriculture, housing, roads and other infrastructure, which was historically concentrated in lowland areas, is now extending into environmentally fragile highland areas (steep slopes within high rainfall zones), resulting in the fragmentation of natural vegetative systems, extensive reductions in the area of some forest types (e.g. rainforests), particularly in coastal regions, and increases in soil erosion and soil loss. The most important source of deforestation is the expansion of the agriculture sector, and even today unallocated forested State Lands are being sold as a means to relieve agricultural land hunger; in addition, unsustainable shifting cultivation continues in many areas (e.g. the Carib Territory). In most cases, forests on marginal soils and/or steep slopes are cleared and converted to agriculture without adequate controls to prevent land degradation processes. The absence of vegetative cover, as well as poor zoning and inadequate flood protection measures, contributes to flash flooding which results in considerable damage to the country's infrastructure. Fires are often set to assist in the removal of vegetation; this process typically results in accelerated wind and water erosion, reduced soil porosity, increased soil erosion and aridity, and in some cases, uncontrolled spread of fires that destroys additional forested areas (especially on the west coast). Logging, though less extensive, also contributes to deforestation and the compaction of soil by heavy machinery, leading to additional soil erosion and sedimentation issues. In the Carib Reserve, the Kalinago people are intensively harvesting trees such as Gommier and La Roumen in order to produce crafts for the tourism market; as the supply in the lower elevations dwindles, they are moving higher up into the forest and cutting trees in areas where erosion is more likely to ensure. In addition, migrants from Haiti have joined the farming community in Dominica and frequently practice shifting agriculture as well as the practice of "yam culture", which involves the cutting of young trees to provide sticks on which the yam vine grows, which has become a serious source of deforestation as young trees are not allowed to grow and once the large ones are removed the land is left exposed to the erosive power of rain and wind. Underlying these direct drivers of deforestation is poverty and the need to exploit natural resources, ignorance about forest ecosystem processes and the results of deforestation, and lack of enforcement and management measures.

²⁰ Ibid

²¹ Ibid

²² "Introductory Paper on Land Degradation and Drought Issues in Dominica"; Marie Jose Edwards, Partnership Initiative for Sustainable Land Management (PISLM), 2014.

Unsustainable Agricultural Practices: The current land tenure pattern in Dominica is dominated by many small farms using short-term cropping systems where the farmers cultivate all of the available land, including areas that were previously reserved as forests. In most cases, farmers are not familiar with or able to afford investments in soil and water conservation. Intensive cultivation on steep slopes characterized by poor agricultural and land management practices is a significant contributor to land degradation, resulting in substantial losses of topsoil, soil exhaustion, pest outbreaks, uncontrolled weed growth and soil moisture deficits. As agricultural productivity declines due to loss of fertility, squatters move farther inland and upslope, removing vegetative cover and increasing erosion. In addition, because most of Dominica is characterized by steep slopes, mechanized agriculture is impractical in most places and instead farmers often engage in shifting agriculture / fire clearing to bring the land under production. However, these activities are largely unplanned and the land is not properly prepared, drainage is often absent, windbreaks and buffer zones non-existent. A key contributor to this problem is the lack of effective controls on agricultural activities on privately owned lands, so that extensive cultivation is carried out on even marginal lands (areas of steep slopes and/or poor soils), which has caused not only soil erosion and landslides but also declining water quality and the sedimentation of many rivers and as well as coastal and marine habitats. Another critical problem is the widespread overuse of agricultural chemicals, most notably pesticides, with negative impacts on human health and ecological functions.

Housing, Tourism and Other Infrastructure Development: Over the past several decades, population growth and commercial development have led to the conversion of scarce agricultural land into housing, tourism and other infrastructure. In many cases these developments have been carried out illegally, and even legal infrastructure projects are mostly carried out with very little consideration of adequate environmental safeguards. This in turn has prompted the clearing and conversion of forested lands in upland areas into agriculture. Dominica's National Forest Policy has identified housing development as a major pressure on Dominica's forest resources, noting that; "In recent years, more houses are being built in the higher elevations, often in sensitive watershed areas or near water catchment and storage areas." As communities evolve in the upper elevations, access roads are cut leaving naked steep embankments, often without any knowledge or consideration of drainage patterns in the area.

Mining: The quarrying industry in Dominica has grown significantly in recent years; exports of pumice sand and aggregates increased from 3.7% of total exports in 2002 to 11.2% in 2007.²³ This industry has evolved in an environment with very little regulation²⁴, and illegal mining operations are common. Both legal and illegal mining / quarry operations contribute to land degradation and increased sedimentation of aquatic, coastal and marine ecosystems, particularly along the west coast of the country. In response to the devastating impacts of mining activities on marine ecosystems and coastal livelihoods, the Government ceased granting new licenses to land mining operations at the end of 2011 and is actively monitoring active mining operations to evaluate and mitigate negative impacts, but the activities of this sector need to be monitored carefully.

Climate Change Impacts: As noted above, extreme meteorological events affect Dominica on a regular basis, in just the past ten years, several major storms, including Tropical Storm Erika in 2015 and Hurricane Maria in 2017, have done considerable damage to the physical landscape of Dominica. Major landslides in the upper elevations, flooding in low-lying areas, and rivers overtopping their banks and changing course have resulted in the destruction of farms and the relocation of entire communities. In turn, the relocation of communities and farms has required the clearing of new lands for farming, roads, housing and water mains, all of which have produced additional land degradation on geologically young and fragile volcanic slopes. Dominica's "2nd National Communication on Climate Change" (2012) projects continued increased warming (an increase of up to 1.3° C by the 2050s, and between 2-3 degrees by the end of the century), increased drying and droughts, and likely increases in hurricane intensity (as indicated by stronger peak winds and more rainfall). With increased frequency and intensity of hurricanes, the country can expect to see accelerated land degradation, including erosion of coastal areas due to storm surge and battering surf. Forests will become increasingly vulnerable to the problems associated with global warming and climate change; it is believed that hurricanes result in significant impacts on the island's forest structure, and more frequent drought events will increase the potential for forest fires as well as decrease agricultural output. Coastal communities are at risk to climate related hazards such as hurricanes

²³ Sector Strategy, Natural Resources and Energy Sector

²⁴ Taylor, M, A Review of the Draft Quarry Code of Practice to be Implemented in Dominica, Final Report. Caribbean Open Trade Support (COTS), Indefinite Quantity Contract No. AFP-I-00-04-00002-01, Task Order No. AFP-I-02-04-00002-00, Prepared for USAID/Caribbean

and storms and associated storm surge, high seas, high winds and flooding from rivers and ravines. With increased drought, Dominica can expect similar impacts to the 2009-2010 drought, which resulted in decreased agricultural production, especially vegetables, increases in the price of food, and lower than normal flows in rivers and streams. Drought will also contribute to the likelihood of forest fires; reports from the Dominica Fire and Ambulance Service already indicate an increasing trend in the number of forest fires in the country.

Long-term Solution and Barriers

The long-term solution envisioned under this project is to incorporate agricultural, forestry and other resource management practices in Dominica into an integrated land management model that reduces land degradation, as characterized by loss of productivity and ecosystem degradation, through the adoption of production systems that are resilient to the significant weather conditions / events to which the country is subject. However, a number of barriers exist to implementing this solution, as described below:

Barrier 1: Absence of ‘whole island’ landscape level framework for reducing land degradation and upscaling SLM approaches in Dominica: Dominica’s National Land Use Policy (NLUP) was approved in May 2015; and the country’s National Physical Development Plan (NPDP) has been drafted and is currently awaiting Cabinet approval. While these are significant advances in establishing the policy / planning framework to support sustainable land management in the country, a number of barriers exist to translating these broad policies into changes on the ground. For example, despite the claims that “the NLUP sets the foundation for all land use decisions and describes how best to manage development to improve quality of life for Dominicans, through economic and social development, protecting human health and safety, and conserving the natural environment” (National Land Use Policy, p. 2-1), the NLUP is silent on issues such as the expansion of villages / communities into agricultural lands, the expansion of agriculture into forests, and the need for buffer zones along river banks. Without such guidance, it is difficult to develop a proper assessment, monitoring and planning regime for the maintenance of ecosystem services, and managers and users have a difficult time effectively evaluating and integrating land degradation risks within decision-making. In addition, the NLUP and the NPDP are both general policy documents and do not constitute detailed land management or land use plans for Dominica, meaning that decisions with respect to land and natural resources will continue in an ad hoc manner. To some degree, Dominica is addressing this problem at the local level; in recent years the Physical Planning Department has prepared four local area Land Use and Development Plans: i) The North East Area; ii) Pont Casse and Environs; iii) Portsmouth and Cotton Hill; and iv) Roseau Development. However, these plans do not support the integrated land management model proposed under this project, as their mandates are narrow and do not address agriculture or forest management. For example,

- The Portsmouth and Cotton Hill plan is focused on zoning undeveloped land on the outskirts of the town of Portsmouth so that landowners wishing to subdivide land for sale or development will be required to do so in accordance with the zoning plan.
- The Roseau plan is specifically addressing ways to strengthen the tourism assets of Roseau
- The North East Area plan serve as a tool to assist the GoCD in its macro-economic diversification efforts, by providing guidance for the management of socio-economic and physical development in the island’s premier urban centre
- The Pont Casse and Environs plan presents a coherent apolitical vision of how the physical environment can be gradually improved over the next fifteen (15) years

In addition, the institutional framework for land management and combating land degradation in Dominica is weak. There is a need to harmonise and coordinate efforts across sectors, and spearhead innovative ways of enhancing ecosystem functioning and resilience in an integrated and coordinated way that balances socio-economic and environmental objectives. Coordination on environmental and natural resource management issues is nominally the responsibility of the Environmental Coordinating Unit, however the ECU in its current form does not have the regulatory authority or institutional mandate to bring together government institutions and other stakeholders to deal with cross-sectorial issues. As a result, coordination among Forestry, Planning, National Parks, Agricultural Extension, private landowners and other stakeholders on land use planning and management is very weak. This problem extends to watershed management, as there is no mechanism at the national level to coordinate watershed and water resource management.

Barrier 2: Poor understanding of land degradation trends and impacts and inadequate capacity to implement land use planning and SLM measures: Within institutions in Dominica, a lack of adequate manpower resources and training, as well as the support infrastructure needed to effectively implement laws and regulations, have also been identified as important factors influencing the country’s ability to address land degradation. Most Ministries and Departments lack GIS capability and as such they are unable to effectively plan and present their plans for budgeting; furthermore, these agencies lack adequate

information on basic conditions and on land degradation problems and trends, and thus are unable to advise decision-makers on strategic solutions regarding land use allocation and management, or on water resources management (e.g. limited data stream flows is a significant constraint planning for and management of freshwater resources). In addition, the absence of tools / protocols for measuring land degradation means that both the extent of LD problems is poorly understood and that measures to address them cannot be easily integrated into resource management practices and policies. Finally, information sharing on LD issues and the use of such information in policy making is constrained in Dominica; LD issues are far less publicized and of a lower priority than climate change and biodiversity issues in the country, and there is a paucity of LD information in the public domain. Thus, even though LD issues are at the heart of livelihoods and sustainability in Dominica, information and understanding about their linkages to economic growth and foreign trade is very low.

Barrier 3: Insufficient investment and opportunities/mechanisms for engagement in SLM approaches: A major barrier preventing integrated sustainable land management is the lack of adequate technical resources to support activities in these areas. The decline of banana production (from a high of 76,872 tons in 1988 to 23,403 tons in 2013) has resulted in a serious decline in the volume of exports, the loss of income to a large part of the population, and a decline in foreign exchange revenue to the country. This, in turn, has affected the country's ability to make significant investments in sustainable land management, including in sustainable agricultural practices, sustainable forest management, ecosystem restoration, watershed management, and public education and awareness on these issues. Even though agriculture accounted for 70% of total export earnings and 60% of foreign exchange of Dominica in the past decade²⁵, the country has invested little in human technical capacities for land management or citizen engagement in sustainable agricultural practices. As a result, there are few demonstrated successes in the country in implementing SLM practices and technologies aimed at mitigating land degradation (e.g. conservation agriculture; enhanced soil fertility and farm and cropping practices and water management systems; strengthening of farmer organisations/committees; native forest restoration etc.) that can provide guidance and inspiration to farmers and land management. In the absence of these models, and with the very limited technical capacities and investments in the agriculture sector, peasant farmers who are merely eking out an existence have little incentive to adopt sustainable practices. This problem is further exacerbated by the current pattern of land tenure in Dominica; at present, many small farmers have no land title and are squatting on crown lands or are farming on rented plots; as such, they have no incentive to invest in sustainable practices as it is easy to move from one plot to another once soil erosion or exhaustion makes a plot unproductive. The limited experience with certification systems for agricultural production in Dominica also constrains farmer interest in adopting sustainable practices, although some producers such as Dominican Essential Oils and Spices Limited (DEOSL) are working towards certification of its producers to meet niche market demand. A further barrier to spreading SLM approaches stems from the lack of awareness among farmers and even resource management agencies of land degradation processes and impacts. More generally, environmental management is largely seen as the domain of government, and as a result, a culture of conservation is not present that would support sustainable land management, directly leading to problems such as degradation of steep slopes through poor farming practices. Similarly, with regard to watershed degradation, there is a lack of public education and understanding in Dominica of the critical role that watersheds and ecosystems play in maintaining the ecological integrity of the island.

2) The baseline scenario or any associated baseline projects

Baseline Scenario and Government Baseline Spending

The baseline scenario with regard to land degradation in Dominica shows a concerted effort by the government to address land management issues. The preparation of a National Physical Development Plan and National Land Use Policy during the past few years has provided the basic elements necessary to assess national conditions and to implement sustainable land management approaches. Another important baseline activity was the preparation of the NAP Alignment under UNCCD as part of the Government's commitment for sustainable land management. Overall, the government's vision is to set Dominica on a course of sustainable growth and development through the responsible use of its land, coastal, marine and freshwater resources in alignment with the country's Growth and Social Protection Strategy.

The Ministry of Agriculture and Fisheries (MoAF) is implementing several relevant projects. One of these is the Support to Farmers (Horticultural Production) project (US\$ 2.2 million), whose objective is to provide infrastructure and technical support for farmers to produce crops, including various root crops, passion fruit, cassava and arrowroot. This project is designed to: 1) increase agricultural production to meet market demands (through increased acreage and increased yields per acre); 2) improve the consistency and marketability of horticultural crops; 3) implement a quality assurance and

²⁵ Dominica's Medium Term GSPS 2014-2018

certification system in line with the Fresh Produce Act; 4) improve management information systems, transportation arrangements at the regional level, and infrastructure for propagation of planting material; and 5) increase public awareness about horticulture products. The MoAF is also implementing the Expansion of Vegetable Production project (US\$ 2.3 million); based on Dominica's national food security policy, this project will work to assist the agricultural sector to increase consumption of vegetables in Dominica (in partnership with outreach programs run by the Ministries of Health and Education). The project is designed to: 1) increase the income of vegetable farmers and the amount of vegetable cash crops produced for export to high-end regional markets; 2) improve dietary condition of families; 3) establish a GAP/Traceability system for vegetables from farm to consumers (harvesting, transporting, storage, value addition and distribution); 4) assess existing and new irrigation systems for green vegetable production; and 5) form a national farmers association. The improved market access and conditions generated by the two aforementioned MoAF projects will help to enable farmers in the proposed GEF project to generate income that will assist them in adopting SLM practices that require up-front cash investments.

The MoAF is also implementing a Soil Fertility Mapping project (US\$ 1.6 million) funded by the Government of Morocco, which is designed to: 1) develop an information system and soil fertility database (with 7,000 sampling sites island-wide) for local and national decision makers; 2) develop fertilizer recommendations for major crops and establish appropriate fertilizer programs; 3) elaborate a Geo-referenced soil fertility information and expert system for the country; 4) enhance human and technical capacity of farmers, extension agents and developers in terms of soil information and fertility monitoring and management; and 5) enforce the extension system in devising soil fertility and fertilization guidelines for major crops. The soil fertility information and training activities of the MoAF project will assist farmers in the proposed GEF project in making appropriate land use and crop selection and agricultural input decisions. The GEF project also will seek to link the soil fertility database to the Geonode land mapping / data information system, and to facilitate the use of this data in the four parish level land use plans. Finally, it is important to note that with the massive impacts on infrastructure, lands and ecosystem services that resulted from Hurricane Maria in September 2017, these figures are likely to increase substantially, although no estimates can be made at this time.

Donor-Funded Baseline

Among PISLM's major program interests are the elaboration of National Action Plans (NAPs) and the establishment of a Regional/Sub-Regional Platform for the implementation of the UNCCD, including the building of complementarities with other MEAs. At the 2nd Session of the 4th PISLM Task Force, the PISLM Support Office was mandated to develop a sub-regional knowledge management system that will gather and disseminate knowledge on Desertification, Land Degradation and Drought (DLDD) and Soils to the Caribbean sub-region. This knowledge management system will: 1) connect national, regional and global platforms and networks to create an access point for sharing proven best practices and scientific knowledge on DLDD. The knowledge management system will be designed to improve connections and knowledge flow between DLDD experts and information-seekers; 2) collaboratively design and support a tool to disseminate DLDD knowledge developed by field leaders and to improve the quality of information available for users; and 3) improve access to technical information on DLDD via a customizable search navigation tool to help users achieve better search results across various research topics and information formats, including multimedia and maps. PISLM's work on the sub-regional knowledge management system will directly support the goals and activities of the proposed GEF project, including PISLM co-financing support to implement a knowledge management strategy to both disseminate information within Dominica and to enhance regional cooperation and knowledge sharing between this project and other SLM projects being implemented in Caribbean SIDS.

The Disaster Vulnerability Reduction Project (DVRP), a World Bank funded initiative, focuses on reducing vulnerability to natural hazards and climate change impacts in Dominica through investment in resilient infrastructure and improved hazard data collection and monitoring systems. The project started in 2014 and will invest approximately US\$ 30 million in Dominica over the period that overlaps with this proposed project. Component 1 "Prevention and Adaptation Investments" aims to reduce physical vulnerability and to pilot adaptive measures to build resilience to current and future hydro-meteorological shocks. The sub-projects included under this component include: (i) construction of water storage and distribution infrastructure; (ii) slope stabilization interventions; (iii) climate resilient rehabilitation of primary and secondary roads and bridges along the East Coast and the South; and (iv) improved climate resilient drainage systems including maintenance of storm water drainage systems. Component 2 "Capacity Building and Data Development, Hazard Risk Management and Evaluation" includes support for capacity building for analysis and assessment of risks from

natural hazards and climate change, including the integration of this analysis in the development decision making process. Component 2 supports the creation of relevant core data and data collection systems as well as the integration of analytical tools to permit improved decision-making and engineering design for risk reduction and climate change adaptation. Core data systems to be or being developed under this component include: (i) creation of a high resolution digital and bathymetric model for Dominica; (ii) creation of a high resolution soils survey map including chemical and physical characteristics for each soil unit; (iii) design and deployment of a robust hydromet network to provide high resolution hydrologic data for use in a wide range of activities to support, for example, engineering design, national land use and coastal zone planning, disaster management, roads construction practices and design, agricultural development and others; and (iv) community level risk mapping and training on climate adaptation measures. The proposed GEF project will benefit from the outputs of the DVRP, for example by using the surveys and maps on soils and hydrology (work on these will begin in early 2018) to help implement SLM activities on the ground.

Dominica is one of ten countries from the African, Caribbean and Pacific (ACP) group of states that is benefiting from the EU-funded Banana Accompanying Measures (BAM) Initiative; the Commonwealth of Dominica has an indicative financial allocation under the BAM of between 14 and 15.5 million Euros. The BAM is a support package approved by the European Commission in 2010 for banana-exporting countries to facilitate their adjustment to the end of preferential terms for banana exports to the European Union. The BAM is intended to support sustained growth in the agriculture sector and increased income for producers, including small farmers, by diversifying agricultural production in Dominica and thereby contributing to employment, poverty reduction, rural development and social and economic stability. The BAM Initiative is designed to address underlying weaknesses in the agriculture sector including land management issues, strengthening of entrepreneurial and technological development and innovation, implementation of quality standards, improvement of physical infrastructure, development of agricultural information systems, and enhancement of risk management systems, and will therefore provide the baseline for this GEF intervention. This project will build upon the land management efforts initiated by the BAM project, for example by disseminating information of lessons learned to small “livelihood” farmers squatting on steeply sloping lands in an effort to reduce soil erosion and stream siltation.

Dominica is one of the OECS countries participating in a project on Climate Change Adaptation (CCA) and Sustainable Land Management (SLM) (US\$ 1.1 million) financed by the European Union (EU) Commission and executed through the Global Climate Change Alliance (GCCA). Implementation of this initiative commenced in January 2014 and will end in November 2018. This project is designed to: 1) undertake reforestation and land/slope stabilization of significantly degraded dry scrub forest utilizing agro-forestry methods; 2) restore forest areas degraded by invasive alien species; 3) promote nursery production of forest plants for reforestation, also to encourage local germplasm plantations; 4) re-establish natural habitats of the national endemic flower Bwa Kwaib (*Sabinea carinalis*); and 5) sensitize farmers, other private landowners, village councils, and community/environment groups on CCA and SLM issues using livelihood consultations, educational institutions and national media. The GCCA-supported program will help to provide seedlings that can be used for watershed restoration under Output 2.1.4 of the proposed GEF project, and raise awareness levels about SLM practices that will facilitate the work of the proposed GEF project. Moreover, the GCCA program is specifically intended to act as a 'classroom' for farmers and other stakeholders on land/slope stabilization, soil conservation methods, and plant propagation in nurseries, and will thus directly benefit the efforts of farmers to implement SLM practices in agriculture (under Output 2.1.3), and the efforts of local residents in general to implement SLM practices in watershed management / restoration (under Output 2.1.4)

The Climate Change Adaptation Program (CCAP) being implemented by the Caribbean Community Climate Change Centre (CCCCC) in ten countries including Dominica is funded by USAID through its Eastern and Southern Caribbean (ESC) office in Barbados. The project will run from July 2016 to September 2020 with a budget of US\$ 26.6 million. The CCAP is part of a larger goal of creating a more secure and prosperous Caribbean Community through sustainable climate change adaptation measures. The project has three components: Component 1 - Promotes the use of climate data and information for use in decision-making; Component 2 - Supports innovative adaption approaches which demonstrates proof of concept necessary to secure additional financing; and Component 3 - Fosters climate financing to support scale up and replication of sustainable adaptation initiatives. The proposed project will benefit from data generated under Component 1 of the CCAP as it relates to forecasting of weather (droughts and floods), selecting crop and water management techniques; and undertaking rainwater harvesting or drainage improvement and maintenance.

Dominica will benefit from the Caribbean Development Bank (CDB) Special Development Fund for the eighth cycle of the Basic Needs Trust Fund (BNTF 8), which will cover the duration of this project. This grant of US\$ 10 million will support 10 Caribbean countries in enabling meaningful community/citizen participation and empowerment and developmental change in communities where needs are greatest. It underlines the importance of creating opportunities for income generation and job creation. The Caribbean Development Bank also is making an Emergency Relief Grant of US\$ 200,000 available to Dominica, which will assist with costs associated with damage assessments and the provision and transportation of emergency relief supplies, water and sanitation resources, roofing materials for emergency shelters and community buildings, and temporary shelter for persons displaced by tropical Storm Erika.

The OECS has provided EC\$1 million (US\$ 370,000) for the project “Ecosystem Restoration and Slope Stabilization”, which is removing invasive lemon grass (which is associated with forest fires) and replacing it with native forest vegetation on a two acre demonstration plot in Tarrou. Over 50 acres of invasive lemon grass exist in the Tarrou and Gimmit area, and additional areas can be found in Scotts Head in the south of the island. This project can build on the demonstration project in Tarrou and transfer the lessons learnt and the skills developed to similar areas like Scotts Head.

3) The proposed alternative scenario, GEF focal area²⁶ strategies, with a brief description of expected outcomes and components of the project

Project Overview: As explained above, agriculture is critically important to the economy of Dominica, and with the decline of the once dominant banana industry, diversified crop production by small farmers has become the dominant form of agricultural production. This smallholder farming frequently takes place on marginal lands where steep slopes and poor soils require the implementation of soil and water conservation and other sustainable land management practices. However, many smallholder farmers do not possess the experience, resources or capacities necessary to implement SLM agriculture. At the same time, deforestation caused by agricultural and infrastructure expansion is resulting in severe land degradation processes in many watersheds on the island. Dominica is particularly vulnerable to land degradation from deforestation and unsustainable agricultural practices because of its topography and its location in the hurricane belt of the Caribbean; more than even most of its neighbours, Dominica has suffered repeated extreme weather events (hurricanes, flooding, droughts) that greatly magnify land degradation processes. For these reasons, the Government of Dominica is determined to develop new, sustainable approaches to land management of agricultural lands and watersheds that will reduce land degradation processes and increase resilience to the impacts of severe weather events while also ensuring that the country’s agricultural sector can continue to ensure food security and provide viable livelihoods for the large part of the population engaged in agricultural production.

Project Objective: Establishment of landscape level planning, information and coordination frameworks to support sustainable agriculture and sustainable watershed management in Dominica

Component 1: Enabling ‘whole island’ landscape framework to plan, monitor and adapt land management

Under Component 1, the project will establish / strengthen the regulatory, institutional coordination and planning capacities required to enable effective implementation of SLM approaches in agriculture and watershed restoration. At present, land use and development planning in Dominica does not fully address land degradation issues nor does it consider the potential options and benefits of adopting SLM approaches. While land use planning has been strengthened in recent years with the approval of new policy documents (the NLUP and NPDP), the proposed project will constitute the first attempt at on-the-ground implementation of these new policies and the development of the detailed local land use plans and regulations needed to guide and control development activities and productive sector practices. The project also will consolidate information systems and establish coordination mechanisms specifically focused on land use planning and sustainable approaches to land management, both to guide policies and land use planning and to support on-the-ground implementation of SLM approaches to agricultural production and watershed restoration under Component 2. Capacity building of relevant stakeholders, creation of protocols for monitoring and evaluation of SLM approaches, and the development and dissemination of technical guides and outreach materials under Component 1 will further support

²⁶ For biodiversity projects, in addition to explaining the project’s consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

land use planning and SLM interventions, and increase the sustainability and replication of these measures over the long term.

Outcome 1.1: Framework to support development, monitoring, and adaptation of land management submitted to government

Output 1.1.1 – Four Parish land-use plans designed, with associated guidelines of implementation: As described in the baseline, Dominica's draft National Land Use Policy (NLUP) and draft National Physical Development Plan (NPDP) provide the basic framework for land use planning and management in the country. Based on the priorities, policies and regulations outlined in the NLUP and NPDP, the project will support the development of a framework / guidelines for developing Parish-level land use plans. These Parish land use plans will constitute an important effort to carry out on-the-ground implementation of the NLUP and NPDP in Dominica, including generating community buy-in and participation in a consolidated approach to land use planning and zoning and associated physical development planning. In addition, the Parish land use plans will generate lessons learned and best practices on SLM that will feed into the decision support system and also can be integrated into future land use planning policies and plans, including for example future versions of the NPDP and/or NLUP. Using the newly developed framework / guidelines, the project will support the development of land use plans for 4 Parishes (Saint David, Saint Paul, Saint Joseph and Saint Patrick) covering 40,460 ha., with the goal of ensuring an optimal allocation of land resources to generate development benefits and critical environmental benefits in tandem. These Parish land use plans, for which local village councils and Community Service Organizations (CSOs) will be a key partner, will guide development, including zoning of the Parishes (i.e. defining land use appropriate to topography and national development goals), identification of resources and areas of special vulnerability, and establishing data sets to support the prioritization of sustainable land management activities in each Parish (to be carried out by national authorities, international partners and local communities). The plans will build on the Community Resource Management Plans that were completed for 10 communities under a previous GEF-supported project, which were composed of two parts: a Response Plan to vulnerabilities, and a Climate Change Adaptation Plan. However, those plans were quite simple and mainly composed of maps and bullet point lists of activities that should be promoted. Under the proposed project, the Parish land use plans are expected to include: 1) physical models of the Parishes, showing natural resource, access roads, emergency shelters, important buildings (schools, clinics, churches etc.); 2) GIS maps capturing LD challenges, along with the elements previously cited; and 3) identified strategies and implementation plans to address key LD challenges. To support land use planning, the project will use the national soil and hydrology maps developed under the DVRP, and as needed, it will seek to use (or purchase if necessary) Google Earth satellite imagery in order to provide additional baseline information for the land use plans.

Output 1.1.2 - Land Information decision support system is available for use in land use planning, assessment of environmental conditions and trends, and policy development: In order to strengthen land use planning / management approaches in Dominica, the project will help to strengthen the existing Geonode land mapping / data information system managed by the Physical Planning Department. The project will input information on LD trends / conditions and changes in areas where SLM practices are implemented (under Component 2) into the Geonode system so that the system's maps and other spatial data and information become more informative and useful for resource managers, planners and other stakeholders, in particular those stakeholders developing the land use plans under Output 1.1. Where possible, the project also will assist in collecting other critical LD-related data (e.g. data to generate maps on hydrological systems, landslides, topography, and land use). In addition, the project will provide capacity building to the GIS / data management units of the Physical Planning Department, the Land and Survey Department, and the ECU, through training staff in using the relevant software, in data collection and entry techniques, and in preparation of relevant maps, and by establishing compatible GIS platforms in each department, allowing them to put information into the system, access information from the system, accommodate requests for GIS support from other stakeholders, and better align information management and sharing (e.g. linking data to maps to decision-making). Capacity building will also benefit other relevant agencies (Agriculture and Fisheries, Forestry, Tourism, Public Works, Housing, DOWASCO) to enable them to understand and use the Geonode system. In this way, if the Public Works Department wants to propose a new road, or the Water Authority wants to propose a water catchment system, these agencies will have access to data (topography, hydrology, impacted communities / ecosystems, etc.) and maps to assist Cabinet in assessing such proposals. In summary, the Geonode system will be better able to provide policy makers and resource managers in Dominica with data and maps to support landscape

modelling and planning for infrastructure development, housing settlements, agricultural expansion, and other land use changes; information to support LD and BD planning, monitoring and reporting; analysis of the potential impacts of land degradation on ecosystem services; and information to support the monitoring of global environmental and development benefits resulting from community and government actions at different scales.

Output 1.1.3 - Multi-sector platform for land use planning developed: The mandate of the existing Biodiversity Committee in Dominica will be expanded to become a BD/SLM committee that will function as a multi-sector planning platform that brings together authorities tasked with natural resource and land use planning and permitting at a national scale. The existing Biodiversity Committee is a well-established and functional coordinating mechanism for government institutions and other stakeholders; this committee previously functioned as a BD/SLM committee (when Dominica had more active programs on SLM), and with support from the project it will resume the role of a BD/SLM Committee that will provide a sustainable mechanism to support LD information sharing, planning and decision-making over the long term. In addition, because the committee operates under the guidance of the ECU, it will allow the ECU to fulfil its mandate to coordinate on environmental activities and to promote the integration of environmental concerns with development decision-making. To support the work of the committee in the assessment and management of land degradation related issues (which are highly impacted by climate change in Dominica), the project with technical support from PISLM will create an online communications platform that allows members to share, review, and make inputs to land use planning and programs, which will increase efficiency and avoid duplication and waste of resources (this platform will be linked to the regional stakeholder platforms developed under Output 1.2.2). One of the first priorities of the multi-sector planning platform will be to carry out an analysis of the impacts of relevant national policies on land degradation conditions and trends in Dominica in order to guide policy reform and development. In addition, the committee will facilitate and oversee the implementation of the NLUP and NPDP and the land use plans developed under Output 1.1, and guide efforts to reach agreement on areas where development is permitted (but managed to balance environmental and development needs) and areas where development is to be avoided. This mechanism also will allow Ministries to share work plans while they are being developed, thus allowing more coordination during implementation, and to obtain information from other Ministries central to support their annual budgetary planning process.

Output 1.1.4 - At least one Protocol established for monitoring and evaluation of SLM practices: Working in collaboration with key stakeholders (e.g. the Department of Agriculture and the Physical Planning Department), the project will help to establish protocols for monitoring and evaluation of SLM practices in Dominica. The anticipated protocols will consist of a checklist of key LD-related issues (soil carbon content, soil micronutrient content, vegetation cover) and SLM-related practices (e.g. effects of existing and new SLM practices on LD conditions), as well as guidance tools on establishing baseline data and monitoring changes. The protocols will be mainstreamed into all of Dominica's SLM projects so that they are properly monitored / scored during the biennial UNCCD reporting exercise; the protocols will also contribute to the Dominica monitoring its progress in meeting its SDG 15 mandate. The protocols will also be aligned with and include tracking of three indicators for SLM that are used in the Land Degradation Neutrality Target Setting Process (LDN-TSP): 1) Land Cover; 2) Land Productivity (metric: net primary productivity); and 3) Carbon Stocks above and below ground (metric: SOC). Tracking of these indicators will contribute to Dominica's LDN-TSP process, and will be additionally relevant if any of the pilot sites of this project are located within any of the hotspots that will be identified during the baseline study of Dominica's LDN-TSP. The project will work closely with agricultural extension officers, who have experience in measuring physical and chemical changes in soil structure, texture, productivity and soil loss, although they do not have established protocols or existing baseline data sets on LD related factors. The protocols can be incorporated into the Physical Planning Department's development guidelines; among other priority needs, the department has identified the need for protocols to guide development on slopes in Dominica, since 80% of the island slopes at over 30°, and the need for development standards for new sub-divisions. In addition, capacity building will be provided to resource managers and information management experts on the use of the protocols and their integration into decision-making.

Outcome 1.2: Institutions are capable of promoting enhanced sustainable land management in Dominica

Output 1.2.1 - One Strategic Training plan developed and implemented (Beneficiaries: institutions with sectorial responsibilities for development and conservation, regulatory authorities, relevant CSOs, community partners; indicators: # of training sessions, # of beneficiaries, increased capacity score from 21 to 32): The project will

contribute to strengthening the legal framework and mandate of the key institutions to give them the authority and capacity necessary to enforce measures that address the key drivers of land degradation, including illegal development / land clearance, squatting, illegal / unsustainable land use practices, etc. To begin, the project will undertake a review and strengthening of existing and draft legislation related to land and resource use and management, with the objective of ensuring that the legal framework is in place to allow for effective monitoring and enforcement by relevant institutions and for full community participation in the development, monitoring and enforcement of Parish land use plans. In both instances, the emphasis will be on enabling better enforcement of land use regulations and community plans in order to better regulate farming in areas where it is not sustainable (especially steep slopes), and to prevent violations / illegal practices, such as illegal land clearing, squatting on public lands, house construction on steep slopes, and illegal use of agrochemicals. The project will also explore possible positive incentives for farmers to adopt SLM practices, such as removing tariffs on imports of agricultural equipment and inputs. National validation consultations will be conducted on the suggested improved legislation / regulations and submitted to the Cabinet for formal approval. At the same time, the capacity of the regulatory authorities, in particular the Environmental Coordinating Unit, law enforcement agencies and courts, will be strengthened to monitor conditions and enforce regulations, while Village Councils and CSOs will participate in a capacity building program that helps them to organize, gain registration or accreditation to become official partners in developing, monitoring and enforcing Parish land use plans, and become advocates for SLM practices. Capacity building for all of these stakeholders will include a strong component of awareness raising on existing and new regulations. This work to strengthen monitoring and enforcement capacities related to LD will build on the work of the GEF-funded project “Supporting Sustainable Ecosystems by Strengthening the Effectiveness of Dominica’s Protected Areas System”, which has developed capacities and experiences in the Forestry Division and National Parks Authority on the monitoring / prevention of forest fires, land clearing, and other land degradation related problems, and can provide a model for extending similar capacity building for agricultural extension officers, farmers’ associations, etc. to monitor farming practices, water resource management, etc. Finally, the project also will work to strengthen the overall legal mandate of the ECU to coordinate, monitor and manage LD related issues in the country. Legislation to strengthen the mandate of the ECU has been drafted but never approved; therefore, the project will support efforts to educate policy makers and legislators on the importance of LD issues, the potential role of the ECU in managing these issues, and the need for approval of the draft environmental bill to strengthen the ECU mandate.

Output 1.2.2 - At least two knowledge publications on SLM practices disseminated within Dominica and in the sub-region: PISLM will provide co-financing support and technical expertise to implement a knowledge management strategy to both disseminate information within Dominica and to enhance regional cooperation and knowledge sharing between this project and other SLM projects being implemented in Caribbean SIDS. At the national level, the focus will be on disseminating lessons learned and best practices on SLM approaches derived from the project activities to farmers, farmer associations, CSOs / community leaders, and resource managers. Much of this information will be derived from the SLM field activities on agriculture and land rehabilitation carried out under Component 2, including for example information on practical, low-cost soil conservation strategies that also positively impact yields, and low-cost watershed restoration approaches. These lessons and practices will be carefully documented so that they may benefit farmers throughout Dominica as well as the sub-region. PISLM, which has significant expertise in mainstreaming policy and other legal instruments, will lead the development of guidelines and/or a handbook of SLM approaches to land use planning, which will be disseminated to various sector stakeholders to inform sectorial policies and plans, including the work programs of key institutions (e.g. Ministries of Agriculture and Fisheries; Public Works and Ports; Housing, Lands and Water Resource Management; Tourism and Urban Renewal, etc.).

At the regional level, the project will work with PISLM to establish a regional Information, Communications and Technology (ICT) knowledge hub, based on the framework of the UNCCD Knowledge Hub (<http://knowledge.unccd.int/>). The ICT hub will facilitate the sharing of information among countries on SLM best practices; successes and failures in implementing SLM-oriented projects (including GEF-supported projects); and strategies for developing LDN targets linked to each country’s Land Degradation Neutrality Target Setting Process (LDN-TSP). PISLM is coordinating the LDN-TSP for eight Caribbean countries, and at the end of this process, priority transformative projects will have been identified for funding in each country; thus, the ICT hub can function as an important link between SLM projects on the ground and priority projects / activities identified in the LDN-TSP programs. Government and other relevant stakeholders will contribute to the content of the Hub and access to information will be formulated accordingly. PISLM will support the hub over the long-term through its recurrent expenditures and supplemental funding from other relevant projects. In addition, PISLM will support the project in sharing lessons learned

with other GEF-supported SLM projects in the sub-region; as noted in the baseline, part of PISLM's mandate is to provide a forum for Caribbean Parties to exchange information on SLM best practices and technologies. Among other projects, information will be shared with the proposed UNEP-GEF project "Restoration, conservation and sustainable management of degraded forest landscapes in St. Kitts and Nevis", which is undertaking similar activities in terms of national land use / physical development planning; revisions to legal and regulatory framework to support land use planning; land rehabilitation through reforestation and agroforestry production; sustainable agricultural production; and knowledge management and information exchange on environmental issues.

Component 2: Reducing the effects of land degradation on ecosystem services through sustainable land management

Dominica is one of the most mountainous countries in the Caribbean region, and much of the country is a mosaic of forested areas and agricultural lands within watersheds where land degradation processes in one area can greatly impact adjacent and downstream areas, particularly during extreme weather events. For this reason, the project will develop SLM (including climate resilient) approaches that can be employed by small farmers and communities that improve the sustainability of farming practices on agricultural land, restore degraded forest areas, and together improve land productivity and resilience to extreme weather events. By addressing land degradation processes on both farmland and degraded watershed forest areas, the project also will help to generate community interest and cohesion in sustainable land management. The project will develop technical packages on effective SLM approaches and technologies and provide agricultural extension officers, resource managers, and farmers with training on these approaches and technologies. In so doing, the project will work in four targeted Parishes (Saint David, Saint Paul, Saint Joseph and Saint Patrick) that encompass an area of 40,460 ha. Within this area, the project will promote and support SLM approaches in agriculture on 2,000 ha of farmland, and SLM approaches in watershed restoration in three watersheds encompassing 4,000 ha. Finally, the project will undertake education and awareness programs to increase understanding of LD issues, including new land use planning and new regulations related to land use violations, as well as programs to demonstrate the social, economic and ecological benefits of adopting SLM approaches and thereby generate support for their adoption.

Outcome 2.1: Increase in adoption of SLM practices in targeted parishes

Output 2.1.1 - Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions: To complement the establishment of the enabling policy and regulatory framework at the national level, the project will work with the Agriculture Extension Service to identify a package of SLM approaches and technologies in agriculture suitable for conditions in Dominica, which will provide the basis for field-based activities under Output 2.1.3. For existing farmlands, possible approaches include *inter alia*: 1) soil conservation activities such as contour planting, use of cover crops, guidelines on the number of crops harvested each year, conservation tillage, etc.; 2) management of agricultural inputs, such as replacing agricultural chemicals with biological fixation systems and sowing with leguminous cover crops; use of solid and liquid organic fertilizers; and multi-cropping to reduce pests, improve food security and reduce the loss of soil nutrients, etc.; 3) sustainable production and processing activities, such as composting, greenhouse and crop production using organic principles, intensified vegetable production systems, production of coconuts and fruits using organic principles, on-farm trials in intensive production of herbs and spices using organic principles, on-farm processing for citrus (juice concentrate) bananas (banana flour, dried snack chips) and dasheen (root flours and snack chips), etc.; and 4) slope / water management (contour drains, grassed waterways and storm drains); establishment of vegetative barriers to reduce landslides; water management including rainwater harvesting, trenching and drain maintenance. For abandoned farmlands, agroforestry approaches (especially the use of fruit trees such as mango and coconut) are likely to be included in the package of approaches. The project will seek to build on and learn lessons from a recent FAO-supported Agriculture Disaster Risk Management Project in St. David's parish, in which Ministry of Agriculture Extension Officers have gained valuable technical knowledge on specific SLM approaches to reduce soil erosion, soil nutrient losses and soil compaction; improve soil biological/chemical quality and productivity; and produce higher soil moisture and increased water availability; as well as lessons from the OECS – GCCA project in Soufriere Peninsula, Tareau/Jimmit Hills, St. Joseph Hills and Woodford Hill agricultural station.

To improve the selection of appropriate SLM approaches / technologies for different farmers, the project will undertake soil analyses of farming areas (i.e. measuring soil nutrient parameters, such as pH, Nitrogen, Phosphate, Potassium, Calcium and salinity, which directly impact agricultural yields). Although the DVRP project is undertaking soil surveys,

those will be done at the macro (national) level, whereas this project will pilot soil chemical and physical analysis at the micro (small farm plot) level on the farms targeted under Output 2.1.3. The project will seek to collaborate with the DVRP in providing training for Agriculture Extension Officers and other relevant stakeholders in carrying out soil surveys and analysis.

The project also will identify a package of SLM approaches and technologies for the restoration of degraded watersheds, which will provide the basis for activities under Output 2.1.4. Possible approaches include slope stabilization efforts and the establishment of improved drainage; establishment of buffer zones at the edges of streams and waterways and planting of vegetation (e.g. vetiver) in these zones; and reforestation using both tap root and fibrous root systems. As part of the reforestation efforts, the project will explore options for pilot agroforestry efforts. The Ministry of Agriculture has promoted the planting of Coconut (*Cocos nucifera*) on degraded slopes as it provides soil stabilization, serves as a wind break for other crops, and provides a food/income source (every portion of the plant and its fruits can be used in livelihood and industrial activities); other likely agroforestry species that can provide LD and socio-economic benefits include citrus and mango. The project will seek to learn from success stories in the region, for example from Zion Hill and the Majorca water catchment in St. Vincent, where fruit trees were used for reforestation and succeeded in providing food for local residents while also stabilizing the land. Finally, the project will explore options for removing invasive lemongrass (which has contributed to increased fire and subsequent soil erosion problems in Dominica) in order to strengthen watershed resilience, working with an existing EU-OECS GCCA project for removing invasive lemongrass and replanting degraded areas with native flora.

Output 2.1.2 - At least 1,500²⁷ Farmers and local communities with strengthened capacities to implement SLM approaches & technologies in agriculture: To enable farmers to adopt SLM approaches to agricultural production, including organic agricultural practices and adapting to climate change impacts, the project will work with the Inter-American Institute for Cooperation on Agriculture (IICA) and the Ministry of Agriculture (especially Agricultural Extension Officers) to provide capacity building on the use of soil conservation and farming techniques suitable for local conditions as identified in the package of SLM approaches and technologies created under Output 2.1.1, as well as basic equipment / materials to carry out such activities. At present, the Agricultural Extension Services has 35 extension officers, who have extensive experience in training farmers in crop production through demonstrations and workshops, providing inputs and offering technical guidance and advice to farmers. Capacity building will be provided in a number of different ways, including: 1) site visits to SLM demonstration farms (see Output 2.1.3) to view first hand the skills/technologies implemented at those sites; 2) group discussions and site visits where farmers are taught SLM theoretical approaches combined with live demonstrations; and 3) technical guidance for farmers on their own lands (e.g. using composting bins, construction of drainage, inputs like planting material, fertilizers and greenhouse materials). In addition, the project will provide technical support to establish the conditions under which farmers can more effectively adopt SLM measures. To begin, the project will provide legal and technical support to farmers for land tenure (e.g. assistance in obtaining long-term leases and/or leases with the option to own) through a multi-sectoral approach that includes staff from Legal Affairs, Physical Planning, Lands and Survey, Agriculture, and Forestry.

In addition, the project will support farmers in gaining certification of their sustainable land management practices. To begin, the project will draw lessons from the experience of the Dominica Good Agricultural Practices (DOMGAP) process, a voluntary farm certification programme that targets all commercial farmers supplying local and export markets. DOMGAP certifies agricultural products, farms, farm workers, processes and systems against internationally recognized fresh produce standards (such as Global GAP), and includes auditing of farms, training and certification of farmers, implementation of audit recommendations on farm, establishment of a farms assurers group, establishment of a certification body, etc. While DOMGAP does not address sustainability practices, its program can provide valuable lessons on establishing a certification programme. The project will use these lessons to assess potential certification systems (e.g. Fair Trade, organic or other certification systems); to provide technical support to ensure that farming activities meet certification standards; and to assist farmers in working with certification organizations to navigate their certification processes. The project also will carry out education and awareness raising for the public and farmers on the value of certification.

²⁷ Estimate of the total number of farmers in 5 parishes is 3,907. The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used to reconfirm this figure.

The project will also work to assist farmers to gain access to credit (as needed) to invest in SLM practices. To begin, the project will carry out an assessment of the feasibility of using existing credit mechanisms vs. developing a new credit scheme for farmers. The project will then educate farmers and provide them with technical support (such as land tenure documentation and business plans) to participate in the selected program(s). Existing programs that might be used include grants and loans from the Ministry of Agriculture's 'Investment in Agriculture' revolving fund, loans from the Dominica Agriculture Bank, and group loans from local credit unions (these would require the project to help local farmers organize into registered groups that can access loans). The project will also assess the potential for developing a program that can connect landowners (including the Government) with landless farmers to facilitate the purchases of farmland. If a new credit scheme is to be developed, the project will work with private banks / credit unions, technical experts, and farmer associations to develop the new scheme.

Overall, capacity building will be focused on the 30 farming households participating in the SLM demonstration activities under Output 2.1.3, but other farmers (particularly those working in areas vulnerable to LD impacts) also will have the opportunity to visit the demonstration farms and/or to receive training and educational materials that will be disseminated through farmer organizations / committees. Capacity building will be gender sensitive and training and other forms of support (farm implements and inputs) will be provided to both men and women farmers, with households headed by single females treated as priority cases.

Output 2.1.3 - SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated for farmers of at least 40 farms: Working with Dominica's agricultural extension officers and IICA, the project will assist farmers in practicing sustainable land management in diversified crop production on at least 30 farms, with a focus on areas identified as land degradation hotspots. Preference will be given to farmers based on criteria including: farmers whose livelihood comes primarily from farming; farmers who have been relocated and are just now starting to farm in a new area (which will be valuable for assessing impacts); farmers who have dependent children; women farmers; farmers who are facing agriculture-related land degradation problems; and farmers who have shown interest in soil conservation and/or have started conservation efforts on their own. In addition, the combination of selected sites will represent different types of LD challenges (e.g. gentler slopes where agricultural chemicals are degrading soils, as well as steeper slopes where soil erosion is a major problem, etc.), and an emphasis will be placed on sites with a high potential to cause stream sedimentation. The project will establish 1-2 demonstration farms to showcase SLM approaches in agriculture; these farms will collaborate with the 21 ha demonstration farm in the Woodford Hill area (in the north of the country) that is being established by the GCCA project. The package of SLM approaches and technologies for sustainable and climate resilient agriculture developed under Output 2.1.1, along with associated materials and equipment needed to implement SLM approaches, will be disseminated to the 30 farms in 12 communities; in addition, these farmers will receive the package of SLM approaches and technologies developed under Output 2.1.1 and will participate in the capacity building activities under Output 2.1.2. An indicative list of SLM activities at these sites is provided in Table 2 below (additional details on project activities to support SLM approaches to agriculture are provided in Annex P). In addition, all other farmers in the 4 parishes, who together farm at least 2,000 hectares, will participate in capacity building, in particular through visits to the demonstration farms (and eventually to any of the 30 farms, which will become models for replication during and after the project), training modules on the package of SLM approaches and technologies, and assistance with land tenure, certification of SLM practices, and access to credit. Finally, the project will undertake follow-up and monitoring of the implementation of SLM approaches on these selected farms, and provide guidance on remedial actions as necessary.

Table 2: Summary of Potential SLM Interventions in Agriculture in 12 selected communities

Community	Possible SLM Interventions
Bellevue Chopin	<ul style="list-style-type: none"> Farming practices using organic principles Composting and organic school garden Address land tenure
Salisbury	<ul style="list-style-type: none"> Develop greenhouse production methodologies using organic principles
Roseau Valley South	<ul style="list-style-type: none"> Facilitate intensive vegetable production using organic principles Village composting project Land tenure schemes

Morne Prosper	<ul style="list-style-type: none"> • On-farm trials in intensive production of herbs and spices using organic principles • Soil conservation and conservation tillage
South East	<ul style="list-style-type: none"> • Technical support in production and certification of production of Bay Oil using organic principles • Convert production and processing activities to use organic principles
Castle Bruce	<ul style="list-style-type: none"> • Soil fertility and weed control
Carib Reserve	<ul style="list-style-type: none"> • Building of contour drains, grassed waterways and storm drains • Certification of organic wild harvest systems for non-timber forest products • Pilot demonstration of intensified vegetable production systems
Hampstead	<ul style="list-style-type: none"> • Production of coconuts and citrus using organic principles • On-farm processing of coconuts and citrus • Intensive vegetable production
Layou Valley	<ul style="list-style-type: none"> • On-farm processing for citrus (juice concentrate) bananas (banana flour, dried snack chips) and dasheen (root flours and snack chips) • Cropping systems that incorporate soil conservation and agroforestry practices.
Corona	<ul style="list-style-type: none"> • In-situ conservation of local agricultural crop species • Centre of learning and information dissemination • Soil conservation technology
Cochrane	<ul style="list-style-type: none"> • Soil conservation technology (storm drains, grass barriers) • Demonstration farm to propagate and distribute plant material • Farmers trained in plant lifecycle management, particularly planting and harvesting
Warner	<ul style="list-style-type: none"> • Rainwater harvesting to support low technology irrigation • Generate baseline data on soil loss

Output 2.1.4 - Degraded watersheds in at least 8 villages rehabilitated with native vegetation, based on site specific rehabilitation plans developed in collaboration with local communities: The package of SLM approaches and technologies for restoring degraded watershed forest areas with native vegetation developed under Output 2.1.1 will be disseminated to community partners in four parishes. Together with the Ministry of Agriculture (Forestry Department) and community partners, the project will undertake restoration / revegetation on Crown Lands in three degraded watersheds encompassing at least 8 villages within the four targeted parishes: Coulibistrie, Salisbury and La Plaine. These sites, which were selected in consultation with Dominica Water and Sewerage Company Limited (DOWASCO) and the Ministry of Agriculture, are watersheds with significant LD impacts; in Coulibistrie and Salisbury the LD impacts include significant damage from agricultural activities, while in La Plaine the impacts are primarily from extreme weather events. The SLM approaches and technologies supported by the project will depend on the packages developed under Output 2.1.1, but are likely to include the following: i) create land conservation zones (through the Parish land use plans) for highly vulnerable areas (e.g. steep slopes, areas along streams/rivers, etc.) within watersheds, and planting vegetation in those zones to prevent erosion and stabilize riverbanks; ii) pilot reforestation activities with agroforestry species (coconut, mango and citrus) in order to reduce soil erosion and protect the water catchment area; iii) improve drainage to prevent additional erosion and reduce risk of flooding for communities, including activities such as strengthening embankments, slowing flow rates with sediment traps, etc. on tributary waterways / farm drains, clearing water courses by removing fallen trees (a significant problem in the aftermath of Hurricane Maria), managing waste disposal (dumping of old appliances in ravines), and managing runoff using trenching and rainwater harvesting; iv) introduction of contour farming and the use of organic fertilizer to improve water quality; and v) measuring key indicators such as sedimentation and water quality in watersheds, ideally partnering with the water quality monitoring program of the DVRP project (additional details on project activities to support SLM approaches to watershed restoration are provided in Annex P). Local communities will receive training and materials in order to participate in the watershed restoration activities (e.g. local residents will be hired to plant trees and other vegetation; they also will be trained to do the voluntary monitoring of the watershed in order to conserve their own livelihoods opportunities); these communities will also benefit by having rights to harvest the agroforestry products. The project also will benefit from collaboration with the regional GCCA-OECS Ecosystem Restoration and Slope Stabilization project, which is being implemented in Dominica in the Soufriere Peninsula, Tareau/Jimmit Hills, St. Joseph Hills and Woodford Hill agricultural station. This project is working towards creating on-site sustainable land stabilization and management models / demonstration classrooms/sites that support

sustainable soil conservation. Additional details on project activities to support SLM approaches to watershed restoration are provided in Annex P.

Output 2.1.5 - Increased public understanding and awareness of LD issues and associated SLM options, and increased support for land use regulations: The project will support the development and implementation of a national public education and awareness programme on Sustainable Land Management in Dominica in order to: upscale the lessons learned and the implementation of good SLM technologies to a national scale; increase public support for tackling the important problem of illegal development, squatting, and other activities; inform national stakeholders of new land and resource use regulations; increase awareness about watershed ecosystem services and watershed conservation issues; and share information on and facilitate opportunities for participation in Parish land use planning and resource monitoring. Target groups will include land management authorities and CSOs, the indigenous Kalinago population, women's farmer groups, agriculture science clubs in secondary schools, and individual farmers. The project will deliver education and awareness raising through community meetings, media presentations, and visits to demonstration sites. The project will build on the ongoing work of the ECU environmental education program and the work of the GEF-funded Supporting Sustainable Ecosystems project, particularly in using electronic media, TV, radio and printed media to reach the general public. The Project also will undertake a community-based education programme to raise the awareness of the socioeconomic benefits to be derived from implementing effective SLM practices, including: 1) ecosystem services such as water provision and soil retention, as well as potential tourism revenues; 2) benefits to women, 3) raise awareness of sustainable land management, including organic agriculture; 4) restore traditional knowledge regarding land management and organic agricultural practices.

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

Scenario without GEF Funding: In the absence of the proposed project, Dominica will continue to suffer severe economic, social and environmental consequences stemming from the impacts of continual on-going land degradation processes resulting from poor land use planning and unsustainable agricultural practices, as well as from the impacts of periodic but frequent severe weather events, notably including hurricanes. In this business as usual scenario, Dominica will have very limited land use planning mechanisms and capacities or relevant information on land uses, conditions and trends, and as a result, development activities and agricultural expansion will continue without adequate planning or regulations and will often take place in areas (especially steep slopes) that cannot sustain such activities without producing significant land degradation. Vulnerable watersheds will continue to be subject to infrastructure and agriculture activities that produce significant soil erosion, land slippage, sedimentation and flooding. At the same time, farmers will continue to have limited capacities and very few models to learn from in order to adopt sustainable land management practices that can reduce land degradation, while insecure land tenure, poor access to credit, and lack of opportunities to gain certification for sustainable practices will limit the capacity and incentive for farmers to adopt SLM practices. As a result, Dominica will continue to see extensive land degradation from on-going development and agricultural activities, combined with decreased resilience to extreme weather events, that will produce landslides, soil losses and exhaustion, flooding, sedimentation etc. with major negative impacts on livelihoods, food security, ecosystem services, and overall economic and social well being of the country's population.

Scenario with GEF Funding: In the alternative scenario, project will enable Dominica to translate its existing national level land use policies into on-the-ground local-level land use planning which will reduce land degradation in 4 of the country's 10 parishes while also generating important lessons and data that can guide further refinement of land use plans and laws/regulations at the national level. Project activities to enhance coordination on land use planning, develop better and more accessible information resources on LD processes and SLM opportunities, establish effective monitoring and evaluation mechanisms for SLM practices, and enhance capacity to carry out all of these initiatives, will further enable the country to understand and address land degradation problems. At the local level, the development of locally suited SLM approaches and technologies and their implementation on selected farms and in vulnerable watersheds will directly reduce land degradation and provide demonstrated models that can be replicated nationally. In sum, GEF funds will serve as catalyst to develop a coherent and coordinated approach to reduce pressure on land as a natural resource from competing land uses, through the reversal of land degradation and development of instruments and mechanisms for sustainable land use management and SLM issues.

Co-Financing

GEF TF support in the amount of USD 1,776,484, together with co-financing of USD 13,413,999, will jointly support the objectives and the outcomes of the project.

5) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The project will contribute to global environmental benefits primarily through reduced soil erosion and reduced risk of land degradation. The global benefits that will be delivered primarily include the adoption of SLM practices that will reduce land degradation and secure ecosystem services over an area covering at least 40,460 ha in the targeted parishes as follows:

Table 3: Identification of benefits associated with alternative production systems promoted by project and associated baseline activities

Current practices	SLM practices	Expected benefits from GEF-funded project	Expected benefits from baseline
2,000 ha of agricultural land under improved sustainable land management			
Degradation of forest and removal of natural vegetation due to agricultural encroachment	Adequate compliance monitoring of land use regulations and Parish land use plans, ensuring that existing forested areas are not utilized for agriculture or settlements	Land Use Plans covering 40,460 ha, resulting in: <ul style="list-style-type: none"> • Reduced deforestation • Reduced flooding • Reduced soil erosion and sedimentation of downstream aquatic, coastal and near marine ecosystems 	Disaster Vulnerability Reduction Project -- creation of a digital and bathymetric model for Dominica and a soils survey map; community level risk mapping
Limited adoption of soil management practices (increased mechanization, failure to observe contour lines, increased monocultures, etc.)	Soil erosion control techniques: e.g. mulching, zero-tillage, hedge management and windbreakers, crop diversification, terracing, gully stabilization, etc.	SLM measures adopted on 2,000 ha, resulting in: <ul style="list-style-type: none"> • Reduced soil and nutrient losses and soil compaction • Higher soil moisture and increased water availability • Improved soil biological/chemical quality and productivity 	<ul style="list-style-type: none"> • Soil Fertility Mapping project -- establish a national-level soil fertility database to facilitate proper land use and assist farmers in crop production • Support to Farmers (Horticultural Production) project -- provide infrastructure and technical support for farmers to produce crops • Banana Accompanying Measures (BAM) Initiative - diversify agricultural production (improvement of physical infrastructure, development of agricultural information systems, enhancement of risk management systems) • Climate Change Adaptation Program -- forecasting of droughts and floods, selecting crop and water management techniques; and undertaking rainwater harvesting or drainage improvement and maintenance
Excessive and inappropriate use of chemical inputs (herbicides, pesticides and fertilizers)	Biological control; adherence to regulations on chemical inputs; mulching systems; crop rotation to reduce pests	SLM measures adopted on 2,000 ha., resulting in: <ul style="list-style-type: none"> • Reduced groundwater contamination • Improved soil quality 	Banana Accompanying Measures (BAM) Initiative -- diversify agricultural production (implementation of quality standards)
4,000 ha of watersheds rehabilitated/reforested			

Construction on steep slopes; inadequate drainage systems	<ul style="list-style-type: none"> • Adequate compliance monitoring of land use regulations and Parish land use plans, ensuring that critical / vulnerable watershed areas are not subject to development • Reforestation; adoption of sustainable production systems (e.g. agroforestry) • Soil and water control infrastructure 	SLM measures adopted on 4,000 ha., resulting in: <ul style="list-style-type: none"> • Reduced deforestation • Reduced flooding • Reduced soil erosion and sedimentation of downstream aquatic, coastal and near marine ecosystems • Increased carbon sequestration 	<ul style="list-style-type: none"> • Disaster Vulnerability Reduction Project -- water storage and distribution infrastructure; slope stabilization interventions; climate resilient rehabilitation of primary and secondary roads and bridges along the East Coast and the South; improved climate resilient drainage systems; deployment of a hydromet network • Climate Change Adaptation and Sustainable Land Management project -- slope and road stabilization in order to mitigate the effects of land slippage • Ecosystem Restoration and Slope Stabilization project -- removal of invasive lemon grass replacing it with native forest vegetation
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Other global environmental benefits to be derived from this project include:

- Favourable policy and institutional environment supportive of sustainable land management, including the development and implementation of Parish-level land use plans, covering 40,460 hectares in four parishes, that will reduce land degradation and increase resilience to potential future land degradation processes
- Increased capacity of small farmers and local communities to adopt and implement SLM approaches and technologies and thereby contribute to increasing ecosystem resilience to extreme meteorological events.
- Support for the objectives of the UNCCD, and in particular, the UNCCD's 10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018). This proposed Project has been designed to contribute to all four strategic objectives of this 10-year strategy, namely to improve the living conditions of affected populations; to improve the condition of affected ecosystems; to generate global benefits through effective implementation of the UNCCD; and to mobilize resources to support implementation of the Convention through building effective partnerships between national and international actors.

6) Innovation, sustainability and potential for scaling up

Innovation: The project demonstrates many approaches for the first time in Dominica. The creation of four parish level land use plans will constitute the first attempt in the country to integrate LD trends, conditions and issues into land use planning beyond the community level. Establishment of a land information decision support system for use in land use planning will provide an important new tool for integrating land degradation data and sustainable land management practices into land use planning in the country, while the creation of protocols for monitoring and evaluation of SLM practices will allow resource managers to better understand the effectiveness of different SLM approaches. Various potential SLM approaches & technologies in Agriculture, in particular approaches to soil conservation and conservation tillage, as well as soil / water management (building of contour drains, grassed waterways and storm drains), constitute innovative approaches in the country. Similarly, the creation of buffer zones on steep slopes or around aquatic ecosystems, and the planting of vegetation in those zones, will present a new approach to watershed conservation. Finally, by establishing a regional Information, Communications and Technology (ICT) knowledge hub to facilitate the sharing of information on LD issues among countries, the project will implement an innovative approach not only for Dominica but also for the entire sub-region.

Sustainability: A key factor in ensuring the sustainability of this project is through the direct involvement of local communities and small farmers from the outset of the project. The knowledge gained by farmers and other local community members through training in SLM approaches and methodologies, as well as the experience gained in their application, will be invaluable in ensuring that these approaches are actively adopted and hence contribute overtime to the sustainability of the project outcomes. In addition, the benefits for these stakeholders of adopting SLM approaches, including more consistent and reliable crop production, reduced losses from land degradation, together with project activities to enable farmers to secure land tenure, gain certification of their production systems, and access new sources of credit, will incentivize farmers to adopt and continue SLM practices. In addition, capacity to provide on-going training to communities in the various SLM approaches will be institutionalized in various organizations (ECU, Agriculture Extension Unit, Dominica Organic Agricultural Movement, Dominica Conservation Association, etc.), which will allow

continued support beyond the end of the project. Furthermore, the mainstreaming of SLM, and especially the integration of field-tested SLM approaches and technologies, into the Parish land use plans will further support the sustainability of the project's interventions. Finally, the strengthening of the mandate and capacities of the Environmental Coordinating Unit will contribute significantly to the sustainability of the project outcomes as the ECU will be empowered legally to take the steps necessary to facilitate and coordinate sustainable land management practices in Dominica.

Scaling-up: The implementation of this project offers significant potential for upscaling of SLM planning, approaches and technologies to other areas within Dominica. The project will support the development and implementation of Parish land use plans in four parishes; these plans will be directly replicable in the other six parishes in the country, which together encompass an area of approximately 34,400 ha. In addition, the demonstrations of SLM approaches and technologies on selected farms in the four parishes will be complemented by visits to these farms for other farmers within the four parishes so that they can view first hand the skills/technologies implemented at those sites, as well as group sessions where farmers will be taught SLM theoretical approaches combined with live demonstrations. Furthermore, the Ministry of Agriculture has expressed its interest in replicating successful SLM interventions on other farms throughout the country. In addition, the Partnership Initiative for Sustainable Land Management (PISLM, which is the project executing agency, will establish a regional Information, Communications and Technology (ICT) knowledge hub to facilitate the sharing of information among countries on SLM best practices that can be up-scaled throughout the region, and the project also will share lessons learned with other GEF-supported SLM projects in the sub-region, including among others the proposed UNEP-GEF project "Restoration, conservation and sustainable management of degraded forest landscapes in St. Kitts and Nevis".

A.2. Child Project? If this is a child project under a program, describe how the components contribute to the overall program impact. NA

A.3. Stakeholders. Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes ☒ /no ☐)? and indigenous peoples (yes ☒ /no ☐)?²⁸

This Project has been elaborated through a participative process involving a wide group of State and Non-state actors whose interest varied from livelihoods to policy to environmental conservation. In some cases, stakeholders are direct or indirect beneficiaries of the project. The following table provides a summary of the relevant stakeholders for this project and their current and proposed roles or functions in project execution.

Stakeholders	Current Mandates / Responsibilities	Roles in Project Implementation
Environmental Coordinating Unit (ECU) of the Ministry of Health and the Environment	The ECU is the core environmental policy unit in the Government of Dominica, with responsibilities that include: provision of advice to the GoD on the development of coherent environmental policies; promotion of public awareness and participation in environmental matters; acting as the focal point for regional and international agreements on environmental issues; monitoring and reporting on Dominica's compliance with articles and decisions of the Environmental Conventions; coordinating development projects on the environment; and liaising with other governments and private sector agencies on issues of impact on the environment.	The Ministry of Health and the Environment working through the Environmental Coordinating Unit will be the lead implementing agency. The Ministry will coordinate the inputs of government agencies and other stakeholders in strengthening the legal, policy and institutional capacity necessary for the implementation of the project. The ECU will collaborate and interact with private sector, public sector and civil society stakeholders and stakeholder organizations and external institutions/agencies to execute, monitor and report to government and relevant agencies in accordance with the requirements of this project and relevant Multilateral Environmental Agreements (MEAs).
Caribbean Network for Integrated Rural Development (CNIRD) & the	The Partnership Initiative on Sustainable Land Management (PISLM) serves as a mechanism to facilitate exchange of good land management practices between participating countries, and serves as a mechanism for stimulating the replication of approaches, tools and	PISLM through CNRID will act as the Executing Agency and office for the project, in close collaboration with the ECU. PISLM will take the leading role in developing and implementing knowledge management tools and awareness

²⁸ As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

Stakeholders	Current Mandates / Responsibilities	Roles in Project Implementation
Partnership Initiative for Sustainable Land Management (PISLM)	methodologies throughout the region. CNIRD, which is a NGO focusing on sustainable land management issues, provides the support office for PISLM and reports on the activities of PISLM to the Ministers of Environment of the Caribbean Community.	raising programs for the project, including creation of an online communications platform for key national stakeholders (under Output 1.1.3), guidelines, information tools and resources, and sharing of lessons learned (under Output 1.2.2), and public education and awareness raising (under Output 2.1.5)
Ministry of Agriculture and Fisheries, including Dept. of Forestry, Wildlife and National Parks and the Agriculture Division	Within the Ministry of Agriculture and Fisheries (MoAF), DFWNP is responsible for forest management including conservation and sustainable resource use of all Forest Reserves and National Parks in Dominica, as well as soil and water conservation, reforestation, and enforcement of forestry, wildlife and national parks legislation. The Agriculture Division is responsible for the development of sustainable production systems, through <i>inter alia</i> : “developing farming systems that are characterized by proper utilization of soil while enhancing interactions of soil, water and nutrition” and “employing safeguard mechanism for land degradation and soil loss as well biodiversity and water conservation”	The Department of Forestry, Wildlife and National Parks (DFWNP) will oversee plant selection and reforestation efforts to support watershed restoration. The Division of Agriculture will take the leading role in implementing appropriate SLM approaches and technologies and providing extension services to promote sustainable land management in agricultural landscapes.
Ministry of Finance	The Ministry of Finance has a National Authorizing Officer who signs on behalf of government for all external funding. Internal funds (from the consolidated fund) are also managed via Ministry of Finance.	The Ministry of Finance will authorize the use of funds by this project. The ministry will also play a key role in the development of additional co-financing.
Ministry of Housing, Lands and Water Resource Management	The Department of Lands and Surveys within this ministry is responsible for demarcation of boundaries where farming is either encroaching on or occurring in close proximity to National Parks or Forest Reserves, and for delineating where farmers are to be relocated due to land degradation.	The Department of Lands and Surveys will be responsible for regulating land uses within the areas of the project field activities.
Ministry of Justice, Immigration and National Security	This ministry is responsible for the drafting and enforcement of all legislation in Dominica, including that relevant to environmental protection.	The ministry will be responsible for establishing the legal status of farm plots selected for SLM interventions and for assisting with land tenure certification.
Physical Planning Division	Responsibility for regulating land uses and land use change and development.	The Physical Planning Division, together with the Division of Lands and Surveys, will play an important role in developing planning, mapping, and regulatory strategies
Bureau of Gender Affairs	Works with Dominica National Council of Women (DNCW) to address gender equity.	Will play a key role with DNCW in identifying, ensuring and monitoring women’s participation in Project activities
Dominica Water and Sewerage Company Limited (DOWASCO)	DOWASCO manages all water resources in Dominica and is actively involved in the management and maintenance of watersheds.	DOWASCO will provide guidance in the reforestation of water catchment areas, as well as monitoring and reporting on sediment and nutrient loads in streams.
Dominica Electricity Services (DOMLEC)	DOMLEC is the country’s electricity supplier and manages hydroelectric facilities on streams emanating from Morne Trois Piton.	The agency has an interest in the flow of rivers from which it takes water for hydro generation.
The Kalinago Council	The Kalinago Council is the body responsible for managing the affairs of the indigenous Kalinago (Carib) population of Dominica	The Kalinago Council will provide collaborative support and partnership in the implementation of SLM approaches within the Kalinago reserve.
Caribbean Community Secretariat -	CARICOM as the political organ of the Caribbean Community, has a role in bringing regional policy positions to the attention of Heads of Government and	CARICOM will provide the regional framework within which this project can collaborate with similar initiatives, and facilitate the dissemination

Stakeholders	Current Mandates / Responsibilities	Roles in Project Implementation
CARICOM	other Ministerial bodies	of project results
Inter-American Institute for Cooperation on Agriculture (IICA)	IICA works to support member countries to 1) improve the productivity and competitiveness of their agricultural sectors; 2) strengthen agriculture's contribution to the development of rural areas and the well-being of the rural population; 3) improve agriculture's capacity to mitigate and adapt to climate change and make better use of natural resources; and 4) improve agriculture's contribution to food security.	IICA will provide capacity building to farmers and agricultural extension staff on the use of soil conservation and farming techniques
Dominica Organic Agricultural Movement (DOAM)	DOAM's mission is to facilitate the production of organic agricultural commodities of optimum quality and quantity; to create awareness and recognition that organic production provides an excellent opportunity for a sustainable agricultural diversification; and to promote the development of a sustainable organic industry in Dominica	DOAM will provide technical support to the project, for example in assisting farmers and other groups in developing composting systems and in adopting production systems using organic principles
Dominica Conservation Association (DCA)	DCA is involved in education, organisation and promotion of the judicious management and development of Dominica's natural, cultural and economic resources through appropriate conservation measures	DCA is a member of the Commonwealth Forestry Association and can provide technical and community support to the project's implementation, particularly in support of the rehabilitation of degraded watershed areas
Dominica National Council of Women (DNCW)	The DNCW is a voluntary umbrella organization representing women's groups on the island.	The DNCW will provide assistance in mainstreaming gender into the activities of the project
NGOs / CBOs	NGOs and CBOs on the island are active in community organizing and awareness raising, environmental conservation, and other relevant activities. In addition to those listed above, other relevant civil society partners include the National Youth Council and National Association of Youth in Agriculture, Community Councils and Community Improvement Groups, and the Giraudel Women's Group.	These organizations will act as partners in community mobilization related to SLM approaches in agriculture and watershed restoration, and also will benefit from capacity building to support their work on sustainable land management.
Farmers and Farmer Organizations	Farmer organizations, for example the Bellevue Chopin Organic Farmers groups, are active in the parishes where project field activities on SLM approaches to agriculture will take place.	Farmers will develop demonstration plots (with the help of the project team, the ECU and the Agriculture Extension services) that use SLM approaches (e.g.. organic farming; soil stabilization, etc.); receive training on SLM approaches in order to replicate activities on their own farms; and provide feedback on the benefits and performance of the SLM approaches adopted. Farmer organizations will assist in extending SLM approaches beyond pilot sites through knowledge transfer, and in providing participating farmers with assistance in market access / development.

A.4. Gender Equality and Women's Empowerment. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men. In addition, 1) did the project conduct a gender analysis during project preparation (yes ☒ /no ☐)?; 2) did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes ☒ /no ☐)?; and 3) what is the share of women and men direct beneficiaries (women 48.29%, men 51.71%)?²⁹

The Commonwealth of Dominica is committed to protect and maintain the rights of all its citizens as enshrined and expounded in the constitution, which entitles women, men, boys, and girls to equal rights to exist in freedom, dignity,

²⁹ Based on 2011 Census; the population of the 4 target parishes consists of 15,041 men and 14,047 women, for a total of 29,088.

peace and non-discrimination. Since the Government of Dominica adopted a National Policy and Action Plan for Gender Equity and Equality in 2006, many achievements regarding gender equity and equality have been reached and Dominica continues to make strides towards the social and economic achievement of women and indeed towards full gender equity and equality.

The 2006 policy aims to improve quality of life at all levels of society, and to contribute to gender awareness among policy makers, planners, implementers and the general public. It aims to “incorporate a gender perspective in all development planning” in a way that makes for the “gendering” of development planning and policy formulation and implementation, and to establish a system of gender mainstreaming into all sectors of government and society. The 2006 policy is currently being updated to ensure that the policy takes on board recent developments at the national level as well as updated data, information and analysis. The Government is also finalizing a Country Gender Assessment Report with support from the Caribbean Development Bank, and the Bureau of Gender Affairs continues to promote the Government’s objective of making the country’s environment conducive for the advancement of both men and women³⁰. Because of the 2006 policy, Government income generating programmes and projects seek to incorporate a gender perspective (e.g. households headed by single women are targeted in programme delivery). The Women’s Bureau has been collaborating with the National Development Foundation for Dominica (NDFD) on small enterprise development, and with the Dominica Export Import Agency (DEXIA) and the Cooperative Division on collaboration geared towards the economic empowerment of women. The NDFD also facilitates the implementation of a combined soft loan/grant/technical assistance scheme, and records suggest that women are increasingly accessing assistance through this programme. All of these institutions provide necessary training for women (especially rural women) to help to motivate and support them to take on entrepreneurship activities geared at income generation.

Gender Inequalities

Information on gender inequality in Dominica was assessed during the PPG phase and integrated into project design. While women in Dominica continue to outperform men in some important socio-economic indicators, including educational achievement and longevity, employment for women continues to be a greater challenge; according to the Country Poverty Assessment Report (2011), the unemployment rate for women in 2011 was 17.6% while for men it was 11.1%. Furthermore, in a report on achievement and challenges regarding gender issues³¹, gender violence and economic challenges are highlighted as two remaining challenges; the report further states that pockets of poverty present in Dominica contribute to gender violence and violence against women.

In Dominica, 70% of the national labour force and 79.9% of the formal agricultural work force consist of men, and women do more unpaid work (domestic and voluntary) than men. On privately owned lands, only 1,608 of the 8,434 farmers (19%) were women (Dominica Agriculture census 1995). The decline of the banana industry over the past decade further diminished the role of women in agriculture; many of the first farmers to be displaced/squeezed out or marginalized were the small banana farmers, and most women fell into this category. However, it is believed that in up to 20% of the 79.9% of households where men are identified as farmers, in fact it is women who are doing most of the farming even if their husbands or other male relations own and “manage” the farm. Women also constitute the largest part of the informal agriculture sector (cottage industry, backyard gardening and vending) in Dominica. This is in part due to the fact that most of the agricultural lands are owned by men so that the women who want to farm must lease land or work for men who own land; women also have less collateral to enable them to access loans to expand their operations. In the formal agricultural sector, women are more involved in the production of vegetables than other crops like bananas and citrus where men dominate. Women are paid 25% less on average for farm labour than their male counterparts even though the women sometimes work longer hours than men. An issue of great concern for women farmers in Dominica relates to the available farming equipment. Because many agricultural areas suffer from soil erosion and have little topsoil and high levels of soil compaction, it can be challenging for women to carry out some farming activities using basic hand tools.

³⁰ Address by Minister of Gender Affairs June 2013

³¹ Commonwealth of Dominica, 2013. Report on Two Areas of Achievement and Challenges to the Brasilia Consensus.

In the public sector, women make up 55.7% of the workforce, but in general they occupy lower level positions that are more likely to be made redundant than the jobs in the private sector³². In terms of participating in policy and decision-making, statistics suggest that women in Dominica are under-represented in positions where they can sufficiently influence the power and decision making process. This is apparent at all levels, including central government, local government and management/administration; for example, in 2000, only 111 of the 295 councillor positions were held by women³³. Of the 35 extension officers employed by the Ministry of Agriculture in Dominica, only two are women. Although women have made only limited inroads in the highest level of decision-making on the island, the situation is more favourable for women in senior executive positions in the private sector and in the management / administrative ministries and departments of the government.

Project Activities to promote Gender Equity

Dominica's Gender Policy will be used as the framework for mainstreaming gender into all areas of this project, as gender and social issues are important drivers and incentives for achieving global environmental benefits and therefore are a critical element for the success of the project. The project proponents will ensure that women are involved equally in the project and that they receive an equal opportunity for benefits generated by the project. For example, the project's socio-economic related activities will seek to ensure that women participate in and benefit from SLM approaches for the management of production and natural ecosystems; the project's results framework includes targets on the percentage of women who have secure land tenure, certified agricultural production, access to credit to adopt SLM approaches / technologies, and training / participation in watershed restoration including management of agroforestry plots. The project will target households headed by single women to participate in sustainable agricultural production activities under Output 2.3, so that women gain valuable skills and benefit from more sustainable and increased production. All training and demonstration events will ensure that at least 50% of participants are women. In addition, the project will seek to work with farmer's groups in implementing SLM approaches in agriculture in the four target parishes; these farmer's groups are either made up entirely of women or where they are mixed-gender the majority of members are women. The project will actively seek to recruit women as project staff and technical consultants, and to include women in relevant ministries and agencies (e.g. Agricultural Extension Services) in project activities on capacity building. All knowledge management activities will be gender mainstreamed, including the integration of gender dimensions into publications, for instance, presenting sex-disaggregated data, using gender sensitive language in publications and photos that show both women and men and avoid presenting stereotypes. Finally, the project will ensure that women, men and youth have access to and benefit from the knowledge created by the project.

A.5 Risk. Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Risk	Risk level	Mitigation Measures
Dominica's significant vulnerability to natural disasters, which are likely to be exacerbated by climate change, poses a risk to achievement of the project outcomes. Dominica's mountainous topography, climate patterns, and location in the Caribbean hurricane zone make it highly vulnerable to natural disasters arising from meteorological events, including high winds, flooding, landslides / land slippage, and coastal inundation. Major weather events,	Medium	A major impetus and focus of the proposed project is to mitigate the risks posed by climate change related natural disasters, in particular those arising from meteorological events. For this reason, the project will work to strengthen the resilience of ecosystems by undertaking environmentally sound management practices. Many of the activities of this project (e.g. training of small farmers and local communities in sustainable agricultural practices; rehabilitation of degraded watershed areas; land use planning that takes account of geological and ecological functions and constraints, etc.) will enhance ecosystem resilience to withstand the shocks associated with meteorological events. The project will also prioritize SLM activities / approaches that account for potential climate change impacts, for example by selecting tree species that are better able to withstand hurricanes; by promoting the use of drought tolerant crops; and by encouraging the adoption of soil conservation practices such as minimal tilling, windbreaks and vegetative

³² Gender equality indicators , 2011.

³³ Source: Questionnaire to Governments on implementation of the Beijing Platform for Action (1995) and the Outcome of the Twenty-Third Special Session of the General Assembly (2000)

including Hurricane Maria in Sept. 2017, have significantly harmed the population's wellbeing, the country's economic and fiscal stability, and ecosystem functioning and services (e.g. water quality and quantity; flood prevention; soil services; agricultural production; etc.), and future climate change related events could impact project efforts to establish sustainable agricultural production, watershed restoration, etc.		barriers in order to limit soil erosion and land slippage in the event of heavy rainfalls. Furthermore, in order to minimize negative impacts on project activities and outcomes, the project will be adaptively managed as needed, for example through flexibility measures such as reprogramming of activities, revisions of budgets and management of delays.
Weaknesses in Dominica's existing legal and institutional frameworks may persist and, therefore, constitute a risk to the accomplishment of the overall project objectives	Medium	To address this risk, the project will undertake a number of actions. The project will undertake a review and strengthening of existing and draft legislation related to land and resource use and management, with the objective of ensuring that the legal framework is in place to allow for effective monitoring and enforcement by relevant institutions of measures that address the key drivers of land degradation, including illegal development / land clearance, squatting, illegal / unsustainable land use practices, etc., and to enable full community participation in the development, monitoring and enforcement of Parish land use plans. In addition, the project will work to strengthen the overall legal mandate of the ECU to coordinate, monitor and manage LD related issues in the country. To ensure acceptance of the updated legislation, stakeholder consultations will be convened so as to get concurrence with the suggested changes in the legislation. With regard to the institutional framework, the capacity of the regulatory authorities, in particular the Environmental Coordinating Unit, law enforcement agencies and courts, will be strengthened to monitor conditions and prosecute violations, while Village Councils and CSOs will participate in a capacity building program that helps them to organize, gain registration or accreditation to become official partners in developing, monitoring and enforcing Parish land use plans, and become advocates for SLM practices. In addition, farmers' organizations will be strengthened to implement SLM and BD conservation measures. Finally, in light of these institutional weaknesses, a small Project Coordination Unit will be established during project implementation to oversee the day-to-day implementation of the project.
Co-financing from different partners may flow slowly due to different institutional cultures	Low	The project has secured firm letters of co-financing from partner institutions. All of the identified co-financing, apart from recurrent budget expenditures from Government, is related to programs and projects that are already ongoing, and therefore the provision of co-financing is considered secure and can be expected to be done on a timely basis.
Willingness of small farmers and local communities to adopt new land management tools and methodologies and to change agricultural practices that contribute to land degradation and biodiversity loss.	Low	The identification of a package of effective SLM technologies (e.g. soil conservation techniques, water control and conservation techniques, soil fertility maintenance, appropriate farm and cropping practices etc.) that produce both environmental and economic benefits (production increases and/or cost reductions) for farmers, and the training and outreach to farmers and local communities on these measures, will provide significant positive incentives for these stakeholders to adopt new SLM technologies. In addition, the project will carry out a general awareness raising campaign to increase public understanding and awareness of LD issues and associated SLM options; and a community-based education programme to raise awareness of the socioeconomic benefits to be derived from implementing effective LD practices, including: 1) ecosystem services such as water provision and soil retention, as well as potential tourism revenues; 2) benefits to women, 3) raise awareness of sustainable land management, including organic agriculture; 4) restore traditional knowledge regarding land management and organic agricultural practices.

A.6. Institutional Arrangement and Coordination. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Institutional Arrangements for Project Implementation

UNEP's Ecosystems Division will act as the Implementing Agency (IA) for this project; the Partnership Initiative for Sustainable Land Management (PISLM) will function as the Executing Agency (EA) of the project, and the Environmental Coordinating Unit (ECU) on behalf of the Government of Dominica will provide the political and institutional supervision for the overall project activities as implementing partners. A Memoranda of Understanding (MOU) will be established between PISLM and the Environmental Coordinating Unit stipulating roles and functions as well as specific allocations with regard to staff time and schedules.

A Project Management Unit (PMU) will be established within the ECU. The PMU will be led by a National Project Coordinator (NPC), and supported by an Administrative Officer and a Technical Assistant. The PMU's roles will be to implement project outputs, carry out monitoring and reporting, liaise with project partners, act as the Secretariat to the Steering Committee, and ensure project execution and all technical aspects of project implementation.

A Project Steering Committee (PSC) will be established to provide oversight and guidance to the project; the PSC will be a multi-sectoral body, comprising representation at the senior level of the range of national implementation entities (Agencies, CSOs and CBOs), and the GEF Implementing Agency (UNEP) -- all of which have been involved with the project from the project planning phase. The composition, responsibilities and rules of operation of the PSC will be confirmed during its first meeting. In addition, the project will establish a Scientific Advisory Board (SAB) to provide technical expertise to the PMU and partners, including support for project implementation, assisting in oversight of technical elements, and supporting project monitoring.

Additional information on the implementation arrangements is provided in Annex H.

On-going Projects

A number of on-going initiatives in Dominica have interlinked objectives with the proposed project and will contribute to strengthening the data available for Dominica in relation to specific environmental issues. The project's national-level steering committee will facilitate and oversee collaboration with key regional partners and programs active in relevant arenas. The project's Technical Working Group will assemble technical experts on forest and sustainable land management and agriculture in Dominica, and all related projects in the targeted parishes will be represented in this group. Regular meetings will be held between the different projects to leverage synergies. Further, the project will establish a coordination mechanism (the Biodiversity / Sustainable Land Management Committee) that will bring together authorities tasked with natural resource and land use planning and permitting at a national scale. Both the Technical Working Group and the Biodiversity / Sustainable Land Management Committee will seek to facilitate coordination, joint technical meetings, and information exchange with projects that constitute the co-financing portfolio for this project, including Ministry of Health and Environment's Pilot Project on Climate Resilience; the Ministry of Agriculture and Fisheries' projects on Support to Farmers (Horticultural Production), Expansion of Vegetable Production, and Soil Fertility Mapping project; and the regional project on Climate Change Adaptation (CCA) and Sustainable Land Management (SLM) executed through the Global Climate Change Alliance (GCCA).

In addition, the GEF is supporting several other important and relevant initiatives, namely:

- The GEF-UNDP project *"Supporting Sustainable Ecosystems by strengthening the Effectiveness of Dominica's Protected Area System"* (2015-2019). This project is intended to demonstrate a model for effective integrated landscape management encompassing the strengthening of an existing PA (Morne Trois Pitons National Park) and the establishment of its buffer zone in order to reduce threats to biodiversity and ecological functioning. The proposed project will undertake joint training on land and water resource use for farmers with this PA project. In addition, the project will share information and lessons learned with the PA project, for example drawing on lessons learned from the PA project's work to create higher minimum standards in EIA standards for forest protection; and lessons learned on agricultural and land management practices and controlling pollution runoff developed through the creation of four Community Resource Management Plans in the MTPNP buffer zone. Finally, the Environmental Coordinating Unit plans to undertake a single, coordinated public education and outreach program encompassing components of both of these projects as well as the ECUs ongoing Environmental Education

Program, including hiring two full-time staff for environmental education through the PA project and the ECU's own resources.

- Dominica is one of nine countries in CARICOM participating in the GEF-IUCN *Land Degradation Neutrality-Target Setting Process*. At the end of the LDN-TSP, participating countries will have developed a set of targets, based on baseline data, which they will track until 2030 (SDG 15 commitment). As noted under Output 1.1.4, the proposed project will develop protocols that the Government of Dominica can use to track three indicators for SLM that are used in the Land Degradation Neutrality Target Setting Process (LDN-TSP): 1) Land Cover; 2) Land Productivity (metric: net primary productivity); and 3) Carbon Stocks above and below ground (metric: SOC). Tracking of these indicators will contribute to Dominica's LDN-TSP process, and will be additionally relevant if any of the pilot sites of this project are located within any of the hotspots that will be identified during the baseline study of Dominica's LDN-TSP.

Past Projects

In addition to the on-going project described above, the project also will build on the results and lessons learned of several important recent initiatives related to sustainable land management, namely:

- Another important achievement in Dominica was the development of an Integrated Natural Resource Management (INRM) approach piloted under the *UNDP-GEF Sustainable Land Management project (2008-2012)*. Among other activities, this project selected 10 communities that were particularly vulnerable to land degradation impacts (landslides; sea level rise; etc.) where it trained technicians to create community resource maps, and then worked with the communities to use the maps to prioritize development and resource use plans, minimize or prevent land degradation problems, and prepare for potential climate change impacts. The lessons learnt from the INRM project, for example on generating significant community support and ownership for land use planning and SLM practices through community involvement and education on SLM issues, will be used to guide the implementation of field-based activities under Component 2 of the proposed project.
- The recently completed GEF-UNEP project *"Support to Dominica for development of National Action Program aligned to the UNCCD 10 Year Strategy and Reporting Process under UNCCD"*, which has helped to identify many of the key issues that the proposed project is designed to address. The activities of the proposed project can, in turn, assist Dominica in reporting on its future progress in achieving priority issues identified in the NAP.
- The proposed project also will be built on outcomes from the *GEF-funded Special Program on Adaptation to Climate Change (SPACC)* (2007-2011), which helped Dominica, Saint Lucia, and St. Vincent and the Grenadines to implement pilot adaptation measures addressing the impacts of climate change on their natural resources, focused on biodiversity and land degradation along coastal and near coastal areas. Outputs from the SPACC that will guide this project include mapping of the Morne Diablo area, establishment of a platform for launching a Low Carbon Development Path, and support to policy formulation such as the Low Carbon Climate development strategy and Nationally Determined Contribution to the Paris Agreement.

Additional Information not well elaborated at PIF Stage:

A.7 Benefits. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

As noted above, hydro-meteorological disasters impose enormous costs on Dominica's economic and social well-being, including loss of life, destruction of infrastructure, property, crops, forests and various other ecosystem services, and overall major declines in GDP growth and general productivity. The Commonwealth Vulnerability Index rates Dominica as having the sixth (out of 111 countries evaluated) most vulnerable economy (to external shocks and natural hazards) in the world, and the most vulnerable in the Caribbean. Agricultural production and livelihoods are particularly vulnerable: farmers frequently lose a significant portion of their crops and livestock during hurricane events, and agriculture's share of GDP in Dominica has fallen consistently with each major natural disaster to impact the country, in large part because much of the agricultural production takes place on steep and vulnerable slopes. For this reason, project activities to develop a package of effective SLM approaches and technologies suitable for agriculture in Dominica (soil conservation and conservation tillage, soil fertility and weed control, composting, intensive production using organic principles, building of

contour drains, grassed waterways and storm drains, etc.), to disseminate this information to farmers and train them in its application, and to implement demonstration SLM approaches on farms will greatly benefit farming communities by strengthening the resilience of their agricultural production to persistent land degradation processes as well as storm impacts and other climate change related stresses. Improving the sustainability and resilience of agricultural production will contribute to the country's economic prosperity as well as its food security. Furthermore, activities to implement SLM approaches in agricultural areas and in vulnerable watersheds (including reforestation and agroforestry managed by local residents) will reduce soil erosion, sedimentation, flooding and other land degradation processes that negatively impact downstream aquatic and coastal/marine habitats that are important for livelihoods activities including fishing and nature-based tourism.

Project Cost-effectiveness:

Hydro-meteorological disasters impose enormous costs on Dominica's economic and social well-being, including loss of life, destruction of infrastructure, property, crops, forests and various other ecosystem services, and overall major declines in GDP growth and general productivity. In Dominica, agricultural production takes place on steep and vulnerable slopes to a degree greater than most countries in the region, meaning that agricultural livelihoods are particularly vulnerable: farmers frequently lose a significant portion of their crops and livestock during hurricane events, and agriculture's share of GDP in Dominica has fallen consistently with each major natural disaster to impact the country. Hurricane Maria in 2017 destroyed or damaged the vast majority of the country's buildings, roads and other infrastructure and defoliated nearly all vegetation, splintering or uprooting thousands of trees and decimating the island's lush rainforests. Flooding and the spreading of debris coming out of rivers caused extensive damage, particularly in areas downstream of degraded watersheds where soil runoff and the dislodging of rocks and boulders was most extreme. The agricultural sector was almost completely wiped out: 100% of banana and coconut plantations were lost; vast numbers of farm animals were killed; large amounts of farm equipment were destroyed; and all of the country's agricultural and forestry stations / nurseries were either destroyed or severely damaged.

For this reason, activities that reduce the vulnerability of Dominica to the impacts of extreme weather events are critically important to the country's economy, and interventions in the agricultural and forested landscape that can both protect those landscapes and also reduce negative impacts on downstream areas constitute a cost effective approach, particularly when compared to the immense costs associated with hardening national infrastructure. Thus, project activities to implement SLM approaches in agricultural areas and in vulnerable watersheds (including reforestation and agroforestry managed by local residents) will be critical in strengthening the resilience of agricultural lands and watersheds to land degradation processes, which in turn will provide substantial economic benefits to rural landholders and to the overall national economy, thereby providing a highly cost effective approach to natural resource and landscape management for Dominica.

Furthermore, the selection of project field activities has focused on cost effective approaches. For watersheds, the project will not undertake expensive watershed management / restoration activities such as concrete works and other engineering approaches; instead it will undertake low cost reforestation (focusing on key areas around watercourses where the most impact can be made with limited resources) as well as approaches such as contour drains coupled with vetiver grass, which is a very effective and low cost intervention that is well suited to the steep slopes and small farms of Dominica. In the agricultural landscape, the project will promote low cost SLM approaches such as soil conservation and conservation tillage, soil fertility and weed control, composting, and the building of contour drains, grassed waterways, etc.; by demonstrating these low cost approaches at demonstration farms, the project aims to incentivize farmers to then adopt these approaches on their own farms with the understanding that they can pay for themselves through increased agricultural production and income as well as reduced need for costly agricultural inputs.

In terms of project management approaches, the Government of Dominica has selected to partner with the Partnership Initiative for Sustainable Land Management (PISLM) Support Office in executing the project. Given PISLM's experience and mandate to enable effective implementation of SLM approaches in the Caribbean (PISLM was created by CARICOM with the mandate to guide its member states with the implementation of SLM projects in the region), and PISLM's already existing capacity to support regional knowledge management, lesson sharing and collaboration on SLM issues, this approach will eliminate the need for building / funding new capacities at the national level for participation in regional collaboration.

A.8 Knowledge Management. Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

At the national level, the project will establish a Land Information decision support system (see Output 1.1.2) that will consolidate information on LD trends / conditions and changes in the country, as well as information of land and resource conditions and changes stemming from the implementation of SLM practices (under Component 2). The decision support system will be managed by the Physical Planning Department, but access to information in the systems will be provided to the Land and Survey Department, the ECU and other planning and resource management agencies. In addition, under Output 2.1.1 the project will develop technical packages on SLM approaches and technologies in agriculture (e.g. crop production using organic principles; intensified crop production systems; soil conservation and conservation tillage; replacing agricultural chemicals; soil / water management, etc.) and in watershed restoration (e.g. creating buffer zones on steep slopes or around aquatic ecosystems and planting vegetation in those zones; reforestation activities with agroforestry species; improved drainage, etc.); these technical packages will then be disseminated to farmers and local communities residents involved in watershed restoration in conjunction with training the use of the identified approaches and technologies. After these SLM interventions have been tested in the field, lessons learned will be carefully documented in guidelines and/or a handbook of SLM approaches to land use planning, which will disseminated to farmers and other relevant sector stakeholders.

In addition, an important aspect of the project will be support for the enhancement of regional cooperation and information sharing on issues, data and approaches relevant to land degradation and sustainable land management. The Partnership Initiative on Sustainable Land Management (PISLM) will support the establishment of a regional Information, Communications and Technology (ICT) knowledge hub that will facilitate the sharing of information among countries and with other GEF-supported SLM projects in the sub-region on SLM best practices; successes and failures in implementing SLM-oriented projects (including GEF-supported projects); and strategies for developing LDN targets linked to each country's Land Degradation Neutrality Target Setting Process (LDN-TSP). Furthermore, this strategy will be in alignment with the GEF knowledge management strategy so that the project can learn from and share with global community, and all publications developed under this project will comply with the communications policies of the GEF and its partner Agencies.

B. Description Of The Consistency Of The Project With:

B.1 Consistency with National Priorities. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.:

The Commonwealth of Dominica has articulated its commitment to sustainable land management in various government documents including national reports, NAPs, and the NBSAPs. The proposed project draws on these plans with the view of implementing relevant aspects and supporting the country's efforts to meet its commitments under international conventions relevant to sustainable land management.

The Commonwealth of Dominica has ratified the UNCCD, and the proposed project is directly in line with the objectives of the UNCCD. In particular, it will contribute to implementation of the "10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018)", including all four of its strategic objectives: i) to improve the living conditions of affected populations; ii) to improve the condition of affected ecosystems; iii) to generate global benefits through effective implementation of the UNCCD; and iv) to mobilize resources to support implementation of the Convention through building effective partnerships between national and international actors. Dominica's National Action Programme to Combat Land Degradation (2004) identifies specific priorities to strengthen land use planning and policies and to implement land degradation mitigation measures. Moreover, national stakeholder consultations on the alignment of the NAP identified issues of concern including deforestation, erosion, poor drainage, flooding, lack of awareness and education, lack of enforcement of existing legislation, and sedimentation and siltation, and the proposed project will address these issues through integrated land use planning and management, institutional strengthening, public education

and awareness, and stakeholder participation in watershed and forest management. Dominica's Agriculture Disaster Risk Management Plan 2014-2019 identifies several primary Result Areas that the proposed project will facilitate, including Result Area 3 (Building resilience for sustainable livelihoods in the agriculture sector, with particular focus on smallholders), which will be supported by project activities in SLM for agriculture, and Result Area 4 (Preparedness, response and rehabilitation), which will be supported by project activities for watershed restoration. In addition, the Government of Dominica is working to establish its national voluntary targets for land degradation under the Land Degradation Neutrality – Target Setting Process (LDN-TSP), and the proposed project will support Dominica's efforts in this regard by developing protocols that Dominica can use to measure relevant indicators, and ensuring that information generated by the proposed project is integrated with the national LDN-TSP.

The country's National Biodiversity Strategy and Action Plan (2014-2020) calls for "the conservation and sustainable management of Dominica's terrestrial and marine biodiversity to ensure intra- and inter-generational equity." The NBSAP includes priorities, strategies and action for the conservation and the sustainable use of natural resources, and the promotion of "sound and sustainable agricultural practices and technology within existing agricultural human capital so as to minimize the loss of agro-biodiversity, and reduce vulnerability to desertification, soil loss, and the contamination of water resources." In addition, the country's Low Carbon Climate Resilient Development Strategy and the Strategic Program for Climate Resilience (SPCR), both of which were approved by Cabinet in 2012, are designed to facilitate Dominica's transformation to a low-carbon climate-resilient economy while addressing pressing development, livelihood and poverty issues confronting the country. Finally, the proposed project is also in line with the outcome document of the Third International Conference on SIDS—Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway, which sets out a programme for the sustainable development of Small Island Developing States. The Government of Dominica has endorsed and adopted the SAMOA Pathway.

Finally, the proposed project is consistent with the goals of the United Nations Development Assistance Framework (UNDAF) for Barbados and the Organisation of Eastern Caribbean States (OECS) 2012 to 2016, in particular Outcome 1: Environment, energy, climate change and disaster risk reduction, which is designed to "enhance the capacity of Barbados and the countries of the OECS to effectively manage natural resources and build resilience to the adverse impacts of climate change and anthropogenic hazards; improve energy efficiency and use of renewable energy as part of the region's energy mix; and improve the policy, legal, regulatory and institutional frameworks for environmental governance", and is calls for countries to address "a number of environmental sustainability issues including, *inter alia*, the integration of climate change and disaster risk reduction into development planning, response and recovery; establishing a framework to enable the region to better address issues relating to bio-technology and bio-safety; strengthening national land use policies and administrative systems; and creating a framework for the establishment of green economy transformation in Barbados and the OECS."

C. DESCRIBE THE BUDGETED M&E PLAN:

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. A detailed monitoring and evaluation plan has been provided in Annex G, including the indicative budget and time frame for its implementation. The Project Results Framework presented in Annex A includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in Annex I will be the main tools for assessing project implementation progress and whether project results are being achieved. The costs associated with obtaining the information to track the indicators, as well as other M&E related costs, are presented in the Costed M&E Plan in Annex G and are fully integrated in the overall project budget.

The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned at the inception workshop. Baseline data gaps will be addressed during the first year of project implementation. Day-to-day project monitoring is the responsibility of the project management team but other project partners will have responsibilities to collect specific information to track the indicators. It is the

responsibility of the Project Manager to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project, which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

A Mid-Term Review will be commissioned and launched by UN Environment before the project reaches its mid-point. If project is rated as being at risk, a Mid-Term Evaluation will be conducted by the Evaluation Office instead of a MTR. The review will include all parameters recommended by the GEF Evaluation Office for terminal evaluations and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. The project Steering Committee will participate in the mid-term review and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented.

The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. Terminal Evaluations must be initiated no later than six months after operational completion.

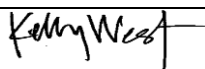
The draft Terminal Evaluation report will be sent by the Evaluation Office to project stakeholders for comments. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalised and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

The GEF tracking tool LD-PMAT is attached as Annex J. The LD-PMAT will be updated at mid-term and at the end of the project and will be made available to the GEF Secretariat along with the project PIR report. As mentioned above, the MTR and TE will verify the information of the tracking tool.

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies³⁴ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Kelly West, Senior Program Manager & Global Environment Facility Coordinator Corporate Services Division UN Environment		March 27, 2018	Johan Robinson Head: GEF Biodiversity and Land Degradation Unit Ecosystem Division	+254 20 76233130	johan.robinson@un.org

³⁴ GEF policies encompass all managed trust funds, namely: GEFTE, LDCF, SCCF and CBIT

Annexes to CEO Endorsement Request

Annex A: Results Framework
Annex B: Response to Reviews
Annex C: Status of PPG
Annex D: Calendar of Reflows
Annex E: Consultants & Staff Table
Annex F-1: Budget
Annex F-2: Budget – Co-financing
Annex G: M&E Budget
Annex H: Implementing Arrangements
Annex I: Deliverables / Benchmarks
Annex I: Workplan
Annex J: Tracking Tool
Annex K: Co-Financing Letters
Annex L: Environmental & Social Safeguards
Annex M: Acronyms
Annex N: Capacity Dev. Scorecard
Annex O: Theory of Change
Annex P: Description of PPG Activities
Annex Q: Project Site Information
Annex R: Land Use Map
Appendix 1: Supervision Plan
Appendix 2: Procurement Plan
Appendix 3: Terms of Reference

ANNEX A: PROJECT RESULTS FRAMEWORK

Outcomes	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Project Objective: Establishment of landscape level planning, information and coordination frameworks to support sustainable agriculture and sustainable watershed management in Dominica						
Component 1: Enabling ‘whole island’ landscape framework to plan, monitor and adapt land management						
Outcome 1.1: Framework to support development, monitoring, and adaptation of land management negotiated and submitted to government	# of parish land use plans developed and in use to support SLM approaches	National Land Use Plan exists, but land use planning is not in place at the parish or local levels	Framework / guidelines for developing Parish-level land use plans completed (end of year 1)	4 Parish land use plans developed and in use	Published land use plans	Institutions will actively participate in BD / SLM Committee discussions on LD issues and land use planning Institutions will share data for use in Geonode (decision-support system)
	Use of land information decision support system to support SLM measures	The Physical Planning Division has a GIS system that is partially used to generate reports for policy makers, and some draft land use plans	<ul style="list-style-type: none"> Capacity to manage system established in the GIS / data units of the ECU, Physical Planning Department, and Lands and Survey Dept. Information on LD trends / conditions and changes in project area has been inputted into Geonode system 	1 decision support system being used by resource management agencies to guide and justify development and infrastructure proposals to policymakers	Operational reports of Decision Support System Meeting minutes of BD / SLM Committee Protocols (checklists and guidelines) published	
	Use of a multi-sector planning platform guiding land use planning and management in Dominica	Existing BD Committee does not monitor LD-related issues	Report on the impacts of relevant national policies on LD conditions and trends delivered to the BD / SLM Committee	BD/SLM Committee using new LD information and online communications platform to guide development decisions, including implementation of the NLUP, NPDP, and Parish plans		
	Use of protocols for monitoring and evaluation of SLM practices	No guidelines or checklists to monitor SLM practices currently exist in Dominica	Capacity of resource managers and information management experts strengthened to support use of SLM protocols	Protocols approved and integrated into decision-making processes (e.g. Physical Planning Division’s development guidelines)		
Outcome 1.2: Institutions are capable of promoting enhanced sustainable land	Increase in score on Capacity Development Scorecard ³⁵	Score on Capacity Development Scorecard (for ECU and other relevant institutions at both local and national levels): 21	Score on Capacity Development Scorecard: 26	Score on Capacity Development Scorecard: 32	Updated Capacity Development Scorecard	Relevant institutions and policy makers will support and facilitate change to
	Improved legislation / regulations to support SLM	ECU unable to effectively coordinate / lead national	Legislation to strengthen mandate of ECU with regard	Strengthened legal mandate for ECU submitted to cabinet	Draft law on ECU mandate	

³⁵ The Capacity Development Scorecard (see Annex O) measures the capacity of resource managers, regulatory authorities, CSOs and community partners to develop and implement SLM measures

Outcomes	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
management in Dominica		efforts to address LD and support SLM approaches	to LD / SLM issues drafted	for formal approval	Operational reports of ICT knowledge hub	ECU mandate
	Knowledge on SLM practices disseminated in the sub-region	PISLM has database of SLM projects in the sub-region	Regional Information, Communications and Technology (ICT) knowledge hub established	Lessons learned on SLM measures shared with other GEF-supported SLM projects in sub-region	PISLM reports on regional information sharing	Willingness of police and prosecutors to prosecute land use violations
Outputs under Component 1						
Output 1.1.1: Four Parish land-use plans designed, with associated guidelines of implementation						
Output 1.1.2: Land Information decision support system is available for use in land use planning, assessment of environmental conditions and trends, and policy development						
Output 1.1.3: Multi-sector platform for land use planning developed						
Output 1.1.4: At least one Protocol established for monitoring and evaluation of SLM practices						
Output 1.2.1: One Strategic Training plan developed and implemented (Beneficiaries: institutions with sectorial responsibilities for development and conservation, regulatory authorities, relevant CSOs, community partners; indicators: # of training sessions, # of beneficiaries, increased capacity score from 21 to 32)						
Output 1.2.2: At least two knowledge publications on SLM practices disseminated within Dominica and in the sub-region						
Component 2: Reducing the effects of land degradation on ecosystem services through sustainable land management						
Outcome 2.1: Increase in adoption of SLM practices in targeted parishes	# of hectares in 4 parishes being managed using SLM measures for agriculture	SLM measures currently implemented on 200 ha ³⁶ 5-10%	SLM measures adopted on 1,000 ha.	SLM measures adopted on 2,000 ha.	Project field reports	Project is able to address land tenure issues in a timely manner
	Reduced land degradation on 30 farms, as measured by: <ul style="list-style-type: none"> Grass barriers (sq. meters) Functioning windbreaks (sq. meters) Trenches (cubic meters) Pesticide use (litres) Fertilizer use (kgs) Water harvesting capacity (cubic meters) 	<ul style="list-style-type: none"> TBD at project start* TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start 	<ul style="list-style-type: none"> TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start 	<ul style="list-style-type: none"> TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start 	Farm monitoring reports from Agriculture Department, soil testing laboratories, and project field staff, etc.	Financial institutions willing to provide credit to farmers
	# of farmers in project area with secure land tenure	xxx farmers have secure land tenure ³⁷	xxx farmers, of which at least 50% are women, have secure land tenure	xxx farmers, of which at least 50% are women, have secure land tenure	Land title / tenure documents Official	Climate change

³⁶ Stakeholders at validation workshop estimated that 5% of existing agricultural lands are managed using SLM approaches; baseline figure is based on a total of 4,000 ha of agricultural land in the 4 parishes, but this figure will be confirmed during project inception

³⁷ Estimate of the total number of farmers in 4 target parishes is 3,907, including St. Patrick (1,505), St. Joseph (930), St. Paul (565), and St. David (907). The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used at project inception to establish the baseline and targets for land tenure.

Outcomes	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
	# of certification systems in Dominica focused on SLM measures	0 (existing certification systems in Dominica (DOMGAP) limited to commercial farms and focused on product quality / safety)	Strategic plan created for a certification system focused on SLM measures	1 certification system for SLM measures established (or an existing intl. system adopted)	certification records Financial loan / credit records	impacts do not offset improvements in land degradation indicators
	# of farmers with access to credit to adopt SLM approaches / technologies	0 farmers have received credit to adopt SLM approaches / technologies	Credit system adapted or established to provide credit for farmers to adopt SLM	At least 25 farmers, of which at least 50% are women, have received credit to adopt SLM approaches / technologies	Watershed monitoring reports from Forestry Department, water quality testing laboratories, and project field staff, etc.	
	Restored watershed functioning in 3 watersheds (Coulibistrie, Salisbury, La Plaine) covering 4,000 ha on Crown Lands, measured by: <ul style="list-style-type: none"> Increased forest cover (ha.) Increased grass cover (ha.) Increased agroforestry (# of trees planted) Improved water quality (ppm of phosphates, nitrates, etc.) Reduced sediment loads (tons/acre/year) 	<ul style="list-style-type: none"> TBD at project start* TBD at project start TBD at project start TBD at project start TBD at project start 	<ul style="list-style-type: none"> TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start 	<ul style="list-style-type: none"> TBD at project start TBD at project start TBD at project start TBD at project start TBD at project start 		

Outputs under Component 2

Output 2.1.1: Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions

Output 2.1.2: At least 1,500³⁸ farmers and local communities with strengthened capacities to implement SLM approaches & technologies in agriculture

Output 2.1.3: SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated for farmers of at least 40 farms

Output 2.1.4: Degraded watersheds in at least 8 villages rehabilitated with native vegetation based on site specific rehabilitation plans developed in collaboration with local communities

Output 2.1.5: Increased public understanding and awareness of LD issues and associated SLM options, and increased support for land use regulations

* Because of the devastation caused by Hurricane Maria in September 2017, it was not feasible to carry out the second round of site visits during the project preparation phase in order to establish baseline data on existing SLM practices or LD conditions / trends. In addition, to date Dominica has had no programs to measure many LD status indicators, such as soil erosion and water quality, and so for these indicators baseline data will have to be created for the first time.

³⁸ Estimate of the total number of farmers in 5 parishes is 3,907. The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used to reconfirm this figure.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

GEF secretariat comments	Response
4. During the PPG, please include a comprehensive risk analysis, including specific vulnerability/risks to climate change. Also include the possible option that all the cofinancing may not be confirmed on the ground.	The Risk Analysis (Section A.5) has been updated and further details have been provided on risks and mitigation measures.
5. During the PPG, ⁽¹⁾ Explain the different provisions in place or to develop to ensure that farmers will have access to credit to invest in SLM practices/technologies.	As noted under Output 2.1.2, the project will also work to <u>assist farmers to gain access to credit</u> (as needed) to invest in SLM practices. The project will educate farmers and provide them with technical support to qualify them to benefit from grants and loans from the Ministry of Agriculture's 'Investment in Agriculture' revolving fund. Additionally the project will help local farmers organize into registered groups that can access loans from local Credit Unions, and it will provide support (land tenure documentation and business plan) to farmers to enable them to access loans from the Dominica Agriculture Bank.
6. We would recommend to include in the PPG a study on gender inequalities.	Gender inequalities were assessed during the PPG process (see Section A.4) and strategies to address these inequalities were integrated into the project design. Dominica's Gender Policy will be used as the framework for mainstreaming gender into all areas of this project, as gender and social issues are important drivers and incentives for achieving global environmental benefits and therefore are a critical element for the success of the project. The project proponents will ensure that women are involved equally in the project and that they receive an equal opportunity for benefits generated by the project. For example, the project's socio-economic related activities will seek to ensure that women participate in and benefit from SLM approaches for the management of production and natural ecosystems; the project's results framework includes targets on the percentage of women who have secure land tenure, certified agricultural production, access to credit to adopt SLM approaches / technologies, and training / participation in watershed restoration including management of agroforestry plots. The project will target households headed by single women to participate in sustainable agricultural production activities under Output 2.3, so that women gain valuable skills and benefit from more sustainable and increased production. All training and demonstration events will ensure that at least 50% of participants are women. In addition, the project will seek to work with farmer's groups in implementing SLM approaches in agriculture in the four target parishes; these farmer's groups are either made up entirely of women or where they are mixed-gender the majority of members are women. The project will actively seek to recruit women as project staff and technical consultants, and to include women in relevant ministries and agencies (e.g. Agricultural Extension Services) in project activities on capacity building. All knowledge management activities will be gender mainstreamed, including the integration of gender dimensions into publications, for instance, presenting sex-disaggregated data, using gender sensitive language in publications

	and photos that show both women and men and avoid presenting stereotypes. Finally, the project will ensure that women, men and youth have access to and benefit from the knowledge created by the project.
8. During the PPG, please address the following points: - Confirm the cofinancing; - Include a comprehensive risk analysis, including specific vulnerability/risks to climate change. - In the risks, include the possible option that all the cofinancing may not be confirmed on the ground. - Explain the different provisions in place or to develop to ensure that farmers will have access to credit to invest in SLM practices/technology. - Include a study on gender inequalities, explain how the project design will be influenced by this study.	These points are addressed in the rows above

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS³⁹

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: 50,000			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF/CBIT Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To Date</i>	<i>Amount Committed</i>
Inception Workshop	4,500	4,500	
Validation Workshop	4,500	4,500	
Travel on official Business	8,500	8,500	
Consultants	26,500	23,200	3,300
Personnel	4,500	4,000	500
Supplies	1,500	1,200	300
Total	50,000	45,900	4,100

³⁹ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

NA

ANNEX E: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF RESOURCES

<i>Position Titles</i>	<i>\$/Person Week</i>	<i>Estimated Person Weeks</i>	<i>Tasks To Be Performed</i>
For Technical Assistance			
Local			
Baseline Data Consultant	1500	4	<ul style="list-style-type: none"> Collect baseline data for indicators in project results framework, including indicators related to SLM measures on agricultural lands; land tenure; and SLM measures in watershed restoration (Outputs 2.1.2, 2.1.3 and 2.1.5)
Soil expert	1399	15	<ul style="list-style-type: none"> Soil conditions determined that will facilitate the selection of appropriate SLM approaches/technologies for different farmers (Output 2.1.1)
Land Use Planning Expert	2000	40	<ul style="list-style-type: none"> Development of a framework / guidelines for developing Parish land use plans 4 Parish land use plans developed using framework / guidelines
Land Management Expert	2000	50.5	<ul style="list-style-type: none"> A checklist of key LD-related issues that are aligned to Dominica's LDN-TSP as well as guidance tools on establishing baseline data and monitoring changes (Output 1.1.4) Carry out workshops and other interventions to build the capacity of resource managers and other relevant stakeholders (Output 1.1.4) Selected packages will provide the basis for activities under Outputs 2.1.3 and 2.1.4 (Output 2.1.1) Workshops and site visits where farmers are taught SLM theoretical approaches on watershed restoration combined with live demonstrations (Output 2.1.1) Capacity building on the use of soil conservation and farming techniques (Output 2.1.2)
Legal Expert	2000	35	<ul style="list-style-type: none"> Ensuring that the legal framework is in place to allow for effective monitoring and enforcement by relevant institutions and for full community participation in the development, monitoring and enforcement of community land use plans (Output 1.2.1) Revised legislation/regulations validated for onward transmission to Cabinet (Output 1.2.1) Carry out workshops and other interventions to build the capacity of regulatory authorities (in particular the ECU (Output 1.2.1) Capacity building program for CSOs (Output 1.2.1) Legal and technical support to farmers for land tenure (Output 2.1.2)
Education & Awareness Expert	2500	10	<ul style="list-style-type: none"> Development and implementation of a national public education and awareness programme on Sustainable Land Management (Output 2.1.5.1) Community-based education programme on socio-economic benefits of SLM practices (Output 2.1.5.2)
Media Expert	2500	10	<ul style="list-style-type: none"> Education of policy makers and legislators on the importance of LD issues, the potential role of the ECU in managing these issues, and the need for approval of the draft environmental bill to strengthen the ECU mandate
Information and Communications Technology Specialist	1800	36	<ul style="list-style-type: none"> Disseminate lessons learned and best practices on SLM approaches to resource managers, policy makers and CSOs / community leaders (Output 1.2.2.3) Share lessons learned with other GEF-supported SLM projects in sub-region (Output 1.2.2.4)
International			
GIS/Data	2500	10	<ul style="list-style-type: none"> Carry out workshops and other interventions to build the capacity of

<i>Position Titles</i>	<i>\$/Person Week</i>	<i>Estimated Person Weeks</i>	<i>Tasks To Be Performed</i>
Management Expert			relevant departments to understand and use GIS data and maps and better align information management and sharing (Output 1.1.2)
Justification for travel, if any:			

Annex F-1: Budget

(See separate document)

Annex F-2: Budget – Co-financing

(See separate document)

Annex G: Costed M&E plan

The indicative Monitoring and Evaluation Work Plan is provided in the table below.

Type of M&E Activity	Responsible Parties	GEF Budget (USD)	Co-finance (USD)	Time Frame
Inception Workshop	<ul style="list-style-type: none"> Project Manager / Project Management Unit (PMU) / Steering Committee / Reference Team UN Environment 	5,000	0	Within 2 months of project start-up
Inception Report	<ul style="list-style-type: none"> Project Manager PMU 	0	0	1 month after project inception meeting
Measurement of project indicators (outcome, progress and performance indicators, GEF tracking tools) including baseline data collection	<ul style="list-style-type: none"> Project Manager PMU/Project Technical team Consultants ECU, DOWASCO, Agriculture, Forestry 	10,000	In-kind contribution of Govt. staff	<p>Outcome indicators: start, mid and end of project</p> <p>Progress/performance indicators: annually</p>
Semi-annual Progress / Operational reports to UN Environment	<ul style="list-style-type: none"> Project Manager PMU 	0	0	Within 1 month of the end of reporting period i.e. on or before 31 Jan. and 31 Jul.
Project Steering Committee (PSC) meetings + advisory technical group	<ul style="list-style-type: none"> Project Director (chair) Delegated representatives of other relevant ministries Project Manager / PMU A representative of UN Environment NGOs Private sector representatives Local community representatives 	15,400	In-kind contribution of Govt. staff and other committee members	Once a year minimum, planned for quarterly
Reports of PSC meetings	<ul style="list-style-type: none"> Project Manager, with input from PMU and other relevant stakeholders 	0	0	Annually
Project Implementation Review (PIR)	<ul style="list-style-type: none"> Project Manager PMU UN Environment 	0	In-kind contribution of ECU staff	Annually, part of reporting routine
Mid Term Review/ Evaluation	<ul style="list-style-type: none"> Project Manager Project Coordinator PMU Domestic & External consultant(s) UN Environment 	25,000	10,000 (from PISLM)	At mid-point of project implementation (*Note: If a Mid-Term review is not required for this MSP, these resources will be applied to the Terminal Evaluation)
Terminal Evaluation	<ul style="list-style-type: none"> UN Environment External consultant(s) 	35,000	10,000 (from PISLM)	Within 6 months of end of project implementation
Financial Audits	<ul style="list-style-type: none"> Selected audit firm or individual 	15,000	0	Annually
Project Final Report	<ul style="list-style-type: none"> Project Manager PMU Consultants for lessons learnt evaluation 	0	0	Within 2 months of the project completion date
Co-financing report	<ul style="list-style-type: none"> Project Manager PMU 	0	0	Within 1 month of the PIR reporting period, i.e. on or before 31 July
Publication of Lessons Learnt and other project documents	<ul style="list-style-type: none"> Project Manager PMU Consultants for lessons learnt evaluation 	5,000	0	Annually, part of Semi-annual reports & Project Final Report
Total M&E Plan cost		110,400	20,000	

Annex H: Implementing Arrangements

DIVISION OF RESPONSIBILITIES

Project Implementing Agency - UNEP's Ecosystems Division represents the Implementing Agency (IA) of the *Global Environment Facility (GEF)* for this project, with the following roles:

- Providing consistent and regular Project oversight to ensure that GEF policies and criteria are adhered to and that the project meets its objectives and achieves expected outcomes
- Performing the liaison function between the project and the GEF Secretariat
- Regularly monitoring project progress and performance and rating progress towards meeting project objectives, project execution progress, quality of project monitoring and evaluation, and risk
- Ensuring that both GEF and UN Environment guidelines and standards are applied and met (technical, fiduciary, M&E)
- Ensure technical quality of products, outputs and deliverables
- Ensuring timely disbursement/sub-allotment to executing agencies, based on agreed legal documents
- Approve budget revision, certify fund availability and transfer funds
- Providing technical support and assessment of the execution of the Project
- Providing guidance if requested to main TORs/MOUs and subcontracts issued by the project
- Follow-up with EA for progress, equipment, financial and audit reports
- Certify project operational completion

Project Executing Agency - Partnership Initiative for Sustainable Land Management (PISLM) will function as the Executing Agency (EA) of this project, as requested by the national government in the Project Endorsement Letter dated 15 September 2016. The Partnership Initiative on Sustainable Land Management (PISLM) was initiated at a Caribbean Sub-regional Workshop on Land Degradation, which was held in Trinidad from in February 2004. As of 2014, PISLM is an independent entity, specifically an independently registered not-for-profit agency registered in the Republic of Trinidad and Tobago, which serves in the Caribbean as an intergovernmental organization. PISLM was created by CARICOM with the mandate to guide its member states with the implementation of SLM Projects in the region. For this reason, and in order to take advantage of the experience and networking facilities that the PISLM can offer to guarantee capacity building and quality outputs, and because of its successful track record of working on SLM projects in the Caribbean, the Government of Dominica selected PISLM to be the executing agency for the project. PISLM will oversee the execution of the project and work with the Project Coordinator to ensure that the objectives of the project are met. PISLM will provide oversight to the ECU in the day-to-day operations of the project and provide guidance and technical backstopping through its network. The ECU will provide office space and project logistics support for meeting the objectives of the project. A project cooperation agreement will be signed between PISLM and UNEP, and PISLM shall have the following roles:

- Oversee Project execution in accordance with the project results framework and budget, the agreed work plan and reporting tasks.
- Signing of relevant Legal Instrument to allow disbursement of funding
- Support the National Project Coordinator in project activities at national and local levels.
- Provide technical expertise through its personnel and networks.
- Ensure technical quality of products, outputs and deliverables, including reports to UNEP.
- Provide guidance and coordination to the co-executing agencies and national stakeholders, in conjunction with the National Project Coordinator.
- Support logistical issues, e.g. through organization of meetings and provision of relevant facilities.
- Addressing and rectifying any issues or inconsistencies raised by the IA
- Support the National Project Coordinator in regular Project reporting, including progress, financial and audit reporting to IA.

Key Government Partner - Environmental Coordinating Unit (ECU)

The ECU on behalf of the Government of Dominica will provide the political and institutional supervision for the overall project activities as implementing partners. The ECU's main responsibilities will include:

- Provide office facilities for the PMU
- Coordinate project activities;
- Provide technical expertise through its personnel and networks;
- Provide guidance and coordination to other stakeholders;
- Facilitate access to sites and locations;
- Engage in and support to data sampling and analysis;
- Address logistical issues, e.g. through organization of meetings and provision of relevant facilities;
- Support project management and regular project reporting;

A Memoranda of Understanding (MOU) will be established between PISLM and the Environmental Coordinating Unit stipulating roles and functions as well as specific allocations with regard to staff time and schedules.

Project Director

The Project Director (PD) shall be the head of the ECU and will ensure proper coordination of the project. In collaboration with PISLM, the PD will be responsible for orienting and advising PISLM on Government policy and priorities. The PD will support resource mobilization as necessary, and will discuss and agree with the PMU the project technical and financial reports before they are sent to UN Environment.

Project Steering Committee (PSC)

The success of project implementation is predicated on the commissioning of a Project Steering Committee (PSC) to provide oversight and guidance. The PSC is a multi-sectoral body, comprising representation at the senior level of the range of national implementation entities (Agencies, CSOs and CBOs), and the GEF Implementing Agency (UNEP) -- all of which have been involved with the project from the project planning phase.

Table 1. Proposed Composition of the Project Steering Committee (PSC)

Organisation	Department/Unit/Section
United Nations Environment Programme (UNEP) – PSC Co-Chair	UNEP’s Ecosystems Division
Partnership Initiative for Sustainable Land Management (PISLM)	Office of the Executive Director, PISLM Support Office
Environmental Coordinating Unit (ECU) - PSC Co-Chair	GEF Operational Focal Point
Ministry of Agriculture and Fisheries	Division of Agriculture Division of Forestry, Wildlife and National Parks
Ministry of Housing, Lands and Water Resource Management	Lands and Survey Division DWASCO
Ministry of Social Services, Family and Gender Affairs	Local Government Division Bureau of Gender Affairs
CBOs	National Youth Council
CSOs and Private Sector	Dominica Conservation Association (DCA) Dominica National Council of Women (DNCW) Dominica Organic Agricultural Movement (DOAM)

The composition, responsibilities and rules of operation of the PSC will be confirmed during its first meeting. Subject to the decision of this meeting, it is proposed that the PSC will be responsible for approving the operational plans and annual reports of the project. The PSC will also review and comment on the terms of reference and appointments of key project staff. If there are no comments after 14 days, the TORs and appointments will be submitted for UNEP’s clearance.

The PSC will be responsible for making executive decisions for the project, in particular when guidance is required by the GEF Implementing Agency, UNEP and the Executing Agency through the Project Director. The PSC will play a

critical role in facilitating inter-ministerial coordination, project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It will ensure that required resources are committed and will arbitrate on any conflicts within the project or negotiate a solution to any problems with external bodies. Based on the approved Annual Work Plan, the PSC will also consider and approve the quarterly plans and will also approve any essential deviations from the original plans.

The PSC will meet at least on a semi-annual basis or according to the project's needs. In addition, meetings could be convened extraordinarily by the Chair, or on the request of individual members. Additional details on the composition and roles and responsibilities of the PSC are provided in Appendix 3.

Scientific Advisory Board (SAB)

The PSC will be supported by a Scientific Advisory Board (SAB) that will meet as frequently as necessary (particularly in the earlier stages of the project) to provide technical expertise to the PMU and other Executing Entities, support project implementation, assist in oversight of technical elements, and support project monitoring.

The SAB will be a multidisciplinary group drawn from representatives of prominent academic and scientific institutions who will follow the project progress and offer expert advice as appropriate during the implementation of activities that require exceptional scientific insight. The SAB will appoint members on an 'as needed' basis. As such, in cognizance of the important role of gender relations, community development and cooperatives, the relevant expertise will be appropriately sourced. The composition of the SAB will be: Ministry of Agriculture and Fisheries, IICA, UWI, Ministry of Social Services, Family and Gender Affairs and the Chair of the PISLM Expert Group.

Project collaborators

Key stakeholders will provide guidance and/or take leading or supporting roles in the implementation of specific project activities, as follows:

Environmental Coordination Unit	<ul style="list-style-type: none"> • Coordination of all partners on land degradation issues • Environmental Education and Awareness
PISLM Support Office	<ul style="list-style-type: none"> • Online communications platform for national stakeholders • Regional Information, Communications and Technology hub to share information with other countries / projects
Physical Planning	<ul style="list-style-type: none"> • Oversight of the development of Parish Land Use Plans • Strengthening of Geonode Information System
Agriculture Division	<ul style="list-style-type: none"> • Capacity building of farmers • Implementation of sustainable land management on farms
Department of Forestry	<ul style="list-style-type: none"> • Capacity building of residents in watershed restoration (reforestation and agroforestry) • Implementation of SLM practices to support watershed restoration
Farmer Associations	<ul style="list-style-type: none"> • Support for farmers in carrying out SLM practices, and in strengthening support mechanisms (certification, access to credit)
Lands & Survey Division	<ul style="list-style-type: none"> • Support development of Parish Land Use Plans
DOWASCO	<ul style="list-style-type: none"> • Support watershed conservation and restoration activities
Attorney General's Office	<ul style="list-style-type: none"> • Support revisions to environmental laws / regulations
Physical Planning Division	<ul style="list-style-type: none"> • Support development of Parish Land Use Plans • Support strengthening of land information management system (Geonode)
Local Government Office	<ul style="list-style-type: none"> • Support development and implementation of Parish Land Use Plans and new environmental regulations
Bureau of Gender Affairs	<ul style="list-style-type: none"> • Ensure gender mainstreaming in land use planning, SLM practices in agriculture, access to credit and land tenure activities, etc.

Partner agencies will collaborate in the project through a designated Focal Point (with a designated alternate), who will provide (i) on-going guidance on project implementation, with particular focus on technical matters and (ii) liaison services between each agency and the Project Management Unit.

INTERNAL STRUCTURE

Project Management Unit (PMU)

A Project Management Unit (PMU) will be established within the ECU. The PMU will be led by a National Project Coordinator (NPC), and supported by an Administrative Officer and a Technical Assistant, who will be contracted through a selection process by ECU / PISLM, and paid directly from UNEP-GEF funds (Terms of Reference for the PMU staff are provided in Appendix 3). The NPC will have specific responsibility for project Outputs through day-to-day management of project implementation. The NPC will also:

- Ensure the logistical, administrative and financial effectiveness of the Executing Agency in fulfilling its roles set out above;
- Provide monitoring, supervision and guidance to the technical teams based in the project areas;
- Promote collaboration and coordination with ECU, PISLM, UNEP, other project executing agencies and other project stakeholders, accordingly.

Additional details on the responsibilities and functions of the NPC are provided in Appendix 3.

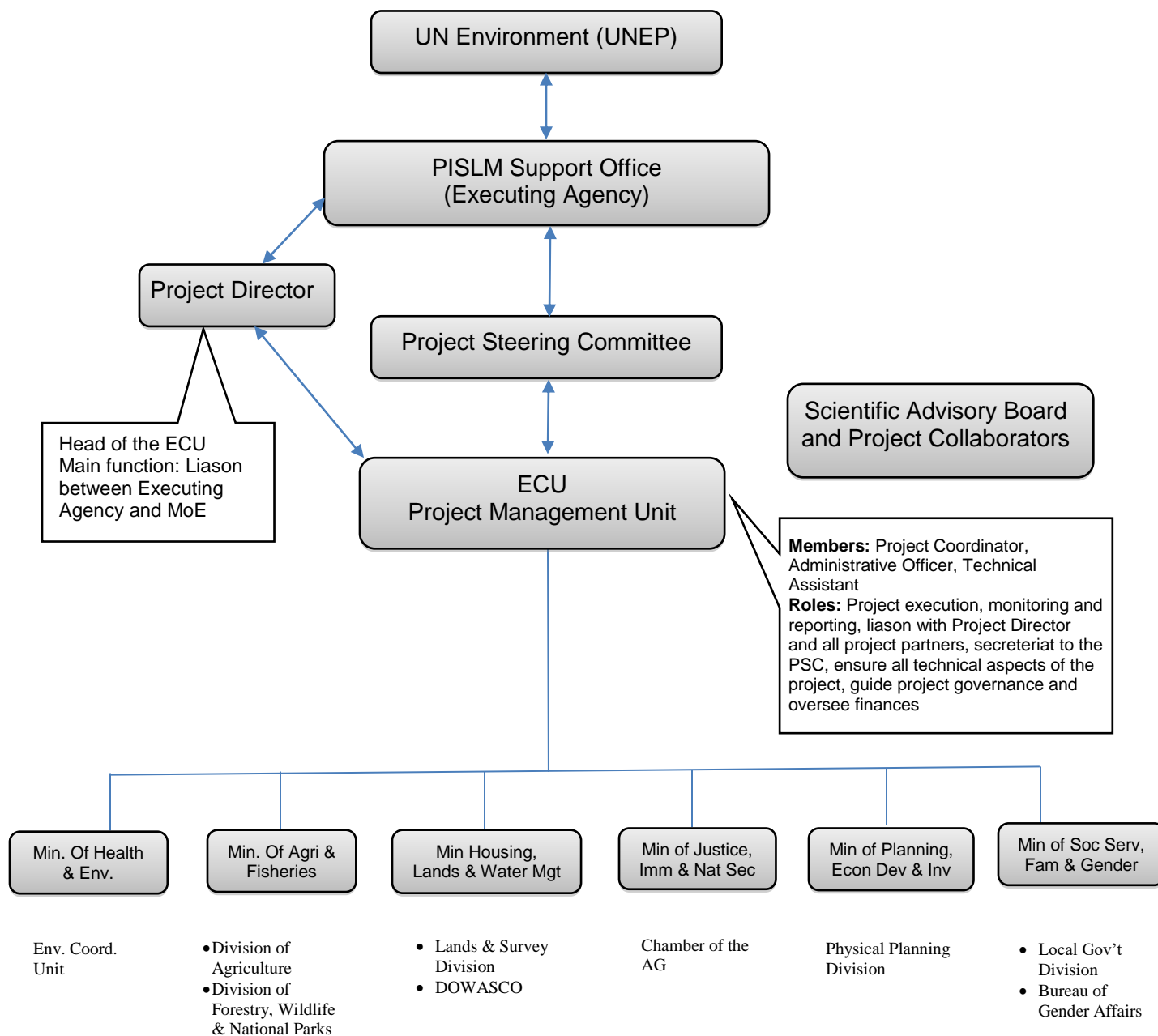
The PMU's roles will be to implement project outputs, carry out monitoring and reporting, liaise with project partners, act as the Secretariat to the Steering Committee, and ensure project execution and all technical aspects of project implementation. In order to ensure proper coordination of the project, the Government of Dominica will appoint a Project Director who will facilitate as necessary the work of PMU and project execution with the partners and will ensure that the project fits into the national development agenda. The NPC, Director of ECU, and the Project Director will discuss and agree on the project technical and financial reports before they are sent to UNEP.

EXTERNAL STRUCTURE

The PSC is in charge of the project oversight and overall guidance. It will meet at least on a semi-annual basis or according to the project's needs. Participation in PSC meetings will be possible also via video link or Skype, and decisions and consultations might also take place in email exchange form.

OVERSIGHT MECHANISM

The main oversight body for the project is the Project Steering Committee, comprised of the Implementing Agency, the Executing Agency, the beneficiary Ministry of Health and Environment, and representatives of all main partners and stakeholder groups. Further monitoring and evaluation procedures of the project, including regular reporting duties, are detailed in Section C of the CEO Endorsement Request. The Executing Agency can undertake field visits at any stage and is tasked to support the mid-term review and terminal evaluation and auditing of the project.



ANNEX I - KEY DELIVERABLES AND BENCHMARKS

Components/Outcomes/Outputs	Activities	Deliverables	Benchmarks
Component 1: Enabling ‘whole island’ landscape framework to plan, monitor and adapt land management			
Outcome 1.1: Framework to support development, monitoring, and adaptation of land management submitted to government			
Output 1.1.1: Four Parish land-use plans designed, with associated guidelines of implementation	1. Development of a framework / guidelines for developing Parish land use plans 2. Development of at least 4 Parish land use plans	<ul style="list-style-type: none"> Framework guidelines for Parish land use plans 4 Parish land use plans formally adopted 	4 parish land use plans under implementation
Output 1.1.2: Land Information decision support system is available for use in land use planning, assessment of environmental conditions and trends, and policy development	1. Inputting information on LD trends / conditions, changes in areas where SLM practices are implemented, and other information 2. Capacity building to the GIS / data management units of the Physical Planning Department, the Land and Survey Department, and the ECU	Significant amount of new data inputted into decision support system	# of staff from Physical Planning, Lands and Survey, and ECU trained in use of decision support system
Output 1.1.3: Multi-sector platform for land use planning developed	1. Establish a multi-sector planning platform 2. Analysis of the impacts of relevant national policies on land degradation conditions and trends	Report on the impacts of relevant national policies on land degradation conditions and trends	BD / SLM Committee officially adopts role to oversee coordination on land use planning
Output 1.1.4: At least one Protocol established for monitoring and evaluation of SLM practices	1. Establish protocols for monitoring and evaluation of SLM practices (which are aligned to Dominica's LDN-TSP) 2. Capacity building for resource managers and information management experts on the use of the protocols and their integration into decision-making	Protocols for M&E of SLM practices finalized and used by relevant agencies (e.g. Physical Planning department)	# of staff trained in use of protocols for M&E of SLM practices
Outcome 1.2: Institutions are capable of promoting enhanced sustainable land management in Dominica			
Output 1.2.1: One Strategic Training plan developed and implemented (Beneficiaries: institutions with sectorial responsibilities for development and conservation, regulatory authorities, relevant CSOs, community partners; indicators: # of training sessions, # of beneficiaries, increased capacity score from 21 to 32)	1. Review and strengthening of existing and draft legislation related to land and resource use and management 2. National validation consultations on improved legislation / regulations, then submitted to the Cabinet for formal approval 3. Capacity building program for regulatory authorities (in particular the ECU), law enforcement agencies and courts 4. Capacity building program for CSOs 5. Strengthen the overall legal mandate of the ECU	<ul style="list-style-type: none"> Revised laws / regulations governing land and resource use Revised law / regulation governing responsibilities and operations of ECU 	<ul style="list-style-type: none"> # of staff of regulatory agencies, police and courts trained in enforcing and prosecuting land use violations # of staff / members of CSOs trained in land use planning

Components/Outcomes/Outputs	Activities	Deliverables	Benchmarks
Output 1.2.2: At least two knowledge publications on SLM practices disseminated within Dominica and in the sub-region	<ol style="list-style-type: none"> 1. Guidelines/handbook of SLM approaches to land use planning developed and used (incorporated into sectorial policies) 2. SLM practices and methodologies integrated into the work program of other Ministries - Works, Water, Housing, Tourism, and distributed to relevant institutions (farmer's association, NGOs etc.) in Dominica 3. Disseminate lessons learned and best practices on SLM approaches to resource managers, policy makers and CSOs / community leaders 4. Share lessons learned with other GEF-supported SLM projects in sub-region 	<ul style="list-style-type: none"> • Published guidelines / handbook on SLM approaches • Consolidated report(s) on lessons learned and best practices on SLM approaches based on project field activities 	<ul style="list-style-type: none"> • # of ministries, policy makers, farmer's associations, and NGOs receiving SLM guidelines / handbook and report on lessons learned • # of GEF-supported SLM projects in sub-region actively sharing lessons learned
Component 2: Reducing the effects of land degradation on ecosystem services through sustainable land management			
Outcome 2.1: Increase in adoption of SLM practices in targeted parishes			
Output 2.1.1: Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions	<ol style="list-style-type: none"> 1. Undertake soil analyses of farming areas 2. Identify a package of SLM approaches and technologies in agriculture 3. Package of SLM approaches and technologies for the restoration of degraded watersheds 	<ul style="list-style-type: none"> • Soil analysis reports • Package of SLM approaches in agriculture • Package of SLM approaches in watershed restoration 	Information on SLM approaches in agriculture and watershed restoration guiding activities under Outputs 2.1.2 – 2.1.4
Output 2.1.2: At least 1,500 ⁴⁰ farmers and local communities with strengthened capacities to implement SLM approaches & technologies in agriculture	<ol style="list-style-type: none"> 1. Capacity building on the use of soil conservation and farming techniques 2. Legal and technical support to farmers for land tenure and farm certification 3. Assist farmers in gaining access to credit to implement SLM approaches 	<ul style="list-style-type: none"> • Training programs for farmers • Legal / technical advice provided on land tenure, certification and access to credit 	<ul style="list-style-type: none"> • # of farmers trained in soil conservation and other SLM approaches • # of farms with improved land tenure • # of farms certified • # of farmers with increased credit
Output 2.1.3: SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated for farmers of at least 40 farms	<ol style="list-style-type: none"> 1. Assist farmers in practicing sustainable land management in diversified crop production 2. Follow-up and monitoring of the implementation of SLM approaches and provision of guidance on remedial actions 	Material and technical support for diversified crop production on farms	# of farms adopting SLM approaches to diversified crop production
Output 2.1.4: Degraded watersheds	1. Build capacity of community groups through training	• Training programs for	# of hectares within three

⁴⁰ Estimate of the total number of farmers in 5 parishes is 3,907. The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used to reconfirm this figure.

Components/Outcomes/Outputs	Activities	Deliverables	Benchmarks
in at least 8 villages rehabilitated with native vegetation based on site specific rehabilitation plans developed in collaboration with local communities	and provision of basic tools 2. Restoration / revegetation on Crown Lands in three degraded watersheds	communities on watershed restoration • Material and technical support for watershed restoration	target watersheds restored
Output 2.1.5: Increased public understanding and awareness of LD issues and associated SLM options, and increased support for land use regulations	1. Development and implementation of a national public education and awareness programme on Sustainable Land Management 2. Community-based education programme on socio-economic benefits of SLM practices	Reports, electronic media, TV, radio and printed media products on SLM	# of persons with increased awareness of SLM issues

Annex I: Workplan and Timetable

	Year 1				Year 2				Year 3			
Activity	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: Enabling ‘whole island’ landscape framework to plan, monitor and adapt land management												
Outcome 1.1: Framework to support development, monitoring, and adaptation of land management submitted to government												
Output 1.1.1: Four Parish land-use plans designed, with associated guidelines of implementation												
1. Development of a framework / guidelines for developing Parish land use plans.												
2. Development of at least 4 Parish land use plans												
Output 1.1.2: Land Information decision support system is available for use in land use planning, assessment of environmental conditions and trends, and policy development												
1. Inputting information on LD trends / conditions, changes in areas where SLM practices are implemented, and other information												
2. Capacity building to the GIS / data management units of the Physical Planning Department, the Land and Survey Department, and the ECU												
Output 1.1.3: Multi-sector platform for land use planning developed												
1. Establish a multi-sector planning platform												
2. Facilitate communications among Biodiversity / Sustainable Land Management Committee members												
3. Analysis of the impacts of relevant national policies on land degradation conditions and trends												
Output 1.1.4: At least one Protocol established for monitoring and evaluation of SLM practices												
1. Establish protocols for monitoring and evaluation of SLM practices (which are aligned to Dominica's LDN-TSP)												
2. Capacity building for resource managers and information management experts on the use of the protocols and their integration into decision-making												
Outcome 1.2: Institutions are capable of promoting enhanced sustainable land management in Dominica												
Output 1.2.1: One Strategic Training plan developed and implemented (Beneficiaries: institutions with sectorial responsibilities for development and conservation, regulatory authorities, relevant CSOs, community partners; indicators: # of training sessions, # of beneficiaries, increased capacity score from 21 to 32)												
1. Review and strengthening of existing and draft legislation related to land and resource use and management												
2. National validation consultations on improved legislation / regulations, then submitted to the Cabinet for formal approval												
3. Capacity building program for regulatory authorities (in particular the ECU), law enforcement agencies and courts												
4. Capacity building program for CSOs												
5. Strengthen the overall legal mandate of the ECU												
Output 1.2.2: At least two knowledge publications on SLM practices disseminated within Dominica and in the sub-region												
1. Guidelines/handbook of SLM approaches to land use planning developed and used (incorporated into sectorial policies).												

2. SLM practices and methodologies integrated into the work program of other Ministries - Works, Water, Housing, Tourism, and distributed to relevant institutions (farmer's association, NGOs etc.) in Dominica													
3. Disseminate lessons learned and best practices on SLM approaches to resource managers, policy makers and CSOs / community leaders													
4. Share lessons learned with other GEF-supported SLM projects in sub-region													
Component 2: Reducing the effects of land degradation on ecosystem services through sustainable land management													
Outcome 2.1: Increase in adoption of SLM practices in targeted parishes													
Output 2.1.1: Package of effective SLM approaches & technologies identified in collaboration with relevant national institutions													
1. Undertake soil analyses of farming areas													
2. Identify a package of SLM approaches and technologies in agriculture													
3. Package of SLM approaches and technologies for the restoration of degraded watersheds													
Output 2.1.2: At least 1,500 ⁴¹ farmers and local communities with strengthened capacities to implement SLM approaches & technologies in agriculture													
1. Capacity building on the use of soil conservation and farming techniques													
2. Legal and technical support to farmers for land tenure													
3. Legal and technical support to farmers for farm certification													
4. Assist farmers in gaining access to credit to implement SLM approaches													
Output 2.1.3: SLM approaches & technologies implemented in 4 target parishes, and lessons learned consolidated for farmers of at least 40 farms													
1. Assist farmers in practicing sustainable land management in diversified crop production													
2. Follow-up and monitoring of the implementation of SLM approaches and provision of guidance on remedial actions													
Output 2.1.4: Degraded watersheds in at least 8 villages rehabilitated with native vegetation based on site specific rehabilitation plans developed in collaboration with local communities													
1. Build capacity of community groups through training and provision of basic tools													
2. Reforestation and agroforestry activities													
3. Establishment of buffer zones for highly vulnerable areas and planting of cover vegetation in buffer zones													
4. Improvements to drainage and water quality monitoring (e.g. of agricultural chemicals, sediment loads)													
Output 2.1.5: Increased public understanding and awareness of LD issues and associated SLM options, and increased support for land use regulations													
1. Development and implementation of a national public education and awareness programme on Sustainable Land Management													
2. Community-based education programme on socio-economic benefits of SLM practices													

⁴¹ Estimate of the total number of farmers in 5 parishes is 3,907. The Ministry of Agriculture is currently finalizing a new national farmer registration process that will confirm these figures and also provide data on the number of farmers with secure land tenure; this data will be used to reconfirm this figure.

Annex J: Tracking Tool
(see separate document)

Annex K: Co-Financing Letters

Ministry of Health and Environment:



COMMONWEALTH OF DOMINICA
MINISTRY OF HEALTH AND ENVIRONMENT
ADMINISTRATION

Tel: (767) 266 3260 / 3357
Fax: (767) 448 6086
E-mail: pssechealth@dominica.gov.dm
Website: www.dominica.gov.dm

4th Floor, Government Headquarters
Kennedy Avenue
Roseau
Commonwealth of Dominica

Ref: H.

December 20, 2017

Dr. Kelly West
Senior Programme Manager and Global
Environment Facility
Coordinator Corporate Services
Division UN Environment
P.O. Box 30552-00100
Nairobi, KENYA

Dear Dr. West,

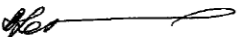
COUNTERPART FINANCING –SUSTAINABLE LAND MANAGEMENT IN THE CARIBBEAN

I am pleased to advise that the Ministry of Health and Environment supports the proposed Sustainable Land Management Project in the Caribbean by way of counterpart financing as follows:

1. In kind contribution of US \$200,345.00 already part of the annual budget of the Environmental Coordinating Unit.
2. Work under the World Bank funded, Disaster Vulnerability Risk Reduction Project (DVRP) will also complement project activities under the Sustainable Land Management Project. The budget for the complementary activities is estimated at US \$7,000,000.00 and also represents commitment of the Government of the Commonwealth of Dominica.

The Ministry of Health and Environment through the Environmental Coordinating Unit looks forward to working with partner agencies on implementation of this invaluable project and sees this intervention contributing to efforts in building a climate resilient Dominica especially in the aftermath of Hurricane Maria.

Yours sincerely,


.....
DAVIS LETANG (MR.)
PERMANENT SECRETARY

c.c Head /Environmental Coordinating Unit

DL/kjl

Ministry of Agriculture and Fisheries:



COMMONWEALTH OF DOMINICA

Ministry of Agriculture and Fisheries

Tel: (767) 266-3282
Fax: (767) 448 7999
E-mail: agriculture@dominica.gov.dm
Website: www.dominica.gov.dm

Government Headquarters
Kennedy Avenue, Roseau
Commonwealth of Dominica

January 5, 2018

Dr. Kelly West
Senior Programme Manager and Global
Environment Facility
Coordinator Cooperate Services
Division UN Environment
P.O. Box 30552-00100
Nairobi
KENYA

Dear Dr. West,

COUNTERPART FINANCING-SUSTAINABLE LAND MANAGEMENT IN THE CARIBBEAN

I am pleased to inform that the Ministry of Agriculture and Fisheries support the proposed Sustainable Land Management Project in the Caribbean by way of counterpart financing as follows:

1. Soil Fertility and Mapping Project -USD 233, 589
2. Support to farmers -USD 2, 222,222
3. Expansion of vegetable production -USD 2, 268, 313
4. GCCA Project in CA & SLM in the OECS - USD 1, 089, 530

The Ministry of Agriculture and Fisheries looks forward to working with partner agencies such as GEF on implementation of this invaluable project, as we build a Climate Resilient Dominica.

This supersedes letter dated December 29, 2017.

Yours sincerely,

.....
REGINALD THOMAS (DR.)
PERMANENT SECRETARY (Ag.)

RT/sb

"Embracing the challenge: Rethink, Rebuild, Transform!"

Partnership Initiative for Sustainable Land Management:



**PARTNERSHIP INITIATIVE for SUSTAINABLE LAND MANAGEMENT
Support Office**

5 Tunapuna Road, Tunapuna, Trinidad
Tel: 1868 731 6243 Email: calvin.james@cnirdregional.org

15 December 2017

Dear Dr West

Re: Sustainable Land Management in the Commonwealth of Dominica

I would like to inform that PILSM is committed to providing a grant co-financing contribution to the above project in the amount of US\$400,000.00.

Please do not hesitate to contact us if you need further information.

Sincerely

A handwritten signature in black ink, appearing to read 'Calvin James', is written over a faint, larger version of the same signature.

Calvin James
Executive Director
PILSM Support Office

Dr Kelly West
Senior Programme Manager and
Global Environment Facility Coordinator
Corporate Services Division
UN Environment
P.O. Box 30552-00100
Nairobi
Kenya

Annex L: Environmental & Social Safeguards

UNEP Environmental, Social and Economic Review Note (ESERN)

I. Project Overview

Identification	9667
Project Title	Sustainable Land Management in the Commonwealth of Dominica
Managing Division	Ecosystems Division
Type/Location	National
Region	LATIN AMERICA AND THE CARIBBEAN
List Countries	COMMONWEALTH OF DOMINICA
Project Description	The project is designed to establish an integrated land management model that includes agricultural, forestry and natural resources management practices that generate development and critical environmental benefits in tandem in the Commonwealth of Dominica
Estimated duration of project:	36 months
Estimated cost of the project:	1,776,484

II. Environmental Social and Economic Screening Determination

A. Summary of the Safeguard Risks Triggered

Safeguard Standard Triggered by the Project	Impact of Risk⁴² (1-5)	Probability of Risk (1-5)	Significance of Risk (L, M, H)
SS 1: Biodiversity, natural habitat and Sustainable Management of Living Resources	3	1	L
SS 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes	1	1	L
SS 3: Safety of Dams	1	1	L
SS 4: Involuntary resettlement	3	3	M
SS 5: Indigenous peoples	2?	1	L

⁴² Refer to UNEP Environment, Social and Economic Sustainability (ESES): Implementation Guidance Note to assign values to the Impact of Risk and the Probability of Risk to determine the overall significance of Risk (Low, Moderate or High).

SS 6: Labor and working conditions	1	1	L
SS 7: Cultural Heritage	1	1	L
SS 8: Gender equity	1	1	L
SS 9: Economic Sustainability	3	2	M
Additional Safeguard questions for projects seeking GCF-funding (Section IV)	1	1	L

B. ESE Screening Decision⁴³ (Refer to the UNEP ESES Framework (Chapter 2) and the UNEP's ESES Guidelines.)

Low risk ☒ Moderate risk X ☐ High risk ☐ Additional information required ☐

C. Development of ESE Review Note and Screening Decision:

Prepared by: Name: Calvin James Date: 29 October 2017

Safeguard Advisor: Name: Yunae Yi Date: 14 December 2017

Project Manager: Name: _____ Date: _____

D. Recommended further action from the Safeguard Advisor:

The project is likely to be in the moderate safeguard risk category. But, the risks seem to be manageable through good practices--sensitivity of the local needs, close communication with the relevant stakeholders and vigilant monitoring of the project implementation.

Some root causes—topography, small percentage of agricultural land, vulnerability to natural disasters and climate variability, development pressure and conflicting interest for land use—need to be balanced and incorporated into the project design and approach together with concerned communities and stakeholders. Local communities have different and potentially conflicting economic interests. It is important to find balances among these factors and respect the needs of the marginalized population.

Local individuals' buy-in, uptakes, replication and empowerment will be critical for long-term and meaningful restoration of the ecosystem and the soil quality. Please engage relevant stakeholders and communicate with them throughout the project implementation and report regularly on the challenges and related management approaches taken.

⁴³ **Low risk:** Negative impacts negligible: no further study or impact management required.

Moderate risk: Potential negative impacts, but less significant; few if any impacts irreversible; impact amenable to management using standard mitigation measures; limited environmental or social analysis may be required to develop a ESEMP. Straightforward application of good practice may be sufficient without additional study.

High risk: Potential for significant negative impacts, possibly irreversible, ESEA including a full impact assessment may be required, followed by an effective safeguard management plan.

SS 1: Field based activities--due to their lack of understanding, misunderstanding or omission of critical targets-- can end up bringing unintended approach or results. Success of the activities and the technologies proposed in the doc could depend on whether or not they are of cultural relevance for Dominicans, affordable and easy to implement and whether or not they have been observed to be effective and adopted by other farmers in the zone. Close communication and monitoring of the project implementation will be necessary. In addition, sustainable agricultural practices such as composting, growing coconut and mango trees etc. may take a long time to show satisfying results, which will put additional strain on the already precarious situation of local farmers, who could return to make use of pesticides to increase their food production.

SS4: Establishment of potential restrictions on land use: The project doc states that, for land scarcity reasons, Dominicans are increasingly moving agriculture onto steep slopes, which are now being cleared of all the trees and are therefore subject to land erosion and land degradation. In addition, the doc explains that planting on steep could be restricted during the implementation. This action could cause restriction on use of resources that are sources of livelihood for many poor farmers. While the project intends to help local population for land tenure through financial mechanism, there will still be small land holders and those without land titles. Their livelihood issues should be considered.

SS9: The project doc states that it will assist farmers to gain access to credit. It plans to provide support (land tenure documentation and business plan) to farmers to enable them to access loans. Financial disbursement should be easily facilitated or it might discourage farmers from adopting good practices. Identify the vulnerable and marginalized people who are encroaching upon the steep slopes and work closely for their sustainable economic gain from participation.

III. ESES Principle and Safeguard checklist

(Section III and IV should be retained in UNEP)

Precautionary Approach
The project will take precautionary measures even if some cause and effect relationships are not fully established scientifically and there is risk of causing harm to the people or to the environment.
Human Rights Principle
The project will make an effort to include any potentially affected stakeholders, in particular vulnerable and marginalized groups; from the decision making process that may affect them.
The project will respond to any significant concerns or disputes raised during the stakeholder engagement process.
The project will make an effort to avoid inequitable or discriminatory negative impacts on the quality of and access to resources or basic services, on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups. ⁴⁴

Screening checklist	Y/N/ Maybe	Comment
Safeguard Standard 1: Biodiversity, natural habitat and Sustainable Management of Living Resources		
Will the proposed project support directly or indirectly any activities that significantly convert or degrade biodiversity and habitat including modified habitat, natural habitat and critical natural habitat?	N	No negative impacts anticipated
Will the proposed project likely convert or degrade habitats that are legally protected?	N	Not anticipated
Will the proposed project likely convert or degrade habitats that are officially proposed for protection? (e.g.; National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)	N	Not anticipated
Will the proposed project likely convert or degrade habitats that are identified by authoritative sources for their high conservation and biodiversity value?	N	Not anticipated
Will the proposed project likely convert or degrade habitats that are recognized- including by authoritative sources and /or the national and local government entity, as protected and conserved by traditional local communities?	N	Not anticipated

⁴⁴ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to “women and men” or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

Screening checklist	Y/N/ Maybe	Comment
Will the proposed project approach possibly not be legally permitted or inconsistent with any officially recognized management plans for the area?	N	Not anticipated
Will the proposed project activities result in soils deterioration and land degradation?	N	Not anticipated. In fact, the project is designed to improve soil quality and facilitate sustainable land management
Will the proposed project interventions cause any changes to the quality or quantity of water in rivers, ponds, lakes or other wetlands?	Y	The proposed project will reduce soil erosion, landslides and flooding, thereby improving water quality and flows in aquatic ecosystems
Will the proposed project possibly introduce or utilize any invasive alien species of flora and fauna, whether accidental or intentional?	N	Not anticipated
Safeguard Standard 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes		
Will the proposed project likely result in the significant release of pollutants to air, water or soil?	N	Not anticipated.
Will the proposed project likely consume or cause significant consumption of water, energy or other resources through its own footprint or through the boundary of influence of the activity?	N	Not anticipated
Will the proposed project likely cause significant generation of Green House Gas (GHG) emissions during and/or after the project?	N	Not anticipated.
Will the proposed project likely generate wastes, including hazardous waste that cannot be reused, recycled or disposed in an environmentally sound and safe manner?	N	Not anticipated. In deed waste generated from the agricultural components would be recycled
Will the proposed project use, cause the use of, or manage the use of, storage and disposal of hazardous chemicals, including pesticides?	N	Not anticipated. In fact, the project will support farmers to use more sustainable practices including reduced use of agricultural chemicals.
Will the proposed project involve the manufacturing, trade, release and/or use of hazardous materials subject to international action bans or phase-outs, such as DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Convention on Persistent Organic Pollutants or the Montreal Protocol?	N	Not anticipated
Will the proposed project require the procurement of chemical pesticides that is not a component of integrated pest management (IPM) ⁴⁵ or integrated vector management (IVM) ⁴⁶ approaches?	N	Not anticipated
Will the proposed project require inclusion of chemical pesticides that are	N	Not anticipated

⁴⁵ "Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms
<http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/ipm/en/>

⁴⁶ "IVM is a rational decision-making process for the optimal use of resources for vector control. The approach seeks to improve the efficacy, cost-effectiveness, ecological soundness and sustainability of disease-vector control. The ultimate goal is to prevent the transmission of vector-borne diseases such as malaria, dengue, Japanese encephalitis, leishmaniasis, schistosomiasis and Chagas disease." (http://www.who.int/neglected_diseases/vector_ecology/ivm_concept/en/)

Screening checklist	Y/N/ Maybe	Comment
included in IPM or IVM but high in human toxicity?		
Will the proposed project have difficulty in abiding to FAO's International Code of Conduct ⁴⁷ in terms of handling, storage, application and disposal of pesticides?	N	Not anticipated
Will the proposed project potentially expose the public to hazardous materials and substances and pose potentially serious risk to human health and the environment?	N	Not anticipated
Safeguard Standard 3: Safety of Dams		
Will the proposed project involve constructing a new dam(s)?	N	Not anticipated
Will the proposed project involve rehabilitating an existing dam(s)?	N	Not anticipated
Will the proposed project activities involve dam safety operations?	N	Not anticipated
Safeguard Standard 4: Involuntary resettlement		
Will the proposed project likely involve full or partial physical displacement or relocation of people?	N	Not anticipated
Will the proposed project involve involuntary restrictions on land use that deny a community the use of resources to which they have traditional or recognizable use rights?	Maybe	The project will support the creation of Parish-level land use plans, which could call for establishing new restrictions on land use (for example, restrictions on land clearance on steep upland slopes). In addition, new restrictions on agricultural practices (planting on steep slopes, inappropriate / unsustainable use of agricultural chemicals, mechanized agriculture, etc.) may be developed and implemented.
Will the proposed project likely cause restrictions on access to land or use of resources that are sources of livelihood?	N	Not anticipated. In fact, communities using resources for their livelihoods will be trained in the sustainable management and harvest of those resources
Will the proposed project likely cause or involve temporary/permanent loss of land?	N	Not anticipated
Will the proposed project likely cause or involve economic displacements affecting their crops, businesses, income generation sources and assets?	N	To the contrary, sustainable livelihoods approaches will be supported
Will the proposed project likely cause or involve forced eviction?	N	Not anticipated
Will the proposed project likely affect land tenure arrangements, including communal and/or customary/traditional land tenure patterns negatively?	N	To the contrary, this project proposes activities that should improve land tenure for some farmers
Safeguard Standard 5: Indigenous peoples⁴⁸		
Will indigenous peoples be present in the proposed project area or area of influence?	Y	The people of the Kalinago reserve will be active participants in activities related to the reserve
Will the proposed project be located on lands and territories claimed by	Y	Project activities on watershed restoration, which were identified by

⁴⁷ Find more information from http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/CODE_2014Sep_ENG.pdf

⁴⁸ Refer to the Toolkit for the application of the UNEP Indigenous Peoples Policy Guidance for further information.

Screening checklist	Y/N/ Maybe	Comment
indigenous peoples?		the Kalinago people as an activity that should be part of this project
Will the proposed project likely affect livelihoods of indigenous peoples negatively through affecting the rights, lands and territories claimed by them?	N	
Will the proposed project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	N	
Will the project negatively affect the development priorities of indigenous peoples defined by them?	N	All project activities in the Carib Reserve will be designed and implemented with full participation/approval of indigenous political and social structures
Will the project potentially affect the traditional livelihoods, physical and cultural survival of indigenous peoples?	N	
Will the project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	N	
Safeguard Standard 6: Labor and working conditions		
Will the proposed project involve the use of forced labor and child labor?	N	
Will the proposed project cause the increase of local or regional un-employment?	N	
Safeguard Standard 7: Cultural Heritage		
Will the proposed project potentially have negative impact on objects with historical, cultural, artistic, traditional or religious values and archeological sites that are internationally recognized or legally protected?	N	
Will the proposed project rely on or profit from tangible cultural heritage (e.g., tourism)?	N	
Will the proposed project involve land clearing or excavation with the possibility of encountering previously undetected tangible cultural heritage?	N	
Will the proposed project involve in land clearing or excavation?	N	
Safeguard Standard 8: Gender equity		
Will the proposed project likely have inequitable negative impacts on gender equality and/or the situation of women and girls?	N	To the contrary, the project is designed to ensure that there is gender equity; under Component 2 of the project, women farmers will be actively sought out as partners in demonstrating sustainable land management approaches in agriculture
Will the proposed project potentially discriminate against women or other groups based on gender, especially regarding participation in the design and implementation or access to opportunities and benefits?	N	
Will the proposed project have impacts that could negatively affect women's and men's ability to use, develop and protect natural resources, taking into	N	

Screening checklist	Y/N/ Maybe	Comment
account different roles and positions of women and men in accessing environmental goods and services?		
Safeguard Standard 9: Economic Sustainability		
Will the proposed project likely bring immediate or short-term net gain to the local communities or countries at the risk of generating long-term economic burden (e.g., agriculture for food vs. biofuel; mangrove vs. commercial shrimp farm in terms of fishing, forest products and protection, etc.)?	N	
Will the proposed project likely bring unequal economic benefits to a limited subset of the target group?	N	

IV. Additional Safeguard Questions for Projects seeking GCF-funding

Community Health, Safety, and Security			
Will there be potential risks and negative impacts to the health and safety of the Affected Communities during the project life-cycle?			
Will the proposed project involve design, construction, operation and decommissioning of the structural elements such as new buildings or structures?			
Will the proposed project involve constructing new buildings or structures that will be accessed by public?			
Will the proposed project possibly cause direct or indirect health-related risks and impacts to the Affected Communities due to the diminution or degradation of natural resources, and ecosystem services?			
Will the proposed project activities potentially cause community exposure to health issues such as water-born, water-based, water-related, vector-borne diseases, and communicable diseases?			
In case of an emergency event, will the project team, including partners, have the capacity to respond together with relevant local and national authorities?			
Will the proposed project need to retain workers to provide security to safeguard its personnel and property?			
Labor and Supply Chain			
Will UNEP or the implementing/executing partner(s) involve suppliers of goods and services who may have high risk of significant safety issues related to their own workers?			

ANNEX M: ACRONYMS AND ABBREVIATIONS

BAM	Banana Accompanying Measures
BNTF	Basic Needs Trust Fund
CARICOM	Caribbean Community (Secretariat)
CARIFORUM	Caribbean Forum
CBD	Convention on Biological Diversity
CCAP	Climate Change Adaptation Program
CCCCC	Caribbean Community Climate Change Centre
CDB	Caribbean Development Bank
CNIRD	Caribbean Network for Integrated Rural Development
CO ₂	Carbon Dioxide
CBO	Community Based Organization
DCA	Dominica Conservation Association
DEXIA	Dominica Export Import Agency
DFWNP	Division of Forestry, Wildlife and National Parks
DNCW	Dominica National Council of Women
DOAM	Dominica Organic Agricultural Movement
DOMLEC	Dominica Electricity Services
DOWASCO	Dominica Water and Sewerage Company Limited
DVRP	Disaster Vulnerability Reduction Project
EA	Executing Agency
ECU	Environmental Coordinating Unit
EIA	Environmental Impact Assessment
EU	European Union
GDP	Gross domestic product
GEF	Global Environment Facility
GIS	Geographical Information System
GoCD	Government of the Commonwealth of Dominica
GSPS	Growth and Social Protection Strategy
Ha	Hectare
IA	Implementing Agency
IICA	Inter-American Institute for Cooperation on Agriculture
IUCN	International Union for the Conservation of Nature
IWCAM	Integrated Watershed and Coastal Areas Management
IWECO	Integrating Water, Land and Ecosystem Management in Caribbean Small Island Developing States
LD	Land Degradation
LDN	Land Degradation Neutrality
LDN-TSP	Land Degradation Neutrality Target Setting Process
LD-PMAT	Land Degradation - Portfolio Monitoring and Assessment Tool
M&E	Monitoring and evaluation
MEA	Multi-lateral Environmental Agreement

MoAF	Ministry of Agriculture and Fisheries
MoU	Memorandum of Understanding
MTPNP	Morne Trois Pitons National Park
MTR	Mid-Term Review
NAP	National Action Plan
NAPA	National Adaptation Programme of Action, National Agency of Protected Areas
NBSAP	National Biodiversity Strategy and Action Plan
NDFD	National Development Foundation for Dominica
NFP	National Focal Point
NGO	Non Governmental Organization
NLUP	National Land Use Policy
NPDP	National Physical Development Plan
OECS	Organization of Eastern Caribbean States
OFP	Operational Focal Point
PA	Protected Area
PIF	Project Information Form
PISLM	Partnership Initiative on Sustainable Land Management
PMU	Project Management Unit
PPG	Project Preparation Grant
PSC	Project Steering Committee
PSIP	Public Sector Investment Programme
SLM	Sustainable Land Management
SPACC	Special Program on Adaptation to Climate Change
TE	Terminal Evaluation
ToR	Terms of Reference
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USD	United States Dollar
WB	World Bank
WINFA	Windward Islands Farmer's Association

Annex N: Capacity Development Scorecard
Promoting Sustainable Land Management (SLM) in the Commonwealth of Dominica

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Relevant Project Outcome
CR1: Capacities for engagement						
Indicator 1 – Degree of legitimacy / mandate of lead environmental organizations	Organizational responsibilities for environmental management are not clearly defined	0	2	Institutional responsibilities for environmental management are defined broadly by environmental laws, but responsibilities are shared among Agriculture, Planning, Surveys and Forestry in the area of soil and land management. An intersectional coordinating mechanism could help to clarify roles and responsibility.	The project will create a multi-sector planning platform to facilitate the sharing of information and clarify the responsibilities of each agency in sustainable land management.	1.1
	Organizational responsibilities for environmental management are identified	1				
	Authority and legitimacy of all lead organizations responsible for environmental management are partially recognized by stakeholders	2				
	Authority and legitimacy of all lead organizations responsible for environmental management are recognized by stakeholders	3				
Indicator 2 – Existence of operational co-management mechanisms	No co-management mechanisms are in place	0	0	There are some shared responsibilities between state agencies and civil society organizations but nothing is formalized.	The project will bring together and strengthen the capacity of regulatory authorities and relevant CBOs and community partners for SLM and policy enforcement.	1.2
	Some co-management mechanisms are in place and operational	1				
	Some co-management mechanisms are formally established through agreements, MOUs, etc.	2				
	Comprehensive co-management mechanisms are formally established and are operational / functional	3				
Indicator 3 – Existence of cooperation with stakeholder groups	Identification of stakeholders and their participation/involvement in decision-making is poor	0	2	Stakeholders are very involved in public consultations that lead to decision-making and policy formulation but enforcement is left to the state. Information on land management tends to be inadequate and may not reach the affected local communities.	The project will engage with local and national stakeholders including public and private sector organizations, CBOs and NGOs for information dissemination and policy dialogue. It will also engage with farmers and land owners nationally for the development and use of technology relevant to SLM	1.2
	Stakeholders are identified but their participation in decision-making is limited	1				
	Stakeholders are identified and regular consultations mechanisms are established	2				
	Stakeholders are identified and they actively contribute to established participative decision-making processes	3				

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Relevant Project Outcome
CR 2: Capacities to generate, access and use information and knowledge						
Indicator 4 – Degree of environmental awareness of stakeholders	Stakeholders are not aware about global environmental issues and their related possible solutions (MEAs)	0	1	In recent times there has been an increase in environment-related information and awareness on issues but there is need to build capacity and develop tools for sustainable environmental management.	The Project will expand knowledge of different environment sectors and relevant institutions concerning the UNCCD, foster understanding and reasoning among the stakeholders and communities. It will also seek to work in concert with other programs that have environmental awareness components.	1.2
	Stakeholders are aware about global environmental issues but not about the possible solutions (MEAs)	1				
	Stakeholders are aware about global environmental issues and the possible solutions but do not know how to participate	2				
	Stakeholders are aware about global environmental issues and are actively participating in the implementation of related solutions	3				
Indicator 5 – Access and sharing of environmental information by stakeholders	The environmental information needs are not identified and the information management infrastructure is inadequate	0	1	Environmental information needs have been identified generally under various projects conducted in Dominica over the past decade. Generally the information is disseminated via electronic media and community consultation.	The project will create synergies with on-going initiatives, and will specifically address the flow of environmental information from the national to the local level.	1.1
	The environmental information needs are identified but the information management infrastructure is inadequate	1				
	The environmental information is partially available and shared among stakeholders but is not covering all focal areas and/or the information management infrastructure to manage and give information access to the public is limited	2				
	Comprehensive environmental information is available and shared through an adequate information management infrastructure	3				
Indicator 6 – Existence of environmental education programmes	No environmental education programmes are in place	0	2	There is a draft environmental education and awareness program being piloted by the ECU. This is a good initiative but needs to be broader in scope with a built in sustainability element.	The project will build on the public education platform established by the ECU for the sharing of project information and experiences. National and local level workshops will be held to exchange information regarding project implementation.	2.1
	Environmental education programmes are partially developed and partially delivered	1				
	Environmental education programmes are fully developed but partially delivered	2				
	Comprehensive environmental education programmes exist and are being delivered	3				
Indicator 7 –	No linkage exist between environmental policy	0	1	This is an evolving area led	The Ministry of Agriculture	1.1 and

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Relevant Project Outcome
Extent of the linkage between environmental research / science and policy development	development and science/research strategies and programmes		1	by climate change and biodiversity; here the science is driving the policy. This is missing for LD, however the evolving National Land Use Policy offers hope of creating the link between science and policy.	through its extension unit in collaboration with the Physical Planning Division will provide expert knowledge for the purpose of developing a framework to plan, monitor and adapt land management. Parish land use plans will incorporate SLM Best Practices. The Forestry Division and Agriculture Extension officers will monitor and report to the relevant agencies.	2.1
	Research needs for environmental policy development are identified but are not translated into relevant research strategies and programmes	1				
	Relevant research strategies and programmes for environmental policy development exist but the research information is not responding fully to the policy research needs	2				
	Relevant research results are available for environmental policy development	3				
Indicator 8 – Extent of inclusion / use of traditional knowledge in environmental decision-making	Traditional knowledge is ignored and not taken into account into relevant participative decision-making processes	0	2	While traditional knowledge is well entrenched in some livelihood practices especially among the indigenous people it is not generally the basis of decision-making and environmental planning.	The project will identify relevant scientific competences to be combined with respective traditional management practices into participatory decision making processes and integrate the knowledge into the Parish Land Use Plans.	2.1
	Traditional knowledge is identified and recognized as important but is not collected and used in relevant participative decision-making processes	1				
	Traditional knowledge is collected but is not used systematically into relevant participative decision-making processes	2				
	Traditional knowledge is collected, used and shared for effective participative decision-making processes	3				
CR 3: Capacities for strategy, policy and legislation development						
Indicator 9 – Extent of the environmental planning and strategy development process	The environmental planning and strategy development process is not coordinated and does not produce adequate environmental plans and strategies	0	1	The environmental planning and strategy development process is not well established or comprehensive. The process is constrained by the segmented nature of the government machinery and its limited resources.	The land use plans developed by this project will form part of the larger physical planning policy framework that guides government decisions on land use and land use changes. The lessons learnt will also be incorporated in farming practices geared at reducing land degradation and increasing soil productivity.	1.2 and 2.1
	The environmental planning and strategy development process does produce adequate environmental plans and strategies but these are not implemented/used	1				
	Adequate environmental plans and strategies are produced but there are only partially implemented because of funding constraints and/or other problems	2				
	The environmental planning and strategy	3				

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Relevant Project Outcome
	development process is well coordinated by the lead environmental organizations and produces the required environmental plans and strategies; which are being implemented					
Indicator 10 – Existence of adequate environmental policy and regulatory frameworks	The environmental policy and regulatory frameworks are insufficient; they do not provide an enabling environment	0	1	Many environmental policies evolved in response to external pressure and not in tandem with national needs. Consequently implementation and to a greater extent enforcement are often not treated with due diligence.	The education and public awareness programme will take on board existing relevant laws and regulations. These will be combined and in rare cases revised then disseminated to create greater awareness and enable effective land management. The project will build capacities to reduce land degradation by identifying and developing adequate legal and economic instruments to boost sustainable livelihood efforts.	1.1 and 2.1
	Some relevant environmental policies and laws exist but few are implemented and enforced	1				
	Adequate environmental policy and legislation frameworks exist but there are problems in implementing and enforcing them	2				
	Adequate policy and legislation frameworks are implemented and provide an adequate enabling environment; a compliance and enforcement mechanism is established and functions	3				
Indicator 11 – Adequacy of the environmental information available for decision-making	The availability of environmental information for decision-making is lacking	0	2	Some environmental information is available, but there is a notable lack of up-to-date data on soil, watershed degradation, etc. Also, decision makers have not fully embraced the all-encompassing nature of key environmental issues such as land degradation, hence they are still not given appropriate attention.	The project will develop a Land Information Decision Support System for INRM; this will also be available for use in EIA, policy development, and land use planning. This will allow for the integration of SLM issues into development policies.	1.1 and 1.2
	Some environmental information exists but it is not sufficient to support environmental decision-making processes	1				
	Relevant environmental information is made available to environmental decision-makers but the process to update this information is not functioning properly	2				
	Political and administrative decision-makers obtain and use updated environmental information to make environmental decisions	3				
CR 4: Capacities for management and implementation						
Indicator 12 – Existence and mobilization of resources	The environmental organizations don’t have adequate resources for their programmes and projects and the requirements have not been assessed	0	1	Resource requirements are known and funding sources for resource requirements are partially identified. The	Identifying LD issues will allow for their integration into other work programs, thus making more resources available to	2.1

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Relevant Project Outcome
	The resource requirements are known but are not being addressed	1		requirements to access the resources are often daunting.	address SLM issues.	
	The funding sources for these resource requirements are partially identified and the resource requirements are partially addressed	2				
	Adequate resources are mobilized and available for the functioning of the lead environmental organizations	3				
Indicator 13 – Availability of required technical skills and technology transfer	The necessary required skills and technology are not available and the needs are not identified	0	1	Technical skills are partially available but financing of appropriate technology setup is a challenge.	The project will promote, provide and encourage access to appropriate skills and technology relevant to SLM. Further, it will undertake four sub-projects in communities to demonstrate sustainable management and ecosystem restoration. Farmers will be supported to reproduce these sub-projects on approximately 2,000 ha of degraded land using SLM best practices.	2.1
	The required skills and technologies needs are identified as well as their sources	1				
	The required skills and technologies are obtained but their access depend on foreign sources	2				
	The required skills and technologies are available and there is a national-based mechanism for updating the required skills and for upgrading the technologies	3				
CR 5: Capacities to monitor and evaluate						
Indicator 14 – Adequacy of the project / programme monitoring process	Irregular project monitoring is being done without an adequate monitoring framework detailing what and how to monitor the particular project or programme	0	2	Monitoring frameworks exist for project results but consistency is often hindered by different start dates and reporting timelines.	This project has a built in M&E plan that is expected to produce timely and accurate information on its implementation. This information will be used by the implementation team for learning and adaptive management purposes.	2.1
	An adequate resourced monitoring framework is in place but project monitoring is irregularly conducted	1				
	Regular participative monitoring of results in being conducted but this information is only partially used by the project/programme implementation team	2				
	Monitoring information is produced timely and accurately and is used by the implementation team to learn and possibly to change the course of action	3				
Indicator 15 –	None or ineffective evaluations are being conducted	0	2	Project evaluation is	An evaluation plan for the	2.1

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Relevant Project Outcome
Adequacy of the project / programme evaluation process	without an adequate evaluation plan; including the necessary resources			consistently done but the results often inform only the specific project. Transferring the data to other projects is challenged by formats, agency requirement and timelines. Lessons learnt are the best results of projects but these serve the future and not the present.	project is designed to ensure timely identification of potential challenges and institute corrective measure before project completion. The mid-term evaluation is key in this regard. The final evaluation will provide information that will inform future and current on-going projects.	
	An adequate evaluation plan is in place but evaluation activities are irregularly conducted	1				
	Evaluations are being conducted as per an adequate evaluation plan but the evaluation results are only partially used by the project/programme implementation team	2				
	Effective evaluations are conducted timely and accurately and are used by the implementation team and the Agencies and GEF Staff to correct the course of action if needed and to learn for further planning activities	3				
Maximum total		45	21	Obtained 47%		

Annex O: Theory of Change

PROJECT OBJECTIVE: Establishment of landscape level planning, information and coordination frameworks to support sustainable agriculture and sustainable watershed management in Dominica

Barriers

Lack of mechanisms to translate national land use policies/plans into changes on the ground

Inadequate info on conditions and LD problems and trends

Land use planning not coordinated across sectors and does not balance socio-economic and environmental objectives

Absence of tools / protocols for measuring LD and the effectiveness of SLM practices

Inadequate manpower / training to implement regulations and to manage info. / GIS systems

LD issues not well known and remain lower priority among policy makers than CC and BD

Limited human/technical capacities for adopting SLM approaches and technologies

Few tools / demonstrated successes on implementing SLM approaches and technologies

Inadequate mechanisms for farmers to adopt SLM (e.g. land tenure constraints; lack of certification; limited credit)

Low awareness among farmers / resource managers of LD processes and impacts

Output 1.1.1: Parish Land Use Plans

Output 1.1.2: Land Information Decision Support System

Output 1.1.3: Multi-Sector Platform for Land Use Planning

Output 1.1.4: Protocols for M&E of SLM practices

Output 1.2.1: Capacity for SLM and enforcement of land use

Output 1.2.2: Knowledge shared on SLM in country & sub-region

Output 2.1.1: Packages of SLM approaches in agriculture and watershed restoration

Output 2.1.2: Capacity built for SLM in agriculture

Output 2.1.3: SLM approaches in agriculture implemented

Output 2.1.4: Capacity built and SLM approaches in watershed restoration implemented

Output 2.1.5: Awareness increased on LD issues and SLM options

Outcome 1.1: Framework to support development, monitoring, and adaptation of land management submitted to government

Outcome 1.2: Institutions are capable of promoting enhanced sustainable land management in Dominica

Outcome 2.1: Increase in adoption of SLM practices in targeted parishes

Assumptions:

Institutions will actively participate in Biodiversity / SLM Committee discussions on LD issues and land use planning

Institutions will share data for use in Geonode (decision-support) system

Assumptions:

Relevant institutions and policy makers will support and facilitate change to ECU mandate

Willingness of police and prosecutors to prosecute land use violations

Assumptions:

Project is able to address land tenure issues in a timely manner

Financial institutions willing to provide credit to farmers

Climate change impacts do not offset improvements in land degradation indicators

GEBs: Favourable policy and institutional environment supportive of sustainable land management, including the development and implementation of Parish-level land use plans, covering 40,460 hectares in four parishes, that will reduce land degradation and increase resilience to potential future land degradation processes

GEBs: Strengthened national capacity to enforce / monitor land use regulations and thereby reduce land degradation processes, and improved regional information sharing and coordination on SLM best practices, planning and policies / regulations

GEBs:

- Increased capacity of farmers to implement SLM
- Reduced soil and nutrient losses and soil compaction
- Higher soil moisture and increased water availability
- Improved soil biology / chemistry and productivity
- Reduced water contamination
- Improved soil quality
- Reduced deforestation
- Reduced flooding
- Reduced soil erosion and sedimentation of downstream ecosystems
- Increased carbon sequestration

Annex P – Detailed Description of PPG Activities for preparation of project “Sustainable Land Management in the Commonwealth of Dominica”

1. Primary Stakeholder meetings

Project Overview	The Government of Dominica, the Partnership Initiative on Sustainable Land Management (PISLM) Support Office and the United Nations Environment Programme (UN Environment) have partnered to prepare a project focused on SLM in Dominica, with the aim to strengthen capacities of national and local government institutions and to promote SLM approaches and technologies in agriculture and watershed restoration. The Environmental Coordinating Unit within the Ministry of Health and Environment represents Dominica at the UN Convention on Combating Land Desertification and is the lead government agency for implementing this project.																																							
Inception Meeting for NGO and CBO Stakeholders																																								
Venue, Date, Time	<ul style="list-style-type: none">• Garraway Hotel, Roseau, Dominica• 14 June 2017• 09:00 – 12:00																																							
Participants	<table><tr><td>Sherra Soanes</td><td>Dominica Association of Local Community Authorities</td></tr><tr><td>Donia Antoine</td><td>Warner’s Farmers</td></tr><tr><td>Michael Warrington</td><td>Warner’s Farmers</td></tr><tr><td>Lolell Williams</td><td>Dominica National Council of Women</td></tr><tr><td>Dr Barjo Ajogbonna</td><td>Free Agent</td></tr><tr><td>Agnes Esprit</td><td>UNDP SGP</td></tr><tr><td>Felix H. Thomas</td><td>Carona Farmers</td></tr><tr><td>Bernadette Lawrence</td><td>W.A.M.</td></tr><tr><td>Octavia Hunter</td><td>W.A.M.</td></tr><tr><td>Jenifer Pascal</td><td>W.A.M.</td></tr><tr><td>Muriel Joseph</td><td>Giraudel</td></tr><tr><td>Merine St Rose</td><td>Giraudel</td></tr><tr><td>Adenauer Douglas</td><td>Coconut Growers Network</td></tr><tr><td>Bernard Nation</td><td></td></tr><tr><td>Brad Auer</td><td>Consultant</td></tr><tr><td>Dr Reynold Murray</td><td>Consultant</td></tr><tr><td>Calvin James</td><td>PISLM</td></tr><tr><td>Kongit Haile-Gabriel</td><td>ECU</td></tr><tr><td>Lloyd Pascal</td><td>ECU</td></tr></table>		Sherra Soanes	Dominica Association of Local Community Authorities	Donia Antoine	Warner’s Farmers	Michael Warrington	Warner’s Farmers	Lolell Williams	Dominica National Council of Women	Dr Barjo Ajogbonna	Free Agent	Agnes Esprit	UNDP SGP	Felix H. Thomas	Carona Farmers	Bernadette Lawrence	W.A.M.	Octavia Hunter	W.A.M.	Jenifer Pascal	W.A.M.	Muriel Joseph	Giraudel	Merine St Rose	Giraudel	Adenauer Douglas	Coconut Growers Network	Bernard Nation		Brad Auer	Consultant	Dr Reynold Murray	Consultant	Calvin James	PISLM	Kongit Haile-Gabriel	ECU	Lloyd Pascal	ECU
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Inception Meeting for NGO and CBO Stakeholders																																	
Venue, Date, Time	<ul style="list-style-type: none"> • Garraway Hotel, Roseau, Dominica • 15 June 2017 • 09:00 – 12:00 																																
Participants	<table> <tr> <td>David Williams</td><td>Consultant</td></tr> <tr> <td>Shari-Anne Gregore</td><td></td></tr> <tr> <td>Vivian Eugene</td><td>Lands and Survey</td></tr> <tr> <td>Jullan Defore</td><td>Fisheries Division</td></tr> <tr> <td>Wynnona Joseph</td><td>Fisheries Division</td></tr> <tr> <td>John Fortaine</td><td>Local Government</td></tr> <tr> <td>Marie Jose Edwards</td><td>Eclipse Inc.</td></tr> <tr> <td>Stephen Dwards</td><td>Forestry</td></tr> <tr> <td>Claudine Roberts</td><td>NFP-JCCP-UNDP</td></tr> <tr> <td>Francisco Maffei</td><td>Forestry Wildlife & Parls</td></tr> <tr> <td>Annie Edwards</td><td>Physical Planning</td></tr> <tr> <td>Brad Auer</td><td>Consultant</td></tr> <tr> <td>Dr Reynold Murray</td><td>Consultant</td></tr> <tr> <td>Calvin James</td><td>PISLM</td></tr> <tr> <td>Kongit Haile-Gabriel</td><td>ECU</td></tr> <tr> <td>Lloyd Pascal</td><td>ECU</td></tr> </table>	David Williams	Consultant	Shari-Anne Gregore		Vivian Eugene	Lands and Survey	Jullan Defore	Fisheries Division	Wynnona Joseph	Fisheries Division	John Fortaine	Local Government	Marie Jose Edwards	Eclipse Inc.	Stephen Dwards	Forestry	Claudine Roberts	NFP-JCCP-UNDP	Francisco Maffei	Forestry Wildlife & Parls	Annie Edwards	Physical Planning	Brad Auer	Consultant	Dr Reynold Murray	Consultant	Calvin James	PISLM	Kongit Haile-Gabriel	ECU	Lloyd Pascal	ECU
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Validation Meeting																																	
Venue, Date, Time	<ul style="list-style-type: none"> • Ministry of Finance, Roseau, Dominica • 6 December 2017 • 8:30 – 1:00 																																
Participants	<ul style="list-style-type: none"> • Dr. Al Mario Casimir, Division of Agriculture • Taletha Laudat, Ministry of Agriculture • Kent Coipel, IICA • Agnes Esprit, GEF SGP • Nigel Lawrence, NGO • Dave Williams, Consultant • Jacqueline Andre, Forestry, Wildlife and & Parks Division • Louise Alfred, DOWASCO • Shari-Anne Gregoire, ECU 																																

	<ul style="list-style-type: none"> • Lloyd Pascal, ECU • Kongit Haile-Gabriel, ECU • Reynold Murray, Project Consultant • Brad Auer, Project Consultant
Main points of the meeting	<p>Overview of the Project Preparation Phase</p> <ul style="list-style-type: none"> • Brief update on Progress to Date • Explanation of GEF requirements for Land Degradation projects <p>Overview of the Project</p> <ul style="list-style-type: none"> • Project Outputs & Activities (including timing and institutional responsibilities) • Information on proposed project sites • Discussion and Q&A of proposed Outputs & Activities, including roles of various stakeholders / partners in achieving specific outputs <p>Project Indicators</p> <ul style="list-style-type: none"> • Review of project Results Framework (indicators) • Discussion and Q&A <p>Framework for Project Implementation</p> <ul style="list-style-type: none"> • Overview of project partnerships / Co-Financing • Project Management Arrangements <p>Conclusion and Way Forward</p> <ul style="list-style-type: none"> • Remaining Steps & Timing for Project Approval and Initiation

2. Site Visits

16 June 2017

Participants

Lloyd Pascal
Dr. Reynold Murray
Brad Auer
Calvin James

Site 1: Cato Farm

+1767 277 3155

Cato Farm is an organic 10.7-acre agro-forestry farm located on a slope. In the 1970's its primary commodity was citrus (4 varieties of grapefruits, oranges and limes). Nationally, the citrus sector has been severely negatively impacted by disease, which has caused the Cato farm to lose more than half its tree stock due to disease.

Site 2: Felix Farm

+1767 615 4448

This is a family farm of about 20 acres. Its primary crop is citrus with some inter-cropping. The farm is managed well and seems to be well irrigated. The owner is actively considering introducing other tree types, e.g. guava and commodities, e.g. ginger

Site 3: Warner Farmer Producers Inc.

Mr Michael Warrington

+1767 616 7272

brmike03@hotmail.com

This group is made up of several small and family farms all of which specialize in sweet potato production. Most farms are either located on the sides of slopes and on undulating lands with clay soil which are covered by an invasive species of grass 'fever grass'.

15 August 2017

Dr. Reynold Murray

Site 1 in Sineku in the parish of St. David (Carib Territory) is a two-acre plot owned by Mr Bernard Etien. This is the site of the FAO Demonstration project. The site has the following features

- Clear signs of soil erosion (loss of top soil) due to farming on the slope with no conservation strategy
- Loss of soil fertility resulting in stunt plant growth
- Conservation efforts started under the demo. Project including contour drains and lines of Vetiver grass; a compost shed with rainwater harvesting tanks
- Multi-cropping to support sustainable livelihood – at least seven crops are currently being grown on the site including bananas, peppers, yams, sweet potatoes, pumpkins, tannias, ginger.
- The farm also has a ring of mango trees serving as windbreaks for the bananas.

The contour drains coupled with the vetiver grass are a very effective intervention that can be duplicated at other sites. It is a proven low cost technology well suited to the steep slopes and small farms of Dominica. This effort can benefit from improved compost processing namely improvement to the shed, additional liquid fertilizer production and storage, and more organic material like white sargassum commonly found on Caribbean beaches. Applying the compost to the field and monitoring the change in productivity and the sharing of lessons learnt will make this project really meaningful.

Site 2 also in St. David is a five-acre plot owned by Mr Maurice Dupigny. Land degradation is very visible at this site much of it resulting from down slope tilling of the land with no conservation effort. Storm water has made its own path down the slope and has caused some earth movement at the top of the farm plot in the absence of head drainage. The farm yields are low and the farmer is trying to change crops –from bananas to sweet potatoes -with the hope of greater yields. Sweet potato cultivation requires more frequent tilling of the soil which will result in more erosion and flooding if appropriate conservation technology is not employed.

Site 3: Visits were also made to Good hope where there are several small farms (< 1 acre) on extremely steep slopes (>60%). The extension officers agreed that these need to be relocated because some are beyond the point of restoration and where restoration is possible it is not cost effective. Petite Savanne in St. Patrick also has several small farms exhibiting land degradation however, following the last tropical storm (Erica) there was so much land slippage that the government has decided to relocate the entire community. That area is therefore excluded from activities under this project.

16 August 2017

Dr. Reynold Murray

Site visits to three water storage plants under construction and one water catchment site.

Site visits 1 and 3: Savanne Paille and Morne Rachette respectively are DVRP sites of hard infrastructure development – roads and water catchments- these are not attractive sites for this project. These water storage systems are constructed on very small parcels of lands resulting in very little LD impact on the surrounding.

Site visit 2: Picard (another RDVRP intervention; parish of St. John). This project site offers some potential for LD intervention site under the evolving SLM project. The water catchment is constructed at the bottom of a 50° slope making the higher elevation susceptible to landslide. Here it would be necessary to plant vegetation that would stabilize the slope while managing the run off via drains.

Site 4: The newly modified Antrim water catchment in the parish of ---; the catchment now yields approximately 4m imperial gallons of water daily supplying 30 % of Dominica, from Mairo to Castle Comfort, with potable water. To date the project has spent approximately EC\$ 1.8m but no conservation measure or LD mitigation measure has been instituted. As a result, there is visible LD and threats to the quality of water in the catchment. This project can partner

with DWASCO to introduce mitigation technology that will support longevity of the water catchment. Intervention measures to address the LD issues at Antrim could include hard engineering structures such as concrete works and gabion baskets, soft engineering works like re-vegetation and clearing of natural water ways. However, this is not considered a meaningful intervention, as there are community water catchments where the intervention can have greater impact.

Annex Q: Project Site Information

1. Overview of Areas for Land Use Planning and field-level SLM interventions

1a. Summary Information

Project activities under Component 2 will take place in four Parishes -- St. David, St. Patrick, St. Paul, and St. Joseph – which together encompass 40,460 ha. Parish-level land use plans will be developed and implemented for each of the four parishes (see Output 1.1.1). Within the four parishes, at least 30 farms located in 12 communities will be selected where the project will support on the ground pilot SLM measures and related capacity building (see Output 2.1.3). In addition, other farms within the four parishes, covering at least 2,000 hectares, will benefit from capacity building in the form of site visits to demonstration farms to learn about potential SLM measures, training modules on SLM measures, and assistance with land tenure, certification and access to credit (see Output 2.1.2). Finally, watershed restoration using SLM approaches will be piloted in three watersheds covering 4,000 ha within the four target parishes.

Figure 1: Parishes of Dominica



1b. Information on Parishes

Saint David Parish: Located on the eastern side of the island, St. David has an area of 131.6 km² and a population of 6,789. The number of farmers in the parish is estimated at 907. Its largest settlement is Castle Bruce, with a population of 1,653. Other villages include Grand Fondi, Rosalie, Good Hope, Petite Soufriere, Riviere Cyrique, Morne Jaune, and San Sauveur. Petit Soufriere is a small village located on the steep slopes of Morne Aux Delices at the end of the main road south from Castle Bruce, it is one of the most isolated villages in Dominica. Historically, Petit Soufriere had never been part of a large estate because of the rough terrain, and instead developed as a peasant farming settlement. Today, it remains a small, rural community of farmers. Good Hope is a small fishing and farming community that is home to about 500 residents. The community is mainly managed by a Resource Management Committee, which oversees development projects, the functioning of the community's resource centre, and the overall wellbeing of the community. San Sauveur is a small fishing community, best known for the abundance of fish in the area, located near Grand Marigot Bay. Thanks to the presence of coral reefs, this area is more protected than most of the other bays on the Atlantic coast of Dominica. The village itself is rather small but it has an old church as well as a primary school that also serves the neighbouring villages. The northern area of Saint David parish is also home to the island's Carib Reserve (1,500 ha), in and around which 3,000 indigenous Caribs live.

Saint Paul Parish: Bordered by St. Joseph to the north, St. David to the east and St. George to the south, this parish has an area of 67.4 km² and a population of 8,397. The number of farmers in the parish is estimated at 565. The largest settlements are Canefield (where the island's second airport is located) and Mahaut. Campbell is a small

village located near Mahaut and is notable for its hidden waterfalls. Another village in the parish, Massacre, is so-called because of the historic massacre of Dominica's indigenous people by European settlers. Cochrane, Springfield Estate and Pont Casse are located in the interior. The parish is also the site of a factory at Belfast Estate, where Dominica Coconut Products operates.

Saint Patrick Parish: This parish has an area of 84.4 km² and a population of 8,383. Grand Bay (also known as Berekoa) and La Plaine are the largest settlements in the parish. The number of farmers in the parish is estimated at 1,505. The villages of Pichelin and Dubique are nestled along the slopes of the mountain ranges surrounding Grand Bay. The mountain ranges include Bois Den in the south, Palmiste in the west, Morne Plat Pays to the northwest, Morne Anglais and Morne Watt to the north, and Foundland range to the north east and east. Petit Savanne was a village on the southeast side of Dominica that had an estimated population of 1,200 in 2015. However, the region the town was built on features some of Dominica's steepest terrain, and landslides devastated Petite Savanne during Erika. A mandatory and permanent evacuation of all residents (823 people) was subsequently implemented. The village was later deemed uninhabitable and a new town need to be built elsewhere. Plans for a new settlement, comprising 500 – 1,000 homes, were established in February 2016.

Saint Joseph Parish: This parish has an area of 120.1 km² and a population of 5,765. The number of farmers in the parish is estimated at 930. Saint Joseph Village is the largest settlement in the parish. Most villages are located on the coast, including Salisbury (also called Baroui), Coulibistrie, Mero and Morne Raquette, but another small locale, Belles, is located in the interior. The parish is home to the Layou River. Coulibistrie extends inland from the coast within a deep valley, along both banks of the Coulibistrie River. It is primarily residential with few businesses. Many of the houses are built directly atop or adjoining the numerous large boulders that litter the valley along its base.

2. Project Activities for SLM approaches in agriculture (Output 2.1.3)

2a. Demonstration Farms

Two farms have been identified as potential sites for demonstration of SLM approaches in agriculture; these sites can be used to test different SLM measures and to provide training and knowledge transfer for other farmers who will visit the sites.

Site 1: The first site is a two-acre farm located in the community of Sineku in the parish of St. David (Carib Territory) that is owned by Mr Bernard Etien. This farm was the location of previous activities (under a FAO-supported project) to address land degradation through SLM approaches, and therefore the project can build on the baseline of what has already been achieved at this site.

Land Degradation Problems

- Clear signs of soil erosion (loss of top soil) due to farming on the slope with no conservation strategy
- Loss of soil fertility resulting in stunted plant growth

Baseline Activities

- Creation of contour drains and planting of Vetiver grass
- Multi-cropping – at least seven crops are currently being grown on the site including bananas, peppers, yams, sweet potatoes, pumpkins, tannias, and ginger.
- The farm also has a ring of mango trees serving as windbreaks for the bananas.

Possible Actions

- The contour drains coupled with the vetiva grass are a very effective and low cost intervention that is well suited to the steep slopes and small farms of Dominica with proper training and materials
- Improved composting system, including improvement to the shed, use of additional liquid fertilizer, and use of more organic material like white sargassum (commonly found on Caribbean beaches). Farmers can benefit from seeing this system and in training on creating compost systems and applying compost in the field

Site 2: A five-acre plot in St. David parish that is owned by Mr Maurice Dupigny.

Land Degradation Problems

- Land degradation is very visible at this site, much of it resulting from down slope tilling of the land with no conservation effort
- Storm water runoff has caused some land slippage at the top of the farm plot in the absence of head drainage.
- The farm yields have been low and the farmer is changing from bananas to sweet potatoes with the hope of greater yields. However, sweet potato cultivation requires more frequent tilling of the soil, which will result in more erosion and flooding if appropriate approaches are not employed.

Baseline Activities

- The farmer has cut a number of the large trees on the farm; while these trees served as windbreaks for bananas, they create too much shade for potatoes which require more direct sunlight. Removing the trees has exposed the land to more erosion by wind and rain, reduced organic content in the soil (mulch from falling leaves and fruits), and reduced carbon sequestration and storage.

Possible Actions

- Construction of storm drains, grass barriers and wind breaks; changes to tilling practices (current practice of tilling downslope needs to be changes to tilling with the contour); trenching to reduce runoff and trap sediments (topsoil); changes to crop selection (i.e. using crops that require minimal tilling rather than crops that require deep tilling); use of organic fertilizers to return lost nutrient to the soil without the leaching of chemicals into aquatic systems.

2b. Selection of Sites

Within the four parishes, the ECU and the Ministry of Agriculture will select communities, and farms within the communities, for SLM approaches to agriculture according to the following characteristics:

- Communities / farms with significant land degradation problems, especially those recovering from the impacts of natural disaster, including a mix of sites with different types of land degradation (e.g. flatlands with fewer erosion problems but significant soil degradation from overuse of chemicals, highland areas where soil erosion is the paramount problem, etc.)
- Communities / farms with pilot farming activities using organic principles
- Communities / farms bordering streams/rivers (especially streams providing potable water)
- Communities with active NGOs, particularly women's groups, which are also seeking assistance for agriculture projects and SLM related activities
- Communities with existing demonstration projects that can provide baseline data
- New communities resulting from relocation occasioned by disaster (e.g. Hurricane Maria)

2c. Details on Pilot Sites, including Situation Analyses and proposed Project Activities

As noted above, 12 communities have been identified as potential project sites for the implementation of SLM approaches in agriculture.

Community	Situation Analysis	Possible Project Activities
Bellevue Chopin	Bellevue Chopin is the site of a pilot organic banana project. There is a newly formed organic farming movement - the Bellevue Chopin Organic Farmers Movement - with several members being active organic farmers. The farmers' movement has plans for a village composting project and has already established an organic school garden. A	Promote farming practices using organic principles; collaborate on composting and organic school garden; provide technical and legal support to address land tenure.

	major constraint in this village is the lack of land tenure -- as new persons move into the area, boundaries are shifting, and erosion from construction is a growing problem with serious implications for flooding and stream sedimentation.	
Salisbury	This area is one of two watersheds of interest associated with the Layou River. There are conventional greenhouse systems in this area, in addition to field grown vegetables.	This project will use the experiences and knowledge of this community to explore options to develop greenhouse production methodologies using organic principles in Dominica, and to share lessons learned with other groups in Dominica through the project's outreach and education programs.
Roseau Valley South	The village of Giraudel in this area is the largest flower-producing region in Dominica. Several flower producers claim to have low-input systems, some without the use of synthetic fertilisers or pesticides.	This project will focus on facilitating intensive vegetable production using organic principles, which will include technical support for a composting project and school garden, and the development of a box scheme supply system to residents and the hospitality sector based in Roseau. A proposed village composting project will be examined by this project with the view to transferring knowledge to or from this project as necessary based on its stage of implementation when this project comes on stream. Innovative land tenure schemes will also be supported.
Morne Prosper	The village of Morne Prosper is well known for the production of culinary herbs and spices, in which producers use synthetic fertilizers and pesticides and large amounts of poultry manure.	A pilot crop program using organic principles will support on-farm trials in intensive production of herbs and spices for on-farm drying and marketing as an organic processed product. A critical intervention in the production systems of this village will be in soil conservation and conservation tillage, as contour planting is not practiced and tillage and bed preparation traditionally occurs parallel to the slope. Demonstration of success in farming techniques and the value added operations will facilitate wider adoption of the methodologies.
South East	Producers of Bay Oil that market their product with the Dominican Essential Oils and Spices Limited (DEOSL) are mainly located in this area, from Grand Bay to Petit Soufriere.	Work with DEOSL to provide technical support in production and certification of pilot production of Bay Oil using organic principles, and support DEOSL plan to convert its production and processing activities to 'certified organic'.
Castle Bruce	Most of the farmers in this largely banana producing area are already producing for Fairtrade, under which the use of chemical fertilizers is discouraged.	Introduction of options for soil fertility and weed control through the use of biological fixation systems and under-sowing with compatible leguminous cover crops.
Carib Reserve	Traditionally, the areas around the homes of the "Carib" (indigenous peoples) are cleaned of all vegetation, a practice that contributes to the heavy soil load seen in the rivers draining this area.	The project will support soil conservation / management, such as the building of contour drains, grassed waterways and storm drains, to reduce sediment loads into aquatic ecosystems. In addition, support will be provided for the certification of organic wild harvest systems for non-timber forest products to provide another sustainable income source to complement the local eco-tourism sector. A pilot demonstration of intensified vegetable production systems will demonstrate the harmonisation of modern techniques with traditional culture, which may increase the rate of adoption of organic methodologies

		and serve to promote youth entrepreneurship in agriculture.
Hampstead	The area of interest comprises the villages of Hampstead and Marigot, including the 499 acre (202 ha) Hampstead Estate.	Assist farmers in meeting the requirements for re-certification of the Hampstead Estate by UK Soil Association for the production of organic coconuts and citrus; possibly also support on-farm processing of coconuts and citrus, and pilot the introduction of intensive vegetable production.
Layou Valley	This is a high rainfall valley with steep topography producing citrus, bananas, avocados and dasheen; organic farming is actively practiced in the valley.	Support value-added activities such as on-farm processing for citrus (juice concentrate) bananas (banana flour, dried snack chips) and dasheen (root flours and snack chips). As the risk of landslides in this area is high, support cropping systems that incorporate soil conservation and agroforestry practices.
Corona	Corona is an elevated plateau on the western edge of Morne Trois Piton National Park. Farmers grow root crops and citrus, and use the nearby stream as their irrigation source. The resident farming population is very small but other farmworkers come from neighbouring communities	<i>In-situ</i> conservation and sustainable use of genetic resources (saving indigenous varieties of vegetables and root crops). Soil conservation using contour tilling, grass barriers and composting – using organic fertilizers. Strengthen the LIFE education program run by the Central Universal Farmers Group (this group does joint operations with the Bells and Warner farmers groups and will therefore function as a teaching and learning centre)
Cochrane	This is an area of high rainfall with deep alluvial soil and a gradient of approximately 30°. It is a high intensity agriculture area growing mainly sweet potatoes.	Construction of storm drains and the planting of grass barriers and windbreaks. Farmers will receive training and participate in demonstrations before starting their own activities. The very active farmers group (mixed male and female farmers) will be provided with propagative materials and technical assistance to improve and expand their organic fertilizer producing system.
Warner	Warner is a hillside farming community in St. Paul; the farmers grow sweet potatoes on land that has very limited topsoil and low rainfall (< 2000 mm per annum). Soil erosion is evident by the exposed roots of large plants and the very thin topsoil. In order to maintain agricultural yields, the farmers use large quantities of fertilizers (chemical and organic). Anecdotal evidence suggests that the community is a middle income one with many persons working in the capital city of Roseau.	Local farmers are concerned about loss of topsoil; this is a problem that needs urgent attention. Baseline assessment of soil loss will be conducted to begin assessing the effectiveness of the other mitigation actions. The project can assist by introducing soft technology including grass barriers, storm drains, contour tilling and trenching. Rainwater harvesting will be introduced to support low technology irrigation

3. Project Activities for SLM approaches in Watershed Restoration (Output 2.1.4), including Situation Analyses and proposed Project Activities

Coulibistrie

Situation Analysis: Coulibistrie is a farming community in the northeastern part of Dominica. During the passage of Tropical Storm Erika in 2015, significant flooding of the Coulibistrie River occurred, which impacted the entire river valley and caused widespread damage along the riverbanks and to the community of Coulibistrie adjacent to those banks. A small intake and 90mm galvanized steel supply pipeline previously served only Coulibistrie and neighbouring Morne Rachette, however, a new intake was constructed as part of the EU-funded West Coast Water Supply Project, which also included the installation of a water treatment plant, 3.8 km of 200mm ductile iron pipeline,

and construction of an access road. Thus, the Coulibistrie River serves as the source of potable water not only for Coulibistrie, but several communities on the west coast of Dominica. However, during Tropical Storm Erika, both intakes were covered with sand, rocks, and debris, the access road was completely destroyed, and 2.5 km of the new 200mm pipeline was washed away. In addition, the characteristics of the river valley were completely changed due to large-scale erosion, deposition of soils and rocks, the movement of huge boulders, etc.

In the early part of 2017, a project was undertaken by DOWASCO to restore water service from the new system, including activities to unearth and clear the intakes, laying of temporary flexible pipelines on the ground surface, and restoration of the access road to the intake to a condition navigable by 4x4 vehicles. These works, while adequate to restore service, are considered temporary and remain vulnerable to the effects of future heavy flooding activity, particularly at the numerous river crossings spanning the route. Additional interventions are now required to stabilize the river banks (among other activities in the river valley to facilitate flow) in order to mitigate against potential negative impacts on the pipeline and access road.

Possible Project Activities:

- Creating land conservation zones (through the Parish land use plans) for highly vulnerable areas (e.g. steep slopes, areas along streams/ivers, etc.) within watersheds, and planting vegetation in those zones to prevent erosion and stabilize riverbanks
- Pilot reforestation activities with agroforestry species (coconut, mango and citrus) in order to reduce soil erosion and protect the water catchment area
- Improve drainage to prevent additional erosion and reduce risk of flooding for communities, focusing on strengthening embankments, slowing flow rates with sediment traps, etc. on tributary waterways / farm drains
- Introduction of contour farming and the use of organic fertilizer to improve water quality.

Salisbury

Situation Analysis: Salisbury is a coastal community in the west of Dominica (south of Coulibistrie) that supports a variety of agricultural products ranging from vegetables to melons to tree crops. Significant forest clearing for agriculture, as well as planting on steep slopes and tillage practices that do not promote soil conservation, have resulted in on-going soil erosion and land slippage problems in the watershed. In addition, Tropical Storm Erika in 2015 produced significant flooding of the Batalie River, resulting in complete destruction of DOWASCO's water intake and a section of the 100mm ductile iron pipeline that supplied water to the community of Salisbury. The heavy precipitation and flooding in the watershed also caused a significant amount of land slippage, which continues to contribute toward high silt levels in the river following rainfall. This increase in turbidity continues to affect the quality of the water supply, and the riverbanks continue to deteriorate in the absence of supporting structures like vegetation cover or head drains. A temporary intake was constructed and the supply line repaired in order to restore water service to the community and a new project will be undertaken under the Basic Needs Trust Fund Programme to construct a new intake and section of the supply pipeline. However, additional measures are required in the catchment to reduce turbidity levels in the river and protect the riverbanks in the vicinity of the proposed pipeline route.

Possible Project Activities:

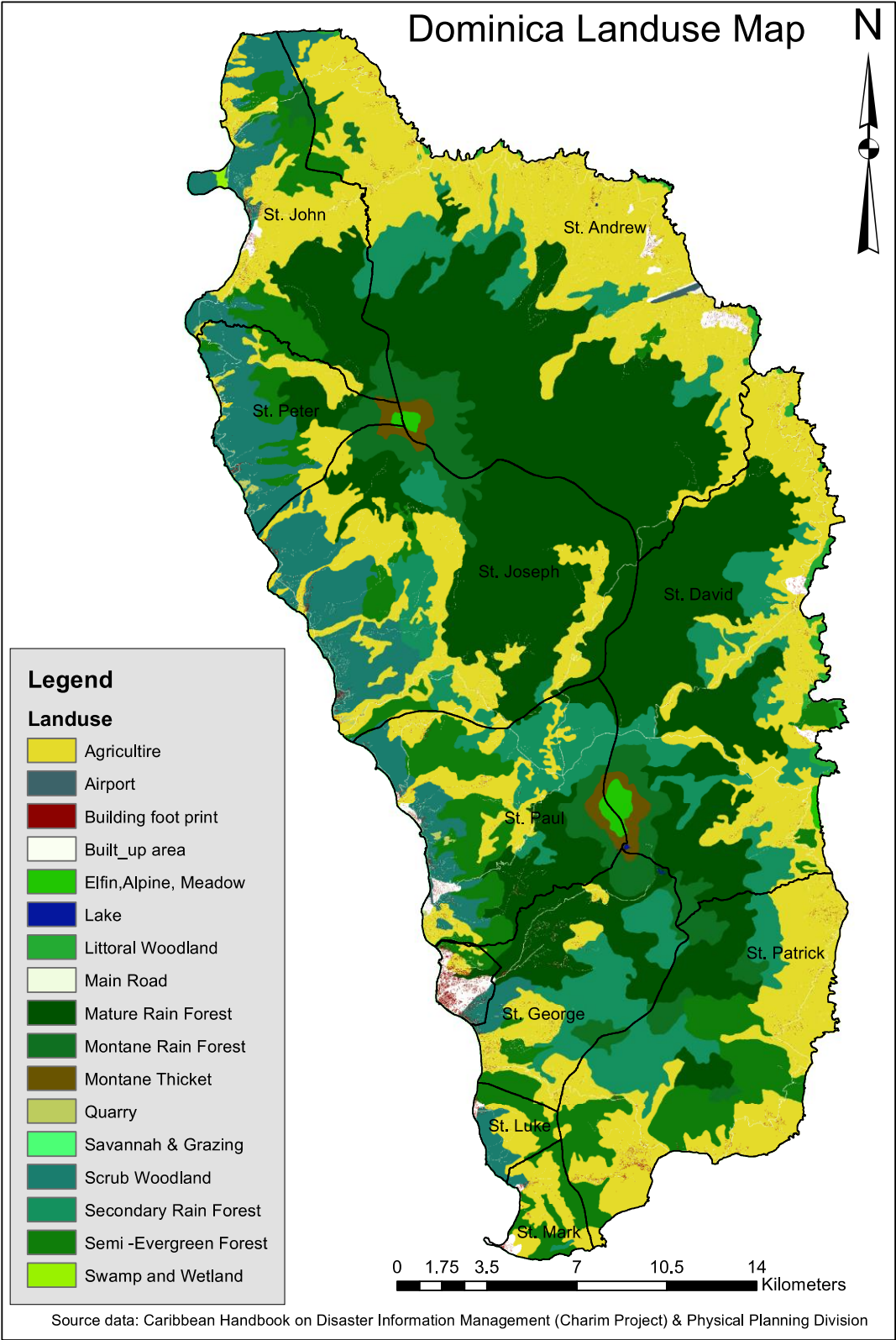
- Creating land conservation zones (through the Parish land use plans) for highly vulnerable areas (e.g. steep slopes, areas along streams/ivers, etc.) within watersheds, and planting vegetation in those zones to prevent erosion and stabilize riverbanks
- Pilot reforestation activities with agroforestry species (coconut, mango and citrus) in order to reduce soil erosion and protect the water catchment area
- Improve drainage to prevent additional erosion and reduce risk of flooding for communities, including clearing water courses by removing fallen trees (a significant problem in the aftermath of Hurricane Maria) and managing waste disposal (dumping of old appliances in ravines)

La Plaine

Situation Analysis: La Plaine is situated in the southeast of Dominica. During the passage of Tropical Storm Erika in 2015, significant flooding of the Ouayaneri River occurred, resulting in complete burial of DOWASCO's water intake under several tonnes of boulders and destruction of a section of the 150mm ductile iron pipeline that supplied water to the community of La Plaine. The heavy flooding caused drastic changes in the watercourse and parts of the wider watershed, and also triggered land slippage causing localized damage at certain points on the supply pipeline. The storm diverted the course of the river away from the intake and the riverbed level was lowered in elevation due to erosion. A temporary intake was constructed and the supply line repaired in order to restore water service to the community.

Possible Project Activities:

- Creating land conservation zones (through the Parish land use plans) for highly vulnerable areas (e.g. steep slopes, areas along streams/rivers, etc.) within watersheds, and planting vegetation in those zones to prevent erosion and stabilize riverbanks
- Pilot reforestation activities with agroforestry species (coconut, mango and citrus) in order to reduce soil erosion and protect the water catchment area
- Improve drainage to prevent additional erosion and reduce risk of flooding for communities, including clearing farm drains and managing runoff using trenching and rainwater harvesting



Appendix 1: Supervision Plan

(see separate document)

Appendix 2: Procurement Plan

UNEP/GEF Project Procurement Plan

Project title and number		Sustainable Land Management in the Commonwealth of Dominica (01479)			
UNEP Budget Line		List of Goods and Services required	Budget	Year (Note 1)	Brief description of anticipated procurement process (Note 2)
1201	International Consultant (GIS / Data Management Expert) for (1.1.2.2 Capacity building to the GIS / data management units of the Physical Planning Department, the Land and Survey Department, and the ECU)	Carry out workshops and other interventions to build the capacity of relevant departments to understand and use GIS data and maps and better align information management and sharing	25,000	1	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Baseline Data collection) for indicators under Outputs 2.1.2, 2.1.3 and 2.1.5	SLM practices / LD conditions on 30 farms (including area of grass barriers, functioning windbreaks, and trenches; amounts of use of pesticides and fertilizers; and water harvesting capacity); # of farmers in project area with secure land tenure; and SLM practices / LD conditions in 3 watersheds (including area of forest cover and grass cover; # of trees planted for agroforestry; water quality; and sediment loads)	6,000	1	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one or more of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Media Expert) for (1.2.1.5 Strengthen the overall mandate of the ECU)	A campaign to generate public awareness and interest in the ECU as well as a targeted awareness raising campaign for legislators and the media on the work of ECU and the need for approval of the drafted environmental bill	25,000	1 – 3	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Land Management Expert) for (1.1.4.1 Establish protocols for monitoring and evaluation of SLM practices); (1.1.4.2 Capacity building will be provided to resource managers and information management experts on the use of the protocols and their integration into decision-making); (2.1.1.1 Identify a package of SLM approaches and technologies in agriculture); (2.1.1.3 Package of SLM approaches and technologies for the restoration of degraded watersheds); (2.1.4.1 Build capacity of community groups on watershed restoration through training and provision of basic tools); (2.1.2.1 Capacity building on the use of soil conservation and farming techniques)	<ul style="list-style-type: none"> • A checklist of key LD-related issues that are aligned to Dominica's LDN-TSP as well as guidance tools on establishing baseline data and monitoring changes • Carry out workshops and other interventions to build the capacity of resource managers and other relevant stakeholders. • Selected packages will provide the basis for activities under Outputs 2.1.3 and 2.1.4 • Workshops and site visits where farmers are taught SLM theoretical approaches on watershed restoration combined with live demonstrations • Site visits to SLM demonstration farms; technical guidance for farmers on their own lands 	101,000	1 – 3	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.

Project title and number		Sustainable Land Management in the Commonwealth of Dominica (01479)			
UNEP Budget Line		List of Goods and Services required	Budget	Year (Note 1)	Brief description of anticipated procurement process (Note 2)
1202	National Consultant (Legal Expert) for (1.2.1.1 Review and proposals for strengthening of existing and draft legislation related to land and resource use and management); (1.2.1.2 National validation consultations on improved legislation / regulations, then submitted to the Cabinet for formal approval); (1.2.1.3 Capacity building program for regulatory authorities (in particular the ECU), law enforcement agencies and courts); (2.1.2.2 Legal and technical support to farmers for land tenure)	<ul style="list-style-type: none"> Ensuring that the legal framework is in place to allow for effective monitoring and enforcement by relevant institutions and for full community participation in the development, monitoring and enforcement of community land use plans Revised legislation/regulations validated for onward transmission to Cabinet Carry out workshops and other interventions to build the capacity of regulatory authorities (in particular the ECU) Provision of legal or technical support for land tenure 	70,000	1-3	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Soil Analysis Expert) for (2.1.1.2 Undertake soil analysis of farming areas)	Soil conditions determined that will facilitate the selection of appropriate SLM approaches/technologies for different farmers	20,985	1	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Land Use Planning Expert) for (1.1.1.1 development of framework / guidelines on land use planning); (1.1.1.2 Development of land use plans)	<ul style="list-style-type: none"> Development of a framework / guidelines for developing Parish land use plans 4 Parish land use plans developed using framework / guidelines 	80,000	2 – 3	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Education & Awareness) for (2.1.5.1 national public education and awareness programme on SLM) and (2.1.5.2 Community-based education programme on socio-economic benefits of SLM practices)	<ul style="list-style-type: none"> Deliver education / awareness raising through community meetings, media presentations, and visits to demonstration sites Increase awareness of the socioeconomic benefits to be derived from implementing effective LD practices 	25,000	1-3	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
1202	National Consultant (Information and Communications Technology Specialist) for (1.2.2.3 Disseminate lessons learned and best practices on SLM approaches to resource managers, policy makers and CSOs / community leaders); (1.2.2.4 Share lessons learned with other GEF-supported SLM projects in sub-region)	<ul style="list-style-type: none"> Disseminate key project information to SLM approaches to critical stakeholders Facilitate the sharing of information among all GEF-supported SLM projects in the Caribbean) 	64,800	1-3	PISLM will issue a call for consultancy services and compile a short list of CVs of at least three (3) experts, one of whom will be selected depending upon qualifications, experience, geographical location and financial proposal.
2301	Sub-contract to Dominica Organic Agricultural	Provision of legal or technical support for farm accreditation	16,000	1 – 3	Develop MOU between the entity and the Executing Agency; Direct

Project title and number		Sustainable Land Management in the Commonwealth of Dominica (01479)			
UNEP Budget Line		List of Goods and Services required	Budget	Year (Note 1)	Brief description of anticipated procurement process (Note 2)
	Movement (DOAM) for 2.1.2.3 Legal and technical support for farm certification				sole source procurement pending relevant approvals are secured
2301	Sub-contract with Farmer Organizations	Serve as liasons and provide coordination on the ground for the project, and they will continue working with government to ensure sustainability of the project when it comes to an end.	70,000	1 – 3	Develop MOU between the entity and the Executing Agency; Direct sole source procurement pending relevant approvals are secured
2301	Sub-contract with Dominica National Council for Women	Facilitate the gender components of the project	30,000	1 – 3	Develop MOU between the entity and the Executing Agency; Direct sole source procurement pending relevant approvals are secured
2301	Sub-contract with National Youth Council	Facilitate training sessions in various communities	16,600	1 – 3	Develop MOU between the entity and the Executing Agency; Direct sole source procurement pending relevant approvals are secured
4101	Computers	2 Desktop & 2 laptops	8,000	1	Shopping method from at least three (3) vendors in the Caribbean
4101	Other equipment	Printers, photocopiers, etc.	18,000	1	Shopping method from at least three (3) vendors in the Caribbean
4101	Consumptive equipment	Paper and other office supplies	6,299	1 – 3	Shopping method from at least three (3) vendors in the Caribbean
4102	Laboratory supplies and consumable	Fees for soil and water quality testing	35,000	1-3	Select best pricing from eligible laboratories
4201	Project vehicles	4X4 Vehicle	50,000	1	Shopping method from at least three (3) vendors in the Caribbean
4201	Equipment/non-laboratory (equipment and materials for farmers)	Equipment and materials for farmers to implement sustainable land management approaches	394,000	1-3	Shopping method from at least three (3) vendors in the Caribbean
4201	Equipment/non-laboratory (equipment and materials for watershed restoration)	Equipment and materials for local residents to implement reforestation, planting of vegetation, and improved drainage	210,000	1-3	Shopping method from at least three (3) vendors in the Caribbean
Note 1 - Year when goods/services will be procured					
Note 2 - Based on your organization's procurement procedures, and in compliance with UNEP rules and procedures, briefly explain how the service provider/consultant/vendor will be selected					

Appendix 3: Terms of Reference / Job Descriptions

1. National Project Coordinator (NPC)

Project: Sustainable Land Management (SLM) in the Commonwealth of Dominica
Post title: National Project Coordinator (NPC)
Duration: 3 years; part-time
Duty station: Roseau, Dominica

Expected Outcomes and Deliverables

The Project Coordinator's main duties and responsibilities are to:

Administrative

- Supervise and coordinate all aspects of the day-to-day work of the PMU;
- Provide guidance and supervision to the work of the staff of the PMU including with regard to the implementation of all activities specified in the Project Document, and ensure their timely completion;
- Prepare detailed annual work plans to be reviewed and approved by the Project Steering Committee (PSC);
- Prepare in close collaboration with the lead agencies for each component, progress and financial reports as specified in the Project Document;
- Ensure adherence to the Executing Agencies' administrative, financial and technical reporting requirements;
- Ensure that financial allocations and expenditures are in accordance with UN financial rules and regulations;
- Clear for approval administrative and financial reports, external communications and travel requests;
- Provide administrative guidance to, and oversight of, the work of the key partners, which operate under Memorandums of Understanding (MOUs) and Sub-contracts;
- Prepare the draft agenda and draft annotated agenda for the PSC and SAB meetings in accordance with the rules of procedure of those bodies;
- Ensure that all discussion and information documents for meetings of the PSC and SAB are prepared and distributed in a timely manner and in accordance with the rules of procedure for those bodies;
- Receive and implement guidance from the Project Steering Committee (PSC);
- Prepare in close consultations with all partners and executing agencies the annual PIR reports for transmission to the GEF; and
- Assist the Evaluation and Oversight Unit as required in arrangements for the terminal evaluation.
- Perform any other duty relevant to the assignment

Technical

- Organize workshops, meetings, field visits including arranging logistics and providing reports as directed by the PSC, in consultation with UNEP and PISLM establish Terms of Reference for MOUs, sub-contractors and consultants;
- Monitor the work of the consultants and sub-contractors, based on their Terms of Reference, and evaluate the quality of the outputs;
- Provide day-to-day technical inputs into project planning and implementation processes;
- Following the guidance of the PSC, liaise on a day-to-day basis with co-executing agencies and partners regarding the implementation of components and activities and with donors involved in the project;
- Facilitate implementation of the project and promote exchanges of information among project participants;
- Ensure, as far as practical, full participation of partners and stakeholders in the project, and prepare a strategy for strengthening partner and stakeholder participation; facilitate finalization and distribution of the project outputs and other documents;
- Seek as required direction, and strategic guidance from the PSC regarding project implementation and execution of agreed activities over the entire period of the project;
- Seek as required direction, and strategic guidance from the PSC regarding the establishment of timelines and milestones for provision of agreed outputs;

- Prepare as required documents to be submitted to meetings of the PSC and Science Advisory Board (SAB)
- Review all documents prepared by third parties for submission to the PSC and TC SAB to ensure they meet the appropriate technical, scientific and English standards;
- Represent the *Sustainable Land Management (SLM) in the Commonwealth of Dominica* project at meetings organized by other organizations and programmes, when these are deemed relevant to the project;
- Liaise with other relevant GEF and non-GEF projects with focus on those referred to in the Project Document;
- Provide general leadership in terms of coordination of activities with other programmes and projects at global, regional and where feasible national, levels;

Reporting structure

The National Project Coordinator will report to the ECU on a day-to-day basis, and will provide project reports (progress reports, financial reports, etc.) to PISLM, the PSC and the GEF Implementing Agency (UN Environment Ecosystems Division).

Qualifications

Education

- Advanced degree from University or equivalent institution in environmental management, environmental sciences, forestry, land use planning, agriculture, or related fields;

Required Skills

- Strong leadership, negotiation and communication skills
- Solid background in project management, including finance
- Sensitive to different cultural backgrounds
- Aware of and sensitive to government and civil society interactions/politics
- Attention to detail and strong organizational skills
- Able to establish priorities and to plan and coordinate work between different partners and stakeholder groups
- Able to manage a complex workload and work within tight deadlines
- Able to lead, manage and motivate project teams as well as international and local consultants and other stakeholders to achieve results
- Able to build strong relationships at all levels with conservation partners, media contacts, potential project sponsors and other stakeholders
- Able to react to project adjustments and/or alterations (if any) in an efficient and prompt manner
- Able to work in a multicultural and multifunctional environment
- Excellent oral, written, mass and interpersonal communication skills
- Fully computer literate
- Well-developed knowledge about land management and pertaining requirements is desirable

Experience

- A minimum of ten years of working experience, five of which should be in the management or coordination of international, regional or national projects related to the environment;
- Hands-on experience in managing national and international natural resources projects, in particular concerning natural resources management, environmental information management, capacity development etc., preferably in the project target area
- Prior UN projects management experience, and particularly UN/GEF project experience and knowledge of UN and GEF procedures and guidelines
- Efficiency, competence and integrity as well as negotiating skills, tact and diplomacy are essential;

Languages

- Fluency in English (oral and written) a strict requirement

2. Chief Technical Advisor

Project: Sustainable Land Management (SLM) in the Commonwealth of Dominica
Post title: Chief Technical Advisor
Duration: 3 years, part-time
Duty station: Home-based, and based at the ECU when in Dominica

Overview: The Chief Technical Advisor (CTA) will be internationally recruited, based on an open competitive process. The CTA will report to the NPC. The amount of time spent working in Dominica and the amount working from home will be determined during the project inception phase. ^[1]_{SEP}

Expected Outcomes and Deliverables

The CTA will be based at the offices of the ECU while in Dominica so as to bring direct technical assistance to the project, as ECU will be the agency implementing the project. He/She will render technical support to the NPC, ECU and project staff, and other government counterparts. The CTA will coordinate the provision of the required technical inputs; review and preparation of TORs, and provision of technical support to assure the outputs of consultants and other sub-contractors meet expected standards. The main duty of the CTA will be to provide technical guidance to the NPC and the ECU on the overall implementation of project activities, as well as capacity building for the staff of the ECU and other relevant institutions and partners, with specific reference to the following: ^[1]_{SEP}

- Provide technical and strategic assistance to the NPC and other counterparts in areas of project planning, management and implementation, of the technical assistance components of the project, including development of biennial work plans, monitoring progress, providing quality assurance for outputs, and ensuring that annual, mid-term and end-of-project targets will be met;
- Provide capacity building support to ECU staff and support capacity building in SLM functions, including land use planning; SLM approaches in agriculture and watershed restoration; research and monitoring; and community empowerment, outreach and dispute resolution;
- Support the NPC in coordinating the work of all consultants and sub-contractors, ensuring timely and quality delivery of expected outputs, effective synergy among the various sub-contracted activities, integration of project outputs into Government work, and compile the work of the consultants;
- Assist and advise the ECU in key strategic and policy issues related to sustainable land management, institutional strengthening processes, and appropriate monitoring and evaluation systems and knowledge management systems;
- Provide technical support for management of site activities, monitoring, and impact assessment, as well as technical support in the areas of land use planning; SLM field practices; inter-sectoral coordination; etc.
- Assist in the implementation of other technical aspects of the project as needed.

Reporting structure

The CTA will report to the NPC on a day-to-day basis and submit standard project reports (progress reports, financial reports, etc.) to the NPC within set deadlines.

Qualifications

Education

- Minimum of a Masters' degree in a discipline related to environmental management ^[1]_{SEP}

Required Skills

- Strong leadership, negotiation and communication skills
- Sensitive to different cultural backgrounds
- Attention to detail and strong organizational skills
- Able to establish priorities and to plan and coordinate work between different partners and stakeholder groups
- Able to manage a complex workload and work within tight deadlines

- Able to build strong relationships at all levels with conservation partners, media contacts, potential project sponsors and other stakeholders
- Able to react to project adjustments and/or alterations (if any) in an efficient and prompt manner
- Able to work in a multicultural and multifunctional environment
- Excellent oral, written, mass and interpersonal communication skills
- Fully computer literate
- Well-developed knowledge about land management and pertaining requirements is desirable

Experience

- Minimum of 15 years of experience in natural resources management, with at least 10 years professional experience related to forest and/or agriculture management
- Hands-on experience with national and international natural resources projects, in particular concerning natural resources management, environmental information management, capacity development etc., preferably in SIDS
- Efficiency, competence and integrity as well as negotiating skills, tact and diplomacy are essential;

Language Requirements

- Excellent English, both written and oral [1][SEP]

3. Administrative Officer

Project: Sustainable Land Management (SLM) in the Commonwealth of Dominica
Post title: Administrative Officer (AO)
Duration: 3 years
Duty station: Roseau, Dominica

Expected Outcomes and Deliverables

The Administrative Officer (AO) will report to the National Project Coordinator and will perform duties assigned by the NPC in keeping with the specific TOR. Under the guidance and direct supervision of the NPC and the Director of the ECU, the AO provides support to the effective and efficient management of the Project through a range of actions contributing to the design, planning, management and monitoring of project activities.

The AO works in close collaboration with the NPC and other project stakeholders for effective achievement of results, anticipating and contributing to resolving complex programme/project-related issues and information delivery.

The main duty of the AO will be to provide administrative assistance to the PMU and Project partners. Specifically, the AO will provide:

Administrative management

- Provide support to international advisors in the implementation of their tasks for the achievement of project results (communication, contracts, agenda, hotel [1][SEP]reservations, etc.);
- Maintain records on all project personnel and local consultants and their respective status (contracts, TORs, sick leave, vacation, etc.) in accordance with accepted [1][SEP]policies and procedures; [1][SEP]
- Assist in the preparation and issuance of contracts;
- Make pertinent logistical arrangements for the prompt and effective implementation [1][SEP]of the programme activities;
- Draft minutes of Steering Committee meetings;
- Assume overall responsibility for administrative matters of a more general nature, [1][SEP]such as registry and maintenance of project files and records
- Arrange external and internal meetings (including the meetings of the Steering Committee, and Technical

Working Groups, among others)

Financial management

- Prepare requests for advance of funds and/or direct payments;
- Monitor budget expenditures and maintain a proper record of approved project budgets and their revisions;
- Assist in the preparation of proposals for budget revisions;
- Prepare and submit expenditure and programme budget status reports;
- Respond to queries from the Government, PISLM and UNEP with respect to financial aspects of the programme;
- Prepare recurring reports as scheduled and special reports as required for budget preparations and audit;
- Advise and assist international advisors and national consultants on all aspects of allowances, travel claims and other financial matters and calculate payments due for claims and services;
- Undertake other financial and administrative tasks on an *ad hoc* basis.

Procurement

- In accordance with the work plan, arrange for procurement of equipment, supplies and services, when instructed;
- Arrange for equipment maintenance and insurance as required;
- Ensure that contractual processes follow the stipulated UNEP procedures;
- Physically clear and ensure delivery of equipment and supplies procured for the various programme sites;
- Maintain an equipment and spare inventory including verification and transfer when required.

Qualifications and Competencies

Education

Bachelor degree (equivalent) in management science, environmental/natural resource management, or a related field

Required Skills

- Leadership, communication and trouble-shooting
- Self-motivated and able to work remotely with minimum supervision
- Aware of and sensitive to government and civil society interactions/politics
- Able to prioritize, plan and coordinate work remotely and with various partners
- Able to work as part of a team
- Able to work in diverse and multicultural environments
- Demonstrable sound work ethics
- Excellent oral, written, mass and interpersonal communication skills
- Fully computer literate

Experience

- Minimum of three years' experience in management and related project implementation and/or project management, with a proven track record of achieving results
- Strong managerial background; an administrative track record is desirable
- Proven background in working with multi-lateral agencies, particularly UN/GEF project experience and knowledge of UN and GEF procedures and guidelines

Languages

- Fluency in English (oral and written) a strict requirement

4. Technical Assistant

Project: Sustainable Land Management (SLM) in the Commonwealth of Dominica
Post title: Technical Assistant (TA)
Duration: 3 years
Duty station: Roseau, Dominica

Expected Outcomes and Deliverables

The Technical Assistant's (TA) main duties and responsibilities will be to:

- Coordinate daily duties with the NPC and support him/her in steering project implementation
- Work as a team member of the PMU and with all project partners to coordinate and implement project activities, particularly with regard to natural resource management assessment and SLM Best Practices, planning and evaluation as well as relevant capacity development measures
- Provide strategic guidance to the NPC
- Perform any other duty relevant to the assignment

The TA will support and complement the NPC's role in the project, specifically to undertake the following technical tasks:

- Coordinate all aspects of project implementation, to streamline technical requirements and to support efficient project implementation and timely and consistent technical reporting
- Coordinate and put systems in place for the timely and accurate technical reporting to the NPC from all project partners, sub-contractors and consultants
- Support the NPC in establishing a project monitoring and evaluation system in accordance with the project documentation
- Prepare periodical consolidated progress reports and annual PIRs (Programme Implementation Reports) for UNEP and the GEF
- Coordinate resources (including technical support) for project partners
- Provide technical and administrative support to the project partners
- Assist with coordination and implementation of the project monitoring and evaluation plan, as outlined in the project document
- Support the NPC in organizing workshops, meetings, field visits including arranging logistics and providing reports as directed by the PSC, in consultation with UNEP and PISLM establish Terms of Reference for MOUs, sub-contractors and consultants;
- Support the NPC in monitoring the work of the consultants and sub-contractors, based on their Terms of Reference, and evaluate the quality of the outputs;
- Support the NPC in providing day-to-day technical inputs into project planning and implementation processes;
- Support the NPC in liaising on a day-to-day basis with co-executing agencies and partners regarding the implementation of components and activities and with donors involved in the project;
- Support the NPC in ensuring full participation of partners and stakeholders in the project, and in preparing a strategy for strengthening partner and stakeholder participation
- Support the NPC in preparing as required documents to be submitted to meetings of the PSC and Science Advisory Board (SAB)
- Support the NPC in reviewing all documents prepared by third parties for submission to the PSC and TC SAB to ensure they meet the appropriate technical, scientific and English standards;
- Support the NPC in liaising with other relevant GEF and non-GEF projects with focus on those referred to in the Project Document

Reporting structure

The TA will report to the NPC on a day-to-day basis and submit standard project reports (progress reports, financial reports, etc.) to the NPC within set deadlines.

Qualifications and Competencies

Education

Graduate degree (Master or equivalent) in environmental/natural resource management, conservation, or a related field

Required Skills

- Leadership, negotiation, communication and trouble-shooting
- Project management
- Self-motivated and able to work remotely with minimum supervision
- Aware of and sensitive to government and civil society interactions/politics
- Able to prioritize, plan and coordinate work remotely and with various partners
- Able to work as part of a team
- Able to work in diverse and multicultural environments
- Demonstrable sound work ethics
- Excellent oral, written, mass and interpersonal communication skills
- Fully computer literate

Experience

- Minimum of three years' experience in natural resource management and related project implementation and/or project management, with a proven track record of achieving results
- Strong managerial background; an administrative track record is desirable

Languages

- Fluency in English (oral and written) a strict requirement

5. Project Steering Committee

Project: Sustainable Land Management (SLM) in the Commonwealth of Dominica
Post title: Project Steering Committee (PSC)
Duration: 3 years
Duty station: Roseau, Dominica

Expected Outcomes and Deliverables

The PSC will provide overall guidance and strategic direction and oversight to project management and will approve all final outputs and deliverables of the project. The PSC will be multi-disciplinary and multi-sectoral in fields related to nature protection, forestry and land use planning.

Specific functions of the Steering Committee will include:

- Review of Project Status Reports
- Endorsement of the final reports from project experts and consultants
- Approval of the Annual Project Workplan and budget respectively and any changes thereto, in accordance with GEF and UN Environment guidelines;
- Annual review of project activities to assess project development
- Any other business brought before the PSC by one of its members.

As the PSC will provide overall guidance to the project it will not be expected to deal with day-to-day management and administration of the project. This will be handled by the National Project Coordinator (NPC), in coordination

with the Executing Agency (PISLM), and under guidance from the Project Director. The PSC is especially responsible for evaluation and monitoring of project outputs and achievements. In its formal meetings, the PSC will be expected to review the project work plan and budget expenditure, based on the PC's report. The PSC should be consulted for supporting any changes to the work plan or budget, and is responsible for ensuring that the project remains on target with respect to its outputs. Where necessary, the PSC will support definition of new targets in coordination with, and approval from, the Executing/Implementing Agencies.

Composition

The PSC will include representatives of relevant Governmental institutions of Dominica, including, but not limited to the current ministries responsible for environmental and nature protection issues in the country and other relevant institutions. Membership will also include UN Environment representatives (UN Environment Ecosystems Division as the Implementing Agency); PISLM Support Office; as well as the GEF OFP and UNCCD Focal Point that are within the Ministry of Environment.

The PSC will represent both state actors and non-state actors, which is important for a comprehensive national approach and execution of this project. The PSC will meet at least twice a year to review project progress, provide direction and guidance, and assist in project implementation, as well as provide synergies with other complementing initiatives and on-going projects. The PMU will serve as secretariat of the PSC.

Frequency and Conduct of Meetings

The PSC will be expected to meet formally at least once every 6 months. The members of the PSC will be expected to communicate via e-mail and telephone on urgent project related matters. The NPC and Project Director will be responsible for ensuring close liaison within the PSC. Formal meetings will be scheduled and arranged by the NPC in consultation with, and at the request of, the other PSC members (with tentative dates for the following meeting being agreed under Any Other Business). Extraordinary meetings of the PSC can be requested by any of its members, and will be considered and may be approved by the Executing and Implementing Agencies within the budget limitations of the project. Meetings of the PSC will normally be summoned with at least two weeks' notice via email. The cost of participation in meetings of the PSC will be met by the project. Every effort will be made to reduce the financial burden on the project by scheduling PSC meetings to coincide with other relevant project meetings at which the members of the PSC may be present.