PROJECT:	**SUSTAINABLE LAND MANAGEMENT IN THE COMMONWEALTH OF DOMINICA**
GEFSEC ID:	**9667**
REPORT /OUTPUT TITLE	**QUAYANERI WATERSHED RESTORATION ACTION PLAN**
PROJECT COMPONENT/ACTIVITY:	**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 REGULATIONS**
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EcoApp Inc.
An Ecosystems Approach

AUGUST 11, 2023

QUAYANERI WATERSHED RESTORATION ACTION PLAN

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LIST OF ACRONYMS

QW	Quayaneri Watershed
QWAP	Quayaneri Watershed Action Plan
QWMC	Quayaneri Watershed Management Council
QWMP	Quayaneri Watershed Management Plan
DBH	Diameter at Breast Height
DBOS	Dominica Bureau of Standards
DoA	Division of Agriculture
DOWASCO	Dominica Water and Sewerage Company
DSWMC	Dominica Solid Waste Management Corporation
FWPD	Forestry Wildlife and Parks Division
GoCD	Government of the Commonwealth of Dominica
GPS	Global Positioning System
LoA	Letter of Agreement
MOA	Ministry of Agriculture
MoU	Memorandum of Understanding
PISLM	Partnership Initiative for Sustainable Land Management
SALT	Sloping Agricultural Land Technology
SLM	Sustainable Land Management

1 INTRODUCTION

The watershed management approach for Quayeneri typifies a process that consolidates perspectives from a wide cross-section of stakeholders and partners to identify, discuss, prioritize, and implement, goals, objectives, and actions. These are aimed at preserving, protecting, and restoring key watershed processes and ecosystem services within the Quayaneri Watershed (QW). The Quayaneri Watershed Action Plan (QWAP) reflects this cooperative effort of planning and prioritizing a unified and directed approach to managing the watershed. It also represents a tool by which these goals can be achieved.

The QWAP outlines various issues that need to be tackled and priority areas in the watershed where this will occur. With the input of all major stakeholders, it was created to chart a course of action for state agencies, watershed community partners and other decision makers within or related to the watershed. The QWAP is a long-term strategy, but it sets specific targets and measures in three phases of implementation. However, the proposed activities under each phase were prioritized primarily based current budget limitations. This phase could be scaled-up as budget provisions permit. Overall, the action plan is a concise and action-focused document. It is a culmination of elements of the watershed protection approach, formed through collaboration and consensus, reflecting the interests and concerns of different stakeholders within the Laplaine community. It is a flexible guide, in that the process may be modified to cater to the uniqueness of each microsite at the specific time of implementation.

2 PURPOSE OF THE QWAP

The QWAP creates an understanding of the watershed, identifies priority issues, and defines priority actions that are necessary to protect, improve, and restore watershed resources and processes. The QWAP is a derivative of the Quayaneri Watershed Management Plan (QWMP) which provides an overview of the major watershed constraints and the approaches for remediation. This sets the stage for the implementation of key actions over a defined timeline. It is also designed to roll-out within multiple stages based on financial and other resource limitations.

The QWAP also acts as an information tool and directs actions within the watershed. By bringing together the knowledge, commitment, and resources of all the community partners, as well as state and developmental partners, the plan will ensure that all major issues in the watershed are adequately addressed through prioritized action strategies. The action plan is premised on local knowledge, scientific surveys with sound data analysis and integrates the main elements of the watershed approach: consultation, education, resource conservation and such like.

Finally, the QWAP and the process involved in its implementation improves communication and coordination among the various state, local government, community organizations. It is also instrumental to further expanding public involvement in watershed management

activities. Figure 1 provides a schematic of how the plan can be executed to achieve the desired results.

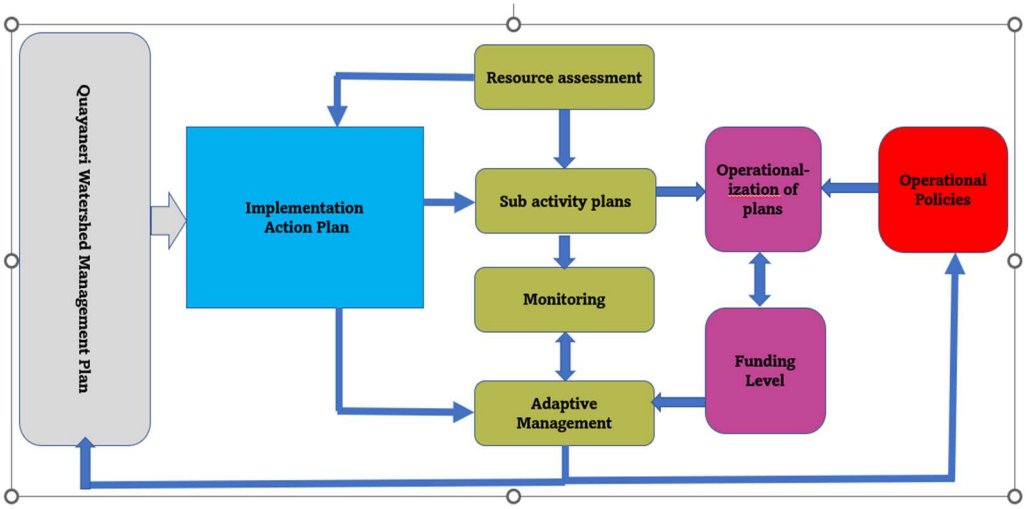

Figure 1 Schematic of the processes and key activities involved with the implementation of the Quayaneri Watershed Management Plan

SUMMARY OF KEY ISSUES

A combination of predisposing natural factors (particularly soil type, high rainfall, and topography), human action and climate-related events are contributing to widespread land degradation and loss of valuable ecosystem services within the QW. A summary of the core issues include:

- Unsustainable land use practices
- Deforestation
- Monocropping of short-term crops on hillside resulting in heavy soil disturbance
- Lack of proper drainage within farms or along farm roads
- Unstable slopes, prone to landslide
- Deteriorating quality and quantity of water
- Unstable stream banks and denuded riparian areas
- Weak monitoring and enforcement
- Lack of awareness on sustainable watershed management
- Weak advocacy from groups/champions in the local community

3 GOALS AND OBJECTIVES OF THE QWAP

The broad goals are to develop:

- ✓ A strategy for restoring critical ecosystem functions and processes within the QW
- ✓ Support ongoing conservation efforts to maintain and improve the integrity of the Morne Trois Piton National Park (MTPNP).
- ✓ A road map to guide decision makers at the community and national levels on prioritizing key actions for restoring degraded watersheds
- ✓ A blueprint for effective watershed restoration that will support efforts to restore and sustainably manage watersheds in Dominica.

The specific objectives are to:

- Identify and revegetate highly degraded areas in the upper reaches of the BW
- Promote the uptake of SLM practices (e.g. stream bank stabilization, contour farming, sloping agricultural land technology (SALT) and agroforestry) among farmers and landowners
- Design and implement a community-wide campaign to promote knowledge and awareness on Watershed Management
- Build local capacity for the establishment and functioning of the Quayaneri Watershed Management Council
- Establish a community-based watershed monitoring program
- Increase the participation and support of key state agencies for the implementation of the QWAP

4 GENERAL APPROACH

- Prioritization and selection of activities included in the action plan are based on the core recommendations of the QWMP.
- Priority attention is given to the mid and lower-watershed sections given the expansion of tourism-related establishments, deforestation, encroachment of farming into protected areas and loss of riparian vegetation in that area.
- Other priority areas of the plan include buffer restoration in riparian zones, erosion hotspots on sloping agricultural land, poor water quality and declining volumes
- Facilitation of community mobilization and action to effectively address key watershed constraints.
- Secure commitment of stakeholders to specific actions and responsibilities
- Validation of actions – through presentations to key stakeholders (community groups and state agencies) and inclusion of their recommendations/feedback

5 IDENTIFICATION OF KEY STAKEHOLDERS AND THEIR RESPONSIBILITIES

Thematic area(s)	Key Stakeholders	Main Responsibility
Revegetation	DOWASCO	Primary custodians of water catchments with responsibilities for maintaining their natural functions
	FWPD	Identify, design & implement appropriate watershed restoration measures including community education, plant propagation, monitoring & enforcement of applicable legislation
	MoA	Promote SLM uptake, support farmers to implement SLM best practice
SLM practice	Nursery owners,	Propagate required plant species
	Farmers/Landowners	Support & promote restoration activities & best practice
	Village Council & other Community-based groups	Support & promote restoration activities & best practice
	Development agencies	Provide technical and financial resources to support restoration
	MoA	Promote SLM uptake, support farmers to implement SLM best practice
	Farmers/landowners	
	Farmers	Knowledge exchange, participate in training sessions
	Community residents	See above re Community-based Groups
	QWMC	Coordinate implementation of the WS management plan
	Technical experts & related technical cooperation agencies	Technical backstopping, research, capacity building
	Educational institutions	Capacity building, preparation of knowledge products
	DOWASCO	Raise awareness and provide requisite training on streamflow measurement, sampling and analysis;
	DBOS	Sampling and water quality analyses
	Volunteers	Sampling and data collection on various watershed parameters
	Data entry support	Design and maintain system for data management
	FWPD	Monitoring, oversight & enforcement

Thematic area(s)	Key Stakeholders	Main Responsibility
	DSWMC	Support community-based waste management programs
	Env Health Dept	Support community-based waste management programs
	Legal/law enforcement	Enforce applicable laws and regulations
Knowledge promotion	Media houses	facilitate knowledge transfer & awareness programs on sustainable WS management
	Audio/visual service providers	
	Campaigners, community activists	
	Min. of Education	
	Communications specialists	

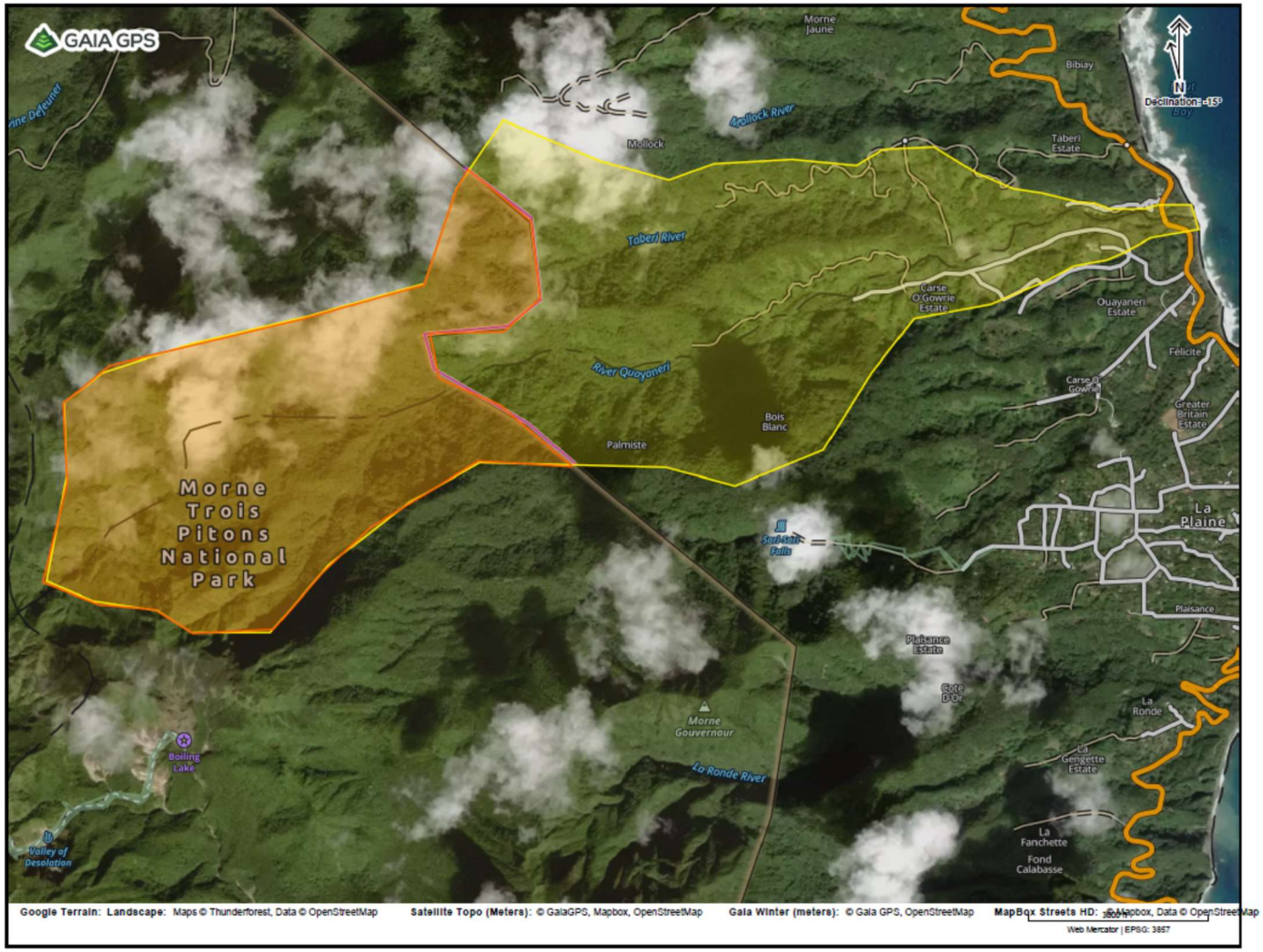

Figure 2 Map depicting the overlap of the MTPNP and the QW

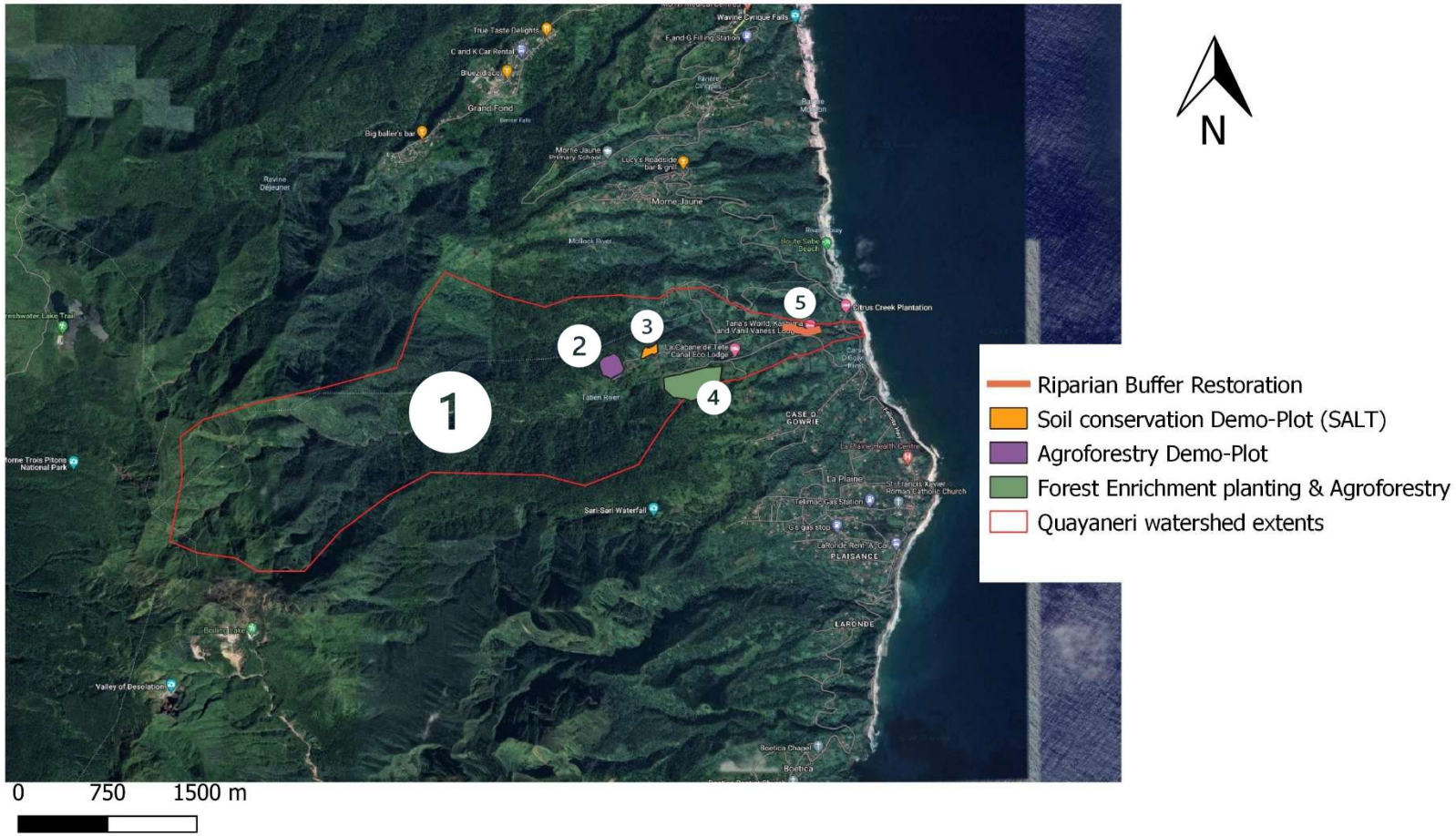

Figure 3 Spatial distribution of proposed restoration sites within the QW

Table 1: Description of proposed restorative interventions in the Quayaneri Watershed

Watershed Section	Map Ref. No.	Targeted Sites	Description	Area (ac)	Recommended species	Plant Estimate (Count)
Upper	1	EnR-Up	Enrichment planting	12	Mowisif, Lowyé, Bwa dyab, gonmyé, chatannyé	1,800
Upper	2	AgF-Up	Agroforestry Demo-Plot	8	Forest and various tree crops: citrus, avocado, cinnamon, cocoa	1,200
Mid	3	SLM-Mid	SLM -demo-plot	2.5	Various tree crops (including: citrus, avocado, mango, cocoa); cover crops and vetiver strips	375
Mid	4	EnR+AgF-Mid	Enrichment planting &	16	Mahogany, Red cedar, Coubawi, powyé, Bwa dyab, gonmyé, chatannyé	2400
			Agroforestry with pasture	10	[managed pasture including tree crops, forest tress and strips of gliricidia and luceana]	1500
Lower	5	BuF-Lo	Riparian buffer restoration	4	Forest and various tree crops: citrus, avocado, mango, cocoa	400
Total				**52.5**		**7,675**

Table 2 Total proposed area per restoration intervention and summary cost for implementation

Restoration Intervention	Specific area of intervention		Total Area Impacted (Acres)
	Acreage	Budget US$	
Enrichment plantings (EnR)	28	$49,560.00	141
Agroforestry (AgF)	18	$112,931.00	95
SLM-Demo Plots (SLM)	2.5	$19,330.00	12
Riparian Buffer (BuF)	4	$ 3,592.00	37
Development of Capacity building programs	-	$ 7,000.00	-
Watershed monitoring program	-		-
Community Engagement & Knowledge Promotion Plan/Process	-	$ 12,000.00	-
Total	**52.5**	**$204,413.00**	**285**

6 KEY ACTIVITIES TO BE UNDERTAKEN

Activities and sub-activities:

Enrichment of degraded sites: Enrichment planting with selected tree species aims to restore critical ecosystem functions and watershed hydrology. Three sites within the watershed were identified for enrichment planting, including forest (2) and riparian buffer (1). The priority sites identified for restoration are shown in Figure 3.			
Sub-activities	**Responsible party**	**Collaborating partners**	**Indicators of accomplishment**
Prepare TOR for an out-planting coordinator	EcoApp Inc.	PISLM	Draft TOR
Identify and recruit an out-planting coordinator	EcoApp Inc.	FWPD	Signed contract
Conduct site reconnaissance	Coordinator	EcoApp Inc/FWPD	Site visit report
Develop site-specific enrichment plans	EcoApp Inc	FWPD/DOWASCO	Draft plans
Source and procure planting material	Coordinator	FWPD/Private Nurseries	Signed agreements with nursery(ies)
Conduct out planting activity	Coordinator	FWPD/NEP/Community groups	Photographic and written reports
Prepare progress reports on planting activities	Coordinator	EcoApp Inc.	Weekly reports
Introduction of SLM Practice: SLM interventions are critical to the long-term recovery of the watershed ecosystem. Site-specific SLM package to include the establishment of demo-plots and trainings targeting farmers and landowners in the watershed			
Sub-activities	**Responsible party**	**Collaborating partners**	**Indicators of accomplishment**
Identify suitable locations for establishing demo-plots	EcoApp Inc	Farmers/land owners/DoA	Written report
Design site-appropriate demo-plots and determine establishment cost	EcoApp Inc		Report with designs and bill of quantities
Develop appropriate training package targeting farmers/land users			Approved training modules presented
Execute planned training activities for farmers/landowners in relevant SLM Practice			Training report
Prepare progress report on SLM adoption	EcoApp Inc		Activity progress reports

Development of Capacity building programs: Empowerment of the community is an essential prerequisite for effective watershed management. Based on community consultations and the findings of the QW study several critical knowledge gaps emerged. These will be addressed by the development and execution of 3 training sessions			
Sub-activities	**Responsible party**	**Collaborating partners**	**Indicators of accomplishment**
Assess & prioritize capacity development needs	EcoApp Inc	Community groups, DoA, FWPD	Needs assessment report
Develop training packages		DOWASCO, DBOS, FWPD, DoA, Environmental Health. DSWMC	Report on approved trainings
Identify resource personnel to execute trainings			Shortlist of personnel
Execute planned trainings			Training report
Report on training activities			Progress report
Development of watershed monitoring program: Watershed monitoring is required to assess the effectiveness of any implemented corrective actions. A systematic program yields many benefits but relies strongly on effective coordination, required technical and financial support. This will be achieved through the establishment of the QWMC and a highly effective watershed monitoring program that will generate the required data needed for decision making.			
Sub-activities	**Responsible party**	**Collaborating partners**	**Indicators of accomplishment**
Initiate meeting to determine scope based on priorities and available human and financial resources	EcoApp Inc.	Community groups, DOWASCO, FWPD,	Meeting report
Establish watershed monitoring team (s)	EcoApp Inc. to coordinate		Approved TOR/Team(s) formally organized
Develop MoU/LoA for engagement of key partnering agencies	EcoApp Inc.	DOWASCO, FWPD, DoA, DBOS,	Draft MoU/LoA
Prepare relevant progress reports			Progress reports

Develop a Community Engagement & Knowledge Promotion Plan/Process: Community support is crucial to the successful implementation of the QWMP. In that regard a community mobilization drive will be undertaken to garner support and secure stakeholder participation in the various activities. Importantly, changes in perceptions and attitudes of resident about land use and waste disposal will be prioritized.			
Sub-activities	**Responsible party**	**Collaborating partners**	**Indicators of accomplishment**
Obtain community /stakeholder feedback & approval	EcoApp Inc/	Community groups, other key stakeholders	Meeting report
Develop TOR for a communications strategist			Draft TOR
Develop draft content -Community-wide awareness campaign: -Radio programs 2 -townhall meeting -School's poster competition - Radio jingle -Promotional videos	Communication strategist		Approved community engagement/knowledge promotion plan
Finalize & validate plan	EcoApp Inc.	Community Groups, Key stakeholder representatives	Finalized plan

All activities indicated above are subject to the availability of funds and the guidance of PISLM and other key partners.

7 BUDGET

Activity	Unit Cost (US$)	Quantity	Total Expense (US$)
Enrichment planting of degraded sites			
Prepare TOR for an out-planting coordinator	-	1	$ -
Identify and recruit an out-planting coordinator	-	1	$ -
Conduct site reconnaissance	$ 200.00	2	$ 400.00
Develop site-specific enrichment plans	-	1	$ -
Establishment of enrichment sites per acre*	$ 1,770.00	28	$ 49,560.00
Restoration of riparian buffer*	$ 898.00	4	$ 3,592.00
Prepare progress reports on planting activities	-	-	$ -
Sub-total			**$ 53,552.00**
Introduction of SLM Practice			
Identify suitable locations for establishing demo-plots	-	-	$ -
Design site-appropriate demo-plots	-	-	$ -
Establish SLM demo-plots*	$ 7,732.00	2.5	$ 19,330.00
Establish or enhance existing Agroforestry plots	$ 8,687.00	8	$ 69,496.00
Establish integrated agroforestry with pasture	$ 4,343.50	10	$ 43,435.00
Develop appropriate training package targeting farmers/land users	-	-	$ -
Execute planned training activities for farmers/landowners in relevant SLM Practice	-	-	$ -
Prepare progress report on SLM adoption			$ -
Sub-total			**$ 132,261.00**
Development of Capacity building programs			
Assess & prioritize capacity development needs	-	1	$ -
Develop training packages (Watershed monitoring, SLM, organic production systems)	-	3	$ -
Identify resource personnel to execute trainings	-	1	$ -
Execute and report on planned trainings	$ 1,500.00	3	$ 4,500.00

Sub-total			**$ 4,500.00**
Development of watershed monitoring program			
Determine scope of monitoring program	-	1	$ -
Facilitate establish watershed monitoring team	-	1	$ -
Develop draft MoU/LoA for engagement of key partnering agencies	-	5	$ -
Prepare relevant progress reports	-	1	$ -
Sub-total			**$ -**
Develop a Community Engagement & Knowledge Promotion Plan/Process			
Obtain community /stakeholder feedback & approval	-	1	$ -
Develop TOR for a communications strategist	-	1	$ -
Communications strategist	$ 300.00	15	$ 4,500.00
Radio programs	$ 250.00	2	$ 500.00
Townhall meeting	$ 300.00	1	$ 300.00
School's poster competition	$ 1,200.00	1	$ 1,200.00
Radio jingle (Kwéyòl & English)	$ 250.00	2	$ 500.00
Promotional videos (Kwéyòl & English)	$ 3,550.00	2	$ 7,100.00
Sub-total			**$ 14,100.00**
Total			**$ 204,413.00**

8 REQUIRED SUSTAINABILITY ACTIONS FOR SUCCESSFUL RESTORATION

To guarantee project success, sustainability considerations must be integrated into the various project activities. This will ensure that adequate capacity is developed for the efficient and timely delivery of the required outputs over the project's duration. Table 3 provides a summary of the required capacities, how they can be provided and the expected outcomes to be derived. This can also serve as a guide to gauge the progress and success of restoration efforts within the watershed.

Table 3 Key sustainability actions and how they can be achieved for successful watershed restoration

Pre-Project	**How this will be accomplished**	**Expected Outcome**
Secure the commitment and participation of key stakeholders	Hold consultations, Signed MoU/LoA	Key stakeholders maintain a high level of interest and meaningful participation during and post-project. The profile of watershed management elevated at the national level
Actively Support Community Knowledge and awareness	Consultations with farmers, community leaders individually, through focus groups. PISLM national radio outreach programmes. Ongoing advocacy of FWPD and the DoA	Greater acceptance of environmental stewardship responsibility at individual and community levels
Map available technical resources/skill sets of the community	Engagement of residents and community leaders	Key resource persons informed and committed to support project initiatives & decision-making
During-project		
Develop local capacity	Several training opportunities and access to watershed monitoring tools	An effective and functional watershed monitoring unit established; Community involvement in watershed management is enhanced
Establish Watershed Management Council	Work with key stakeholders to establish the QWMC, Develop ToR for QWMC, support capacity development activities targeted at prospective councilors, Central Government agrees to roll out	The QWMC becomes sufficiently empowered and capacitated to undertake watershed management responsibilities.

Pre-Project	How this will be accomplished	Expected Outcome
	the national land use policy and action plan using the QW as a pilot.	The QWMC becomes a model for the implementation of national watershed management programs
Increase access to grant funding and technical support opportunities	Train community stakeholders on grant proposal preparation; Compile a database of potential funders and technical resources	Greater pool of financial and technical resources are available to support watershed management activities. At least of 80% of the operational budget of the QWMC is derived from grant assistance.
Post-Project		
Maintain plants established under the various project interventions	Provide requisite, training, guidance, inputs, tools and equipment for the maintenance of established plants; develop a field monitoring program	Well-maintained restoration sites that have the desired impact and appeal
Promote and support sustainable livelihood initiatives	Develop an ecotourism strategy for the area that will seek to create employment as tour operators, tour guides, watershed stewards, and such like	Increased employment opportunity and greater awareness and understanding of the wider community about the importance of its natural resources
Build capacity to effectively communicate results	Provide training on data collection, management, analysis, reporting and communication and presentation skills	Periodic reports on watershed status and outcomes of management activities are presented and disseminated within and outside the community
Build capacity to exploit emerging opportunities related to carbon offset credits and meeting land degradation neutrality targets	Provide training on how to conduct assessments and determine carbon offset values of rehabilitated forest ecosystems	A simplified model developed for carbon accounting of rehabilitated forest in Dominica. Dominica participates and generates revenues from carbon offset programs

9 APPENDICES

A. BILL OF QUANTITIES

Schedule of Prices (per acre) for Enrichment Planting of Forest					
Bill No. 1	**Establishment Inputs and equipment**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
1.1	Tree diameter measuring tape DBH	-	2	$ 80.00	$ 160.00
1.2	clinometer/compass	-	1	$ 350.00	$ 350.00
1.3	Write in the rain Record books	-	3	$ 50.00	$ 150.00
1.4	GPS handheld and protective case (etrex 22x)		1	$ 300.00	$ 300.00
1.5	Collection, site preparation and planting of wildings	days	5	$ 100.00	$ 500.00
1.6	Husbandry/maintenance	days	2	$ 80.00	$ 160.00
	To Summary				**1,620.00**
Bill No. 2	**Management, supervision and monitoring**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
5.1	Management, supervision and monitoring	days/yr	1	150	$ 150.00
	To Summary				**150.00**
	TOTAL COST				**1,770.00**

Schedule of Prices (per acre) for SLM-Demo Plots					
Bill No. 1. Establishment of Storm drains and vetiver strips					
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
1.1	Excavation of storm drains 160 ft long (with a trapezoid dimension (32 in x 24 in x 24 in) and placement and shaping of spoils along the downslope section of storm drain	cu ft	720	3	$ 2,160.00
1.2	Installation of secondary drains 320 ft long 24 in x 12 in x 12 in)	cu ft	320	3	$ 960.00
	Sourcing vetiver plants	plant	960	1	$ 960.00
1.3	Planting of vetiver strips on upper side of drains	ft	480	2	$ 960.00
	To Summary				**$ 5,040.00**
Bill No. 2	**Establishment Inputs**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
2.1	High value forest and crop trees	Plants	150	$ 8.00	$ 1,200.00
2.2	compost/organic fertilizer	18 Kg bags	2	$ 26.00	$ 52.00
2.4	Orange flagging tape	12 pk	1	$75 00	$ 75.00
2.6	Jab planter	Sum	1	$ 200.00	$ 200.00
2.7	Planting trees and cover crops	days	3	$ 85.00	$ 255.00
2.8	Husbandry/maintenance	days	2	$ 80.00	$ 160.00
	To Summary				**$ 1,942.00**
Bill No. 3	**Management, supervision and monitoring**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
31	Management, supervision and monitoring	days/yr	5	150	$ 750.00
	To Summary				**$ 750.00**
	TOTAL COST				**7,732.00**

Schedule of Prices (per acre) for Land Restoration with Agroforestry					
Bill No. 1. Installation of farm drains and vetiver strips					
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
1.2	Establish storm drains 160 ft long (with a trapezoid dimension (32 in x 24 in x 24 in) and placement and shaping of spoils along the downslope section of storm drain	cu ft	720	3	$ 2,160.00
1.3	Contour drains 320 ft long 24 in x 12 in x 12 in)	cu ft	480	3	$ 1,440.00
	Sourcing vetiver plants	plant	960	1	$ 960.00
1.4	Planting of vetiver strips on upper side of drains	ft	480	2	$ 960.00
	To Summary				**$ 5,520.00**
Bill No.2	**Field establishment and maintenance**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
2.1	High value forest and crop trees	Plants	150	$ 8.00	$ 1,200.00
2.2	compost/organic fertilizer	18 Kg bags	2	$ 26.00	$ 52.00
2.3	Signage	Signs	5	$ 150.00	$ 750.00
2.4	Planting trees and cover crops	days	3	$ 85.00	$ 255.00
2.5	Husbandry/maintenance	days	2	$ 80.00	$ 160.00
	To Summary				**$ 2,417.00**
Bill No.3	**Management, supervision and monitoring**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
3.1	Management, supervision and monitoring	days/yr	5	150	$ 750.00
	To Summary				**$ 750.00**
	TOTAL COST				**8,687.00**

Quayaneri Watershed Restoration Action Plan

Schedule of Prices (per acre) for Restoration Riparian Buffer					
Bill No. 1	**Establishment Inputs**				
Item No.	**Description**	**Unit**	**Quantity**	**Unit Rate US$**	**Amount US$**
1.1	Sourcing of forest and crop trees	plant	50	$ 8.00	$400.00
1.2	Clearing forest tacks and planting wildings	days	4	$ 83.00	$332.00
1.3	Husbandry/maintenance	days	2	$ 83.00	$166.00
	To Summary				**898.00**
	TOTAL COST				**898.00**

B. DESCRIPTION OF THE MAJOR RESTORATION INTERVENTIONS IN THE QUAYANERI WATERSHED

Restoration Intervention	Description
Enrichment plantings (EnR)	These areas encompass the proposed 200 m buffer zone of the MTPNP that is within the QW. By law, these are designated protected forest and forms part of Dominica's World Heritage Site. Approximately 10 acres of site #4 in the mid-section is also targeted for enrichment planting. Where accessible enrichment planting will be implemented with local spp. to maintain/improve the general hydrological functions. Inaccessible areas will be allowed to restore naturally.
Agroforestry (AgF)	Site # 2 is targeted for restoration using a typical agroforestry model based on crop and forest tree species (native and introduced). A section of Site # 4 is targeted for pasture in combination with agroforestry. Strips of tree crops, forest species and leguminous trees will be integrated with improved pasture and livestock rotations using paddocks. The tree density will be much reduced compared to the typical agroforestry model.
SLM-Demo Plots (SLM)	Targeted locations in the mid watershed that are actively farmed. The dominant slope in the area exceeds 20° and intensive farming of root crops has proceeded without effective soil conservation measures. There is a high risk of contamination from surface runoff of soil, applied pesticides and fertilizers into the water course. The area is targeted for the installation of various SLM demonstrations including SALT, grass barriers, drainage and other integrated cropping systems.
Riparian Buffer (BuF)	Buffer restoration will focus on a 50 m width on either side of the targeted sections of the Quayaneri River in the lower watershed region. This will be a total area of 4 acres. Tree species selection will be based on their suitability for specific locations within the riparian area, existing land use and preferences of land- owners and -users.