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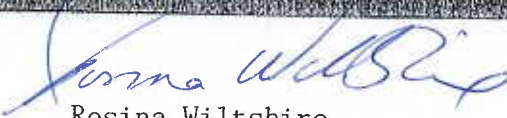
Country: Saint Lucia

UNDAF Outcome(s): Reduced poverty and food insecurity  
Expected Outcome(s)/: More rural persons with access to agricultural lands.  
Expected Output(s)/: National Land use policy available  
Training in Good Agriculture Practice provided to rural poor.  
Implementing partner: United Nations Development Program  
Other Partners: The Government of Saint Lucia Ministry of Agriculture, Forestry and Fisheries  
CARICOM/CEH

Programme Period: 2007-2010  
Programme Component: OP15-SP1  
Project Title: Capacity building and Mainstreaming of Sustainable Land Management in Saint Lucia  
Project ID: 00046154  
Project Duration: 3 yrs  
Management Arrangement: NEX

Total Budget:	1,521,200
GEF Trust Fund	485,000
Allocated resources:	1,036,200
• Government (in-kind):	196,500
• Bilateral:	839,700

Agreed by (Government):   
Agreed by (Implementing partner / Executing agency):  
Agreed by (UNDP):

Agreed by UNDP:   
Rosina Wiltshire  
Resident Representative  
Date: 23/04/2008



Government of Saint Lucia



United Nations Development Programme  
and  
The Global Environment Facility

## **Capacity building and Mainstreaming of Sustainable Land Management in Saint Lucia**

**PIMS 3450 - Atlas Project ID 00046154**

Saint Lucia's environmental integrity, sustainable livelihoods and agricultural production systems are seriously impacted by land degradation. The long-term goal of the project is to ensure sustainable management of the land resources of St. Lucia in order to enhance ecosystem health, integrity, stability, functions and services, while contributing directly to the environmental, economic and social well-being of the people of Saint Lucia. The objective of the project is to strengthen capacity for sustainable land management at the individual and institutional level and to mainstream SLM concepts into national development strategies and policies. The project outcomes are, (1) SLM mainstreamed into national development policies, plans and regulatory frameworks; (2) Individual and institutional capacities for SLM developed; (3) Awareness increased on SLM issues and capacities for knowledge management enhanced; (4) Investment planning and resource mobilization for implementation of SLM is elaborated; and (5) National action plan is completed. The project will be implemented over a period of three years beginning January 2007. The project will be directly executed by the Ministry of Physical Development, Environment and Housing. The project will receive guidance and oversight from a Steering Committee. A Project Management Unit will be established to execute the project. The total budget of the project is **US\$1,450,000** of which **US\$ 500,000** would be the GEF increment.



**GEF**

**Expedited Medium Size Project proposal  
under the  
LDC-SIDS Portfolio Project for Sustainable Land Management  
REQUEST FOR GEF FUNDING**

**AGENCY'S PROJECT ID: 3450 (ATLAS PROJECT ID 00046154)**

**GEFSEC PROJECT ID:**

**COUNTRY:** Saint Lucia

**PROJECT TITLE: Capacity building and Mainstreaming of Sustainable Land Management in Saint Lucia**

**GEF AGENCY:** UNDP

**OTHER EXECUTING AGENCY(IES):** Ministry of Physical Development Environment and Housing

**DURATION:** (three years)

**GEF FOCAL AREA:** Land Degradation

**GEF OPERATIONAL PROGRAM:** OP 15

**GEF STRATEGIC PRIORITY:** SP 1

**ESTIMATED STARTING DATE:** November 2007

<b>FINANCING PLAN (US\$)</b>	
<b>GEF PROJECT/COMPONENT</b>	
Project	485,000
PDF A	15,000
<i>Sub-Total GEF</i>	500,000
<b>Co-financing</b>	
GEF Agency	
Government	196,500
Bilateral (EU/WB)	839,700
NGOs	
Others	
<i>Sub-Total Co-financing:</i>	1,036,200
<i>Total Project Financing:</i>	<b>1,536,200</b>
<b>FINANCING FOR ASSOCIATED ACTIVITY IF ANY:</b>	

**Country Eligibility:** Saint Lucia ratified the United Nations Convention to Combat Desertification on July 2, 1997 and is eligible for funding under paragraph 9(b) of the GEF Instrument

**CONTRIBUTION TO KEY INDICATORS OF THE BUSINESS PLAN:** : The project will mainstream sustainable land management into Saint Lucia's social and economic development agendas and build institutional and individual human resource capacities for sustainable land management with environmental benefits accruing to forest and agricultural lands estimated at 55,800 hectares.

**RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT:**

*Marcia Philbert-Jules, Permanent Secretary,*      Date: 24 January 2005  
*Ministry of Physical Development, Environment & Housing*

Operational Focal Point Endorsement  
CCD national Focal Point and date of approval      Michael Andrew

This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for a Medium-sized Project under the LDC-SIDS Targeted Portfolio Project for Sustainable Land Management.

John Hough  
UNDP-GEF Executive Coordinator  
Date: 28 September 2007

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Regional Technical Advisor  
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## LIST OF ACRONYMS

<b>APR</b>	Annual Progress Report
<b>BNTF</b>	Basic Needs Trust Fund
<b>CEHI</b>	Caribbean Environmental Health Institute
<b>CBD</b>	United Nations Convention on Biological Diversity
<b>CBOs</b>	Community Based Organizations
<b>CO</b>	Country Officer
<b>DCA</b>	Development Control Authority
<b>DFID</b>	UK Department for International Development
<b>DSS</b>	Decision Support System
<b>EIA</b>	Environmental Impact Assessment
<b>ESDU</b>	Environmental and Sustainable Development Unit
<b>EU</b>	European Union
<b>GAP</b>	Good Agricultural Practice
<b>GEF</b>	Global Environment Facility
<b>GIS</b>	Geographic Information Systems
<b>GOSL</b>	Government of Saint Lucia
<b>GSU</b>	Global Support Unit
<b>IDP</b>	Integrated Development Planning
<b>INRM</b>	Integrated Natural Resources Management
<b>IWCAM</b>	Integrating Watershed and Coastal Area Management Project
<b>KAP</b>	Knowledge, Appraisal and Practice
<b>LDC</b>	Less Developed Countries
<b>LRIS</b>	Land Resource Information System
<b>MAFF</b>	Ministry of Agriculture, Forestry and Fisheries
<b>MDG'S</b>	Millennium Development Goals
<b>MEA</b>	Multilateral Environmental Agreement
<b>MOF</b>	Ministry of Finance
<b>MOST</b>	Ministry of Social Transformation
<b>MOU</b>	Memorandum of Understanding
<b>MPDE&amp;H</b>	Ministry of Physical Development, Environment & Housing
<b>NAP</b>	National Action Programme
<b>NDC</b>	National Development Corporation
<b>NEA</b>	National Executing agency
<b>NEP</b>	National Environmental Policy
<b>NEMS</b>	National Environmental Management Strategy
<b>NBSAP</b>	National Biodiversity Strategy and Action Plan
<b>NCSA</b>	National Capacity Needs Self Assessment for Global Environmental Management
<b>NFP</b>	National Focal Point
<b>NPLC</b>	National Land Policy Committee
<b>NLP</b>	National Land Policy
<b>OECS</b>	Organization of Eastern Caribbean States
<b>PC</b>	Project Coordinator
<b>PIR</b>	Project Implementation Report
<b>PMU</b>	Project Management Unit
<b>PRF</b>	Poverty Reduction Fund
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>PSC</b>	Project Steering Committee

<b>PSIP</b>	Public Sector Investment Plan
<b>SAP</b>	Strategic Action Plan
<b>SDES</b>	Sustainable Development and Environment Section of the Ministry of Physical Development, Environment and Housing
<b>SFA</b>	Special Framework of Assistance
<b>SIDS</b>	Small Island Developing States
<b>SLM</b>	Sustainable Land Management
<b>SIDS-POA</b>	Small Island Developing States – Programme of Action
<b>TAG</b>	Technical Advisory Group
<b>UNDESA</b>	United Department of Economic and Social Affairs
<b>UNDP</b>	United Nations Development Programme
<b>UNCCD</b>	United Nations Convention to Combat Desertification (Land Degradation)
<b>USDA</b>	United States Department of Agriculture
<b>WB</b>	World Bank
<b>WEMP</b>	Watershed and Environmental Management Programme



## **SECTION I: ELABORATION OF THE NARRATIVE**

### ***PART I: SITUATION ANALYSIS***

#### *Preamble*

1. One hundred and fifty years of low technology agriculture - slash and burn, down slope tilling, absence of contour and excessive land clearing – on a young volcanic island has left indelible scars on the landscape, and has negatively influenced the lives of thousands of inhabitants. Efforts to reduce the impact, protect water sheds, and conserve endangered biodiversity while supporting traditional livelihood patterns have been frustrated by a weak legislative system, limited economic incentives, and a general lack of capacity at the institutional, systemic and individual level.
2. Inappropriate cropping systems (sugar cane until the 1960's followed by even more intensive banana cultivation, shifting cultivation and overgrazing of livestock in the northern and southern extremes of the island in particular), and the expansion of agriculture into forested and marginal lands, are the most significant examples of unsustainable agriculture. In addition to the actual loss of soil, degradation is also related to the loss of soil fertility due to intensive farming systems, loss of soil physical structure due to soil compaction, and poor use of agricultural chemicals.
3. Attempts were made in the late 1970s through to the 1980s to implement soil conservation measures on farmlands. This corresponded to the period of expansion of banana cultivation from the larger estates in the less vulnerable valley lands to smaller fragmented holdings located on hillsides. In fact until the mid-1980s “soil conservation incentives” corresponding to cash exchanges for the construction of contour drainage, distribution of tree crops to hillside farmers and the provision technical advice were essential support services provided to the industry by the Ministry of Agriculture. Financial support for this was provided mainly by donor agencies under a series of projects.
4. While these initiatives provided valuable technical contributions in terms of capacity building (for agricultural, forestry extension officers and farmers), and resulted in some short-term land degradation remediation, continuance of these interventions was not maintained. This was primarily due to inadequacies within the wider policy and institutional environments that did not allow for mainstreaming of these interventions beyond the realm of “project-driven, site-specific” actions. By extension, little consideration had been given to sourcing new mechanisms for financing sustainable land management (SLM) interventions outside of traditional government budgets. Consequently, as donor funding dried up, programmes were brought to a close. As the pressure on public funds from other sectors grows, alternative financing for SLM need to be secured to ensure long-term continued investment in SLM in the interest of national development.

5. Although St. Lucia has been attempting to address these issues using its internal resources, the process has continued to be somewhat fragmented and has not been framed against the guiding principle of maintenance of ecosystem functionality, which forms part of the foundation for holistic sustainable development. It is anticipated that this project will focus greater attention on the issues of sustainable land management at the national level, and empower an active stakeholder group with the capacity to leverage additional resources to address continued mainstreaming and capacity building needs for SLM in the medium to long term, through a national investment plan.

## **A BACKGROUND AND CONTEXT**

### **A.1 Environmental context**

#### *Location and physical attributes*

6. Saint Lucia is a small island developing state located at latitude 13°59' N and longitude 61° W, almost midway between the island of Martinique to the north and St. Vincent to the south. The island has an area of 616 km<sup>2</sup> and a population of approximately 160,000. This volcanic island has a very rugged topography with a central ridge of mountains, including Mount Gimie, the highest peak at 950m. The upper reaches of many of the island's deeply incised valleys lie within the high rainfall area associated with the central ridge (Annex 2). The island's young volcanic soils, steep topography and its subjection to seasonal high rainfall under poor land management practices, make it very susceptible to soil erosion

#### *Climate*

7. Located within the Trade Wind belt, the island experiences average temperatures of 27 degrees C (79°F) and a relative humidity of 75%. Rainfall amounts show annual and spatial variation. Mean annual rainfall varies from 1,450 mm at Hewanorra in the South to 3,450 mm at Edmond Forest within the central ridge, with the island experiencing two distinct wet (June to December) and dry (January to May) seasons. Wet season rainfall is primarily cyclonic in origin and is spatially distributed with the northern and southern tips significantly drier, and the interior due to orographic effects, significantly wetter.

8. Climatic phenomena such as tropical cyclones and extensive dry periods (drought) also contribute significantly to land degradation, particularly with respect to the resultant accelerated short-term erosion. In September 1994 when the island was ravaged by Tropical Storm Debbie (TSD), antecedent rainfall conditions were such that soils were already saturated when TSD brought with it an estimated 25 centimetres of rain over a ten-hour period. This event resulted in widespread run-off, flooding, and massive landslides with soil, trees and crops being washed away and tons of debris deposited in rivers, on farmlands and on near shore coastal areas. It was estimated that as much as ten percent (10%) of agricultural land was lost due to land slippage, severe erosion and river relocation<sup>1</sup>

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<sup>1</sup> Watershed and Environmental Management Project. Final Report pg.30

### *Forest ecosystems and soils*

9. The island's natural vegetation types have been classified into seven broad categories: Elfin Woodland, Montane Thicket, Lower Montane Rainforest, Secondary Forest, Savanna and Grazing Land and Dry Scrub Woodland. Soils have been divided into three mineralogical groupings<sup>2</sup>, allophanes, kaolinites and montmorillonites. The allophone group is representative of younger soils and occupies the highest rainfall areas particularly in the south. Kaolinitic soils occupy the older land surfaces in high rainfall areas in the north and finally, the montmorillonites are located in the drier and some intermediate areas. The interior soils tend to be inherently more stable to surface erosion (good aggregation on account of extent of weathering), but are easily degraded once the forest cover particularly on steep slopes are removed. The montmorillonitic (expanding lattice) clays dominate the thin soils around the coastal areas and are highly erodible once the vegetation is disturbed.

10. The natural environment is characterized by small and fragile ecosystems, and by the high level of inter-connectivity among these and their natural functions. Less than 10% of the total land area occurs on slopes less than five (5) degrees (which translates to the need for the application of some type of soil conservation measure on more than 90% of the land area for any type of use). Activities occurring in one area can very rapidly have negative environmental impacts on surrounding ecosystems and in particular, changes taking place in upper watershed areas very rapidly impact on lower watershed and coastal areas.

### *Land use trends*

11. According to the last major land use assessment carried out in 1992, rain-fed agriculture was the dominant land use, accounting for just over 55% of the total land area. Forest (all broad classes) accounted for just over 35%. The bulk of agricultural production (dominated by bananas) takes place within the flat alluvial plains of the major river valleys (such as the Roseau, Cul de Sac and Mabouya watersheds), extending to the mid-watershed reaches within the steep interior of the island. The areas along the coastal corridor tend to be less suited to rain-fed cultivation on account of soil and water availability limitations. Other land uses account for a relatively minor proportion of the total land area (9.5%). The more heavily urbanized areas are clustered along the coastline and some areas in the interior where the settlement patterns tend to follow major roadways.

12. Forest cover was in 1992 estimated at 21,741 hectares<sup>3</sup> although in the period 1977 to 1989 the area under forest had declined at a rate of 1.5% annually as lands were converted to agriculture due to a then expanding banana industry. Table 1 presents information on the land use categories for the island. Of the lands under forest a total of 7,500 hectares are found in the Government Forest Reserve, which is managed by the Department of Forestry. Rainforests are located in the central mountainous ridge with agriculture surrounding this central area as shown in Annex 2. In spite of the conversion of forests to agriculture, the 1996 agricultural census indicates a gradual decline in land under cultivation in particular in the *productive land* category (Table 2). This is

<sup>2</sup> WEMP. Final Report: Volume 3.

<sup>3</sup> Biodiversity Country study Report

attributable to the transition from large estate holdings (categorized as farm lands under the census) with greater overall combined acreages to smaller, more numerous, intensively cultivated holdings with less cumulative land area.

**Table 1. Land Use Categories**

TYPE	Area (hectares)	USE (% of total land area)
Natural Tropical Moist Plantation Forest	12,572	20.4
Scrub Forest	7,515	12.2
Mangrove	352	0.60
Open woodlands	1,402	2.1
<b>Subtotal</b>	<b>21,841</b>	<b>35.3</b>
Intensive farming	17,576	28.5
Mixed Farming	16,205	26.3
Eroded agriculture lands	234	0.4
<b>Sub-total</b>	<b>34,015</b>	<b>55.2</b>
Settlements	5,384	8.7
Rocks and exposed soil	426	0.70
Water (Marina and John Compton Dam)	95	0.1
<b>Total Land Area</b>	<b>61,761</b>	<b>100.00</b>

Source: Biodiversity Country Study Report

**Table 2: Land use categorisation of agricultural holdings over time (showing trends)**

Major Use/Category (FAO class)	In-country Land Use Classification	1974		1986		1996	
		Land Area (km <sup>2</sup> )	% of total land area	Land Area (km <sup>2</sup> )	% of total land area	Land Area (km <sup>2</sup> )	% of total land area
Arable Land	Productive land / Agricultural land	198.41	32.18	197.69	32.06	173.54	28.1
	Cultivated land	168.68	27.36	191.52	31.06	157.85	25.6
	Temporary Crops and fallow	53.20	8.63	33.00	5.35	18.49	3.0
Land under permanent crops	Permanent crops	115.48	18.73	158.51	25.71	139.35	22.6
Permanent meadow and pasture	Grassland	29.73	4.82	6.17	1.00	15.69	2.5
Other Land	Forest and Woodlands	76.90	12.47	33.68	5.46	27.56	4.5
	All other land	16.07	2.61	7.10	1.15	6.63	1.1
<b>Total</b>		<b>291.38</b>	<b>47.26</b>	<b>238.47</b>	<b>38.67</b>	<b>207.73</b>	<b>33.7</b>

Source: 1996 Agricultural Census

13. Since the 1992 land use assessment there has been changes in the land use pattern of the country, with expanded urbanization (to include commercial and touristic development) and conversion of lands out of agriculture and forest cover. However quantification of the extent and nature of land use change has not been undertaken at the national level since 1992. The extent and nature of land degradation associated with land use changes has not been adequately documented either.

*Land degradation in St. Lucia*

14. Following the 1994 passage of Tropical storm Debbie the problems associated with land use and land degradation were brought into sharp focus. The Watershed and Environmental Management Project (WEMP) study<sup>4</sup> cited soil erosion as “*the most important single environmental problem facing the country, both in terms of current economic losses (losses of topsoil, nutrients, worsening of runoff and resulting flash flooding, damage to infrastructure) and future threats to other activities.*” Such land degradation is evidenced by declining soil productivity in some areas and has adverse impacts on water resources as well as terrestrial and marine biodiversity.

15. Of all the contributors to land degradation in St. Lucia, agricultural production, specifically intensive banana cultivation on steep hillside holdings, has been identified as the main causal agent. The relatively rapid rate of expansion of banana cultivation in the 1970s and 1980s resulted in significant loss of natural forest (illegal encroachment on government forests and conversion of private forests) and tree crop cover to open up acreage for banana cultivation. On steep hillsides in the interior, the loss of protective tree cover (and the deep rooting systems) and lack of conservation measures has been observed to accelerate land degradation processes. The exposure of the soil surface allows for increased direct raindrop (splash) erosion, and as the tree root networks decay, the soil profile is often destabilized increasing the potential for erosion and mass wasting (landslide and debris flows). Soil compaction and translocation of finer surface soil particles down the soil profile (under intensive use) reduces the infiltration capacity of soils increasing surface runoff and water erosion processes. This in turn affects the hydrological cycle, impacting stream recharge capacity often causing reduced stream base-flows. Along with the indiscriminate land clearing, poor use of agro-chemicals also contributes to degradation of the environment with untold impacts on biodiversity. The establishment of the extensive (often poorly maintained) feeder road systems in the island’s interior has also contributed to accelerated erosion rates, as roads often become channelized conduits for erosive runoff.

16. Land degradation has not been only confined to agricultural lands. Urbanization and commercial development has been expanding across the country with little regard for potential land degradation outcomes. Unplanned or poorly planned, densely clustered housing developments on the steep peripheries of urban centres (Castries and Soufriere of particular note) have had negative environmental impacts. Increased erosive runoff, discharge of household liquid and solid waste into water courses are of significant

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<sup>4</sup> The Watershed and Environmental Management Project (WEMP) was a post-disaster initiative to assist in assessment of flood and landslide damages caused by Tropical storm Debbie (1994) and articulate recommendations to the GOSL for more sustainable management of land resources on St. Lucia.

concern. Proliferation of commercial enterprises within urban and rural settlement areas has also been a factor in the introduction of industrial pollutants into the environment.

17. There is no systematic monitoring system for land degradation in the country, hence there is a paucity of scientific data; a few investigations have been carried out under special projects that provide some insights on the magnitude of the problem.

18. Soil loss from intensively cultivated lands within the major watershed areas have been estimated to range from 25 to 63 tons/ha/yr<sup>5</sup>; as much as 300,000 tons topsoil may be lost annually from lands under banana cultivation alone (it is estimated that for every ton of bananas produced, some 2-3 tons of soil is lost). From a field study carried out by Cox (2003), annual erosion rates over agricultural (intensive steep-slope banana cultivation) and forested watersheds were estimated at 73.3 and 7.2 t/ha respectively during a 1-year period of observation between 1999 and 2001.

19. Almost 50% of eroded material is assumed to originate from cultivated hill slopes steeper than 25 degrees. Using empirical models, erosion losses under intensive cultivation is estimated to range from 10 t/ha/yr for gentle slopes, to in excess of 100 t/ha/yr on steep slopes. Based on current land use patterns, potential erosion is regarded highest in the upper Roseau, Troumassee, Vieux Fort, Cul-de-Sac, Soufriere and Marquis Watersheds.

20. On agricultural lands loss of plant nutrients (and consequent nutrient imbalances) has been estimated to be as high as 30% due to surface wash. Soil acidification has increased particularly under banana lands due to heavy sustained fertilizer application. Harris (1995) noted high acidity in soils under intensive banana cultivation, with measured pH values as low as 3.8 as compared to values of 5.8 for these same soils, observed at the time of the last national soil survey (Stark et al., 1966). Soils have become gradually contaminated through extensive use of pesticides and herbicides. Alteration of soil physical properties through compaction and poor drainage are additional outcomes of poorly managed intensive cultivation.

21. The issue of land degradation is now of serious concern in the context of impacts on the productive sectors, notably agriculture and tourism. Many of the agricultural lands that have been under long-term intensive cultivation without adequate conservation systems are now showing signs of fatigue; continual surface erosion and without crop rotation (to allow for nutrient replenishment) has resulted in significant nutrient depletion and lowered soil productivity with adverse consequence to crop production. Farmers now need to compensate for lowered natural productivity with higher fertilization application rates. Hillside farms in many areas have suffered significant reduction in top soil to render them incapable of maintaining optimal productivity.

22. Following heavy rainfall vast quantities of eroded soil, along with other pollutants (agro-chemicals, household and liquid waste and solid waste) are washed into the lower reaches of river channels and into the near-shore marine environment. Reduced

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<sup>5</sup> WEMP Report

hydraulic capacities of rivers on account of siltation has increased flood risk in some areas and creates the need for costly regular de-silting operations.

23. Sediments which are washed into the near-shore marine environment settle on reef areas and suffocate corals. Over the years reef systems have been gradually weakened in this manner thereby diminishing their resilience and ability to survive added stresses such as natural disasters. Surveys conducted on several coral reef areas around Saint Lucia during the period 1999-2004 showed that there has been an overall decrease in hard coral cover. Of particular note are the ecosystems in the Soufriere bay. Aesthetic value of beaches and recreational areas are also affected consequently compromising the tourism product as well. The impacts are of great consequence to the tourism and fishing sectors.

*Land development planning issues in St. Lucia*

24. The country does not have a comprehensive land use policy and consequently there are no statutory land zoning prescriptions that define spatial allocations in the context of optimal land use. Land development patterns are now driven more by land market forces rather than policy and strategic planning instruments. Planning for land development has traditionally been very sectoral-driven with little attention paid to holistic management based on maintenance of supply capacity for the various ecosystem services (water, soil productivity, biodiversity, buffer to natural hazards, etc.). The result has been exploitation of land resources beyond the carrying capacity and loss in potential to maintain ecosystem services.

25. The benchmark that defines optimal land use should be based on *functional land capability*, or the capacity of the land to support particular management regimes sustainably with minimal adverse environmental impact. Since the 1980s efforts have been made to define (through mapping) optimal land prescriptions based on land capability for agricultural lands in St. Lucia (no comparable land capability analyses are known for non-agricultural land use in St. Lucia). The well-known USDA land capability criteria system was applied initially (OAS, 1987) but was recognized to be inadequate for small mountainous environments such as St. Lucia. Since the USDA system is based on North American croplands (flat to rolling terrain), most of the island's terrain was classified as suitable only for forestry (or closed-canopy tree crops), or rangeland (see Annex 3). A more realistic alternative land allocation scheme (based on more relaxed criteria suited for small island environments) was proposed by the University of the West Indies, and local soil scientists in the 1980's, which was piloted as a "Treatment-Oriented Approach" to land classification in the Mabouya Valley. This methodology has been subsequently used in agricultural land assessments for planning and development proposals (see Annex 3) but has not been institutionalized in the context of national development policy or regulation. No comparative land capability assessment methodology is in use in the housing and commercial development sectors.

26. Based on agricultural land capability a large percentage of lands in St. Lucia are being unsustainably utilized; this is particularly the case for interior hillslope lands where the current land use conflicts with the recommended land management prescriptions. Using a GIS-based comparative land use compatibility method, Cox (2003) estimated

that at least 30% of the island's land area was subjected to unsustainable land use, based on comparison of 1992 land use data to recommended land use (based on land capability guidelines). On a lesser scale, there are also conflicts with respect to commercial development and housing. Fertile agricultural lands in the Cul de Sac and Roseau valleys are being gradually converted to alternative non-agricultural uses, with potential far-reaching consequences in the context of economic diversification and food security.

## **A.2 Socio-economic context**

### *Population and human development*

27. St. Lucia's population stands at an estimated 160,000 with approximately two-thirds of the population concentrated in the Castries (the capital city) to Gros-Islet corridor in the north-western part of the country. The other major population centres are the towns of Soufriere and Vieux Fort and their environs. Rural settlements have grown in association with agricultural development, however many of these communities are now more urbanized with many residents now engaged in diverse economic livelihoods outside of the agricultural sector.

28. The UNDP human development index places the island in the "medium human development" band, with 98 % of the population having access to safe water and life expectancy estimated to be 74 years. The island's population is relatively young with an estimated 30.5 % under 15 years. In 2001 the unemployment rate was estimated at 17.3%.

### *General economic context*

29. St. Lucia is a small open economy, with the value of trade as a percentage of GDP recorded at 13.6% in 1999 and 11.6% in 2004. Agriculture, up until the early 1990s was the dominant economic sector, has been on a steady decline accounting for 8.6% of GDP in 1997 and approximately 4.5% in 2004. During that same period the contribution of the hotel and restaurant sector grew from 12.4% to 14.9%.

30. Domestic production is focused on a very narrow range of goods and services, most of which are exported, while the country relies heavily on imports to satisfy demand. Imports of goods and non-factor services amounted to an average of 52.7% of GDP at market prices over the three-year period up to 2004 with exports for the same period averaging 49%. A decline in the banana market (from just under 9% GDP in 1997 to 4.5% in 2004) has impacted overall economic growth; however, growth in the tourism sector (from 12% to approximately 15% during the same period) has served to partially offset this trend.

### *Agriculture*

31. Agriculture has long been the mainstay of the economy of St. Lucia. The sector grew out of sugar which was cultivated throughout the colonial history of the island. Sugar was mainly confined to the limited flat lands of the river valleys, while tree crops were grown on the more sloping lands. The bulk of the production was out of large estate holdings. However, in the 1960s this crop was replaced by bananas, a crop with a rapid



rotation cycle (10 to 11 months to harvest) which was more adaptable to the topographic limitations of the island. Cultivation quickly expanded into the interior, facilitated by a network of feeder roads to facilitate access into the interior. The industry flourished under a protective trade regime with the United Kingdom. Banana production peaked in the early 1990s with export volumes topping 132,854 tonnes in 1992 and revenues in excess of US\$ 69.2 million recorded for that year.

32. Other major 'traditional' crops include cocoa and coconuts. Polished cocoa beans enjoyed a small but exclusive market in the US, primarily for use in flavouring in the chocolate production process. Coconut was used in the local agro-processing industry for manufacture of cooking oil and soap products. Minor crops include mango, breadfruit and avocado which have been traditionally exported to regional markets and the UK in limited quantities. Vegetable and root (tuber) crop production are consumed domestically, serving demand from local consumers and the hospitality sector.

33. World Trade Organization (WTO) trade reforms and changes in market access conditions to the European Union have meant loss of the guaranteed market for bananas to the United Kingdom. This factor, coupled with local restructuring of the banana industry (conversion from a single state production enterprise to private companies), a series of recent adverse climate-related occurrences (drought and storm), disease outbreak (yellow sigatoka), rapidly escalating costs of inputs (including labour costs) and new sanitary and phyto-sanitary (SPS) requirements has led to a dramatic contraction of the industry. Banana production output in 2004 was down to just under 83,900 tonnes, down from the peak in 1992. Revenue over that period has declined from US\$ 69.2 million to US\$ 39.5 million. The number of active framers in the banana industry dropped from an estimated 10,000 in the early 1990s to approximately 1,500 in 2004.

34. The decline in the banana industry has had ripple effects throughout the crop sub-sector where there have been concomitant declines in other crop outputs such as in the case of cocoa and coconut. In multi-cropping systems farmers tended to utilize the same means of production for bananas in production of other commodities through cross-subsidization of operations (sharing of transport, labour, agronomic interventions and treatment inputs). In many cases where farmers have left the banana industry, they also tended to abandon other commodities. This was particularly the case of the many marginal hillside farms that were no longer able to effectively compete in the banana industry. Precise information is lacking to determine the nature of economic pursuits of former banana farmers, but a large number have moved into other agricultural sub-sectors such as vegetable and livestock production; others have simply abandoned the lands and have gone into other economic sectors. An updated agricultural census is required to derive such information.

35. In spite of this trend there has been an increase in production of vegetables and other short-term fruit crops on some of the more productive lands around the island. The holdings are typically under irrigation and/or climate controlled conditions with dedicated markets to hotels and the domestic market. Banana farmers are now producing to meet the new EUREP-GAP standards that mandate strict controls in use of agro-chemicals and

observance of good agricultural practices that has elements of proper land management. A small but growing number of farmers are marketing fruit under the Fair Trade label. The Fair Trade status recognizes the inherent disadvantages of smaller producers (in terms of cost of production) and credits sustainable farming practices while conforming to EUREP-GAP requirements.

#### *Forestry*

36. The forestry sub-sector is small and relatively undeveloped, mainly on account of the small area extent of forest resources and policy promotion of non-extractive use of forest resources. Small-scale commercial forestry operations used to occur in the period prior to the 1990s with extractions of native and exotic hardwood species for use in the local furniture and building industry. A small government-run sawmill was operational at Patience on the island's east coast with other satellite operations near Castries that were a source for lumber and turnery products<sup>6</sup> for furniture-making. Sustained financial losses forced closure by the late 1980s.

37. The Forestry Department has been encouraging investment in private woodlots to produce lumber and non-timber forest products such as latanyé leaves (used in the indigenous broom-making industry), and mauby bark (for the extract used in making the local mauby drink). Farmers are also being encouraged to invest in flowering tree cultivation for the small apiculture industry and other fruit and tree crops in agro-forestry systems as a means of diversification while conserving soil and water resources.

#### *Livestock*

38. The livestock industry is relatively small where the bulk of the value in local production derived from poultry and swine. Only about 600 ha are classified as cultivated grasslands for pasture, which limits the commercialization of the cattle sub-sector. Most of the pasture lands are located in the extreme northern and southern ends of the island where they have been coming under increasing pressure for conversion due to demands for urbanization, recreation and commercial purpose (light manufacturing in the southern area). The result has been a gradual reduction in the land available for the communal pastures in the southern Vieux Fort area. There tends to be unwillingness among livestock farmers to reduce their herd size, so that the pastures are typically severely overgrazed, a condition further exacerbated by drought in some years. Attempts by the Ministry of Agriculture, Forestry and Fisheries to redress this situation through improved management of the communal pastures as well as reducing herd size, has been largely unsuccessful.

#### *Tourism*

39. The hospitality sector is now the leading economic sector contributing to 13.2 % GDP (at factor cost) in 2004. The sector has shown sustained growth with stay-over tourist arrivals increasing from just under 253,400 in 1997 to just over 298,400 in 2004. The cruise industry has seen relatively rapid growth over the same period. In 1997 arrivals stood at just over 319,200. By 2004 this had risen to just under 481,300. The estimated receipts from tourism stood at just under US\$ 400 million in 2003.

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<sup>6</sup> Wood products shaped on a lathe, such as broom handles, bed and table posts

40. The country is seeing a rapid increase in the number of hotel rooms, responding to anticipated heavy demand during the ICC Cricket World Cup games to be held in the Caribbean (with matches to be held in St. Lucia) in March 2007. The estimated number of hotel rooms now stands at approximately 4,500. This is expected to grow to 7,000 by April 2007 with the addition from new properties and bed and breakfast accommodations under a special accommodation incentive regime for Cricket World Cup. The accommodation sector consists of a mix of large all-inclusive types, non-all-inclusives and smaller boutique-style properties.

41. The majority of hotel investments are clustered along the north-west corridor (between Castries and Gros-Islet) and within Soufriere and its environs. However, recent development has been opening up along points in between, on both west and east coasts. The south of the country is also now of interest to additional major hotel investments. The yachting sub-sector is also growing with major marinas at Rodney (north-west) and Marigot (west) Bays. Additional moorings are planned for Soufriere and Praslin on the east coast.

42. St. Lucia's main attractions are varied. The country's tourism product is being promoted as a mix of the traditional sea and sand vacation, with eco and heritage tourism. The island has several dive site sites of international acclaim, notably the features in the waters off Anse Chastanet and off the Pitons. There are several land-based eco-tourism sites that feature forest trails through some of the most bio-diverse areas and waterfall plunge pools. The Pitons (and its associated management area) have been recently designated a UNESCO World Heritage Site which lends further profile to the Soufriere area as a special tourism zone. The island is also gaining a growing international reputation as a wedding destination.

43. Major local cultural events are heavily promoted in regional and international markets and include St. Lucia Jazz (in May), St. Lucia Carnival (July) and the recent Kalalu Music Festival (November). With the construction of the new international; cricket stadium and premiere golfing, sports tourism is regarded with great potential.

#### *Poverty issues*

44. A 1995 poverty assessment<sup>7</sup> survey (a more recent study has been undertaken for 2005 but the report is still in draft form) estimated that 18.7% of households and 25.1 % of the population, were poor. This total represents 16.3 percent of the urban population and 29.6 percent of the rural population. The Poverty Assessment Report identified a concentration of the working poor within the Agricultural Sector and further suggested that there were additional risks facing that sector due to the declining banana industry.

45. The link between poverty and land degradation can be made in the incidence of intensive small subsistence agriculture by resource-poor farmers who cultivate marginal areas that are prone to erosion. While these subsistence holdings make significant contribution to the economic livelihoods of many Saint Lucians, continued productivity

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<sup>7</sup> St. Lucia Country Poverty Assessment, CDB, 1995

of these lands are at risk due to land degradation unless soil conservation practices are put in place. In small holdings areas where erosion is active the land productivity will decline leading to declining yields and further marginalization of economic output. Land degradation is also potentially an issue within areas that are under high-density unplanned settlement where there are typically few measures to conserve soil and water. Households within these areas often are not equipped with proper waste water disposal facilities and as a result, contribute to land degradation.

46. A number of interventions have been put in place by the GOSL to provide social safety nets. These include the Poverty Reduction Fund (PRF), the Basic Needs Trust Fund (BNTF) and the Short-term Employment programme (STEP). The main purpose of the PRF is to reduce poverty through improvements in socio – economic conditions and increase in access to, and quality of, basic infrastructure across Saint Lucia in a sustainable manner, including environmental considerations. Both the PRF and the BNTF undertake capital projects in partnership with rural and semi-urban communities. While the STEP (as its name suggests) targets unemployed persons, especially the youth who are otherwise unemployed. There has also been significant capacity building within the banana sector promoted by the two existing farmer based companies; the Saint Lucia Banana Company Ltd. (SLBC) and the Tropical Quality Fruit Company Ltd (TQFC). The Windward Islands Banana Development and Export Co. Ltd (WIBDECO) WIBDECO is responsible for setting standards such as Fair Trade Standards and EUREP GAP in support of banana exports. Other farmers are represented by the National Farmers Association (NFA).

#### *Land tenure*

47. Over the past four centuries, the land and its capacity to produce crops, goods and services of demand in metropolitan markets, has shaped the landscape, the society and the economy of the island. From this past, the country has inherited patterns of land tenure, use and management which are to a very large extent, the direct product of history reflected in highly unequal patterns of land distribution.

48. Under the colonial regime, the majority of lands were predominantly under large estate ownership. Over time however with the transformation of the agricultural sector from a sugar cane to banana production system, combined with the transition to national self-governance, land reforms lead the sub-division of large estate lands to smaller holdings. In 1974 it was estimated that holdings of more than 500 acres (200 hectares) accounted for more than one-third of the total land area under private ownership. The trends in parcel size show a decline in number of parcels of 10 hectares (25 acres) or more from 1974 to 1996 according to the last agricultural census. The number of parcels below 10 hectares (25 acres) on the other had increased. Also on the increase was the number of landless farmers. Table 3 contains the trends on land parcel size between 1974 and 1996.

**Table 3: Number and percentage of agricultural holdings by size category.**

Size Group (in acres)	1973/74		1986		1996	
	No. of holdings	%	No. of holdings	%	No. of holdings	%
<b>TOTAL</b>	<b>10938</b>	<b>100</b>	<b>11551</b>	<b>100</b>	<b>13366</b>	<b>100</b>
Landless	502	4.6	850	7.4	1630	12.2
Up to 5	8558	78.2	8770	75.9	9166	68.6
5 to 9.9	1082	9.9	1191	10.3	1713	12.8
10 to 24.9	475	4.3	560	4.9	700	5.2
25 to 49.9	199	1.8	98	.9	92	0.7
50 to 99.9	58	.5	35	.3	27	0.2
100 to 199.9	19	.2	17	.2	15	0.1
200 to 499.9	26	.2	17	.2	16	0.1
500 and over	19	.2	13	.1	7	0.1

Source: 1996 Agricultural Census

49. In the context of land degradation issues, the increase in the number of smaller agricultural holdings and landless farmers are of consequence in agricultural development. Depending on the crop, smaller parcels mean diminished economic potential and farmers often over-exploit the lands to maximize economic output at the expense of the environment. This situation is further exacerbated by the economic status of such farmers<sup>8</sup> who are often unable to make the necessary financial investment to improve efficiency in agricultural output while conserving the environment.

50. Trends in land ownership suggest that more individuals have clear title to ownership, but there has also been an increase over time (though not precisely quantified) in the number of lands categorized as “family owned”. Under family ownership, title is formerly registered to a collective of heirs of the original owner. This often has negative implications particularly for lands under agricultural production. The lack of a clear individual title (to any one family member) means absence of secure tenure, which in turn makes family members cultivating these lands risk-averse in terms of committing to long-term investment in land conservation. In addition, it is difficult to raise finance through formal lending institutions where the land is to be used as collateral since clear individual title is required.

51. In the absence of absolute title and among landless farmers and farmers cultivating on family lands, there is a greater tendency to engage in shifting cultivation practices such as slash and burn on steep slopes and marginal lands. Table 4 provides some

<sup>8</sup> The 2001 Poverty Profile for St. Lucia indicates that the working poor are concentrated in the agriculture and manufacturing sectors

indication the trends in land tenure (note: no data prior to 1986 or after 1996 has been compiled; an agricultural census in 2007 will update the current situation).

**Table 4: Land Tenure by Number of Holdings in St. Lucia**

LAND TENURE	1986		1996	
	# of Parcels	%	# of Parcels	%
<b>TOTAL</b>	<b>13530</b>	<b>100.0</b>	<b>15468</b>	<b>100.0</b>
Owned	3611	26.7	4701	30.4
Family land	6132	45.3	7094	45.9
Rented/Private	1717	12.7	1558	10.1
Rented/Government	383	2.8	682	4.3
Squatting/Government	790	5.8	614	4.0
Squatting/Private	680	5.0	399	2.6
Other	217	1.6	420	2.7

Source: 1996 Agricultural Census

### **A.3 Policy, institutional and legal context**

#### ***Policy context***

52. The national development policy statement of the GOSL is the *Medium Term Development Strategic Plan (MTDSP)* which articulates the primary development objectives of the GOSL over a five-year period. The 2002 to 2006 MTDSP was elaborated; the MTDSP for the next five-year period is still in the drafting phase. The key objectives of the MTDSP are to stimulate economic growth and development, and reduce poverty in order to build resilience and competitiveness. The restructuring and repositioning of the St. Lucian economy to respond to the challenges and opportunities arising out of trade liberalization and the initiation of the Caribbean Single Market and Economy (CSME) have been identified as key priorities. The MTDSP seeks to encourage competition in the key income and foreign exchange-generating sectors of tourism and agriculture, in parallel with emerging sectors such as international financial services, telecommunications, information technology and other service sectors. Out of the MTDSP, a medium-term investment plan (MTIP) is to be developed. The existing Public Sector Investment Plan (PSIP) will form the basis of this MTIP. However, the weakness of this national framework is that SLM is not adequately considered in national accounts.

53. With respect to policies governing lands, the most relevant is the *National Land Policy (NLP)*; the development process was initiated in 2000 by the Ministry of Physical Development, Environment and Housing. The policy development process, which was based on multi-stakeholder input (through a National Land Policy Committee), has led to a Green Paper, followed by a draft White Paper which has been tabled for Cabinet's

consideration. The NLP attempts to bring about much needed cohesiveness with respect to institutional mandates in the context of land administration and management. It is anticipated that a Strategic Action Plan (SAP) will be formulated once the Policy has been adopted by the end of 2007.

54. In October 2004, the MPDE&H, with assistance provided by the OECS-ESDU and in accordance with the terms of the St. George's Declaration, formulated a *National Environmental Policy* (NEP) and *National Environmental Management Strategy* (NEMS). The NEP / NEMS are the national elaboration of the various international and regional environmental declarations, principles and conventions the country has recognized and ratified. These include the United Nations conventions (UNCCD, UNFCCC and UNCBD), the Millennium Declaration, the Barbados Programme of Action for the Sustainable Development of SIDS, as well as the St. George's Declaration of Principles for Sustainable Development in the OECS. Sustainable land management is among the key underpinnings for sustainable development.

55. Seven strategic actions under the NEP/NEMS have been articulated as follows:

- a. a policy-driven and pro-active approach to environmental management will be employed, within a framework of Integrated Development Planning, and with an improved and more effective policy process;
- b. environment and development objectives, concerns and actions will be fully integrated, at the macro and micro levels;
- c. appropriate institutional arrangements will be developed, with institutional collaboration, social participation and partnerships, and with the sharing and decentralisation of environmental management responsibilities whenever desirable and feasible;
- d. the capacity to manage the environment and the various processes that impact on it will be built at all levels within government, the private sector and civil society;
- e. appropriate, fair, effective and efficient instruments of environmental management instruments will be developed and used, including financing mechanisms and technologies;
- f. cultural and attitudinal change will be promoted, leading to a greater sense of ownership of and responsibility towards the environment, an awareness of issues and an understanding of causes and possible solutions;
- g. knowledge will be enhanced, and access to and use of information will be improved, allowing knowledge to serve as the basis for environmental policy making and programming.

56. Other national policy instruments relevance to SLM include:

- Coastal Zone Management Policy;
- National Water Policy;
- National Climate Change Policy and Adaptation Plan;
- National Agricultural Policy and Strategy (under development);
- National Biodiversity Strategy and Action Plan (NBSAP);
- National Tourism Policy (to be accepted)

### Multinational Environmental Agreements

57. The island is signatory to a number of international agreements, treaties and protocols, which have a bearing on land and environmental resources. Included among these is the United Nations Convention to Combat Desertification (Land Degradation), UNCCD which the island became a signatory to on July 2, 1997, and to-date has submitted two (2) National Reports. The first national consultation toward the formulation of the NAP was held in 2000. The final national consultation took place in June 2007 and ratification is anticipated by the end of 2007.

58. St. Lucia is signatory to the United Nations Framework Convention on Climate Change (UNFCCC) (ratified August 2003) and has prepared its initial national communication to the Convention Secretariat. Under this convention the country is being assisted to develop a Special Programme of Adaptation to Climate Change in the Caribbean (SPAC).

59. The Convention on Biological Diversity was ratified by St. Lucia in July 1993. The National Biodiversity and Action Plan (NBSAP) was prepared and now forms the basis for many interventions aimed at conservation of plant and animal genetic resources.

60. Other relevant international statements of environmental policy include the Millennium Declaration, the Plan of Implementation of the 2003 World Summit on Sustainable Development, the Barbados Programme of Action and the St. George's Declaration of Principles for Environmental Sustainability in the OECS (SGD) signed by OECS governments in 2001. These agreements are supported to varying degrees, by existing national policies and strategies however, much work remains to be done to fully mainstream theme in to national development frameworks. The SGD and the Barbados Programme of Action both place priority on the management of land resources.

### Legal context

61. The suite of legislation of direct and indirect relevance to SLM is presented in Annex 4. In general, the key limitations within the legislative framework with respect to SLM are related to weak or missing regulations, inadequate or poorly defined institutional roles that results in duplicity and/or low impact, and narrow jurisdictional scope. Furthermore, coordinating mechanisms between the various instruments are generally lacking.

62. Although never effected, the Land Conservation and Improvement Act (1992) has been identified as one of the most important pieces of legislation of relevance to SLM in St. Lucia. This Act places management authority within the Agricultural Engineering Services Division of the MAFF, and allows for decentralization of authority through the establishment of a multi-stakeholder Conservation and Drainage Board which would have powers to enforce land conservation and drainage prescriptions on private land holdings. Regulations have yet to be drafted and impediments related to land ownership need to be addressed.

63. Other important national legislative instruments include the Forest, Soil and Water Conservation Ordinance (1946 and amendments) which allows for the establishment of



forest reserves and protected forests and makes provisions for the management of water catchments. The Water and Sewerage Act of 2005 specifies for the declaration of 'water and waste control areas' along with special management provisions, while the Physical Planning and Development Act of 2001 makes provision for special conservation areas. This Act is the key instrument that regulates development and provides a basis for the requirement of EIAs (as warranted for major developments) for development approval. A major limitation of this Act is that it is mainly applied to urban and commercial developments; rural agricultural land development regulation is generally not considered.

#### *Institutional Context*

64. The agency whose mandate covers both land administration and management at the broadest national policy level is the Ministry of Physical Development Environment and Housing. The MPDE&H includes among its departments the Department of Physical Planning which is responsible for physical planning and development of Saint Lucia's terrestrial and marine resources through forward development planning and development control. Its Crown Lands Department is responsible for the management of all state lands, the Land Registry and the Surveys Departments are responsible for land administration, and the Sustainable Development and Environment Section (SDES) is responsible for environmental policy development. However, even such an important Ministry suffers from the lack of adequate internal technical and policy coordination which in turn, extends to its external partner agencies. In addition, the separation of the Economic Planning portfolio from the MPDE&H and integration within the Ministry of Finance (about five years ago) resulted in the failure to foster the integrated development planning process, now regarded a serious impediment to program implementation.

65. The other important Ministry involved in SLM is the Ministry of Agriculture, Forestry and Fisheries. The Departments of agriculture and forestry are the two key front-line agencies which deliver technical, regulatory and support services to farmers and other stakeholders in the conservation of land and forest resources. The most prominent of these specialized agencies, in the implementation of any SLM programme is the Extension Services Division whose Land Resource Unit is responsible for interfacing directly with the farmers in the area of SLM. The Department of Forestry, which is the Focal Point for the UNCCD, has legal jurisdiction which includes responsibility for over some 7,000 ha of forest reserve, protection of water catchment areas as well as wildlife habitats. The Department also houses an internal GIS unit which will ultimately form part of the national LRIS.

66. The MAFF has established a Convention and Agreements Committee to foster internal collaboration and derive greater benefit from the synergies in implementation efforts for the various MEAs and protocols to which they are the focal point. The MAFF is the key technical referral agency for the MPDE&H in the areas of land and water management.

67. The country's involvement in the sub regional and regional environmental programmes of the Organization of Eastern Caribbean States' Environment and Sustainable Development Unit (OECS-ESDU) and the Caribbean Environmental Health

Institute (CEHI), also ensure linkages and synergies with environmental conventions and national development strategies.

68. The participatory process adopted in the implementation of the UNCCD and other MEAs has focused on primary stakeholders including Government, policy makers, private sector and the general public, particularly rural communities. Focused, consistent and effective representation of rural communities, have come from the various water catchments groups in particular the Thomazo/Tournesse and Talvern Water Catchment Groups. Both these groups have been recipients of donor funding from the Poverty Reduction Fund (PRF), British Department for International Development (DFID) and other agencies, for the purpose of rehabilitating degraded stream banks.

69. A summary of relevant legislation and the institutional authorities is provided in Annex 4.

#### **A.4 Causes of land degradation**

##### *Internal Root Causes and Driving Forces*

70. **Unsustainable Agriculture:** Outside of an incentive regime there is very little willingness among farmers to implement the requisite land management practices. One of the main reasons for this is actually one of the root causes of land degradation - the existing land tenure and land distribution situation. In the absence of secure tenure, the average small farmer is often unable to secure the necessary resources required to implement soil and water conservation measures which usually require financially heavy capital investments. There is therefore very little incentive to invest in long-term sustainable practices. The education level and awareness of these farmers are also limiting factors that inhibit uptake of appropriate technologies aimed at mitigating land degradation.

71. **Unplanned and/or poorly planned infrastructural development:** The contribution of road construction (especially in high rainfall erosion-prone areas), to land degradation is noticeably significant even though not quantified. This is due in particular to the attendant poor alignment of drains, improper disposal of spoil and the effects of poor road maintenance all of which contribute to the formation of gullies in areas serviced. Urban expansion too, both planned and unplanned, where infrastructure is poorly sited and inherent foundational weaknesses are overlooked, has contributed to loss of land and homes, the most notable incidents having occurred within a rural settlement at Boguis (1998), a low-income settlement at Black Mallet (1999), and most recently (2004) the middle-income, Tapion Area in Castries. All of these point to a need for instituting new controls and enforcing these where they already exist.

### External Root Causes and Driving Forces

72. External root causes of land degradation in Saint Lucia are related to the heightened vulnerability which the country (and the rest of the Caribbean region) finds itself in with respect to climate change impacts and the prevailing and future economic climate. In the climate change arena, experts identify two major area of concern: the increased frequency of destructive hurricanes, and the increased occurrence of prolonged drought conditions.

73. **Risks associated with climatic phenomenon:** With increased frequency of hurricanes the country can expect to see accelerated land degradation that is precipitated by human-induced activity in vulnerable areas, mainly in the steep interior of the island. Erosion from point sources (e.g. mines, quarries) and non-point sources (e.g. farms) can be expected to increase. Erosion of coastal areas due to storm surge and battering surf can be expected to impact the country.

74. With increased occurrence of drought events, the potential for forest fires that may defoliate and kill vegetation on hill slopes can also predispose these areas to heightened risk for land degradation. This is the case as well for the drought-prone pasturelands in the Vieux Fort area already subject to overgrazing.

75. **Risks associated with seismic activity:** Earthquakes and volcanic activity are ever-present threats in the Caribbean and these events can wreak destruction in inhabited areas and lands used for economic output. Catastrophic landslides (such as occurred in 1938 in Ravine Poisson), can be significant contributors to increased sediment discharge for extended periods.

76. Planning regulations with respect to enhancing resiliency to natural phenomenon are weak or silent, and as Saint Lucia's development pattern tends to utilization of upland areas, this issue will need to be addressed.

77. **Uncertainties in the economic environment:** Saint Lucia, as a small open and vulnerable economy is subjected to the vagaries of reformed trade regimes, travel security associated with the risk from terrorism and the variable investment climate in the Caribbean. A downturn in the economy can have deleterious consequences on the islands resource base as lands may be overexploited for basic food and fuel needs. Already the decline in the banana industry has resulted in a number of farms being abandoned with the potential threat of land conversions, which may have even more severe impacts on ecosystem integrity. Pressures from other economic sectors such as tourism and the housing sector can also result in conversions taking place which will have overall negative impacts on environmental integrity. It is assumed that under a positive scenario, with sustained economic growth, the population will have options that will not involve exploitation of its land resources beyond its carrying capacity.

*Barriers to Sustainable Land Management in Saint Lucia*

**78. Institutional and Governance:** Saint Lucia suffers from the absence of a cohesive, harmonized approach to environmental management. With respect to sectoral planning there is no centralized planning agency and therefore no mechanism in place for adequately informed decision-making for the sustainable management of land. Even within the main agency charged with land administration, the MPDE&H, the mechanism for information sharing between sections is generally inadequate.

**79. Included among the existing barriers identified in the National Land Policy:** White Paper (November 2005), are the critical gaps and overlaps in institutional responsibilities, insufficient collaboration among public sector agencies, and a high degree of fragmentation of land management authority and roles among a range of agencies, including ministries and statutory corporations. There is also a general lack of enforcement of existing legislation and frequent disregard for established procedures. Land development planning processes in St. Lucia tend to be sectorally-driven and therefore not built around the principle of maintenance of ecosystem services that are of benefit to widest range of stakeholders and the natural environment.

80. Agencies so designated also suffer from a lack of human and material resources and capacity to fulfill their mandates. Particularly, there are inadequate decision support mechanisms such as monitoring, collection, research, evaluation and dissemination of data and information. The need for the integration of natural resource economics to guide effective policy decision-making with respect to land development options is also noted.

81. There are no formalized mechanisms in place for the involvement of the private sector, civil society, community groups and NGOs into the process of land development planning. The IDP approach and the strengthening of the NEMS are necessary steps towards the adoption of more holistic approaches.

**82. Economic and Financial:** Priorities with respect to GOSL budgetary allocations are in the areas of Health, Security (police and fire services) and Education. There is comparatively little focus on building capacities in the area of natural resource management and by extension, SLM. Of the national agencies that have technical responsibility for soil and water conservation, the Departments of Agriculture and Forestry within the MAFF have foremost responsibility. However, in the case of the Agriculture Department, the predominant target of budgetary resources is enhancement of agricultural production systems; land conservation is a secondary consideration given the existing resource constraints. The Forestry Department has a greater mandate for soil, water and biodiversity conservation by virtue of its legislative authority, however its primary operations are driven more by water catchment protection (for drinking water supply) and conservation of biodiversity. Research and monitoring programmes within the MAFF do not exist on account of limited investment.

**83. Economic and Financial:** The bulk of the land resource stakeholders are farmers who have typically not made significant investments into soil conservation, a situation which has been exacerbated by the downward trend within the agricultural sector, further reducing their capacity for such investments. Technical and especially financial support is not readily available at the state level as the priority areas for investment of State financing are healthcare and education. Although outreach programmes are undertaken as part of the annual work programmes of the MAFF the main focus is on supporting crop and livestock production and not on directly supporting SLM.

84. In the absence of a land policy and pricing system the cost of privately owned lands is controlled by market factors and not at all influenced by the existence of land-slide and other types of risks. The value of ecosystem services is not accounted for in land pricing. The land tax system is neither risk-based nor values these ecosystem services and therefore does not discourage investment into areas highly vulnerable to land degradation. Consideration of these factors is becoming evident in housing development in light of the increasing number of incidents related to loss of property through land slippage, flooding and other hazards.

**85. Social and Behavioral:** Sustainable land management is generally not practiced in Saint Lucia. There is a need therefore to determine whether the current practices of the land owners/users and farmers are related to lack of knowledge or to a need for some degree of attitudinal change. The Forestry Department has in the past, been able to reverse negative environmental trends such as the reduction in the population of the endangered Saint Lucia Parrot (*Amazona versicolor*) through focused public education and awareness building programmes. There may be a need for a similar initiative with respect to SLM, if the current trends as they relate to land are to be reversed.

**86. Technological and Knowledge:** There has been rather limited investment in technology to combat the problems of land degradation in St. Lucia. While there have been education efforts for farmers by the Agricultural and Forestry Departments in the area of soil conservation, introduction of appropriate technologies to systematically assess, mitigate and monitor land degradation has been lacking. Among the challenges faced is absence of efficient access to information on the state of land resources and the environment in the country to facilitate national level planning. A land resources information system based on GIS technology that is accessible to technical and policy level professionals has been identified as a pressing need. Such a system will greatly enhance harmonized and coordinated planning efforts by all agencies concerned with land management.

**87. Insufficient Capacity:** Besides the technologies themselves, capacities within State and non-state agencies and other stakeholders will need to be strengthened to ensure sustainability of technological applications. Under previous project-driven initiatives in St. Lucia (and other Caribbean states), personnel from various state and non-state agencies, community-based organizations, farmers and other stakeholders have been exposed to technological applications that are of relevance to sustainable land management; these have ranged from demonstration of land management techniques to

application of information technology to facilitate decision-making. However, once these “special projects” come to an end the status-quo resumes with little semblance of continuity of the initiative. A key barrier in many cases is the lack in effort to institutionalize these initiatives into the business plans of agencies and organizations from a human resource development perspective. Personnel who may have benefited from capacity-building themselves are often not sufficiently empowered to become resource providers, and there is generally little attempt at creating the environment that warrants active demand of skills attained in real-world application. This is manifested in low emphasis on technical in-house human resource development using trainer-of-trainer approaches.

88. The relatively high turnover rate of skilled technical personnel in government agencies in particular, is of concern as once persons obtain valued skill sets they tend to seek alternative, more lucrative employment, in many cases within the private sector. A general perception is that the mandate for human resource capacity-building in technical areas (such as SLM) lies with the state. As a result, expertise that may reside in the private sector (in this case, the civil and environmental engineering fraternities) is often overlooked as a potential ally in building overall national human resource capacities for SLM. There are generally only weak attempts to solicit active engagement of private sector partners in HR development.

## ***PART II: PROJECT STRATEGY***

### **B PROJECT DESCRIPTION**

#### **B.1 Baseline course of action**

89. In recognition of the urgent need to reverse negative trends and to optimize the contribution of land to sustainable development, the GOSL has undertaken a number of initiatives. Key among these is the elaboration of its National Action Programme (NAP) in keeping with the country's obligations as signatory to the UNCCD. Following a series of consultations and under the guidance of an Ad-hoc Committee convened for this purpose, Saint Lucia is now finalizing the NAP and it is expected to be available for review by the Cabinet of Ministers before the end of 2007.

90. Under a parallel regional PDF-B stage SLM initiative (implemented by UNEP and executed jointly by the OAS and CEHI) that focuses on demonstration activities (Type II SLM project), the country has submitted a proposal for a demonstration activity in the Soufriere area as part of a series of national demo projects (detailed in section on Linkages to IA Activities and Programmes).

91. Another major initiative which has been ongoing since 2000 is the development of a National Land Policy (NLP). This has involved a broad based consultative process with the policy currently, now a "White Paper" being subjected to final review. It is anticipated that the final draft will be presented to the Cabinet of Ministers by the end of 2007. The next stage to be undertaken will be the development of the Strategic Action Plan (SAP) in which the NAP will be incorporated as the component to address SLM issues. Implementation of this NLP will be coordinated and monitored by the MPDE&H working in collaboration with all relevant agencies. Some of the actions to be included in the SAP are:

- a. Information dissemination and creation of public awareness of the policy and its provisions;
- b. Institutional and legal reform processes;
- c. Design of a national programme aimed at the formulation of national and local physical development and zoning plans;
- d. Development of a project aimed specifically at settling remaining land disputes whenever feasible;
- e. Integration of land management considerations into the review of taxation systems and procedures and the design of new institutional arrangements for revenue collection;
- f. Establishment of a national system for spatial data management;
- g. Formulation of work plans by agencies concerned with the implementation of this Land Policy, and integration of these work plans into corporate plans and budgets.

92. The GOSL, through the SDES has embarked on an initiative to promote the concept of Integrated Development Planning (IDP) as a means to strengthen decision making effectiveness and harmonize programme execution across various development sectors with special consideration for environmental sustainability. It is intended to be a holistic, dynamic and fully participatory approach to development planning which seeks to integrate and coordinate social, economic, cultural, environmental, population, financial and spatial interrelationships to ensure the effective and sustainable use of human, financial and natural resources for the benefit of all. The MPDEH received US\$ 48,518 from UNDESA to initiate the IDP process. The GOSL has also provided budgetary support for this initiative for the past five (5) years. The MPDE&H has prepared and submitted proposals for additional financing for IDP from agencies such as the OAS.

93. As part of a framework of assistance under the Cotonou Agreement, the European Union has pledged approximately US\$ 10.5 million (€8 million) annually (over 10 years, to proportionally decline annually thereafter) to the GOSL in support of economic and social recovery programmes in the wake trade reforms in the banana industry (successor instrument to STABEX under the Lomé Agreement). With this assistance the country has made investments in productively enhancement in the banana sector, engaged in programmes to encourage economic diversification and developed human resource capacity in alternative livelihoods. Under the Special Framework of Assistance (SFA) 2003 tranche, the focus is natural resources management through a programme entitled Economic and Agricultural Diversification and Poverty Reduction through Integrated Natural Resource Management. The programme has been approved for implementation over a 3-year period commencing in early 2007. Mainstreaming and capacity-building for SLM will be significant focus areas.

94. The project will also establish an Environmental Management Fund (EMF) which is intended to provide support to ongoing and new initiatives in INRM on a demand-driven basis, accessible by public, private sector, community and civil society actors. The lead agency for this initiative is the MPDE&H with technical support from the MAFF. It must be stressed that the EU initiative will have a broad environment management mandate. The MSP will direct resources to the areas that are related to SLM only. Annex 5 details the components of the programme.

95. There are two additional support initiatives of relevance to SLM to be funded by the European Union. The Land Tenure Legislative Review (funded under the SFA1999 tranche) will address removal of land tenure barriers and other administrative constraints that hamper agricultural land development through a slate of legislative and administrative reform recommendations. A Data Capture Project (funded under the SFA 2001 tranche) will contribute to enhanced decision support capacity in agricultural land allocation and planning. The effort will contribute to the development of a national digital Land Resources Information System (LRIS). Some of the key activities envisaged include translation of the paper-based Land Registry parcel mapping to digital (GIS) format, establishment of a mechanism within the MPDE&H (Surveys and Mapping Section) for rapid updates (mutations) of land parcel data and development of metadata standards (including data quality standards).



96. The National Capacity Needs Self-Assessment (NCSA) for Global Environmental Management is currently being undertaken with the Thematic Assessments soon to be finalized. The NCSA is expected to identify the major gaps with respect to existing capacity to implement the MEAs, as well as the synergies that exist, so as to better utilize available resources.

97. In 2004 the MAFF launched a Fiscal Incentives Regime in Support of the Agricultural Sector. A number of special incentive measures are proposed to help promote sustainable environmental practices (inclusive of land and water management) in agricultural investments. The Incentive Regime was approved by the Cabinet of Ministers in 2005 and the Ministry is operationalizing the programme. Annex 6 contains the key elements related to land and water conservation and management.

98. The World Bank (WB) is providing financial assistance for the Second Disaster Management Project. The key objectives of the project are to assist the GOSL through its National Emergency Management Organisation (NEMO) to (a) further reduce the vulnerability of the physical infrastructure to natural disasters through the implementation of physical mitigation measures and (b) further strengthen the institutional capacities of the various ministries and agencies dealing with disaster management through the provision of adequate facilities, critical equipment, technical assistance and training.

99. Under this program Vulnerability Assessment and Hazard Mapping (including landslide hazard mapping) has been undertaken for the island and will contribute to the knowledge base for SLM.

100. With respect to other MEAs, Saint Lucia is one of the beneficiaries of the Special Pilot Adaptation Programme (SPAC). The SPAC is a Stage II Adaptation Project under the UNFCCC. Stage II adaptation Projects include projects that: (a) propose an adjustment in national or human systems in response to actual or expected climatic stimuli or their effects that moderates harm and exploits beneficial opportunities; and (b) increases resilience to adverse impacts of Climate Change on vulnerable countries, sectors and communities. The island's pilot submission entitled Integrated Approaches to Improving Water Use Efficiencies as an Adaptation to Climate Change specifically targets degraded pasture areas in the south of the island.

101. Policy initiatives that are of interest in the context of SLM are the recently developed National Agricultural Policy Framework and the draft Tourism Policy. Among the key objectives of the Agricultural Policy related to SLM are (i) to increase the efficiency and competitiveness of agriculture and (ii) conserve the natural resource base. These two objectives both depend directly on and will encourage the adoption of more sustainable approaches to land management. The draft Tourism Policy, under the objective "to establish tourism as a strategic economic development priority" identifies the need to support and implement the necessary legislation and actions for conservation, protection and sustainable use of the country's natural environmental assets.

## **B.2 Capacity and Mainstreaming Needs for SLM**

102. The stocktaking and evaluation process undertaken in the thematic assessment of the UNCCD within the context of the NCSA highlighted the following shortcomings and capacity constraints with respect to land degradation in Saint Lucia.

- Lack of harmonized policies and frameworks for collaboration;
- Inadequate legislation and enforcement;
- Absence of an effective mechanism for developing and maintaining effective coordinated networks;
- Absence of mechanism for integrated planning to effectively mainstream land degradation considerations into the national planning process;
- Inadequate research infrastructure and systematic observation framework to support decision making and planning;
- Paucity of and inaccessibility to scientific data;
- Inadequate human resource pool both in terms of actual numbers and skills/expertise and technically trained personnel;
- Low level of awareness on land degradation and drought issues which limits the involvement of the private sector in the decision making process and the implementation of safeguarding activities; and,
- Insufficient human and financial resources to support required activities.

103. The following section details the individual, institutional and mainstreaming needs relative to the NCSA findings (still in draft) and the information presented in the Barriers to SLM section.

### *Capacity needs - Individual Level:*

104. The bulk of the land resource stakeholders (who in rural areas are farmers), have not made significant investments into soil conservation due in part to low capacity for such financial investments in this area (due to a combination of adverse marketing conditions, a risk-averse investment climate, and difficult land tenure situation). There is also a need for improvement with respect to the knowledge base among farmers to ensure that interventions made are in fact sustainable.

105. The issue of attitudinal change is also important as there is a tendency for farmers to hold on to traditional practices and beliefs and suppress the application of scientifically-based remedial measures. Many farmers do not have formal agricultural education and usually employ cultivation techniques developed and passed on through succession.

106. The concept of sustainable land management is frequently overlooked in other sectors that have significant land resource impacts, notably the construction sector, in expansion of settlements and commercial investments and supporting infrastructure. Capacity limitations are related to lack of knowledge and awareness.

107. Some specific capacity needs for implementing programmes and projects in SLM are:

- Training for farmers and land developers on simple but effective soil and water conservation techniques that require relatively low financial and human resource input;
- Training for farmers, land developers and other community-based stakeholders on simple monitoring measures to assess and report on land degradation;
- Awareness-raising for the general public, schools, and other key stakeholders on key issues relating to causes and remedial measures to combat land degradation;
- Promotion of stakeholder forums (including the private sector, local, national and international entities) to share knowledge of relevance to SLM.

*Capacity needs - Institutional Level:*

108. Responsibility for land management is shared in Saint Lucia by two main Ministries; the MPDE&H and the MAFF. The MPDE&H has overall national responsibility for land administration, including the policy and regulatory aspects of land use planning and development, while the MAFF is responsible for providing technical assistance, regulatory services and the policy framework to guide development of agriculture, forestry and fisheries. A brief overview is presented below on the current capacities of both institutions of relevance to land management along with the capacity needs.

*Ministry of Physical Development Environment and Housing*

109. The Physical Planning Section (PPS) has a primary focus on the development control aspects of physical planning. The staff of the Physical Planning Section includes eleven (11) technicians (Physical Planning Officers, Development Control Officer, Civil Engineer and Chief and Deputy Chief Physical Planning Officer) who support the analytical evaluation of development proposals and ensure that controls are enforced.

110. The Land Registry, Crown Lands Department and the Surveys and Mapping Section in the same Ministry play a key supporting role to the Physical Planning Division and they have a major responsibility for the maintenance of the land cadastre and registration system and the sale or leasing of Government lands. The Surveys and Mapping Section have a total of twenty six (26) technical staff of which two are qualified in Land Economy and Valuation Surveying and Land Management. The present Commissioner of Crown Lands is also a qualified surveyor with additional training in Environmental Impact Assessments.

111. The Sustainable Development and Environment Section (SDES) plays an important coordinating role in environmental policy development (including policy for land) and implementation of obligations under a number of Conventions and protocols. This agency has six (6) technical officers (with qualifications in the areas of economics, environmental science, social planning and natural resource management), who are

responsible for the Environment, Energy, Science and Technology Portfolios, and another three with responsibility for Integrated Development Planning (IDP).

*Ministry of Agriculture, Forestry and Fisheries*

112. The Extension Division (of the Department of Agriculture) has a total of five staff members assigned to its Land Resource Unit with one trained at the Masters level, one at the Bachelors, and three others holding Diplomas in agriculture. These officers have direct oversight in the areas of soil conservation and assist Forestry Officers and Extension Officers in technical advisory services.

113. The responsibilities of the Department of Forestry of the MAFF include the sustainable utilization of the island's forest, wildlife management; law enforcement with respect to protected areas and wildlife; and environmental education. The Department has on staff a total of 15 officers trained in Forest Management with additional specialisations relevant to SLM in areas such as GIS, conflict resolution, and facilitation. Of these 11 are involved in activities related to soil/water conservation. The Department also has close liaison with a number of community groups with respect to water conservation (Talvern and Tournesse Water Catchment Groups) and conservation of dry land forests (Broom Makers Association and the Organic Farmers Association among others).

*Other stakeholders*

114. Community-based groups, in particular the Tournesse and Talvern Water Catchment Groups also contribute to SLM through their work in the area of riverbank stabilisation. Funding sources have included the PRF and the OECS-ESDU. Capacity limitations are mainly financial in nature but additional technical expertise is also required.

115. The following institutional capacity needs specific to land management have been identified under the NCSA process. These needs are critical in order that Saint Lucia meets its obligations under the UNCCD and for implementing programmes and projects in SLM:

- Clear definition of organizational missions and mandates;
- Institutions effectively structured and management equipped with relevant competencies (environmental and social sciences, natural resource economics) to facilitate more effective inter-agency collaboration;
- Systems to ensure that reports and other relevant information required for decision-making are disseminated in a timely manner; investment in clearing house mechanisms for information sharing;
- Support from the education sector and relevant institutions in promoting national awareness (Ministry of Education, Government Information Service, etc.)
- Research and systematic monitoring frameworks to support decision-making and planning;

- Investment in database development and management for decision support purpose (inclusive of data capture systems, multi-user spatial information systems - computerization of the land registry and the development of a land information system); and,
- Technology needs assessments and technology assessments for acquisition of appropriate technology which will allow more effective management and distribution of the country's water resources

*Mainstreaming Needs:*

116. The institutions themselves are weak in terms of resource capacity and they are not adequately financed to operate and maintain monitoring systems, carry out enforcement, conduct research and sustained outreach programmes.

117. The mainstreaming needs specific to land management are as follows:

- Revision of the Draft National Land Policy such that it adequately reflects the principles of SLM. Further in developing the accompanying Strategic Action Plan the NAP will form the basis of the Land Resource Management component;
- The NEP/NEMS provides an opportunity for a more coordinated and harmonized approach to environmental management and it will be another means by which SLM will be mainstreamed into the wider policy instruments;
- The mandates of core agencies will need to be rationalized and streamlined with respect to policy development and planning for SLM. This will need to be supported by revision and adoption of new legislative and regulatory instruments;
- The MPDE&H needs to be empowered for its role as the lead State Agency for the coordination of SLM;
- Identification of funding needs and development of strategies for funding targeted capacity development, on-the-ground investment, or private sector incentives for SLM; and
- Capacity building and institutional strengthening of the National Focal Point (Forestry Department) and related agencies for sustainable land management and to meet UNCCD obligations and create a more proactive role for the National Steering Committee for UNCCD at the policy advisory level.

118. Highest-level government support through committed political will must be secured to facilitate advancement of SLM principles in national development. It is recognized that while Saint Lucia continues to face economic constraints, it can be anticipated that the political directorate may be cautious with respect to committing additional resources in support of efforts to mainstream SLM in the face of competing needs. This will therefore call for a balanced, sustainable approach, strengthening existing institutional structures and the enabling environment without placing undue pressure on the small resource base.

### **B3 Project rationale and objective**

119. The long-term goal of this project therefore is *to ensure sustainable management of the land resources of St. Lucia in order to enhance ecosystem health, integrity, stability, functions and services while contributing directly to the environmental, economic and social well-being of the people of Saint Lucia*. This recognizes land as a valuable natural resource and economic asset, which needs to be utilized sustainably while allowing for continued social and economic development. This recognition has understandably led to a national land policy being articulated. This NLP supported by the tactical interventions within the NAP will provide the mandate and the basis for a range of programmes, measures and actions aimed at improving and rationalising land use and management in the country, including the review and formulation of specific laws and regulations whenever necessary.

120. The specific objective is to strengthen capacity for sustainable land management at the individual and institutional level and to mainstream SLM concepts into national development strategies and policies. This will directly contribute to the Targeted Portfolio goal of contributing to mitigation of land degradation, though capacity development and mainstreaming of sustainable land management.

- **Outcome 1:** The project is the national level slate of actions under the UNDP/GEF LDC and SIDS Targeted Portfolio Approach for Capacity Development and Mainstreaming of Sustainable Land Management. The expected outcomes of this project are consistent with those of the global Portfolio Project, specifically:
- **Outcome 2:** Individual and institutional capacities for SLM will be enhanced through (1) stakeholder training on SLM principles through workshops, seminars and technical exchange visits, (2) awareness raising activities around relevant national, regional, and international environmental events and (3) enhancement of national institutional structures and functions to better address SLM.
- **Outcome 3:** Systemic capacity building and mainstreaming of SLM principles through (1) timely completion of high quality NAPs (2) integration of SLM principles and NAP priorities into national development strategies to achieve the Millennium Development Goals and (3) a Medium-term Investment Plan for SLM will be developed.
- **Outcome 4:** Enhanced technical support SLM planning and project execution through: (1) dissemination and utilization of knowledge products (tools, guidelines and manuals for capacity development and mainstreaming on selected topics in SLM), and (2) facilitation of access to global and regional knowledge networks and communities of practice, linked to existing networks, such as CAPNET, CPF, etc.

- **Outcome 5:** Adaptive Management and Learning through: (1) Project implementation in a cost-effective manner in accordance with agreed work plans and budgets; (2) Monitoring and Evaluation Plan that provides inputs for robust adaptive management; and (3) capture and dissemination of lessons learned from the project

121. Realisation of the project objective will generate national benefits by increased stakeholder awareness about the causes, impacts and mitigation/rehabilitation measures related to land degradation, enhanced and effective management and streamlined communication of SLM concerns across multiple stakeholders, projected investments in support of a mid-term plan, and through better developed and equipped human capital.

122. GEF's timely funding for the baseline activities of this project will contribute towards poverty alleviation by guaranteeing improved livelihood and employment for some stakeholders, it will curtail threats of further degradation of natural resources, assist in implementing management models that can be extended to other sites, and secure a viable future for the concerned communities. As far as possible Government will include strategies derived from this Project into the work plans of relevant Ministries/Departments.

123. Without the GEF alternative, the status quo would prevail. There will be continued but limited investment in individual, institutional, and system capacities, that will be inadequate to facilitate the integration of SLM considerations to all productive sectors and to mainstream it within national development and economic development plans. There would be continued ineffective and duplicitous planning structures driven by convention obligations. Inadequate levels of investment will prevail and investments that are arranged through bi or multi-lateral sources would not be targeted as part of a framework. The GEF funding is essential to catalyse actions needed to integrate sustainable land management into the national planning framework as well as to build capacity within key institutions and organizations in keeping with the findings of the NCSA.

## **B4 Expected project outcomes, and outputs**

124. The Project will have 5 outcomes and 21 outputs as follows:

125. **Outcome 1: SLM mainstreamed into national development policies, plans and regulatory frameworks.** Total cost: US\$178,600; GEF request: US\$68,600; Co-financing: US\$110,000 (including GOSL contribution of US\$13,000).

- **Output 1.1:** SLM integrated into macro-economic policies and regulatory frameworks of Saint Lucia (it must be noted that the EU SFA project will address the wider environmental regulatory framework, this MSP output will focus on the SLM aspects). Specific activities include the preparation of draft guidelines for the mainstreaming of SLM and the formulation of a SLM integration strategy within key policy and regulatory framework documentation
- **Output 1.2:** SLM integrated into Draft National Land Policy and the corresponding Strategic Action Plans (note: the EU SFA Project has a broad focus on land and water issues. It will essentially contribute approximately 50% of the financing required for the integration of SLM into the stated documents. This MSP will make specific contributions in the areas related to SLM)
- **Output 1.3:** National legislative and regulatory instruments revised that incorporate principles of SLM
- **Output 1.4:** Cabinet-approved National Action Plan published.

126. **Outcome 2: Individual and institutional capacities for SLM developed.** Total cost: US\$683,700; GEF request: US\$148,500; Co-financing: US\$535,200 (including GOSL contribution of US\$21,500).

- **Output 2.1:** Technical staff from MPDE&H ,the MAFF, NGOs and CBOs (Farmer Organisations & Water Catchment Groups) trained and actively engaged in providing technical support and policy guidance on SLM to stakeholders
- **Output 2.2:** Trained farmers and other resource users (within construction, commercial, tourism sectors) practicing SLM
- **Output 2.3:** Public education and awareness strategy and support materials on SLM issues developed
- **Output 2.4:** Strengthened support agencies, specifically the MPDE&H and the MAFF have resource capacity to render required support to SLM
- **Output 2.5:** Effective inter-agency coordination for SLM achieved

127. **Outcome 3: Capacities for knowledge management in support of SLM developed.** Total cost: US\$310,300; GEF request: US\$122,300; Co-financing: US\$188,000 (including GOSL contribution of US\$ 23,000).



- **Output 3.1:** Computerised Land Resources Information System (LRIS) within MPDE&H developed
- **Output 3.2:** Information databases on land use, land tenure, land degradation, land zoning for Saint Lucia (within LRIS) developed
- **Output 3.3:** Monitoring and evaluation system for state of environment assessments developed
- **Output 3.4:** Technical staff trained in analytical applications for decision making to support SLM planning
- **Output 3.5:** Technical staff of the MPDE&H and MAFF trained on operation, maintenance and information-access of the LRIS

128. **Outcome 4: Investment planning & resource mobilization for implementation of SLM interventions elaborated.** Total cost: US\$98,100; GEF request: US\$46,100; Co-financing: US\$52,000 (including GOSL contribution of US\$ 12,000).

- **Output 4.1:** Investment plans in key economic sectors (agriculture, tourism, construction, commercial) that incorporate priority actions for SLM as defined in NAP prepared
- **Output 4.2:** Major sector incentive regimes that include the Agricultural Incentives Regime reviewed and amended to include incentives for SLM;
- **Output 4.3:** Payment for Environmental Services (PES) regime developed and effected
- **Output 4.4:** Strategy to facilitate the mobilisation of resources from Donors developed

129. **Outcome 5: Adaptive Management and Learning.** Total cost: US\$250,500; GEF request: US\$99,500; Co-financing: US\$151,000 (including GOSL contribution of US\$127,000).

- **Output 5.1.** Project implemented in a cost-effective manner in accordance with agreed work plans and budgets;
- **Output 5.2.** Monitoring and Evaluation Plan provides inputs for robust adaptive management;
- **Output 5.3.** Lessons learned from the project captured and disseminated.

130. Key risks and assumptions underpinning project design include the following

- There will be continued political support from the highest levels of government for integrating SLM into national development planning.
- Senior policy and planning authorities are motivated to facilitate the process of integration of SLM considerations into sustainable development plans and strategies.
- Government and the key institutions involved will commit the resources needed to maintain the effort beyond the life of the project, the SLM

monitoring and evaluation systems to be fully developed with project assistance.

- The private sector understands and appreciates the importance of SLM, and their role in supporting the mainstreaming of SLM into productive processes and decisions.
- Various institutions will be willing to collaborate on integrated approaches to sustainable land management and on sharing access to land information systems.
- The investment climate remains favourable.
- Government commits to providing continued funding for maintenance of the LRIS system.
- Staff turn-over rates will not affect personnel trained in SLM through the project.
- Resource users and private sector will understand the need for SLM approaches and be supportive of project objective.

## **B5 Global and local benefits**

### *Local benefits*

131. The resolution of natural resource management issues is a cornerstone of the strategy for reducing poverty, involving equitable access to social services, strengthened food security and sustainable rural development. Land being the country's primary resource is the basis for the MSP becoming a significant contributor to the country's goal of poverty alleviation. The MSP will also enhance coordination and streamline a number of processes related to SLM especially in the major economic and productive sectors such agriculture, tourism, industry and commerce.

132. GEF's contribution will also enhance local productivity and increase the country's resilience in combating the effects of natural phenomena. It will enable Saint Lucia to address an important barrier to effective land management by creating individual, institutional and systemic capacity in this field. The project will strengthen institutional and human resource capacity to improve sustainable land management planning and implementation. It will also enable Saint Lucia to improve and strengthen policy, regulatory and economic incentive frameworks to facilitate wider adoption of sustainable land management practices across sectors and at the community and national levels which will eventually safeguard economic benefits.

### *Global Benefits*

133. In terms of global benefits, contributions from the Saint Lucia project will contribute to knowledge-sharing on mainstreaming SLM in SIDS and contribute to the global pool of ecosystem function. Conservation of forest lands will contribute to global efforts aimed at conservation of biodiversity and enhancement of carbon sequestration in mitigation of the impacts of global warming on climate change.

134. Global benefits would be generated indirectly as the enabling environment leads to projects with on-the-ground investments in improved practices, and directly as

sustainable land management is taken into consideration at the policy and institutional levels through better policies and incorporation of those concepts into the national development framework.

135. These benefits will assist in meeting the country's commitment to the Millennium Development Goals (MDGs), specifically in the areas of environmental sustainability and poverty alleviation.

## **B6 Linkages to IA activities and programs**

### *Regional initiatives*

136. St. Lucia is a participating country within the **Integrated Watershed and Coastal Areas Management (IWCAM)** project being implemented jointly by the UNDP and UNEP and executed by the Caribbean Environmental Health Institute (CEHI) and UNEP-Caribbean Environment Programme, Regional Coordinating Unit (Car/RCU). This five-year project aims to strengthen the capacity of the participating countries to implement an integrated approach to the management of watersheds and coastal areas, with the overall goal of enhancing the capacity of the countries to manage their aquatic resources and ecosystems in a sustainable manner. The Project was launched in the first half of 2006 and implementation is underway.

137. St. Lucia is an IWCAM demonstration project country with an initiative entitled ***Protecting Watershed Services and Developing Management Incentives in the Fond D'or Watershed Area of St. Lucia***. The project is being executed by the MAFF under the guidance of a multi-sectoral grouping similar to that required for the MSP. Its primary objective is to develop a model approach to participatory watershed management. This model will (a) demonstrate the use of incentives and transferred benefits within a watershed management structure to achieve reduction in wastage and loss, and (b) encourage better conservation and more long-term sustainable use of the resource. It is anticipated that lessons learned from Saint Lucia's Demonstration Project, as well as from those being implemented elsewhere in the region, will be shared through publications and workshops. In the implementation of the MSP the IWCAM lessons are to inform both the development of the participatory framework for stakeholder involvement and the development of enhanced institutional mechanisms (policy development, technology options identified) for the implementation of SLM in Saint Lucia.

138. Saint Lucia is also a participating state of the **Sustainable Management of the Shared Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions**. The project is being implemented by UNDP and executed by UNESCO-Intergovernmental Oceanographic Commission. The project is in the PDF-B stage. Full funding of this 5-year project is estimated at US\$ 9 million. The overall objective of the project is the sustainable management of the shared living marine resources of the Caribbean LME and adjacent areas through an integrated management approach that will meet the WSSD target for sustainable fisheries.

139. The country is a participant to a project titled **Preventing Land Degradation in Small Island Ecosystems in the Caribbean through Sustainable Land Management**. The Project, in its PDF-B Phase, is being executed jointly by CEHI, and the Office of Sustainable Development and Environment of the Organisation of American States (OAS) and is supported by the Global Environment Facility (GEF). This project aims to build local and regional capacity to support sustainable land management and develop pilot demonstration activities on SLM to address land degradation at the community level. The project also seeks to address the problems of land degradation, in particular deforestation and loss of ecosystem goods and services, especially endemic species. The project will promote the improvement of land management practices, institutional arrangements, policies and incentives aimed at mitigating land degradation and preserving the functioning of fragile and unique ecosystems of Participating Countries. Finally the project will contribute to the harmonization of SLM priorities to combat desertification identified in the National Action Plans (NAPs) as well as in National Biodiversity Strategies and Action Plans (NBSAPs) pursuant to the UN Convention on Combating Desertification (UNCCD) and the Convention on Biological Diversity (CBD) respectively.

140. This one-year phase of the project commenced in September 2005 Saint Lucia's National Component focuses on demonstration-type activities in the Soufriere Watershed in St. Lucia's south-westerly area. The full regional project brief has been prepared for funding consideration by the GEF Council<sup>9</sup>. The project funding is expected to be US \$6 million. The focal point for this project is the MPDE&H.

141. The **Mainstreaming Adaptation to Climate Change (MACC)** project is currently in the implementation stage and is to be completed by 2008. MACC is implemented by the World Bank, with funding of USD \$5 million from GEF. The executing agency is the CARICOM Secretariat. Contributors include the Government of Canada and the Government of the United States of America through the National Oceanic and Atmospheric Administration (NOAA). The project's main objective is to mainstream climate change adaptation strategies into the sustainable development agendas of the small-island and low-lying states of CARICOM. MACC will adopt a learning-by-doing approach to capacity building, consolidating the achievements of the precursor components, the Caribbean Planning for Adaptation to Climate Change (CPACC) and Adapting to Climate Change in the Caribbean (ACCC) projects. It will build on the progress achieved in these past projects by furthering institutional capacity, strengthening the knowledge base, and deepening awareness and participation. The Vulnerability and Capacity Assessment (VCA) process focuses on water resources and how its effect on the agriculture and Tourism sectors in the island's most southerly watersheds.

142. The **Implementation of Pilot Adaptation Measures in coastal areas of Saint Lucia, St. Lucia and St. Vincent & the Grenadines** project. The executing agency is the World Bank, with co-executing agencies including the recipient countries and

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<sup>9</sup> This project was excluded from the GEF financing pipeline in the short-term. Guidance from the GEF Secretariat regarding timing of funding mobilization is pending.

Caribbean Community Climate Change Centre. The project development objective is to support efforts by Dominica, **Saint Lucia** and St. Vincent and the Grenadines to implement specific (integrated) pilot adaptation measures addressing the impacts of climate change on the natural resource base of the region, focused on biodiversity and land degradation along coastal and near-coastal areas. The US\$ 5.5 million project will run over 4 years. Implementation of the project commenced in mid-2007.

*Linkages to Other Donor funded Projects*

143. An important initiative is the EU-funded programme entitled **Economic and Agriculture Diversification, and Poverty Reduction through Integrated Natural Resource Management** for which some US\$ 10.4 million (€8 million) has been approved under the Special Framework of Assistance (SFA) 2003 tranche. This programme is also being implemented by the MPDE&H and has a number of outputs which are directly related to the MSP. These are as follows:

- Programme management capacity developed (this will further strengthen the MPDE&H and in particular the Physical Planning Section);
- Appropriate legislative and policy framework for INRM established (this will provide support to the implementation of the NEMS and the IDP as well as the regularisation of the land tenure situation);
- A system for more effective planning, coordination and decision making in the implementation of INRM initiatives developed and implemented (provide support to the development of the LRIS and the Data Capture initiative as well as support to the monitoring and updating of the PSIP as it relates to INRM);
- A system for continuous assessment of natural resources developed and implemented (supports the MSP Outputs 2.1 and 2.2);
- Communities participation in INRM strengthened (relates directly to Output 2.3);
- INRM interventions financed from an Environment Management Fund (EMF) (will be an important component of the Investment Plan).

144. Under the SFA 1999 tranche a Land Tenure Legislative Review has been approved. This is anticipated to be the first in a series of initiatives aimed at rationalizing land management priorities in support of agriculture and is also expected to come on stream in the early part of 2007.

145. A Data Capture Project (funded under the SFA 2001 allocation) is also expected to come on stream in early 2007. The project is intended to improve the capacity of the MAFF and the MPDE&H in utilizing spatial land information in planning applications. The project seeks to translate the present land cadastre management and maintenance system to a GIS-based system, contributing further to the development of a national digital Land Resources Information System (LRIS).

*Food and Agriculture Organization initiatives*

146. A **Regional training workshop on Land Degradation Assessment Methods** is scheduled for 2007. This workshop will seek to build capacity within technical, allied organizations and stakeholder groups in core FAO land degradation assessment methodologies. This initiative will be complementary to the works already being undertaken under the UNCCD in establishing and monitoring indicators of desertification and land degradation. The participating countries are Antigua and Barbuda, Barbados, Belize, Bahamas, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, **St. Lucia**, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago.

147. The **National Forest Programme Facility** is lending support to design of national forestry policy and mainstreaming into broader policy frameworks over a three-year period is currently in the second year of implementation. CANARI to implement on behalf of the FAO. Participating countries include Barbados, Saint Lucia, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago.

148. An initiative entitled Strengthening of Rural Land Administration through the development of National Land Banks in Saint Lucia, Grenada, St. Lucia and St. Vincent is scheduled to commence in 2007 and anticipates the following outcomes:

- framework prepared for the establishment and operation of National Land Banks
- pilot land banks will be established in the four countries (where possible);
- Databases will be developed with an inventory of the rural lands, including idle or underutilized state lands, with relevant information on plot sizes, soil type, slope, existing land use, infrastructure, and crop possibilities;
- Lists of prospective farmers interested in leasing the land developed;
- Main issues related to operating the Land Banks will be identified and recommendations made on how to overcome those problems;
- recommendations on the systems that need to be implemented to extend the land bank to include private landowners;
- Public awareness campaign developed to inform stakeholders about the land bank and its benefits;
- Staff trained in operation and management procedure;
- Guidelines prepared on the operation and management of the land banks, providing details on lease rates, procedures for obtaining leases and terms of the leases; and,
- Lessons learnt shared through a Regional Workshop.

### *Other Initiatives*

149. Other initiatives include implementation of the Second National Communication under the United Nations Framework Convention on Climate Change; the National Capacity Needs Self Assessment Projects; National Implementation Plan for Persistent Organic Pollutants and other Hazardous Chemicals and Hazardous Wastes, for which synergies will be developed. Also included is the continued implementation of the NBSAP as activities proposed under the NAP.

## **B7 Stakeholder Involvement Plan**

150. Table 5 details the involvement of the major stakeholders involved or intended as beneficiaries to the project. The project will be executed by the Physical Planning Section of the MPDE&H with the Project Coordinator reporting directly to the Permanent Secretary. Project oversight will be the responsibility of a multi-sectoral Steering Committee which will be chaired by the Permanent Secretary of the MPDE&H. The co-executing agency will be the Department of Agriculture of the MAFF with that Permanent Secretary serving as Deputy Chair to the Steering Committee. Other agencies involved includes the SDES, Survey and Lands Section, Land Registry and Crown Lands Department of the MPDE&H, and the Forestry Department of the MAFF, the Ministry of Tourism and in particular the Heritage Tourism Programme; the Ministry of Social Transformation; the Poverty Reduction Fund (PRF) and the Basic Needs Trust Fund (BNTF). NGO groupings and Community Groups involved are the Saint Lucia National Trust and the Talvern, Thomazo and Pierrot Water Catchment Groups, the Banana Companies and Farmer organizations. The Institute of Architects and Valuation Surveyors and the Association of Professional Engineers of Saint Lucia are two of the professional bodies whose involvement will also be sought in the process of policy revision and for specific training.

151. The Financial Sector is to be specifically targeted with the Economic Affaires Section of the Ministry of Finance, responsible for the elaboration of a strategy for investment planning and resource mobilisation for SLM.

152. The primary beneficiaries will be the rural populace of St. Lucia and their communities. More specifically the principal identifiable beneficiaries are farmers, fishers and rural workers. Land degradation has severe and direct impacts on the agricultural sector and it is the small farmer who is usually called upon to bear the brunt of the economic downfall. Fishers too suffer from the depletion of stocks due to heavy siltation and other consequences of land degradation on the marine environment. Table 5 provides a summary of the stakeholder involvement.

**Table 5: Stakeholder Involvement Matrix**

<b>Stakeholder Group</b>	<b>Role</b>	<b>Capacity or Mainstreaming Intervention</b>
MPDE&H	Project Executing Agency, Coordinator of the PSC	Integrating SLM into macro-economic policies
Physical Planning Section, MPDE&H	PSC member Technical; beneficiary	Project management; Technical inputs on developmental planning; recipient of targeted training and awareness building
SDS of MPDE&H	advisor to PSC	Integrating SLM into NLP processes and into NEMS; CZM policy; IDP
Extension Services, MAFF	PSC member; Technical advisor to PSC; beneficiary	Policy formulation; Awareness, Skills Training, Technical inputs on incentive measures and financial resource procurement (investment planning); recipient of targeted training and awareness building
Forestry Division, MAFF	PSC member; Technical advisor to PSC; beneficiary	Policy formulation; Technical inputs on land information systems, Awareness, Skills Training,
GIS Section of MPDE&H	advisor to PSC; training recipient;	Technical inputs on land information systems, land administration systems; recipient of targeted training and awareness building
Survey & Lands Department of MPDE&H	PSC member	Technical inputs on land information systems, land administration systems; recipient of targeted training and awareness building
Crown Lands Department, Ministry of Housing, Lands, Communications & Ports	PSC member; Technical advisor to PSC; beneficiary	Technical inputs on land information systems, land administration systems; recipient of targeted training and awareness building
Ministry of Legal Affairs	Technical advisor to PSC	Technical inputs on legal and regulatory reforms; recipient of awareness building
Ministry of Finance	Technical advisor to PSC; beneficiary	Technical inputs on incentive measures and financial resource procurement (investment planning); recipient of targeted training and awareness building; Integrating SLM into macroeconomic policies
Ministry of Communications, Works Transport and Public Utilities	Technical advisor to PSC; beneficiary	Technical inputs on national infrastructure planning; recipient of targeted skills training and awareness building
Ministry of Social Transformation	Technical advisor to PSC; beneficiary	Technical inputs on community involvement, awareness building
Ministry of Tourism		Technical inputs on policy and legislative frameworks;
NDC (including STDC)	Technical advisor to PSC;	Responsible for state-owned industrial and some agricultural lands;
Talvern and Thomazo Water Catchment Groups	beneficiary	Recipient of targeted skills training and awareness building
Other Community based / Farmer Groups	beneficiary	Recipient of training and awareness building
Tourism stakeholders	beneficiary	Recipient of training and awareness building
Construction industry stakeholders	beneficiary	Recipient of targeted skills training and awareness building



## C. FINANCIAL PLAN

### C1. Streamlined Incremental Costs Assessment

153. Ongoing activities being undertaken by the Forestry and Agriculture Departments of the MAFF, as well as the work of the SDES are expected to directly contribute to activities aimed at achieving project objectives, primarily through in-kind contributions. Also, the MAFF has an established Communications Unit which will support the Public Awareness initiatives. The Economic and Agricultural Diversification and Poverty Reduction through Integrated Natural Resource Management Project (under SFA 2003) which, has been approved for implementation will provide most of the counterpart funding through its relevant program areas: The contributions (both in-kind and donor-funded) are as follows:

#### *Mainstreaming baseline activities*

154. Under the EU-financed **Integrated Natural Resource** Management Programme (SFA 2003) the Legislative and Policy Framework Effective Planning, and Coordination and Decision-making System components will contribute co-financing to this MSP (the total allocated to these components are US\$ 441,000 and US\$ 882,000 respectively). The estimated co-financing to be derived from these components is US\$ 92,000.

155. Government in-kind contributions will be forthcoming based on a number of initiatives. The SDES is currently working toward the completion of the National Land Policy, the implementation of the NEP/NEMS and IDP, as well as continuing the implementation of IDP. The Forestry Department will lead the NAP approval process as well as the development of the new Forestry Management Plan. The GOSL co-financing contribution is estimated at US\$13,000 based on the following breakdown (from recurrent budgets):

- Available local personnel: US\$ 10,000
- Transportation: US\$ 500
- Coordination and office facilities: US\$ 1,500
- Meeting facilities: US\$ 1,000

156. The EU SFA 2003 Natural Resources Programme will contribute US\$5,000 to the completion of the UNCCD National Action Plan.

#### *Capacity building baseline activities*

157. The relevant programme area under the EU-funded **Integrated Natural Resource Management** programme SFA 2003 initiative is **Effective Planning, Coordination and Decision-making System** component contributing US\$ 882,000 (€700,000) euros. The estimated co-financing from the project is US\$ 327,500

158. The World Bank (WB) is providing financial assistance for the **Second Disaster Management Project**. The key objectives of the project are to assist the GOSL to:

- a. Further reduce the vulnerability of the physical infrastructure to natural disasters through the implementation of physical mitigation measures;
- b. Further strengthen the institutional capacities of the various ministries and agencies dealing with disaster management through the provision of adequate facilities, critical equipment, technical assistance and training.

Under this program Vulnerability Assessment and Hazard Mapping (including landslide hazard) is being undertaken for the island. The estimated contribution is **US\$ 186,200.**

159. The GOSL will contribute in-kind resources to this component through allocation of staff time and material resources. The estimated co-financing is **US\$ 21,500**

*Knowledge management baseline activities*

160. The EU-SFA 2003 initiative will contribute an estimated US\$ 693,000 (€550,000) and US\$ 378,000 (€300,000) under its Natural Resource Assessment System and Community Participation programmes respectively. From this overall budget an estimated US\$ **163,500** will be co-financing.

161. Under the World Bank's Second Disaster Management Project, contribution to knowledge management will in the form of technical information products. The estimated co-financing contribution is **US\$ 1,500.**

162. GOSL contributions will be through participation of the Land Registry and Surveys and Mapping Section in this initiative. Total in-kind GOSL contribution is estimated at US\$ **23,000** based on the following breakdown:

- Available local personnel: US\$ 7,000
- Office facilities: US\$ 2,000
- Meeting facilities: US\$ 1,000
- Land use Database: US\$ 5,000
- Land Zone Mapping and Land Information System data acquisition: US\$8,000

*Resource mobilization*

163. The European Union-financed SFA 2003 Natural Resources Management Programme will contribute co-financing of **US\$40,000** towards this component. The GOSL will contribute an additional **US\$12,000.**

*Project management and adaptive learning*

164. A small project staff complement will be recruited and an office maintained to facilitate project management activities and adaptive learning from project execution. From the European Union-financed SFA 2003 Natural Resources Management Programme, some **US\$24,000** will be contributed as co-financing. The GOSL will contribute a total of **US\$127,000** in counterpart funding (this includes project audits).

## C2. Project Budget

165. Table 6 summarizes the recommended cost benchmarks. Please refer to Table 13 for the detailed Project Budget.

166. As outlined in Table 7, the contribution from the GEF will be complemented by Government and other applicable partners.

**Table 6: Summary costs**

Component	GEF	Co-finance		Total
		Gov't Co-finance	Other Co-finance	
Mainstreaming	68,600	13,000	97,000	178,600
Capacity Development	148,500	21,500	513,700	683,700
Knowledge Management	122,300	23,000	165,000	310,300
Medium Term Investment Plan and Resource Mobilization	46,100	12,000	40,000	98,100
Project Management	50,000	124,500	24,000	198,500
Monitoring and Evaluation	49,500	2,500	0	52,000
<i>PDF-A</i>	<i>15,000</i>			<i>15,000</i>
<b>TOTAL MSP</b>	<b>500,000</b>	<b>196,500</b>	<b>839,700</b>	<b>1,536,200</b>

**Table 7. Detailed description of estimated co-financing sources**

Co-financing Sources				
Name of Co-financier (source)	Classification*	Type*	Amount (US\$)	Status*
GOSL	government	In-kind	196,500	Committed
World Bank	bilateral	Cash	187,700	Committed
EU	bilateral	Cash	652,000	Committed
<b>Sub-Total Co-financing</b>			<b>1,036,200</b>	

Co-financing commitments had not been defined at the concept stage.

**Table 8. Project management Budget/cost<sup>10</sup>**

Component	Estimated consultant weeks	GEF(\$)	Other sources (\$)	Project total (\$)
Local consultants*	156	50,000	110,100	160,100
International consultants*	0	0	0	0
Office facilities, equipment, vehicles and communications		0	38,400**	38,400
Travel		0	0	0
Miscellaneous		0	0	0
<b>Total</b>		<b>50,000</b>	<b>148,500</b>	<b>198,500</b>

\* Local and international consultants in this table are those who are hired for functions related to the management of project. The average daily rate for local consultants hired for project management is US\$205

\*\*This is estimated EU and GOSL co-financing contribution for office facilities and contingencies

<sup>10</sup> For all consultants hired to manage project or provide technical assistance, please attach a description in terms of their staff weeks, roles and functions in the project, and their position titles in the organization, such as project officer, supervisor, assistants or secretaries

**Table 9. Consultants Working for Technical Assistance Components:**

<i>Component</i>	<i>Estimated consultant weeks</i>	<i>GEF(\$)</i>	<i>Other sources (\$)</i>	<i>Project total (\$)</i>
Personnel				
Local consultants	228	83,750	198,750	282,500
International consultants	230	62,000	364,000	426,000
<b>Total</b>	<b>458</b>	<b>145,750</b>	<b>562,750</b>	<b>708,500</b>

Budget Notes

- a. **Locally recruited consultants** will provide support for project management. They will be officers seconded to the project for the duration.
- b. **Travel:** No separate budget lines are anticipated. Travel expenses associated with external consultants will be accounted for within consultant fees.
- c. **Office expenditures:** These will be in-kind contribution by the GOSL. The PMU will be established within the Physical Planning Section of the Ministry of Physical Development, Environment and Housing
- d. **Consultants:** contracted both individually and through existing technical organizations and NGOs, include:
  1. *Policy specialist* (local) - Outcome 1: Policy mainstreaming
  2. *Legal specialists* (local) - Outcome 1: Legislative and regulatory mainstreaming
  3. *SLM Technical specialists/trainers* (local and international): - Outcome 2: Capacity building for best practices in SLM
  4. *Institutional analyst* (local) - Outcome 2: Institutional analysis to determine best institutional arrangements to support SLM
  5. *Communications specialist* (local) – Outcome 2: Awareness-raising strategy development and execution
  6. *Production services* (local) – Outcome 2: Awareness-raising materials production
  7. *IT/Database Management Specialist* (local) – Outcome 3: Development and appropriate information management systems for data archival and information dissemination
  8. *Land Information Systems Specialist* (local and international) – Outcome 3: Development of the functional basis for the land information system
  9. *SLM Technical specialists* (local and international) – Outcome 3: Land degradation assessment methods for monitoring and database population
  10. *Policy / finance specialists* (local and international) – Outcome 4: Development of appropriate financial mechanisms for SLM
  11. *Auditor* (local) – Outcome 5: Carry out audits of the project
  12. *Project Evaluator* (international) – Outcome 5: evaluation project execution; mid-term progress, final evaluation

**NOTE:** The daily rate for international consultants is US\$400; the daily rate for local consultants is US\$250. The international consultant fees account for just under 20% of the overall GEF allocation (US\$500,000). This is due to the fact that the expertise required, particularly with respect to capacity-building (Outcome 2), development of knowledge management systems (Outcome 3) and formulation of payment for environmental services schemes (Outcome 4), is largely resident outside of the country. It must be noted however that local consultancy services will be employed as far as local expertise is available.

- e. **Contractual services – individual:** These are additional short-term services provided by individuals in support of main activities either by consultants or by the PCU. Such services will include, but not limited to, conduct of surveys, conduct of research, preparation of documentation, etc.

- f. **Contractual services – Company:** These are additional services rendered by specialized organizations. These services will include, but not limited to, conduct of surveys, conduct of research, preparation of documentation, equipment installation and service.
- g. **Supplies:** Materials and other consumables
- h. **Information technology equipment:** Costs associated with procurement and installation
- i. **Rental & Maintenance-premises:** It is anticipated that several meetings and training workshops will be held across the country and the budget is reflective of the costs associated with hosting of these meetings. This includes the venue rental and catering for participants.
- j. **Rental of information technology equipment:** It is anticipated that rental of equipment for training will be required (computers, GPS units, etc)
- k. **Professional services:** These services will include but not limited to media production, advisory, facilitation, etc.
- l. **Audio, visual and printing production costs:** Costs associated with multiplication of resource materials.

## ***PART III: MANAGEMENT ARRANGEMENTS***

### **D. PROJECT IMPLEMENTATION PROCESS**

#### **D.1 Institutional Framework and Project Implementation Arrangements**

167. **General Framework:** The SLM Project will be implemented over a three (3) year period and is expected to begin in November 2007. The Physical Planning Section (PPS) of the MPDE&H of will be the National Executing Agency (NEA) that will oversee implementation of the project and coordinate activities between the various co-implementing institutions and stakeholders. The SDES of that same Ministry is the Focal Point for most MEAs and has been mandated by Cabinet to coordinate sustainable environmental management activities and policy development in Saint Lucia.

168. The NEA will execute its functions under the guidance of the GEF Implementing Agency (UNDP) with technical back-stopping from the Caribbean Environmental Health Institute. The Project Management Unit (PMU) will be headed by a Project Manager (PM) and supported by a Secretary, who will work on a full time basis. The PM will be directly responsible for the direct project execution including day to day operations guided by approved work plans. These persons and personnel from partner institutions will be required to undergo short term training to better equip them to perform certain tasks.

169. The Project Manager will oversee the overall implementation of the project and in coordination with the GEF-Implementing Agency (UNDP), will be responsible for achievement of the objectives and outputs of the Project. The Project Manager will report directly to the Permanent Secretary of the MPDE&H

170. The work of the NEA and PMU will be guided by a Project Steering Committee which should comprise representatives from the following agencies directly involved in the Project

1. Ministry of Physical Development, Environment and Housing – Executing Agency / Chair
2. Ministry of Agriculture, Forestry and Fisheries - Co-executing Agency / Deputy Chair
3. Sustainable Development and Environment Section (Ministry of Economic Planning)
4. Ministry of Finance (Economic Affairs Section)
5. Ministry of Social Transformation (National Conservation Authority)
6. National Emergency Management Organisation (NEMO)
7. Saint Lucia National Trust
8. Private Sector Representative
9. Farmer Community Representatives (2)
10. UNCCD Focal Point
11. UNDP Representative

171. The Project Steering Committee (PSC) will be responsible for policy input, functional guidance, and overall coordination of the project and will meet every three

months or as often as is necessary. The Project Manager shall be the Secretary of the Committee, which will be chaired by the Permanent Secretary, Ministry of Physical Development, Environment and Housing.

172. A Technical Advisory Group (TAG) appointed from the line Ministries involved in project implementation shall support the PSC. The TAG will therefore comprise representatives from the Departments Forestry and Agriculture from the MAFF, the Surveys and Lands Department, Crown Lands Department, the Physical Planning Section and the Housing Section from the MPDE&H as well as the Roads Section of the Ministry of Communications, Works, Transport and Public Utilities.

173. **Implementation Arrangements.** UNDP through its office in Barbados will serve as the Implementing Agency. The project will follow the UNDP National Execution (NEX) modality. The SLM-MSP will utilize Direct Payment Request modality for funds disbursement to ensure greater financial accountability and transparency. UNDP-Barbados will act to ensure that all implementation activities comply with policies outlined in UNDP's Programming and Financial manuals and are in line with UNDP GEF procedures. Where petty cash is needed for office support or similar activities, UNDP will advance funds for a three-month period. At the end of the three-month period, the PMU will submit justification for expenses and the funds spent will be renewed by UNDP. The Government will provide the Resident Representative with certified periodic financial reports and open its accounts to certified auditors in keeping with UNDP and GEF requirements. The project will comply with UNDP's monitoring, evaluation and reporting requirements as spelled out in the UNDP Programming Manual. The PMU PM will have lead responsibility for reporting requirements to UNDP.

174. In accordance with standard UNDP procedures, all resources and equipment gained through project support remain the property of UNDP until project closure when a decision will be taken as to how to dispose of these resources.

175. UNDP-Barbados will also act to provide management oversight and is ultimately responsible for project monitoring, evaluation, timely reporting by the PMU and ensuring the submission of annual audits to UNDP HQ. The regional Coordination Unit in Panama will provide technical backstopping, UNDP GEF policy advice and trouble shooting and advisory services as necessary.

176. Mechanisms will be developed to ensure that the project receives the maximum level of recognition, commitment, support and involvement at the highest level of Government. Agreements will be made between co-financing and partner institutions to ensure full commitment and assure that the objectives of the Project are met.

177. In the case of substantial revisions of the project document, the UNDP Representative in Barbados is authorized to effect in writing the following types of revision, provided that he has verified the agreement thereto by the UNDP- GEF unit and is assured in writing, with signatures, that the Executing Agency, project Director and PSC have no objection to the proposed changes:

- a. Revision of, or addition to any of the annexes to the project document;
- b. Revisions which do not involve significant changes in the immediate objectives, outcomes of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c. Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- d. Inclusion of additional annexes and attachments only as set out here in this project Document.
- e. Any modification of project outputs has to be approved by the UNDP-GEF; any modification of project outcomes has to be submitted for approval to the GEF Secretariat.

178. In case of minor budgetary revisions, the following will require only the approval and signature of the UNDP Resident Representative:

- a) Compulsory annual revisions, reflecting the real expenses of the previous year, duly certified by the national counterpart, and the reprogramming of unused funds for subsequent years, based on the delivery of inputs as agreed upon in this Project Document.
- b) Revisions that do not entail significant changes in the immediate objectives, outcomes or outputs of the project, but that result from a redistribution of the inputs agreed upon, or are due to increase expenses caused by inflation.

179. The substantial or budgetary revisions will be prepared by the UNDP and the PMU, in accordance with the requirements of the project itself.

180. All financial and other partners will be given due recognition. In order to accord proper acknowledgement to GEF for providing funding, "a GEF logo should appear alongside the UNDP logo on all relevant GEF Project documentation and publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding Projects funded by GEF should also accord proper acknowledgement to GEF."

181. Synergies and linkages with related Projects will be established through partnership mechanisms to foster close coordination in implementation. The Project Team will establish and strengthen cooperation between the PMUs of the IWCAM, the Economic and Agricultural Diversification and Poverty Reduction through Integrated Natural Resource Management Project and the National Land Policy Committee, in order to complement execution of certain project components.

182. **Responsibilities by Outcome and Outputs:**

- *Outcome 1 - Mainstreaming SLM into national policies, plans and regulatory frameworks:* The major responsibility for this outcome lies with SDES in collaboration with the Ministry of Finance with respect to Output 1 in particular



and with the MAFF and the Ministry of Legal Affairs, with respect to the other outputs. The NAP development process will continue to be led by the Department of Forestry of the MAFF

- *Outcome 2 – Individual and institutional capacities for SLM developed:* The PMU in close collaboration with the MAFF will take the lead responsibility for Outputs 2.1, 2.2 and 2.3 and 2.4. SDES takes the leadership for Output 2.5.
- *Outcome 3 – Capacities for knowledge management in support of SLM Developed:* The PMU will coordinate this activity in collaboration with a number of agencies. Outputs 3.1 and 3.2 will be lead by the Surveys and Mapping Section, while the MAFF and the MPDE&H will be closely involved in the execution of Outputs 3.2, 3.3 and 3.4.
- *Outcome 4 - Investment planning & resource mobilization for implementation of SLM interventions elaborated:* To be led by the PMU working under the direct guidance of the Economic Affairs Section of the MOF.

183. **Use of Knowledge Management Outputs:** The results of the studies undertaken under KM would be published and widely disseminated. Apart from serving as a source of information, the outputs will be used for specific purposes.

- Output 3.1 Computerized Land Resources Information system (LRIS) within MPDE&H: Information on agricultural, forests and other land uses will be digitized and integrated into a computerized land information system. The staff of and the MPDE&H, the MAFF, the Inland Revenue Department and others will have ready access to the information, via off-line (CD-ROM based) and on-line (intranet/internet) protocols. Government departments, NGOs, private sector, etc. will use the information system to plan and manage all land uses in an integrated manner and to promote SLM.
- Output 3.2 Information databases on land use, land tenure, land degradation, land zoning in Saint Lucia: Information on land use and land degradation would be used by policy planners, technical departments and land users in implementing SLM policies, strategies and programmes.
- Output 3.3 Monitoring and evaluation system for state of environment assessments- This tool will be used by technocrats and policy makers alike to formulate programmes and projects, and to inform decision-making in general.
- The results of the project will, in as much as they are relevant, be shared with the Global Portfolio Project Support Unit in Pretoria as well as with other similar
- projects in the region.

## ***PART IV: MONITORING AND EVALUATION***

### **E. Monitoring and Evaluation Plan**

184. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures for MSPs under the SLM Portfolio Project and will be provided by the project team and the UNDP Country Office with support from UNDP/GEF Global Support Programme and includes the following elements.

185. The Logical Framework Matrix (attached) provides performance and impact indicators for project implementation along with their corresponding means of verification. These indicators have been derived from the Resource Kit for Monitoring, Evaluation, and Reporting on GEF/UNDP supported Sustainable Land Management Medium-Sized Projects in LDC and SIDS countries. The baseline situation presented in this document also utilizes these indicators.

186. Additional baseline information will be documented by the Physical Planning Section (PPS) and submitted to the UNDP Barbados-Eastern Caribbean States (ECS) Country Office and Project Steering Committee using the National MSP Annual Project Review Form in which all 'compulsory' and 'optional' questions and indicators will be completed by 1 July 2007 and updated by that date each year. The Form provides a basis for the annual review of project progress, achievements and weaknesses, for planning future activities, and to obtain lessons learned to inform adaptive management processes. It also supports UNDP Barbados-ECS Country Office-wide reporting and planning. For the optional indicators, the PPS will select the most appropriate indicators for the project and include these in the form. Those indicators included in the Logical Framework Matrix are compulsory and will not be modified. Once completed, the Review form will be forwarded to the UNDP CO which will then forward to the GSU latest by 16 July.

187. The PPS will work with the GSU and the UNDP Barbados-ECS Country Office to complete two annual surveys that each respond to two of the compulsory indicators, which are (a) a compulsory indicator at the Objective level of public awareness regarding sustainable land management; and (b) a compulsory indicator for Portfolio Outcome 1 that requires a survey of a group of land users to determine the percentage that is satisfied with available technical support.

188. These surveys will be implemented with funding included in this MSP project budget.

#### *Monitoring Responsibilities, Events and Communication*

189. A detailed schedule of project review meetings will be developed by the PPS in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. The schedule will include (i) tentative time frames for Tripartite Reviews, Project Coordination Committee Meetings, (or relevant

advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities (see Indicative Monitoring and Evaluation Budget, Table 10).

190. *Day to Day Monitoring of Implementation Process* will be the responsibility of the Project Management Unit, operating out of the PPS and based on the project's Annual Work Plan and its indicators. The PPS will inform the UNDP Barbados-ECS Country Office of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

191. *Periodic Monitoring of Implementation Process* will be undertaken by the UNDP Barbados-ECS Country Office through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities. The Project Manager in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process.

192. *An Inception Report (IR)* will be prepared immediately following the Inception Workshop and submitted within 3 months from the start of project implementation. It will include a detailed First Year/Annual Work Plan divided in quarterly time frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP Barbados-ECS Country Office, or the Regional Coordinating Unit (RCU) or consultants, as well as time frames for meetings of the Project Steering Committee. The report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12-month time frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions, and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond to comments or queries. Prior to this circulation of the IR, the UNDP Barbados-ECS Country Office and the UNDP-GEF's Regional Coordinating Unit will review the document.

193. *Quarterly Operational Reports*: Short reports outlining main updates in the project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the project team.

194. *Technical Reports* will be scheduled as part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary/applicable, this Reports List will be revised and updated, and included in subsequent Annual Progress Reports (APRs). Where necessary, Technical

Reports will be prepared by external consultants and will be comprehensive with specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels. Information from reports will be shared with the CCD focal point and Project Steering Committee.

***Annual Project Report (APR) and Project Implementation Review (PIR)***

195. The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and project management. It is a self-assessment report by project management to the Country Office and provides CO input to the reporting process and the ROAR (Results Oriented Annual Report), as well as forming a key input to the Tripartite Project Review. The PIR is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. These two reporting requirements are so similar in input, purpose and timing that they have now been amalgamated into a single Report.

196. An APR/PIR is prepared on an annual basis following the first 12 months of project implementation and prior to the Tripartite Project Review. The purpose of the APR/PIR is to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The APR/PIR is discussed in the TPR so that the resultant report represents a document that has been agreed upon by all of the primary stakeholders.

197. A standard format/template for the APR/PIR is provided by UNDP GEF. This includes the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- Annual Work Plans and related expenditure reports
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

198. The UNDP/GEF M&E Unit will analyse the individual APR/PIRs by focal area, theme and region for common issues/results and lessons. The Reports are also valuable for the Independent Evaluators who can utilise them to identify any changes in project structure, indicators, work-plan, etc. and view a past history of delivery and assessment.

### *Mid Term and Final Evaluation*

199. The project will be subject to two independent external evaluations. An independent external *Mid-Term Evaluation* (MTE) will be undertaken 18 months after project initiation. The focus of the MTE will be to make recommendations that will assist in adaptive management of the project and enable the PM to better achieve the project objective and outcomes during the remaining life of the project. The Final Evaluation will take place three months before the project is operationally closed, prior to the terminal tripartite review meeting, and will focus on determining progress being made towards the achievement of outcomes and will identify effectiveness, efficiency and timeliness of project implementation; highlight issues requiring decisions and actions; and present initial lessons learned about project design, implementation and management. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals.

### *Audits*

200. The Government of Saint Lucia will provide the UNDP Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the Office of the Auditor General of the Government of St. Lucia, or by a commercial auditor engaged by the Government. The project foresees an audit to be conducted at the end of the project by a recognized national firm.

### *Adaptive Management*

201. Lessons learnt will be continuously extracted from the MSP Project. Lessons will be disseminated through PPS. Among the mechanisms to be used will be inter-Agency MOUs, incorporation into Annual Work Plans and through capacity development and training initiatives. As well, there will be the sharing of information between projects, stakeholders and policy representatives as an effective measure of mainstreaming. There is an opportunity during the implementation of the MSP for review of the implementation of the NAP and to take into consideration the lessons learnt from the MSP.

202. The lessons learnt from the MSP through evaluations will be incorporated into implementation of the MSP. In addition to the monitoring, evaluation and feedback mechanisms already identified, the Project Steering Committee will review progress on a quarterly basis, identifying lessons learnt and discuss project progress with the involvement of wider stakeholder audience as necessary. The ideas and lessons learnt will be incorporated into the management of the project and further implementation process by the Project Steering Committee with adjustments to the Work Plan as required.

**Table 10: Detailed Monitoring and Evaluation Plan and Budget**

<b>M&amp;E Activity</b>	<b>Responsible Party (lead responsible party in bold)</b>	<b>Budget</b>	<b>Time Frame</b>
Inception Report	<b>Project Implementation Team</b>	\$3,000	At project start-up
Annual Progress Report (PIR) and GEF Project Implementation Report	The National Executing Agency (PPS/PMU), <b>Project Team</b> , UNDP Country Office, UNDP/GEF Task Manager	None	By June each year
Tripartite meeting and report (TPR)	National Executing Agency, Project Team, <b>UNDP Country Office</b> , UNDP/GEF Task Manager	\$2,500	Each year on receipt of the APR
Mid-term External Evaluation	<b>National Executing Agency</b> , Project Team, <b>UNDP Country Office</b> , UNDP headquarters, UNDP Task Manager	\$15,500	Middle of year 2 of project implementation
Final External Evaluation	<b>National Executing Agency</b> , <b>UNDP Country Office</b> , UNDP/GEF Task Manager, UNDP/GEF Headquarters, Project Team	\$19,000	At end of project implementation.
Terminal Report	UNDP Country Office, UNDP/GEF Task Manager, <b>Project Team</b>	None	At least one month before end of project
Audit	<b>National Executing Agency</b> , UNDP Country Office, Project Team	\$1,000 per year	Yearly
Surveys (2)	Project Management Unit, UNDP/GEF RCU, UNDP/GEF Task Manager, <b>UNDP CO</b> , <b>Project Team</b>	\$3,000	Two surveys, annually
Lessons learnt	UNDP-GEF, GEFSEC, <b>Project Team</b>	\$3,500	For duration of project
Total		<b>\$49,500</b>	

**RESPONSE TO GEF SECRETARIAT REVIEW**

Provide a concise response to all points raised by GEF Secretariat after first submission (if any).

<b>GEFSEC Comment</b>	<b>Response</b>	<b>Location where document was revised</b>

## SECTION II: STRATEGIC RESULTS FRAMEWORK

Table 11: Project Logical Framework

Project Strategy	Objectively verifiable indicators		Target	Sources of verification	Risks and Assumptions
	Indicator	Baseline			
<p><b>Goal</b> To ensure sustainable management of the land resources of St. Lucia in order to enhance ecosystem health, integrity, stability, functions and services, while contributing directly to the environmental, economic and social well-being of the people of Saint Lucia</p>					
<p><b>Objective of the Project:</b> To strengthen capacity for sustainable land management at the individual and institutional level and to mainstream SLM concepts into national development strategies and policies</p>	<p>Best practices and guidelines for SLM incorporated into at least 4 national development planning, and agricultural or forestry management policies by Y2</p>	<p>SLM not mainstreamed at the systemic level resulting in ineffective management of land resources</p>	<p>SLM considerations are incorporated into relevant legislative, regulatory, policy instruments by end Y2</p>	<p>Published revised legislative and policy instruments in agency reports and in National Gazette</p>	<p>Continued political support for integrating SLM into national development planning</p>
	<p>Percentage increase in staffing and budgetary allocations of the Physical Planning Section of the MPDE&amp;H reflects enhanced capacity to address SLM issues by end Y3. NAP formulation completed and approved by Cabinet of Ministers</p>	<p>Low level of capacity within agencies with land management mandates to effectively manage land resources NAP currently being drafted</p>	<p>Institutional capacity and knowledge management contributing to effective planning in respect of SLM by end Y3 NAP completed and approved by end Y1</p>	<p>Survey results of agency and other stakeholders Cabinet decision published in national Gazette</p>	
<p><b>Outcome 1:</b> SLM mainstreamed into national development policies, plans and regulatory frameworks</p>	<p>SLM considerations are included in the Medium-term Development Strategy by Y3</p>	<p>Guidelines for incorporating SLM into macro-economic policies do not exist; limited capacity to effect mainstreaming process</p>	<p>The Ministries of Agriculture, Forestry and Fisheries, Planning, Development &amp; Environment &amp; Housing and Ministry of Finance use SLM guidelines and best practices to support physical and economic development planning, and formulating macro-</p>	<p>Revised Planning and policy documents (accompanied by relevant SLM economic analyses)</p>	<p>Senior policy and planning authorities are motivated to facilitate the process of integration of SLM considerations into sustainable development plans and strategies; high level political commitment is</p>

Project Strategy	Objectively verifiable indicators			Sources of verification	Risks and Assumptions
	Indicator	Baseline	Target		
<p><b>Outcome 2: Individual and institutional capacities for SLM developed</b></p>	<p>Draft National Land Policy and updated NEP restructured around the principles of SLM; NAP incorporated in Strategic Plan coming out of Land Policy</p>	<p>Most policy instruments do not incorporate SLM</p>	<p>economic policies by mid Y3 Integration of SLM into Draft National Land Policy completed by end Y2</p>	<p>National Land Policy and Strategic Action Plan</p>	<p>Continued political support and funds are mobilized to execute actions in the NAP</p>
	<p>Percentage of technical staff from MPD&amp;H, the MAF, NGOs and CBOs (Farmer Organisations &amp; Water Catchment Groups) trained in provision of technical support and policy guidance on SLM to stakeholders by end Y2</p>	<p>Personnel inadequately trained in SLM (MAFF-Agricultural Engineering and Extension and Forestry Extension Officers) provide some level of conservation education on SLM to farmers and other stakeholders Water Catchment Groups involved in exchange visits (action-learning) and farmer awareness building</p>	<p>At least 50 officers within the MAF (Agriculture and Forestry) and MPD&amp;H and other relevant agencies and 20 representatives of NGOs/ CBOs trained in various technical areas of SLM by end Y2; At least 4 core persons at the national level will be trained at advanced level to be trainer of trainers;</p>	<p>Two (2) published guideline documents (a) soil conservation and drainage for agriculture and urban development (b) soil nutrient management; and one (1) core training manual on SLM for resource personnel. Agency reports (record of technical services rendered).</p>	<p>There is stakeholder consensus for, and buy-in to the process and are willing to participate</p>
			<p>Training Manual for field technicians, farmers, contractors completed by mid Y1; Training audio/visual material developed by end Y1.</p>	<p>Stakeholder survey results (to indicate that training is being applied on the ground)</p>	



Project Strategy	Objectively verifiable indicators		Sources of verification	Risks and Assumptions
	Indicator	Baseline		
	<p>Percentage increase in the number of farmers and other resource users (within construction, commercial, and tourism sectors) that have modified livelihood approaches to incorporate SLM principles.</p> <p>Heightened awareness of land degradation issues and SLM approaches by target stakeholders and the general public</p>	<p>SLM practices readily adopted by some farmers and resource users (in particular Water Catchment Groups)</p> <p>General low level of awareness on impacts of human-induced factors that contribute to land degradation and measures to mitigate land degradation.</p>	<p>Training and workshop reports/proceedings; training and public awareness material; Media Reports; KAP Reports</p> <p>Stakeholder survey to indicate that training is being applied on the ground</p> <p>Media reports and programmes, project reports, public surveys</p>	
			<p>At least 12 training seminars on SLM held for stakeholders within key economic sector groups (agriculture, construction, tourism, commercial) targeting at least 240 completed by Y3.</p> <p>At least 4 capacity-building seminars for community groups and organizations (youth and women's groups) conducted annually.</p> <p>At least 2 KAP Surveys conducted by mid Y3</p> <p>National KAP survey conducted; appropriate SLM awareness programme designed; educational material distributed.</p>	

Project Strategy	Objectively verifiable indicators			Sources of verification	Risks and Assumptions
	Indicator	Baseline	Target		
	Percentage increase in budget allocation in MPDE&H and the MAAF to render required support to SLM approaches	Low level of investment within agencies for support to SLM	Budget allocation of MPDE&H and MAAF for supporting SLM approaches increased by 5% by Y2. Capacity needs assessment for SLM undertaken by March 2007 Revised agency TORs/ mission statements / visions that incorporate SLM considerations;	New/revised staffing structures; Revised agency mandates and mission statements within the MPDE&H and the MAAF; Budgetary allocations by Y2 (GOSL Estimates of Expenditure)	
<b>Outcome 3: Capacities for knowledge management in support of SLM developed</b>	Number of requests for access to computerized Land Resources Information System (LRIS) established within the MPDE&H	Elements of a national digital Land Resources Information System (LRIS) for St. Lucia already exist; Recent aerial photography for entire island undertaken (with assistance of French Government) Spatial information systems (GIS) with limited datasets exist in MPDE&H, MAAF, Department of Statistics, Private Sector Agencies (C&W, LUCELEC but not oriented to SLM decision making	Computerized land information system completed by mid Y3 and readily accessible to users by Y3 Relevant spatial/attribute datasets (land use, land tenure, land degradation, land zoning) compiled by mid Y3	Computer hardware and software procurement documentation; Consultant reports; MOUs or appropriate instruments establishing terms and conditions for data exchange; number of requests as per website counter. Government resource allocation in Estimate of Expenditure (commitment to continued funding for maintenance of the system)	The institutions willing to collaborate on integrated approaches to sustainable land management and to sharing access to land information. Government commits to providing continued funding for maintenance of the system.

Project Strategy	Objectively verifiable indicators			Risks and Assumptions
	Indicator	Baseline	Target	
	<p>LRIS in SLM planning updated regularly through M&amp;E system for state of environment assessment in Saint Lucia</p> <p>Technical staff in MPDE&amp;H and MAFF are developing spatial info products for decision making based on agency and stakeholder requirements for SLM planning</p>	<p>M&amp;E systems on state of land degradation does not exist;            Limited hydrometric data; 2004 aerial photos provide some indication on the extent of land degradation;            Comparative analysis methodology for conflictive land use (hotspot) mapping developed</p> <p>Very limited capacity in application of spatial information systems to sustainable land management planning</p>	<p>M&amp;E protocol for land degradation elaborated based on the UNCCD benchmarks and indicators established by mid Y2;            Rationalisation of monitoring systems within LRIS framework completed by mid Y2;            Land degradation assessment tool (augmenting existing monitoring systems) developed by end Y2;            Priority hotspot mapping methodology for all watersheds identified and implemented by mid Y3;</p> <p>At least 30 officers in the MPDE&amp;H and MAFF trained in the use of land information systems and specific applications to support SLM in development planning across various sectors</p>	<p>Sources of verification</p> <p>Consultant reports;            Land degradation monitoring programme; GIS data outputs            Watershed Assessment outputs (including hydrometric data);            Degradation assessment model;            State of Environment Reports</p> <p>Spatial planning (GIS-based) methodology for guiding land use based on SLM; training reports; Project Reports</p>

Project Strategy	Objectively verifiable indicators			Sources of verification	Risks and Assumptions
	Indicator	Baseline	Target		
<b>Outcome 4: Investment planning and resource mobilization for implementation of SLM elaborated</b>	Percentage technical staff in the MPDE&H and the MAFF trained in guidelines for operation, maintenance and information-sharing of the LRRIS	No guidelines exist for management of spatial information systems	At least 10 officers in MPDE&H and MAFF trained by mid Y2	Published guidelines and metadata standards for system maintenance; information sharing policy; training module for operators; training reports	Investment climate remains favourable; political commitment continues  Private sector understands importance of SLM and is willing and committed to supporting mainstreaming of SLM into productive processes and decisions  Formal commitment to by donors to the financial resource mobilization process.
	The investment plans in key economic sectors (agriculture, tourism, construction, commercial) incorporate priority actions for SLM as defined in NAP	Medium-term Development Strategy (2005 – 2008) completed  Sector investment plans in SLM inadequate	SLM investment portfolio containing prioritised project profiles (bankable projects / new initiatives) completed by end Y2  Incentive instruments approved by Ministry of Finance and the MAFF by mid Y2  Donor round table meeting convened by mid Y3	Sector Investment plans of MOP identifying projects; government budgetary allocation; Consultant reports  Gazetted new/revised incentive regimes  Meeting reports; commitment documentation	
	Incentives for SLM incorporated into main sector incentive regimes including the review and amendment of the Agricultural Incentives Regime  Strategy developed to facilitate donor resource mobilization	No incentive regimes to encourage investment in SLM exist  No funds committed for SLM initiatives			

Project Strategy	Objectively verifiable indicators			Sources of verification	Risks and Assumptions
	Indicator	Baseline	Target		
Outcome 5: Adaptive management and learning	Project Management Unit established and effective	none	PMU is operational within 1 month of Project start-up.	Annual project progress reports Annual workplans	Institutional capacity exists
	Project implementation guided by monitoring and evaluation programme	None	M+E benchmarks and targets realized	Quarterly Operational and Annual project progress reports; Published annual M+E evaluations; Revised Annual work plans (based on findings of M+E)	
	Documented lessons from project implementation	none	Lessons learnt documentation incorporated into annual progress report	Quarterly Operational and Annual project progress reports	

**Table 12: Work Plan**

Output	Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
1.1: SLM integrated into macro-economic policies and regulatory frameworks of Saint Lucia	1.1.1 Prepare draft guidelines for mainstreaming SLM												
	1.1.2 Conduct workshop to validate draft documents												
	1.1.3 Formulate SLM integration strategy within key policy and regulatory framework documentation												
	1.1.4 Review consultation for ratification of outputs												
	1.1.5 Guide the approval process and inclusion of SLM												
1.2: SLM integrated into Draft National Land Policy and the corresponding Strategic Action Plans	1.2.1 Integration of SLM into Finalised Land Policy												
	1.2.2 Integration of SLM into NEMMS (including submission to Cabinet)												
	1.2.3 Inclusion of NAP into Strategic Action Plan for National Land Policy and incorporate into NEMMS												
	1.2.4. Approval, Dissemination and Publishing of Strategic Plan to Land Policy												
1.3: National legislative and regulatory instruments revised that incorporate principles of SLM	1.3.1 Review national efforts on environmental legislation (including biodiversity CZM etc.)												
	1.3.2 Develop draft SLM-supportive legislative instruments (strengthen existing legislation and/or develop new instruments)												
	1.3.3 Host national workshop to ratify proposed amendments and new proposals												
1.4: Cabinet-approved NAP document published	1.4.1 Guide the adoption of the NAP by the Government.												
	1.4.2 Print the NAP documents and widely disseminate.												
2.1: Technical staff from MPDE&H, the MAF, NGOs and CBOs (Farmer Organisations & Water Catchment Groups) trained and actively engaged in providing technical support and policy guidance on SLM to stakeholders	2.1.1 Preparation of suite of information on Watersheds and training manuals on SLM (audio visual aids)												
	2.1.2 Train at least 50 officers within the MAF and MPDE&H and 20 representatives of NGOs/ CBOs												
	2.1.3 Training of Trainers (at least 4 core persons).												

Output	Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
2.2: Trained farmers and other resource users (within construction, commercial, tourism sectors) trained and practicing SLM	2.2.1 Design of training material on SLM for resource users												
	2.2.2 Production and Dissemination of Training Materials												
	2.2.3 Conduct at least 12 training seminars on SLM for at least 240 stakeholders within key economic sector groups (agriculture, construction, tourism, commercial)												
	2.3.1 Develop survey instrument for KAP survey												
2.3: Public education and awareness strategy and support materials on SLM issues developed	2.3.2 Conduct at least 2 KAP surveys on SLM												
	2.3.3 Design a Public Education and Outreach Strategy for SLM												
	2.3.4 PEO materials mass produced (including videos, PSAs etc.) and disseminated to all stakeholders												
	2.4.1 Undertake capacity needs assessment												
2.4: Strengthened support agencies, specifically the MPDE&H and the MAFF have resource capacity to render required support to SLM	2.4.2 Undertake Strategic Visioning / Planning Exercise for relevant agency (ies) within the MAFF and MPDE&H to revise mandates												
	2.4.3 Realignment of Staff (augmenting if needed) and revision of budgetary provisions												
	2.5.1 Utilise IDP concept to initiate coordinating mechanism for SLM												
2.5: Effective inter-agency coordination for SLM achieved	2.5.2 Draft and implement MOUs between relevant agencies												
	3.1.1 Determination of requirements for hub connections (assess existing capacity)												
3.1: Computerized Land Resources Information system (LRIS) within MPDE&H developed	3.1.2 Contribute to finalization of Digital LRIS (procure hardware and software)												
	3.1.3 Launch the system and make it accessible												
	Activity 3.2.1 Consultations with relevant agencies to determine data exchange policy requirements												
3.2: Information databases on land use, land tenure, land degradation, land zoning for Saint Lucia (within LRIS) developed	Activity 3.2.2 Development and Instituting of Data Exchange Policy												
	3.3.1 Design a land degradation assessment framework for Saint Lucia (based on UNCCD B&Is and Project M&E Toolkit)												
3.3: Monitoring and evaluation system for state of environment assessments developed													

Output	Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
3.4: Technical staff trained in analytical applications for decision making to support SLM planning	3.3.2 Train technical officers and select stakeholders in use of methodology through at least 4 training activities 3.4.1 Conduct train-the trainer's workshop for relevant staff of the MPDE&H and MAFF on use of integrated LRS 3.4.2 Conduct workshop on use of the integrated LRS for other stakeholders												
3.5: Technical staff of the MPDE&H and MAFF trained on operation, maintenance and information-access of the LRS	3.5.1 Conduct at least 3 training workshops for system technical operators 3.5.2 Develop training material (including system management protocols)												
4.1: Investment plans in key economic sectors (agriculture, tourism, construction, commercial) that incorporate priority actions for SLM as defined in NAP prepared	4.1.1 Host national workshop on financing for SLM projects 4.1.2 Develop medium term Investment plan for SLM in Saint Lucia												
4.2: Major sector incentive regimes that include the Agricultural Incentives Regime reviewed and amended to include incentives for SLM	4.2.1 Review existing fiscal incentive frameworks in Saint Lucia and design appropriate measures to integrate SLM issues into the new framework 4.2.2 Conduct focus group meetings and workshops to review proposals 4.2.3 Undertake Alternative Livelihoods study for selected sites 4.2.4 Establish incentive regime to encourage the adoption of alternative livelihoods in support of SLM												
4.3: Payment for Environmental Services (PES) regime developed and effected	4.3.1 Undertake an evaluation of existing environmental finance mechanisms and make recommendations for appropriate mechanisms for SLM 4.3.2 Convene stakeholder reviews for ratification and operation												
4.4: Strategy to facilitate the mobilisation of resources from Donors developed	4.4.1 Convene donor forum 4.4.2 Development of Strategy												



Output	Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
5.1 Project implemented in a cost-effective manner in accordance with agreed work plans and budgets	Recruitment of PMU staff and office establishment												
	Inception meeting												
	Bi-annual meetings of the PSC and the TAG												
5.2. Monitoring and Evaluation Plan provides inputs for robust adaptive management	Annual review meetings												
	Surveys of stakeholders												
	Evaluations (Mid and Final)												
5.3. Lessons learned from the project captured and disseminated	Document production and dissemination												



**Table 13. Summary Budget and Co-financing**

<b>AWARD ID: 00040703</b>						
<b>PROJECT TITLE: Capacity building and Mainstreaming of Sustainable Land Management Saint Lucia –PIMS 3450</b>						
<b>GEF Outcome/ Atlas Activity</b>	<b>Responsible Party</b>	<b>Source of Funds</b>	<b>Amount US \$ (Year 1)</b>	<b>Amount US\$ (Year 2)</b>	<b>Amount US \$ (Year 3)</b>	<b>Amount US\$ (Total)</b>
<b>Outcome 1:</b> SLM mainstreamed into national development policies, plans and regulatory frameworks.	GOSL	GEF	41,600	19,000	8,000	68,600
		GoSL	8,500	3,500	1,000	13,000
		EU	17,000	20,000	60,000	97,000
		WB	0	0	0	0
		<b>Sub-total</b>		<b>67,100</b>	<b>42,500</b>	<b>69,000</b>
<b>Outcome 2:</b> Individual and institutional capacities for SLM developed	GOSL	GEF	56,500	57,500	34,500	148,500
		GoSL	7,500	14,000	0	21,500
		EU	64,000	173,500	90,000	327,500
		WB	186,200	0	0	186,200
		<b>Sub-total</b>		<b>314,200</b>	<b>245,000</b>	<b>124,500</b>
<b>Outcome 3:</b> Capacities for knowledge management in support of SLM developed	GOSL	GEF	54,800	58,500	9,000	122,300
		GoSL	16,500	6,000	500	23,000
		EU	118,000	41,500	4,000	163,500
		WB	0	1,500	0	1,500
		<b>Sub-total</b>		<b>189,300</b>	<b>107,500</b>	<b>13,500</b>
<b>Outcome 4:</b> Investment planning & resource mobilization for implementation of SLM interventions elaborated	GOSL	GEF	5,000	29,100	12,000	46,100
		GoSL	1,000	7,000	4,000	12,000
		EU	0	15,000	25,000	40,000
		WB	0	0	0	0
		<b>Sub-total</b>		<b>6,000</b>	<b>51,100</b>	<b>41,000</b>
<b>Outcome 5:</b> Adaptive management and learning (includes M&E)	GOSL	GEF	21,567	35,467	42,466	99,500
		GoSL	42,400	42,300	42,300	127,000
		EU	8,000	8,000	8,000	24,000
		WB	0	0	0	0
		<b>Sub-total</b>		<b>71,967</b>	<b>85,767</b>	<b>92,766</b>
<b>Total GEF</b>			179,467	199,567	105,966	485,000
<b>Total Other (GOSL in-kind and other co-financing)</b>			469,100	332,300	234,800	1,036,200
<b>PDF-A</b>		GEF				15,000
<b>TOTAL PROJECT</b>			<b>648,567</b>	<b>531,867</b>	<b>340,766</b>	<b>1,536,200</b>



## **SECTION III : ADDITIONAL INFORMATION**

**PART 1: GEF Operational focal point endorsement letter (See separate file)**

**PART II: CO-FINANCING LETTERS (See separate file)**

**PART III: DETAILED INFORMATION (See separate file)**



## Annex 1 - Total Budget and Work Plan

Award ID:	00040703
Award Title:	PIMS 3450 Saint Lucia - Capacity building and Mainstreaming of Sustainable Land Management in Saint Lucia
Business Unit:	BRB10
Project ID:	00046154
Project Title:	PIMS 3450 Saint Lucia - Capacity building and Mainstreaming of Sustainable Land Management in Saint Lucia
Implementing Partner (Executing Agency)	MINISTRY OF PHYSICAL DEVELOPMENT ENVIRONMENT AND HOUSING

GEF Outcome/Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	See Budget Note:				
<b>OUTCOME 1:</b> SLM mainstreamed into national development policies, plans and regulatory frameworks <i>Nat. Dev. Plan</i>	GoSL		GEF	71200	International Consultants	0	0	0	0					
				71300	Local Consultants	7,500	5,000	0	12,500	d1; d2				
				72100	Contractual services - Company	12,300	4,800	2,700	19,800	f				
				72500	Supplies	2,800	2,200	2,000	7,000	g				
				73100	Rental & Maintenance-premises	3,400	2,400	800	6,600	j				
				74100	Professional Services	10,500	2,400	1,000	13,900	k				
				74200	Audio Visual&Print prod costs	5,100	2,200	1,500	8,800	l				
					<b>Total Outcome 1</b>	<b>41,600</b>	<b>19,000</b>	<b>8,000</b>	<b>68,600</b>					
				<b>OUTCOME 2:</b> Individual and institutional capacities for SLM developed <i>Ind and Inst Cap for SLM</i>	GoSL			71200	International Consultants	10,000	10,000	0	20,000	d3
								71300	Local Consultants	26,250	11,250	0	37,500	d3;d4
72100	Contractual services - Company	6,000	13,500					11,300	30,800	f				
72500	Supplies	6,250	3,750					4,800	14,800	g				
73100	Rental & Maintenance-premises	3,500	4,500					3,500	11,500	j				
74100	Professional Services	2,000	8,500					7,500	18,000	k				
74200	Audio Visual&Print prod costs	2,500	6,000					7,400	15,900	l				
	<b>Total Outcome 2</b>	<b>56,500</b>	<b>57,500</b>					<b>34,500</b>	<b>148,500</b>					





Outcome	GoSL	GEF	71200	International Consultants	0	24,000	0	24,000	d8;d9
<b>OUTCOME 3:</b> Capacities for knowledge management in support of SLM developed <i>Dist. Local Mgmt. For SLM</i>			71300	Local Consultants	7,500	16,250	0	23,750	d7;d8;d9
			72100	Contractual services - Company	6,500	3,500	2,500	12,500	f
			72500	Supplies	3,500	3,500	1,500	8,500	g
			72800	Information Technology Equipment	19,500	2,750	500	22,750	h
			73100	Rental & Maintenance-premises	2,500	2,000	1,500	6,000	i
			73300	Rental & Maint of Info Tech Equip	6,300	3,000	500	9,800	j
			74100	Professional Services	6,500	2,500	2,000	11,000	k
			74200	Audio Visual&Print prod costs	2,500	1,000	500	4,000	l
	<b>OUTCOME 4:</b> Investment planning & resource mobilization for implementation of SLM interventions elaborated <i>Inv Plan and Res. Mgt.</i>	<b>GoSL</b>	<b>GEF</b>		<b>Total Outcome 3</b>	<b>54,800</b>	<b>58,500</b>	<b>9,000</b>	<b>122,300</b>
			71200	International Consultants	0	12,000	6,000	18,000	d10
			71300	Local Consultants	0	7,500	2,500	10,000	d10
			72100	Contractual services - Company	2,000	3,100	0	5,100	f
			72500	Supplies	1,000	1,000	500	2,500	g
			73100	Rental & Maintenance-premises	1,000	1,500	1,500	4,000	h
			74100	Professional Services	500	1,500	0	2,000	k
			74200	Audio Visual&Print prod costs	500	2,500	1,500	4,500	l
<b>OUTCOME 5:</b> MONITORING, LEARNING, ADAPTIVE FEEDBACK & EVALUATION Adaptive management and learning (includes M&E) <i>Adapt. Mgmt. and Eval.</i>		<b>GoSL</b>	<b>GEF</b>		<b>Total Outcome 4</b>	<b>5,000</b>	<b>29,100</b>	<b>12,000</b>	<b>46,100</b>
			71200	International Consultants	1,000	16,500	20,000	37,500	d10;d11;d12
			72100	Contractual services - Company	3,900	2,300	5,800	12,000	e



- e. **Contractual services – individual:** These are additional short-term services provided by individuals in support of main activities either by consultants or by the PCU. Such services will include, but not limited to, conduct of surveys, conduct of research, preparation of documentation, etc.
- f. **Contractual services – Company:** These are additional services rendered by specialized organizations. These services will include, but not limited to, conduct of surveys, conduct of research, preparation of documentation, equipment installation and service.
- g. **Supplies:** Materials and other consumables
- h. **Information technology equipment:** Costs associated with procurement and installation
- i. **Rental & Maintenance-premises:** It is anticipated that several meetings and training workshops will be held across the country and the budget is reflective of the costs associated with hosting of these meetings. This includes the venue rental and catering for participants.
- j. **Rental and maintenance of information technology equipment:** It is anticipated that rental of equipment for training will be required (computers, GPS units, etc)
- k. **Professional services:** These services will include but not limited to media production, advisory, facilitation, etc.
- l. **Audio, visual and printing production costs:** Costs associated with multiplication of resource materials.

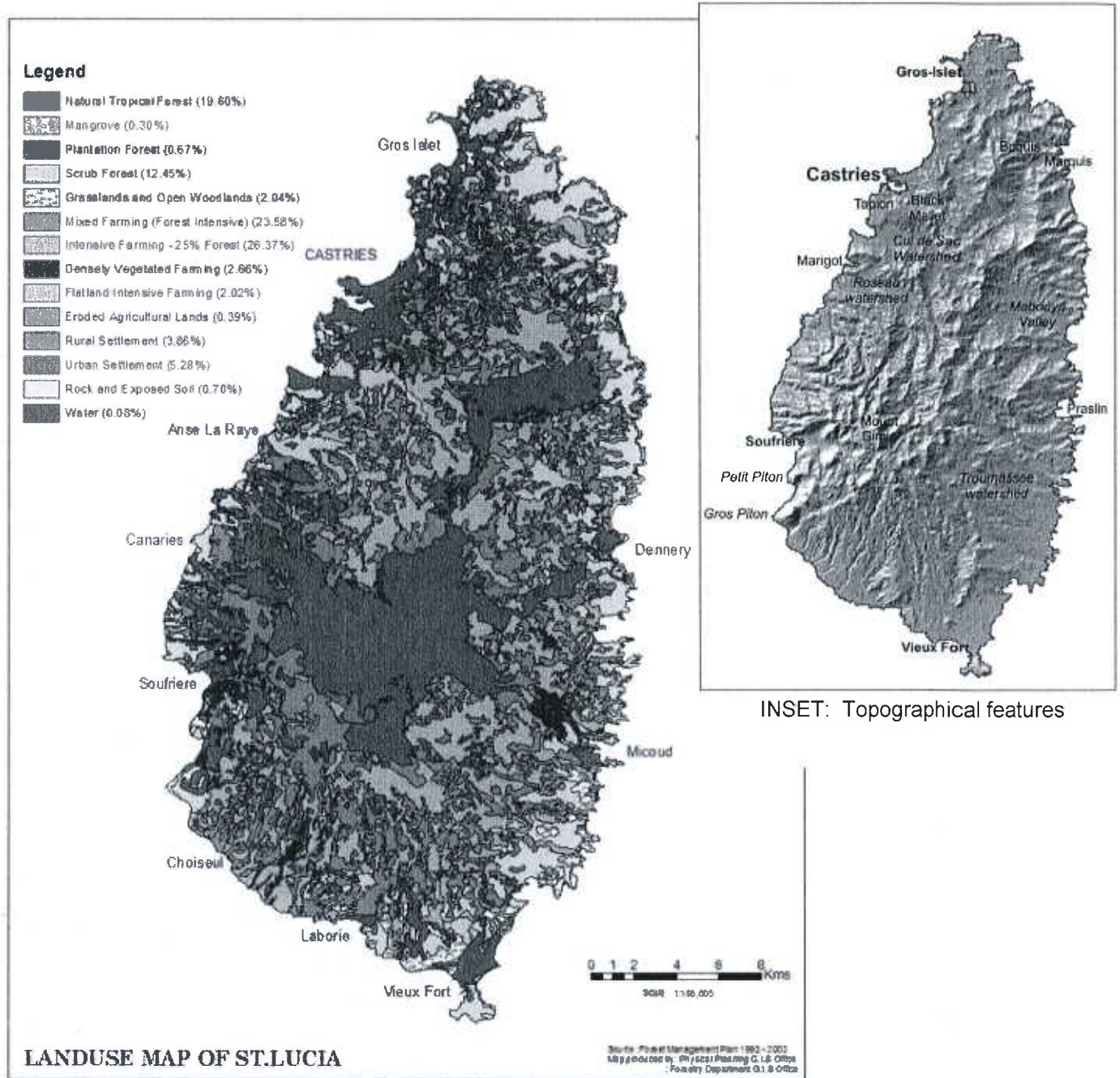
**Summary of Funds: <sup>11</sup>**

	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
<b>GEF</b>	179,467	199,567	105,966	485,000
<b>Donor in-kind: GoSL</b>	75,900	72,800	47,800	196,500
<b>Donor Cash: EU</b>	207,000	258,000	187,000	652,000
<b>Donor Cash: WB</b>	186,200	1,500	0	187,700
<b>TOTAL</b>	<b>648,567</b>	<b>531,867</b>	<b>340,766</b>	<b>1521,200</b>

<sup>11</sup> Summary table should include all financing of all kinds: GEF financing, cofinancing, cash, in-kind, etc. etc

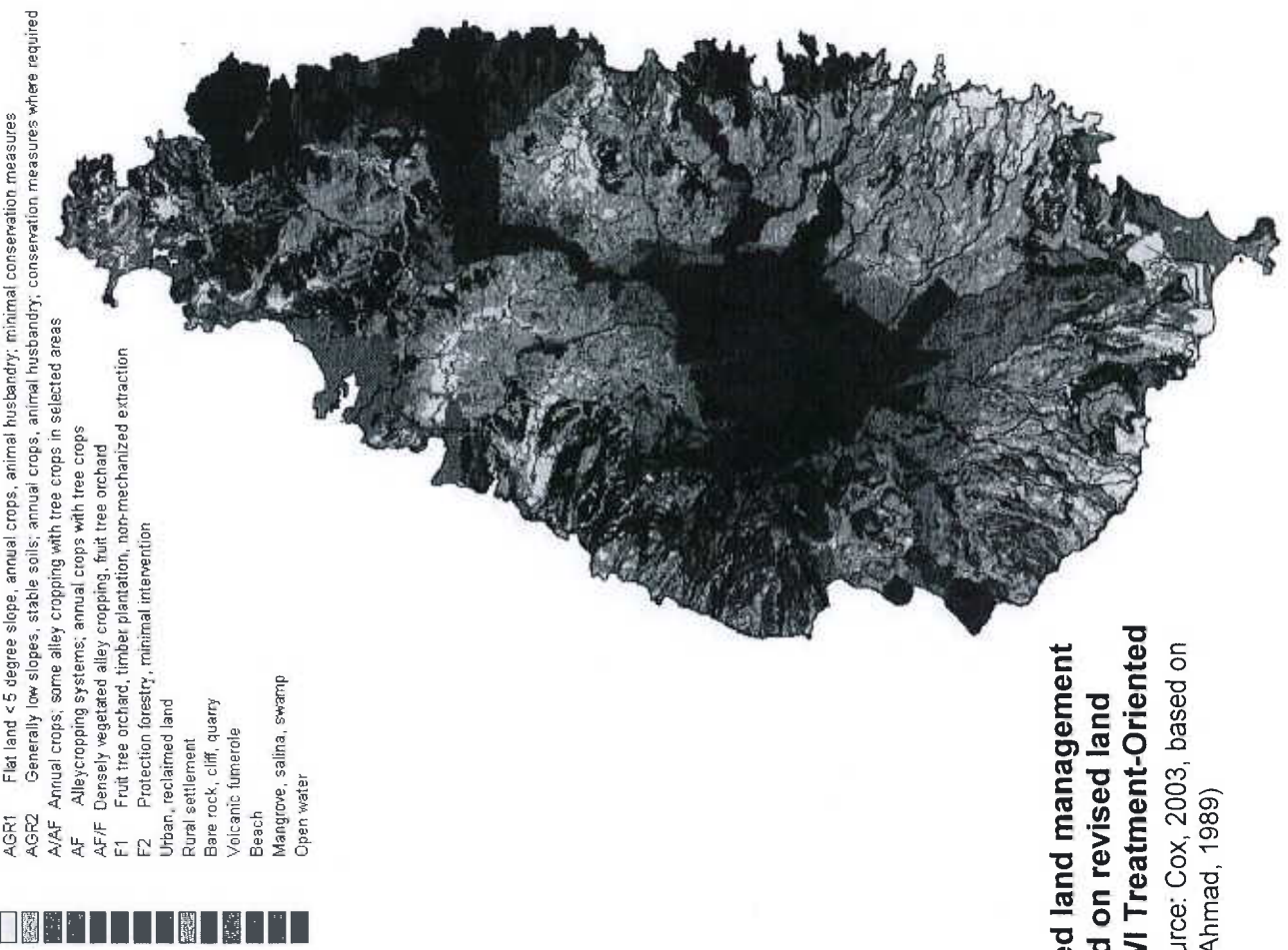


Annex 2 - St. Lucia land use (1992 assessment. Source: 10-Year Forest Management Plan)





### Annex 3 - St. Lucia Land Capability classification.



- Level soils – no limitations
- Nearly level, moderate limitations
- Level – undulating, severe limitations
- Level – undulating, very severe limitations
- Level, no erosion hazard; pasture
- Undulating, hilly, severe limitations; tree crops
- Severe slopes, severe limitations; woodland
- Very severe slopes; woodland, wildlife, water
- Unclassed

- AGR1 Flat land < 5 degree slope, annual crops, animal husbandry, minimal conservation measures
- AGR2 Generally low slopes, stable soils: annual crops, animal husbandry; conservation measures where required
- A/AF Annual crops, some alley cropping with tree crops in selected areas
- AF Alleycropping systems: annual crops with tree crops
- AF/F Densely vegetated alley cropping, fruit tree orchard
- F1 Fruit tree orchard, timber plantation, non-mechanized extraction
- F2 Protection forestry, minimal interpenetration
- Urban, reclaimed land
- Rural settlement
- Bare rock, cliff, quarry
- Volcanic tuff/terrace
- Beach
- Mangrove, salina, swamp
- Open water

**(A) Land capability based on the United States Department of Agriculture (USDA) classification scheme** (source: Saint Lucia Development Atlas (1987))

**(B) Recommended land management regimes based on revised land capability (UWI Treatment-Oriented Approach)** (source: Cox, 2003, based on Polius, 1989 and Ahmad, 1989)





## Annex 4. Summary of Relevant Enabling Legislation.

Agency	Enabling Legislation	Responsibility	Gaps, Overlaps And Potential Conflicts
Department of Forestry, MAFF	Forest, Soil and Water Conservation Act (1946) and Amendment 1983, No. 11	<ul style="list-style-type: none"> <li>➤ Management of Forest resources</li> <li>➤ Establishment of Forest Reserve and protected forests</li> <li>➤ Protection of Forest, Soil and Water, Wildlife resources</li> <li>➤ Management of water catchments</li> </ul>	<ul style="list-style-type: none"> <li>➤ There are six pieces of legislation that provide for the declaration and management of protected areas, but there is no mechanism for co-ordination</li> </ul>
Department of Forestry, MAFF	Wildlife Protection Act, 1980	<ul style="list-style-type: none"> <li>➤ Conservation of wildlife;</li> <li>➤ Designation of wildlife reserves</li> </ul>	<ul style="list-style-type: none"> <li>➤ There are six pieces of legislation that provide for the declaration and management of protected areas, but there is no mechanism for co-ordination</li> </ul>
Development Control Authority, Ministry of Planning, etc.	Physical Planning and Development Act (No. 29 of 2001)	<ul style="list-style-type: none"> <li>➤ ensuring that appropriate and sustainable use is made of all land,</li> <li>➤ providing for the orderly sub-division of land, and;</li> <li>➤ protecting and conserving the natural and cultural heritage of Saint Lucia.</li> </ul> <p>It governs (i) the preparation of physical plans, (ii) development control and regulation, (iii) environmental impact assessment and (iv) miscellaneous matters related to land management and development.</p>	<ul style="list-style-type: none"> <li>➤ One area of possible overlap concerns the protection of natural areas, as this Act confers to the Ministry of Planning responsibilities and authorities already assigned under five other pieces of legislation, namely the National Conservation Authority Act, The Wildlife Protection Act, the Forest, Soil and Water Conservation Ordinance, the Fisheries Act and the Saint Lucia National Trust Act. The main issue here is the absence of a coordinating mechanism among these various instruments.</li> </ul>
Department of Agriculture, MAFF	Agricultural Small Tenancies Act (No.22of 1983).	<ul style="list-style-type: none"> <li>➤ Enforcement of regulations requiring sound soil and water conservation practices on land leased for agricultural purposes.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Not being enforced</li> </ul>
Ministry of Agriculture, Forestry & Fisheries	Land Conservation & Improvement Act 1992	<ul style="list-style-type: none"> <li>➤ Establishes a Land Conservation Board, and with extensive powers in matters of land development and management, including the issuance of protection orders, the establishment on conservation areas, the compulsory acquisition and vesting of lands, and the provision of advice to the Minister of Agriculture.</li> </ul>	<ul style="list-style-type: none"> <li>➤ The Board has not become operational, and the provisions of the Act are not being enforced.</li> </ul>
Department of Agriculture, MAFF	Pesticides Control Act. 1975; Pesticides Control Regulations, 1987	<ul style="list-style-type: none"> <li>➤ Establishment of Pesticide Control Board;</li> <li>➤ Control of import, use, labeling and storage of pesticides;</li> <li>➤ Registration of and licenses for use and storage of pesticides</li> </ul>	<ul style="list-style-type: none"> <li>➤</li> </ul>
Department of Agriculture, MAFF	Plant Protection Act, 1988: Regulations SI, 1995	<ul style="list-style-type: none"> <li>➤ Control of pests and diseases injurious to plants ;</li> <li>➤ Prevent the introduction of potentially harmful exotic species</li> </ul>	<ul style="list-style-type: none"> <li>➤</li> </ul>
Ministry of Health	Public Health Act, 1975	<ul style="list-style-type: none"> <li>➤ Regulatory oversight of sewage, industrial and solid waste disposal;</li> <li>➤ Regulatory oversight of domestic water supply</li> </ul>	<ul style="list-style-type: none"> <li>➤</li> </ul>
National Solid Waste Management Authority	St. Lucia Solid Waste Management Act, 1996	<ul style="list-style-type: none"> <li>➤ Responsibility for solid waste disposal</li> </ul>	<ul style="list-style-type: none"> <li>➤</li> </ul>
St. Lucia National Trust	National Trust Act 1975	<ul style="list-style-type: none"> <li>➤ Management of Parks and protected areas;</li> <li>➤ Preservation of buildings and other objects of historic and architectural value</li> </ul>	<ul style="list-style-type: none"> <li>➤ There are six pieces of legislation that provide for the declaration and management of protected areas, but there is no mechanism for co-ordination.</li> </ul>



National Water and Sewerage Commission /Water Resources Agency	Water and Sewerage Act, 2005	<ul style="list-style-type: none"> <li>➤ regulate the granting of licenses</li> <li>➤ development and control of water supply and sewerage facilities and related matters;</li> <li>➤ designation of water and waste control areas</li> </ul>	➤ came into force in May 2006; Institutional arrangements not yet finalized.
National Conservation Authority	National Conservation Authority Act (1999)	<ul style="list-style-type: none"> <li>➤ Establishment of National Conservation Authority</li> <li>➤ Manage beaches and public spaces;</li> <li>➤ declare any area of land or water a protected area.</li> </ul>	➤ There are six pieces of legislation that provide for the declaration and management of protected areas, but there is no mechanism for co-ordination.
Crown Lands Department, MPDE&H	Crown Lands Ordinance 1946	<ul style="list-style-type: none"> <li>➤ Management of Crown Lands, including unallocated Crown lands and vacant lands.</li> <li>➤ acquisition and divestment.</li> </ul>	
Survey and lands Department, MPDE&H	Land Registration Act 1984, No. 12, Land Registration (Amendment) Act 1986, No. 7, Land Adjudication Act 1984, and Land Adjudication (Amendment) Act 1986, No.8	<ul style="list-style-type: none"> <li>➤ land registration and adjudication;</li> <li>➤ creation of a Land Registry.</li> <li>➤ Provide guarantee of title to land owners, and set mechanisms for settlement of boundary and other disputes.</li> </ul>	
Ministry of Communications, Works, Transport and public Utilities	Beach Protection Act 1967, No.2 and Amendment 1984, No. 9	➤ This Act governs the removal and possession of sand.	There is a possible overlap of responsibility with the Department of Fisheries, especially in Marine Reserves that have not yet been demarcated.
National Development Corporation (NDC)	National Development Corporation Act 1971, No. 8	➤ This Act creates a National Development Corporation and gives it the power to manage lands for industrial and other development purposes.	

**Annex 5 - Key Programme elements under the EU Special Framework of Assistance (SFA) 2003 Programme:**  
*Economic and Agricultural Diversification and Poverty Reduction through Integrated Natural Resource Management*

**1. Legislative and Policy Framework**

- Undertake or update (as necessary) a nationwide survey on land and water resource use to inform legislative and policy interventions;
- Review and revise Legislation, Regulations and Policy governing the management of the natural resources;
- Establish national standards and guidelines in conformity with national legislation and international conventions;
- Develop and institute systems of controls and enforcement mechanisms based on the legislative and regulatory framework for realizing the optimal use of lands in the interest of soil and water conservation and protection, agricultural production, etc.

**2. Effective Planning, Coordination and Decision-making System**

- Assess and recommend improvements and mechanisms for increasing coordination between key agencies and stakeholders;
- Determine data and information management requirements and structures for effective coordination, including development and update of vulnerability indices;
- Provide appropriate institutional and technical support to strengthen natural resource management agencies and authorities involved in programme implementation (principal among these being the Water Resources Management Agency [WRMA]);
- Support education and curriculum development programmes in integrated natural resources management (INRM);
- Establish criteria for priority setting among INRM interventions;
- Establish sectoral integration and harmonization consistent with national long term objectives.

**3. Natural Resource Assessment System**

- Provide support for routine monitoring of the critical parameters required to assess the status of the natural resource on an affordable basis;
- Undertake or update (as appropriate), analyses of the social, economic and cultural factors impacting natural resource management, including user behaviour, elasticity of demand, valuation of the resource base with particular emphasis on watershed vulnerability assessment and classification, the potential effects of urban growth and changing land use patterns, etc.;
- Undertake climatological and hydrological monitoring including continued support for the upgrading of agro-meteorological database and stream gauging stations (information system);
- Establish a land and water resource information system and associated user interface as the basis of a comprehensive Decision Support System (DSS).

#### **4. Community Participation**

- Conduct public sensitisation and awareness building programmes on INRM;
- Empower communities nationally to participate more effectively in INRM initiatives, particularly in environmentally sensitive areas (community Based groups such as the Water Catchment Groups currently have some level of involvement which can be further strengthened);
- Develop participatory watershed management plans and compliance mechanisms for at least three critical watersheds, selection being based, *inter-alia*, on potential for economic diversification and agriculture development, actual or prior levels of banana production, levels of poverty and the level of risk of environmental degradation. The design of such plans must reflect the needs of the local communities and involve them at every stage of planning, implementation and monitoring;
- Encourage the formation and facilitate the sustainability of natural resource special interest groups among farmers, local communities, CBOs, etc., to perform an active role in water catchment maintenance (especially erosion and pollution control), waste management, and biodiversity conservation.

#### **Eligible initiatives for funding under the Environmental Management Fund (EMF)**

- a. reforestation programmes to stabilize vulnerable areas
- b. watershed improvement interventions derived from watershed master plans
- c. alternative cropping
- d. riverbank stabilization and interventions to reduce flood risk
- e. operationalization of land bank including compensation mechanisms for land acquired in trust
- f. water supply systems for both potable water and hillside irrigation
- g. systems for solid and liquid waste management in rural communities especially in upland areas
- h. coastal zone interventions in near shore and marine areas
- i. eco/heritage tourism interventions
- j. technical innovation including inter-alia the exploitation of renewable energy sources, groundwater exploration

## **Annex 6 - Key provisions of the Agricultural Incentives Regime related to soil and water conservation.**

a) *Entrepreneurs seeking land for investment*

*The establishment of a land bank to facilitate consolidation of production, particularly in optimal agricultural production zones. Under a land bank arrangement, private land owners will be encouraged to vest their (unutilized) lands in trust with the land bank. The land bank will in turn lease these lands for agri-business enterprises at prescribed rates so as to return economic benefit to the land owners and facilitate administrative cost associated with the management of the land bank mechanism. While priority will be given to young entrepreneurs seeking access to land, the programme will be open to all.*

*Participant land owners in the land bank programme can be eligible for tax waivers (when the property tax roll, particularly in rural areas becomes regularized). Owners of high-value agricultural lands who keep these lands in a state of idleness where no apparent limitation to production exists, and do not participate in the land bank programme may be subject to property tax penalties (the limitations imposed by 'joint' family title are noted however).*

b) *Water users associations (includes farmers groups who operate irrigation systems):*

*Duty and tax concessions on equipment procurement, specifically pumps and delivery apparatus including replacement parts.*

c) *Land owners who conserve forest lands for soil and water conservation:*

*Special tax concessions to land owners for the reservation of lands under forest, assuming regularization of property tax collection. This will be revisited at such time when relevant.*

*Rebate to land owners as part of collections through revenue from a Water Levy imposed on WASCO's receivables. This is to be generated through a tax, based on water consumption to contribute towards a fund that will go towards rebates to land owners of forested water catchments that are declared (and zoned) Protected Forests (under the Forest, Soil and Water Conservation Ordinance). As Protected Forest, development of these lands will be restricted. The tax is intended to meet the opportunity cost to the land owner in terms of revenue foregone. The levy should be structured based on class of user; commercial versus domestic, and applied on a sliding scale depending on consumption.*

*Special technical and material support to schools by the Ministry of Agriculture, Forestry and Fisheries (MAFF) promoting Agriculture, Fishery and Agri-business education as part of curriculum.*

**SIGNATURE PAGE**

Country: **Saint Lucia**

UNDAF Outcome(s): Reduced poverty and food insecurity

Expected Outcome(s)/: More rural persons with access to agricultural lands.

Expected Output(s)/: National Land use policy available  
Training in Good Agriculture Practice provided to rural poor.

Implementing partner: **United Nations Development Program**

Other Partners: **The Government of Saint Lucia; Ministry of Agriculture, Forestry and Fisheries  
CARICOM/CEHI**

Programme Period: 2007-2010  
Programme Component: OP15-SP1  
Project Title: Capacity building and Mainstreaming of Sustainable Land Management in Saint Lucia  
Project ID: \_00046154\_  
Project Duration: 3 yrs  
Management Arrangement: NEX

Total Budget:	<b>1,521,200</b>
GEF Trust Fund	<b>485,000</b>
Allocated resources:	<b>1,036,200</b>
• Government (in-kind):	196,500
• Bilateral:	839,700

**Agreed by (Government):** \_\_\_\_\_

**Agreed by (Implementing partner/Executing agency):** \_\_\_\_\_

**Agreed by (UNDP):** \_\_\_\_\_

