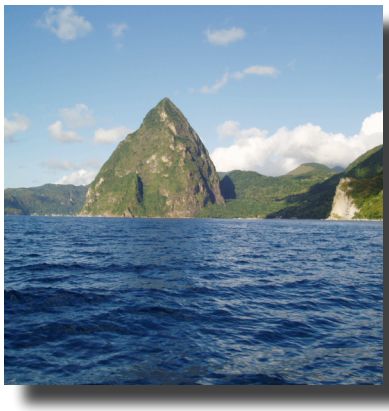
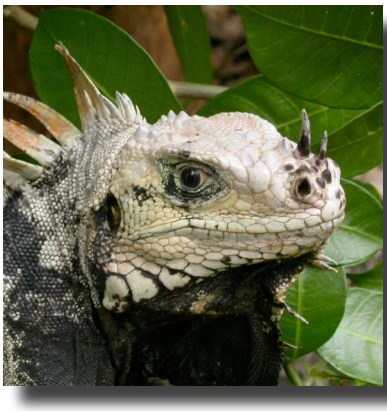


OECS Protected Areas and
Associated Livelihoods Project

A Systems Plan for Protected Areas in Saint Lucia



David Haffey
9th December 2009

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Cover Photographs
(all © David Haffey except 'St Lucia Iguana' © Matthew Morton- Durrell Wildlife Conservation Trust)

Gros Piton: part of the proposed Pitons National Park
St Lucia Iguana: a rare endemic species and potentially an emblem for the proposed Iyanola National Park
Grand Anse: an internationally important turtle breeding beach and part of the proposed Iyanola National Park
Old Dormitories: part of the historic military site at Vigie, close to Castries harbour

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Preface

This Systems Plan has been prepared on contract to OECS as part of the OECS Protected Areas and Associated Livelihoods (OPAAL) Project. Whilst the text of the Plan has been written by the consultant, David Haffey, appointed to this contract, the concepts and proposals presented are largely a reflection of the views and opinions of the many people who participated in the various meetings and workshops that were held during the course of its preparation.

I would like to take this opportunity to express my appreciation to all of those who contributed to this process, without whom this Plan could not have been produced. I would, however, like to offer my special thanks to Sarah George of OECS; Bishnu Tulsie and Lavina Alexander of the Saint Lucia National Trust; Ruth Blyther of the Nature Conservancy and Matthew Morton of the Durrell Wildlife Conservation Trust, to whom I am particularly indebted.

David Haffey
9th December 2009

Executive Summary

Background

S1 In 1992, following an extensive process of research and consultation, a plan was prepared which set out detailed proposals for a 'System of Protected Areas in Saint Lucia'. This Plan proposed the establishment of a network of 27 'management areas', comprising both existing designated areas, together with a suite of new ones. This Plan was not adopted by the Government of Saint Lucia, although it has been widely used to guide and inform the day-to-day work of both governmental and non-governmental institutions.

S2 Currently, the principal protected areas in Saint Lucia are the Forest Reserve and Protected Forests, together with the Pitons Management Area (also a World Heritage Site), the Pointe Sable Environmental Protection Area and the Soufriere Local Fisheries Management Area. A network of 24 Marine Reserves (two of which are RAMSAR sites) also exists but these are not managed by any effective means.

Rationale and Objectives of a New System of Protected Areas

S3 The preparation of this new Protected Areas Systems Plan forms part of the OECS Protected Areas and Associated Livelihoods Project. The aim of this Plan is to create a framework for the designation, protection and effective management of a comprehensive network of protected areas across Saint Lucia. These protected areas are seen as an essential part of the process of securing a sustainable environmental, social and economic future for Saint Lucia. If the Plan is to achieve its goal, four critical requirements will need to be met:

- the consistent and long term support of all political parties in Saint Lucia in relation to the statutory designation, legal protection and effective management of protected areas;
- the development of a national policy and institutional framework which places protected areas at their heart;
- the allocation of adequate and secure resources to protected area management, especially in relation to finance and personnel;
- the support and involvement of local communities so that they play an active and meaningful role in the management of protected areas and are able to share in any economic and social benefits that may be generated.

S4 The objectives of the system of protected areas proposed in this Plan are:

- to conserve and enhance the natural beauty and cultural heritage of Saint Lucia;
- to sustain the productivity and quality of natural ecosystems, particularly in relation to forestry, fisheries and tourism;
- to conserve all critical, and potentially critical, habitats necessary for the maintenance of endemic animal and plant species;
- to safeguard the quality and continuity of the country's water supply;
- to promote the restoration and rehabilitation of degraded terrestrial and marine habitats;
- to raise understanding, awareness and appreciation of the island's rich natural and cultural heritage;
- to support the social, economic and environmental well-being of local communities;
- to provide opportunities for outdoor recreation and enjoyment of Saint Lucia's natural and cultural heritage.

Systems Plan Development

S4 To assist the development of the Plan, it was initially envisaged that a Technical Steering Team, comprising representatives of several government departments and non-governmental organizations, would undertake a series of 'field assessments' to ascertain the current status of all existing protected areas and the protected areas proposed in the 1992 Systems Plan.

This work was never carried out and therefore this Plan has had to be developed in the absence of much of the detailed site information that should have been available. To circumvent this problem, an alternative approach was adopted, with expert assistance being provided by the Saint Lucia National Trust, The Nature Conservancy and the Durrell Wildlife Conservation Trust. The two key strands of this approach involved:

- an 'Ecological Gap Analysis', undertaken through a 3 day workshop in July 2008 to determine the targets and goals for terrestrial, freshwater and marine habitats and species and to identify the optimum spatial distribution of protected areas which would encompass a representative and comprehensive range of these habitats and species;
- a 'Management Effectiveness Study' which used an established methodology developed by the World Wildlife Fund (WWF), the 'Rapid Assessment and Prioritization of Protected Areas Management' (RAPPAM) methodology, to determine the strengths and weaknesses of protected areas in Saint Lucia and the challenges that they face.

S5 The outputs of the Ecological Gap Analysis and the Management Effectiveness Study were discussed at a two-day Protected Areas workshop held in April 2009 and were used to develop the protected areas proposals presented in this Plan. This workshop was attended by representatives of government departments and non-governmental organizations and facilitated by representatives of the Saint Lucia National Trust, the Nature Conservancy and the Durrell Wildlife Conservation Trust, together with the consultant commissioned to prepare this Systems Plan. There was a very broad consensus as to the structure of the new protected areas system and detailed discussions were held as to the types of designation that should be adopted and the geographical areas that each designation should encompass. Careful consideration was also given to the IUCN category to which each protected area designation should be assigned.

S6 A Draft Systems Plan was prepared in September 2009 and was the subject of a series of consultations meetings, held in early November 2009 with representatives of the public and private sectors and with local communities. The draft document was modified in the light of the comments received and is now submitted to OECS as 'The Saint Lucia Protected Areas Systems Plan'.

Protected Areas Proposals

S7 It is emphasised that a new System Plan cannot, in itself, solve the problems that have been highlighted by the Ecological Gap Analysis and the Management Effectiveness Study. It can be an advocate for change and can put forward specific proposals as to how these issues should be addressed. However, the successful implementation of these proposals, leading to the effective protection of Saint Lucia's natural and cultural resources, lies in the hands of the Saint Lucia government and its people.

S8 The proposed new system of protected areas focuses on six key themes:

- protecting the natural beauty, biodiversity and historic and cultural heritage of extensive landscapes and seascapes that epitomise the essential character and quality of the island of Saint Lucia;
- protecting endemic, rare and endangered species of flora and fauna and the habitats upon which they depend;
- conserving historic and archaeological sites/areas that form part of the cultural heritage of Saint Lucia and its people;
- ensuring the sustainable management of natural resources, especially water, timber and minerals;
- raising awareness, understanding and support for protected areas amongst all sections of society;
- promoting social and economic linkages between protected areas and their local communities.

S9 Seven categories of protected area are proposed: these include two existing designations and five new designations. In each case the objectives and purposes of designation are presented.

Designation Type	IUCN Category	New or Existing Designation
Forest Reserve & Protected Forest	II V	Existing
National Park	V	New
Protected Landscape	V	New
Marine Management Area	V	New
Nature Reserve	1b	New
Marine Reserve	1b	Existing
Historic Site	N/A	New

S10 The key protected areas proposed by the Plan are summarised below. In each case the qualities of the protected area is described and the reasons for designation are presented.

Designation Type	Name	Area (ha.)	% Area of System	% Area of Saint Lucia
Forest Reserve	Saint Lucia Forest Reserve & Protected Forests	9190	36%	15%
National Parks	Pitons National Park	6160	24%	10%
	Iyanola National Park	5090	20%	8%
Protected Landscape	Anse Cochon Protected Landscape	410	2%	1%
	Dorée Piaye Protected Landscape	1120	4%	2%
	Mandelé Protected Landscape	2060	8%	3%
	Pointe Sable Protected Landscape	770	3%	1%
Marine Management Area	East Coast Marine Management Area	TBD	-	-
	West Coast Marine Management Area	TBD	-	-
	Laborie Marine Management Area	TBD	-	-
	Cold Upwelling Marine Management Area	TBD	-	-
Nature Reserves	10 No.	TBD	<2%	<1%
Marine Reserves	24 No.	TBD	No Data	No Data
Historic Sites	TBD	-	-	<-
TBD: to be determined following survey and assessment				

National and International Linkages

S11 The linkages between the Systems Plan and planning policies are examined in detail. At an international level, a key document is seen to be the 'Small Island Developing States Plan of Action' of 1994 which provided the platform for the 'St. George's Declaration of Principles for Environmental Sustainability in the OECS' in 2001. In turn, this led to the preparation of the 'OECS Environmental Management Strategy' in 2002 which was a key milestone in the development and harmonisation of environmental policy across the OECS in that it sets out the most critical actions needed to give effect to each of the principles identified in the St. George's Declaration.

S12 At a national level, it is acknowledged that the preparation of the Systems Plan is taking place at a time of considerable activity in the development of environmental, land use and sustainable development policies and that it must therefore be seen in the context of several Government reviews and policy statements. A critical gap in the national policy framework is the absence of a national Land Use Plan or Development Plan to amplify the principles set out in the 2007 National Land Policy and provide a spatial context for the Systems Plan.

Institutional Arrangements

S13 The establishment and effective management of the proposed system of protected areas will require new institutional arrangements to be put in place. Key requirements of these arrangements are that they should:

- be ‘fit for purpose’ in terms of their capacity to achieve the objectives of protected areas;
- be simple, logical, easy to operate, cost effective and robust;
- build on existing institutional arrangements, so far as this is possible, and avoid duplication of effort;
- reflect and respect the needs, interests and aspirations of all stakeholders, including government departments, non-governmental organisations and local communities;
- command broad support and promote a coordinated approach to management.

S14 Proposals are presented with respect to the administrative arrangements that should be put in place for the management and governance of the different categories of protected area. In summary these comprise:

- *Forest Reserve, Protected Forests and Nature Reserves:* responsibility of the Department of Forestry (excepting Nature Reserves owned by, vested in or managed by the Saint Lucia National Trust);
- *National Parks, Protected Landscapes and Historic Sites:* responsibility of a new National Parks and Protected Landscapes Section within the Ministry responsible for Physical Development and comprising a minimum of seven staff headed by a Chief National Parks and Protected Landscapes Officer (excepting Historic Sites owned by, vested in or managed by the Saint Lucia National Trust);
- *Marine Management Areas and Marine Reserves:* responsibility of the Fisheries Department with the appointment of two new staff, working alongside other disciplines such as research, resource management, extension etc.

S15 It is proposed that a Protected Areas Advisory Board should be established to provide guidance and on protected areas policy and practice to the above Government Departments. This would comprise: nine representatives from Government Departments; representatives of three non-governmental organisations concerned with environmental or cultural matters; and the chair of each of the four ‘Local Community Fora’ [see S15 below].

S16 To facilitate the engagement of local communities and community organisations in the management and development of protected areas, it is proposed that four Protected Area Fora should also be established. These would each cover distinct parts of the island and would provide a mechanism for local people and organisations to input to the management of the protected areas within their locality.

Legal and Administrative Arrangements and Funding

S17 A detailed review is presented of current and draft legislation in terms of its suitability as a vehicle for the designation of the different categories of protected area. Particular consideration is given to the legislative implications of establishing National Parks and Protected Landscapes - the two new designations that lie at the heart of the Plan.

S18 Proposals are presented in relation to two key operational aspects of the future management of the proposed protected areas; i.e. capacity building, especially in relation to the proposed new protected areas staff; and the need for joint working, particularly across government departments and non-governmental organizations.

S19 Details are given of the likely costs of establishing and managing the proposed protected area network. Consideration is also given to potential funding mechanisms although it is acknowledged that specialist research into this subject is currently being undertaken as part of the OPAAL Project.

S20 Finally, the process of Systems Plan development and implementation is described, with details being given in relation to the community consultation procedures that have been followed, the steps that will need to be taken to implement the Plan, and the timescale over which this implementation process should take place.

1. Context

Background

1.1 The concept of 'protected areas' is one that goes back to the late 19th century when designations focussed on the creation of National Parks with the primary aim of conserving areas of pristine wilderness which would be owned and managed by the nation, for the nation, and would be 'reserved from settlement, occupation or sale...'. Since then, many different types of protected area have been established across the world, from those that conserve the world's great natural ecosystems to others that contain modified landscapes of outstanding scenic and cultural importance. Across this broad spectrum of types, over 140 different names have now been applied to protected areas.

1.2 The first widely used definition of a 'protected area' was that incorporated within the 1992 Convention on Biological Diversity as '*a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives'*(1). In 1994, the IUCN published guidelines which sought to bring some consistency and rigour to the process of designation by establishing an internationally agreed set of protected area management categories (2). A central principle of these guidelines is that categories are defined by the objectives of management, not by the title of the area or the effectiveness of management in meeting those objectives.

1.3 The definition of 'protected area' adopted by the 1994 IUCN Guidelines is *'an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.'* This definition builds on the earlier version within the 1992 Convention by incorporating specific mention of the need to protect natural and cultural resources, as well as biological resources.

A System of Protected Areas for Saint Lucia (1992)

1.4 The first protected area in Saint Lucia was the Castries Waterworks Reserve, designated in 1916 with the aim of protecting soil, water and timber resources in the island's central watersheds. Over succeeding decades, legislation was enacted which provided for the designation and management of three key categories of protected area; i.e Forest Reserves/Protected Forests, Marine Reserves and Wildlife Reserves. However, this was a largely *ad hoc* process which lacked a strategic or systematic approach to environmental protection and resource conservation.

1.5 In October 1988, it was decided to establish an Advisory Committee, under the auspices of the Saint Lucia National Trust, to guide the preparation of a formal and structured plan for a 'System of Protected Areas in Saint Lucia' (3). The production of this plan was a response to 'a growing realisation within the population and among governmental and non-governmental institutions that the natural and cultural heritage of the country is subject to major and unprecedented threats'. It was published in 1992 following an extensive process of research and consultation and was 'offered to the nation as an instrument to help arrest the patterns of degradation and destruction, and as a guide toward a more rational use of the country's rich patrimony'.

1.6 The Plan proposed that five new protected area 'management categories' should be created (i.e. 'National Parks', 'Protected Landscapes', 'Nature Reserves', 'Historic Areas/Sites' and 'National Landmarks') to supplement the three that already existed. In turn, these would provide the foundation for the establishment of a network of 27 'management areas', comprising both the existing designated areas, together with a suite of new ones. The Plan also proposed that some 120 additional smaller sites of particular natural, cultural or historic significance should be designated, often within the boundaries of the larger 'management areas'. The Plan provided descriptions and maps of each of the 27 'management areas' (plus brief details of any subsidiary sites) together with an outline programme for their establishment and management. A summary of the designations proposed under the 1992 Plan is attached at Appendix 1.

1.7 The 1992 Systems Plan was widely regarded as a very thorough and professional document which offered a sound foundation for the sustainable management of Saint Lucia's natural and cultural assets. Unfortunately, it has not been adopted by the Government, although it is understood that it has been widely used to guide and inform the day-to-day work of both governmental and non-governmental institutions.

1.8 Since 1992 a number of other sites have been formally designated by the Government of Saint Lucia under other, more recent national legislation, most notably the Physical Planning and Development Act, 2001 (see Table 1 below). Additional impetus for the designation of protected areas has also arisen from obligations under international conventions which the Government of Saint Lucia has ratified or to which it has acceded (see Appendix 2): those of particular relevance are:

- Ramsar Convention on Wetlands, 1971;
- World Heritage Convention, 1972;
- Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (Cartagena Convention),1983;
- Convention on Biological Diversity 1992.

1.9 In some cases the geographical areas designated under these Conventions mirror those designated under national legislation (e.g. the Pitons Management Area and the World Heritage Site).

Table 1: Summary of Current Protected Area Designations in Saint Lucia

Designation	Purpose	Number	Total Area (ha.)
Forest Reserve	Conservation of forest soil and water resources on crown land	12	9190
Protected Forest	Conservation of forest soil and water resources on private land	24	
Wildlife Reserve	Protection, conservation and management of wildlife including mammals, birds, frogs, reptiles, fishes and crustaceans - but not plants	2	1328+
Marine Reserve	Various, including protection of flora and fauna (especially those in danger of extinction); protection of breeding grounds and habitats of aquatic life; allowing regeneration of depleted species; promotion of scientific study and research; and preservation of areas of natural beauty.	24	No Data
Local Fisheries Management Area	To regulate the conduct of fishing operations	2	No Data
Environmental Protection Area	To afford special protection to areas 'of natural beauty or natural interest, including submarine and subterranean areas'.	2	No Data
World Heritage Site	Protection of natural and cultural heritage of 'outstanding universal value'	1 [1]	2909
Ramsar Site	Protection of wetlands	2 [2]	No Data

[1] Coincident with one Environmental Protection Area
[2] Coincident with two Marine Reserves

1.10 A more detailed summary of these existing protected area designations is attached at Appendix 3. Additional information on these designations is also available in a 'Review of the Policy, Legal and Institutional Frameworks for Protected Areas Management in Saint Lucia' (4), undertaken as part of the OECS Protected Areas and Associated Livelihoods (OPAAL) Project.

Rationale for a New Protected Areas Systems Plan

1.11 The IUCN definition of 'protected area' includes an explicit statement that their key purpose is to protect and maintain 'biological diversity' and 'natural and associated cultural resources'.

The rationale for this Systems Plan must therefore be to provide a framework for the designation, protection and effective management of a comprehensive network of protected areas across Saint Lucia.

1.12 The 1992 Systems Plan was published after an exhaustive process of scientific research, site survey and consultation and is a testament to the hard work of many people, most notably Giles Romulus and Robert Devaux. Whilst this Plan was not adopted by Government, it offers a very sound foundation on which to build this new Systems Plan, which will hopefully have greater success in securing political support and in effecting the protection of Saint Lucia's natural, cultural and historic heritage.

1.13 This heritage is one of the country's key national assets which belongs not only to the island's present generation, but also to future generations. The current trend towards exploitation of those assets for short term gain, primarily for the purposes of tourism development, is unsustainable and will have significant environmental and economic consequences. As Saint Lucia's traditional industries such as agriculture and fisheries decline, this economy will be increasingly tied to its attractiveness as a destination for overseas tourism - a market that is founded upon the island's natural beauty and pristine environment. With the tourism market becoming increasingly competitive and discerning, it will be especially important that Saint Lucia places the highest priority on safeguarding its environmental quality and its unique offer as a tourism destination.

1.14 The involvement and support of the local communities living in and around the proposed protected areas will be essential to their success. These communities should be encouraged to play an active and meaningful role in their management and should be provided with the opportunity to derive tangible social and economic benefits from the activities that take place within them. Protected areas are not, and should not be seen as 'no go' areas for settlement, development or economic activity. Rather, the emphasis should be on ensuring that any such activities are of appropriate type and scale that does not detract from the essential character and qualities of the area and provide long term and genuinely sustainable forms of employment and income generation.

1.15 The creation of an effective network of protected areas could go a long way towards securing that future. However, it must be recognised that this Systems Plan is only a means to that end; it is not an end in itself. If the Plan is to achieve its goal, four critical requirements will need to be met:

- the consistent and long term support of all political parties in Saint Lucia in relation to the statutory designation, legal protection and effective management of protected areas;
- the development of a national policy and institutional framework which places protected areas at their heart;
- the allocation of adequate and secure resources to protected area management, especially in relation to finance and personnel;
- the support and involvement of local communities so that they play an active and meaningful role in the management of protected areas and are able to share in any economic and social benefits that may be generated.

Objectives of the Systems Plan

1.16 The 1992 Systems Plan presented a set of nine objectives which were seen by its authors as being vital to its success in 'providing a complete and coherent framework for the management of the country's unique but fragile patrimony'. These objectives offer a very succinct, coherent and articulate statement of the key aims and objectives of the Systems Plan and the principles that they espouse are as valid today as they were in 1992.

1.17 Since 1992, the most significant shift in policy goals for protected areas relates to their role in contributing to 'sustainable development'. Whilst this term has been attributed with many definitions, the one that is most apposite in this context is its original, as stated by Gro Harlem Brundtland, the chair of the World Commission on Environment and Development in 1883; i.e. 'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs' (5). For development to be genuinely

sustainable it must respect, and find an appropriate balance between social, economic and environmental goals. The critical issue with respect to the sustainable management and development of protected areas is that priority must be given to environmental goals, although in many instances, these will support social and economic goals. The 1992 objectives make no explicit reference to 'sustainable development', but the principles that underpin this concept are clearly enshrined within them.

1.18 Overall, the objectives in the 1992 Systems Plan are seen as being clear and comprehensive and they have therefore been used to provide the framework for a new, updated set of objectives, as set out below:

- to conserve and enhance the natural beauty and cultural heritage of Saint Lucia;
- to sustain the productivity and quality of natural ecosystems, particularly in relation to forestry, fisheries and tourism;
- to conserve all critical, and potentially critical, habitats necessary for the maintenance of endemic animal and plant species;
- to safeguard the quality and continuity of the country's water supply;
- to promote the restoration and rehabilitation of degraded terrestrial and marine habitats;
- to raise understanding, awareness and appreciation of the island's rich natural and cultural heritage;
- to support the social, economic and environmental well-being of local communities;
- to provide opportunities for outdoor recreation and enjoyment of Saint Lucia's natural and cultural heritage.

Categorisation of Protected Areas

1.19 The IUCN 'Guidelines for Protected Area Management Categories' (2) published in 1994 identify six 'Management Categories', numbered I to VI, as defined below. Fuller definitions of these categories are attached at Appendix 4 and a matrix of the principal and subsidiary management objectives for each category is attached at Appendix 5. The categories imply a gradation of human intervention, from effectively none in some Category I areas to quite high levels of intervention in Category V areas. Since Category VI was added to the system after Categories I to V had been established, it does not fit neatly into the pattern but conceptually lies somewhere between III and IV.

Table 2
IUCN Protected Area Management Categories

Category	Title (Indicative only)	Principal Purpose of Management
Ia	Strict Protection	- mainly for science
1b	Wilderness Area	- mainly for wilderness protection
II	National Park	- mainly for ecosystem protection and management
III	Natural Monument	- managed mainly for conservation of specific natural features
IV	Habitat/Species Management Area	- managed mainly for conservation through management intervention
V	Protected Landscape/ Seascape	- managed mainly for landscape/seascape conservation and recreation
VI	Managed Resource Protection Area	- managed mainly for the sustainable use of natural ecosystems

1.20 In promoting the designation of protected areas, IUCN places considerable emphasis on the need to see them, not as isolated units, but as landscapes that are linked socially, economically and environmentally to the surrounding area. This will be especially important in Saint Lucia, where protected area designation and management has had a low priority, except in relation to the Forest Reserve, and has had little influence on government policy, even in relation to environmental protection. If the new Systems Plan is to be successful, it will be essential that it is fully integrated within and across national policy frameworks, especially in relation to land use planning, tourism and economic development.

1.21 This Systems Plan has been developed in accordance with the principles set out in the IUCN Guidelines, thereby enabling the majority of the new and existing protected areas to be allocated to one of the six recognized management categories. This will be of importance at a national level in providing a systematic categorization of protected areas and in ensuring that there is consistency of approach between OECS members which allows for international comparison. The use of these categories will be of value to Saint Lucia in several other ways, but especially in raising the profile of their protected areas across the Caribbean; in demonstrating that different types of protected areas can fulfill different purposes; and in promoting the idea that protected areas form part of an integrated land use management system.

2. Site Assessment

Background

2.1 Work on the development of the new Systems Plan commenced in October 2006. From the outset, it was envisaged that a Technical Steering Team comprising representatives of several government departments and non-governmental organizations (see Appendix 6) would undertake a series of 'field assessments' to ascertain the current status of all existing protected areas and the protected areas proposed in the 1992 Systems Plan. Specifically, these site assessments were intended to:

- highlight features of conservation interest and importance;
- examine and comment upon each site's current condition;
- assess whether they were worthy of protection through the new Systems Plan;
- propose site boundaries.

2.2 The site assessment work was never carried out and therefore this Plan has had to be developed in the absence of much of the detailed site information that should have been available. To circumvent this problem, an alternative approach was adopted, with expert assistance being provided by the Saint Lucia National Trust, The Nature Conservancy (TNC)[1] and the Durrell Wildlife Conservation Trust[2]. The two key strands of this approach involved:

- an 'Ecological Gap Analysis', undertaken through a three day workshop in July 2008 to determine the targets and goals for terrestrial, freshwater and marine habitats and species and to identify the optimum spatial distribution of protected areas in Saint Lucia which would encompass a representative and comprehensive range of these habitats and species;
- a 'Management Effectiveness Study' which used an established methodology developed by World Wildlife Fund (WWF), the 'Rapid Assessment and Prioritization of Protected Areas Management' (RAPPAM) methodology, to determine the strengths and weaknesses of protected areas in Saint Lucia and the key challenges that they face.

2.3 Funding for both of these workshops was provided by the OPAAL Project, administered by the OECS Secretariat

Ecological Gap Analysis

2.4 The Ecological Gap Analysis generated a list of critical conservation 'targets' for Saint Lucia, in which 'targets' were defined as 'the elements of biodiversity and related cultural features that should be the focus of conservation and management planning efforts…encompassing both marine or terrestrial environments'. Local experts attending the workshops then agreed, for each 'target', a specific conservation 'goal' which represents the minimum level of protection that should be sought. Each 'target' was then spatially mapped on a GIS system so that it could be manipulated using Marxan[3] software. The agreed list of targets and goals is presented below in Table 3.

2.5 The second stage of the Gap Analysis involved a review by local experts of the spatial

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1 The Nature Conservancy is a US based non-profit environmental organisation and special thanks are due to Ruth Blyther, Steve Schill, George Raber, Robert Weary and Carmen Maria Lopez for their invaluable guidance and advice.

2 The Durrell Wildlife Conservation Trust is a UK based charity that is actively involved in Saint Lucia (and many other parts of the world) both in scientific research and in practical projects aimed at conserving biodiversity, and especially endemic and endangered species. They have been working in St Lucia with the Ministryof Agriculture's Forestry Department for over 30 years. The invaluable assistance of Matthew Morton, the Trust's representative in Saint Lucia, is gratefully acknowledged, both in providing expert guidance on conservation issues and in preparing the maps included in this Plan.

3 This software was developed by the University of Queensland (Ball and Possingham, 2000) and has been widely adopted around the world as a tool for spatially optimizing conservation goals through the input of conservation targets, goals and corresponding threats. A two day workshop was held in January 2009 during which technical experts from Saint Lucia were trained in the use of Marxan by representatives from The Nature Conservancy to enable them to present the results of the Ecological Gap Analysis nationally.

distribution of each of the target's layers: these were then manipulated using the Marxan software to generate an optimum conservation solution that efficiently met all target goals. GIS software was also used to map the interaction between identified areas of conservation importance and the actual/potential threats to which they are exposed. The mapped areas were then manually manipulated to take account of external constraints which might impact upon their potential inclusion within a protected area network. This helped to steer site selection away from high-risk areas where the abatement of pressures on biodiversity appeared to be less likely.

2.6 The final output of the GAP Analysis was a series of maps that showed the optimal spatial configuration of a protected area network that would meet the agreed conservation goals.

Table 3
Ecological Gap Analysis
Agreed Conservation Targets and Goals for Key Habitats and Species

TERRESTRIAL		**FRESHWATER**	
Target	**Goal**	**Target**	**Goal**
Forest: Moist Cloud	30%	High Elevation Watersheds	75%
Forest: Dry Deciduous	50%	High Elevation Wetlands	100%
Forest: Lowland Mixed	30%	Low Elevation Wetlands	100%
Forest: Moist Elfin	30%	Riparian Corridors	75%
Forest: Moist Evergreen & Seasonal	30%	Natural Lakes and Ponds (points)	50%
Forest: Moist Transitional	30%		
Forest: Semi Deciduous	50%	**MARINE**	
Forest: Xeric Scrub	80%	**Target**	**Goal**
Littoral Vegetation	50%	Areas of Cold Upwelling	30%
Offshore Islands	100%	Beach	30%
Riparian Vegetation	50%	Coral Reef	80%
Birds: Saint Lucia Nightjar (points)	100%	Lagoons	50%
Birds: Forest Thrush (pts)	100%	Mangrove	80%
Birds: White Breasted Thrasher (pts)	100%	Rocky Shores	30%
Birds: Saint Lucia Wren (pts)	100%	Seagrass	50%
Mammals: Bats (pts)	100%	Offshore Shallow Banks	30%
Reptiles: Saint Lucia Iguana (pts)	100%	Turtle Nesting Sites (points)	100%

2.7 A summary of the methodologies, findings and conclusions of the Gap Analysis is attached at Appendix 7. A detailed account, including copies of all maps, can be found in the full report (6).

Management Effectiveness Study

2.8 This assessment was effected through a peer review workshop using the 'Rapid Assessment and Prioritization of Protected Areas Management' (RAPPAM) methodology to determine the strengths, weaknesses and management challenges of existing protected area systems. This process focuses on three main themes in protected area management:

- design issues relating to both individual sites and protected area systems;
- the adequacy and appropriateness of management systems and processes;
- delivery of protected area objectives, including conservation of valued resources.

2.9 The workshop was attended by representatives of Government departments, the Saint Lucia National Trust and other NGOs, and the OECS Secretariat. The following areas were assessed: Pitons Management Area (PMA); Soufriere Marine Management Area (SMMA); Pigeon Island National Landmark (PINL); Pointe Sable Environmental Protection Area (PSEPA); St. Lucia Forest Reserve; Mangroves; Grande Anse; and other Marine Reserves.

2.10 Key conclusions arising from this study were:

- there are many gaps in Saint Lucia's protected area system;
- the most significant weaknesses of the current system are the absence of an array of

large protected areas containing exemplary and intact ecosystems[4] and the lack of effective protection against the extinction of vulnerable, endemic, rare, threatened or endangered species.

- the three protected areas subject to the greatest threats and pressures[5] are the Pitons MA, the Soufriere MMA and Grand Anse;
- the most vulnerable[6] protected areas are the Pitons MA, Soufriere MMA, mangroves and other Marine Reserves;
- conservation objectives for protected areas are often not supported by local communities;
- enforcement of site protection is limited or non-existent due to the lack, or absence, of staff and financial resources;
- most protected areas do not have a management plan, while others have draft or outdated management plans, and in many cases there are no work plans or strategies to abate threats;
- processes to implement effective management are strong in the Soufriere MMA, Pigeon Island NL and St. Lucia Forest Reserve, whilst they are very weak in the Pitons MA, other Marine Reserves and mangroves, and are practically absent in Grande Anse.
- critical areas for future investment are outreach and education to raise public awareness, visitor/tourism management, threat prevention, site management and restoration, and staff training;
- critical issues that need to be addressed are:
  - the development of a national protected area policy that clearly articulates a vision, goals, and objectives for the protected area system;
  - a demonstrable commitment by relevant authorities to protecting a viable and representative protected area network;
  - the definition and establishment of restoration targets for under-represented and/or greatly diminished ecosystems;
  - periodic review of the protected area system to address gaps and weaknesses;
  - increased emphasis on training and capacity building.
- key weaknesses are insufficient funding, a lack of effective law enforcement, and weak national policies to promote sustainable land use and land conservation.

2.11 A summary of the RAPPAM process is attached at Appendix 8. A more detailed account can be found in the full report (7).

[4] The only area of St Lucia which could be considered to fit this criterion of being a 'large protected area containing exemplary and intact ecosystems' is the Forest Reserve. The key weakness of the current protected areas system is that there are no others to form the required 'array' of such areas.

[5] It is important to note that RAPPAM makes a clear distinction between 'pressures' and 'threats': the former are forces, activities, or events that have already had an impact on the integrity of a protected area whilst the latter are potential or impending pressures in which an impact is likely to occur or continue to occur in the future.

[6] The RAPPAM defines 'vulnerability' as 'external conditions that make it harder to manage effectively, such as easy access to illegal activities, low law enforcement throughout the region, high market value for protected area resources etc.'

3. Scope of the Existing and Proposed Protected Area Networks

Strengths and Weaknesses of the Current Protected Areas System

3.1 As outlined in Section 1 of this Plan, the current protected areas network in Saint Lucia encompasses several different types of designation. Table 4 below summarises the key strengths and weaknesses of each component of this network in terms of their physical extent, their effectiveness in protecting natural and cultural resources, and the degree to which they adequately represent Saint Lucia's landscapes and ecosystems.

Table 4: Strengths and Weaknesses of Protected Area Network Components

Designation	Strengths	Weaknesses
Forest Reserve & Protected Forest	• Good coverage of moist forest types • Effective protection and management of forest ecosystems	• Lack of coverage and effective management of dry forest types • Shortage of resources, especially to promote educational initiatives and recreational opportunities
Wildlife Reserve	• Intent is to afford protection to wide range of animal groups and species	• Inadequate geographical coverage. • Inadequate ecosystem/species coverage • No protection of plants and habitats
Marine Reserve	• Intent is to afford protection to habitats (especially reefs, beaches and mangroves) and related species • Designation of significant number of sites	• Designation process omits essential site information and boundaries • Designations largely ignored at all administrative/political levels • Complete lack of effective policing and enforcement • Significant gaps in coverage
Marine Management Area	• An effective mechanism for zonation and management of potentially competing interests and activities	• Inadequate geographical coverage • Inadequate resources
Environmental Protection Area	• Intent is to provide protection to species, habitats and wider landscapes across reasonably extensive areas	• Inadequate geographical coverage • Inadequate resources for effective management • Inadequate/ineffective controls over development • Limited value as protected area designation due to compensation clause in legislation
World Heritage Site	• Internationally recognised and high profile designation	• Lack of political commitment to protection of special qualities
Ramsar Site	• Internationally recognised and high profile designation	• All weaknesses highlighted above for 'Marine Reserves'

3.2 The above review, combined with the findings and conclusions of the 'Gap Analysis' and 'Effectiveness Assessment' presented in Section 2, point to the need to strengthen Saint Lucia's protected areas network in the following ways:

- incorporate a number of large and nationally significant 'landscape-scale' protected areas encompassing both terrestrial and marine environments;
- increase the geographical coverage of threatened ecosystems, especially at lower altitudes and along the coast;
- increase the number of specific 'reserves', both terrestrial and marine, designated to protected valued species and habitats;
- increase the number of marine management areas to strengthen the protection and sustainable management of marine resources;
- provide protection to sites/areas of historic, archaeological and historic importance;
- increase the resources allocated to protected area management, especially in relation to personnel, staff training and funding;

- ensure that all protected areas are adequately surveyed, mapped, described, and documented;
- ensure that protected areas are adequately policed and that their legal protection is enforced at all political and administrative levels.

Themes for a New Protected Areas System

3.3 A new System Plan cannot, in itself, solve the problems that have been highlighted above. It can be an advocate for change and can put forward specific proposals as to how these issues should be addressed. However, the successful implementation of these proposals, leading to the effective protection of Saint Lucia's natural and cultural resources, lies in the hands of the Saint Lucia government and its people.

3.4 Consistent with the objectives set out in Section 1 of this Plan, a new system of protected areas should focus on six key themes:

- protecting the natural beauty, biodiversity and historic and cultural heritage of extensive landscapes and seascapes that epitomise the essential character and quality of the island of Saint Lucia;
- protecting endemic, rare and endangered species of flora and fauna and the habitats upon which they depend;
- conserving historic and archaeological sites/areas that form part of the cultural heritage of Saint Lucia and its people;
- ensuring the sustainable management[7] of natural resources, especially water, timber and minerals;
- raising awareness, understanding and support for protected areas amongst all sections of society;
- promoting social and economic linkages between protected areas and their local communities.

3.5 Existing protected areas in Saint Lucia have been described in Section 1 and Appendix 3. Whilst this network has many weaknesses, it also has certain strengths and therefore the development of a new system of protected areas should build upon this foundation.

3.6 Proposals for this new network were developed at a two-day Protected Areas workshop held over 7th and 8th April 2009, which was attended by representatives of government departments and non-governmental organizations and facilitated by representatives of the Saint Lucia National Trust, the Nature Conservancy and the Durrell Wildlife Conservation Trust, together with the consultant commissioned to prepare this Systems Plan. There was a very broad consensus as to the structure of the new protected areas system and detailed discussions were held as to the types of designation that should be adopted and the geographical areas that each designation should encompass.

3.7 These proposals were designed to achieve the 'goals' identified in the Ecological Gap Assessment (see Table 3 above) by developing a suite of protected area designations that have different purposes and are applied at different geographical scales. It is important to recognize that these different scales are not necessarily mutually exclusive and that, in some cases, it is seen as necessary, for example, to include area/site specific designations within wider landscape designations.

3.8 The proposed categories of protected area designation within the new Systems Plan are set out in Table 5: this also includes a summary of how existing protected area categories will be integrated within the new system. These new categories have been designed to provide a

[7] In recent years, the term 'sustainable' has acquired a multitude of definitions and is now used (and mis-used), the world over, as a term of convenience to suggest that some policy or activity is environmentally neutral or beneficial – often irrespective of whether this assertion is true or justified. It is therefore used in this Systems Plan very carefully and the definition that should always be applied is the one quoted above in paragraph 1.4; i.e. a sustainable policy or activity is one that genuinely 'meets the needs of the present generation without compromising the ability of future generations to meet their own needs.'

simple and logical suite of designations which will collectively provide an effective mechanism for protecting the nation's most valued natural and cultural assets.

Proposed Protected Area Designations

(a) Forest Reserves and Protected Forests

3.9 The current statutory designations of 'Forest Reserve' and 'Protected Forest' are considered to be very effective in achieving their statutory purposes and it is proposed that they should be retained in their present form and carried forward to the new Protected Area System. The management objectives of these areas should retained; i.e.

- protecting and preserving areas for the conservation of the nation's water supply;
- protecting the forests as critical habitats for endangered species of plants and animals and conserving biodiversity;
- providing opportunities for scientific research and the establishment of baseline studies;
- stimulating rural development and the rational use of marginal lands.

3.10 The only potential addition to this list of objectives should be that greater priority is given to the use of the Forest Reserve for educational and interpretive purposes to raise peoples' awareness and understanding of the role of the forest in the sustainable management of Saint Lucia's natural resources.

(b) National Parks

3.11 The establishment of National Parks, [together with Protected Landscapes (see (c) below)] is intended to address one of the key weaknesses of the existing protected area network, as identified by the Management Effectiveness Assessment, namely, that Saint Lucia lacks 'an array of large protected areas containing exemplary and intact ecosystems'. National Parks will represent the 'flagships' of Saint Lucia's protected area network and will serve to protect landscapes that are iconic and unique in character, are of the very highest quality, and are of national and international importance.

3.12 The primary objectives of National Parks are:

- protecting extensive and largely unmodified landscapes and ecosystems;
- conserving and enhancing the area's natural beauty and biodiversity;
- promoting public enjoyment of area's special qualities;
- raising understanding and awareness of the area's natural, cultural and historic heritage;
- accommodating sustainable social, cultural and economic activities that are compatible with the Park's conservation objectives.

3.13 Terrestrial and marine ecosystems are inextricably linked, especially in that activities on land can have profound, and sometimes irreversible, impacts on marine ecosystems. It is therefore proposed that National Parks should encompass and overlay the proposed Marine Management Areas [see (d) below] along their coastal boundaries.

3.14 National Parks will encompass some areas of human settlement and the aim should be to ensure that the Parks support and sustain the livelihoods of these communities, and those in surrounding areas, in ways that are not inimical to the conservation of the Parks' special qualities.

3.15 The designation of a National Park should not be seen as signaling a blanket restriction on all development. There should, however, be a presumption against large scale development except where it can be demonstrated that it is of national importance, there is no suitable alternative site outside the Park, and it will not have a significant adverse impact on the character and quality of the Park. Where such development is permitted, this should only be after a rigorous environmental assessment which ensures that the development is of the highest standards in terms of siting, design and environmental safeguards. The agreed standards should be rigidly enforced.

Table 5
Proposed Systems Plan Designations

New Designation	IUCN Category[1]	New or Existing Designation	Summary of Purpose	Existing Protected Area Designations Subsumed within New Designation Category
Forest Reserve & Protected Forest	II V	Existing	Extensive areas of crown land and private land managed for the conservation of forest, soil, water and biodiversity resources.	No change
National Park	V	New	Extensive areas encompassing the most distinctive, highest quality and most natural landscapes in Saint Lucia managed primarily for ecosystem protection, conservation of scenic beauty and informal public recreation, whilst also helping to provide sustainable livelihoods for local communities.	Environmental Protection Areas
Protected Landscape	V	New	Moderately extensive areas (but much smaller than National Parks) managed primarily for ecosystem protection, conservation of scenic beauty and informal public recreation, whilst also helping to provide sustainable livelihoods for local communities.	
Marine Management Area	V	New	Coastal waters of high ecological value managed in an integrated and sustainable manner with respect to the interests of fisheries, public recreation and ecosystem protection.	None
Nature Reserve	1b	New	Specific areas of land and/or freshwater managed for the protection and conservation of wildlife species (including flora and/or fauna) and their supporting habitats.	Wildlife Reserves
Marine Reserve	1b	Existing	Specific marine areas (and, where appropriate, adjacent or surrounding areas of land) managed for the protection and conservation of wildlife species (including flora and/or fauna) and their supporting habitats.	No change
Historic Site	N/A[2]	New	Specific sites managed for the protection and conservation of features of historic, cultural or archaeological importance.	None

[1] See Table 2 and Appendix 4 for definitions and descriptions
[2] The IUCN categories do not apply to the types of historic sites existing in Saint Lucia.

3.16 At a more local level, development that meets the needs of residents and indigenous communities should normally be permitted provided that it reflects and respects the character of its surroundings and does not damage the special qualities of the Park

3.17 New legislation or the amendment of existing legislation will be required to enable the designation of National Parks (see Section 7).

(c) Protected Landscapes

3.18 Protected landscapes are effectively the local/regional dimension of National Parks in that they have similar conservation objectives but are smaller in size and place greater emphasis on sustainable management to meet the social and economic needs of local communities. Whilst their primary aim is to conserve the character and quality of the area's landscapes and terrestrial and adjacent marine ecosystems, this must be effected in a way which respects the interests of these communities and provides them with a meaningful role in the management of the areas.

3.19 The primary objectives of Protected Landscapes are:

- conserving and enhancing the area's natural beauty and biodiversity;
- promoting social, cultural and economic activities that are compatible with the area's conservation objectives and support the needs and interests of local communities;
- promoting public enjoyment of the area's special qualities;
- raising understanding and awareness of the area's natural, cultural and historic heritage.

3.20 In common with National Parks, it is proposed that Protected Landscapes should:

- encompass and overlay the proposed Marine Management Areas [see (d) below] along their coastal boundaries;
- enshrine a presumption against large scale development, except in certain specified circumstances;
- seek to ensure that development is of a small scale and local nature, is genuinely sustainable, meets high environmental standards and addresses the long term needs and interests of its indigenous and surrounding communities.

3.21 The arguments put forward above (paragraphs 3.17 – 3.19) in relation to the inappropriateness of existing legislation for the establishment of National Parks, applies equally to Protected Landscapes. New legislation will be therefore be required to enable the designation of Protected Landscapes (see Section 7).

(d) Marine Management Areas

3.22 The inshore waters of Saint Lucia encompass some exceptionally diverse and productive marine ecosystems which are not only of intrinsic ecological value but are also a vital recreational resource and are of critical importance in supporting the livelihoods of those involved in the fishing and tourism industries. The purpose of the Marine Management Areas (MMAs) will be to safeguard those marine areas that are considered to be of a high quality and/or threatened by coastal development. Since 'Marine Management Area' is a new protected area designation, this will require new legislation (see Section 7).

3.23 The key objectives of Marine Management Areas are:

- promoting the conservation and sustainable use of marine resources;
- safeguarding the biodiversity, quality and productivity of marine ecosystems;
- facilitating public enjoyment of the area's special qualities, provided this does not conflict with the above objectives;
- raising understanding and awareness of marine ecosystems.

3.24 As indicated above in Sections 3.13 and 3.20, National Park and Protected Landscape designations will encompass and overlay any Marine Management Areas along their coastal boundaries.

3.25 Section 18 of the Fisheries Act No. 10, 1984 provides for the establishment of Local Fisheries Management Areas (LFMAs), which can assist in regulating fishing operations and other activities in inshore waters. To date, this provision has been applied to two areas on the west coast: Soufriere and Canaries/Anse la Raye, although only the former has been taken forward through the establishment of a local Association to manage the area. This designation is not seen as a formal 'protected area' but rather as a mechanism for the zonation of different types of marine use and management.

3.26 The Soufriere LFMA, together with its managing authority, the Soufriere Marine Management Association, are seen as a successful approach to promoting the sustainable management of marine resources. It is therefore to be hoped that this model could be extended to other sections of coastline, especially within the proposed Marine Management Areas.

3.27 The development, use and management of land within the watersheds feeding into coastal waters can have profound, and often adverse impacts, upon marine ecosystems. It will therefore be essential that the body responsible for Marine Management Areas (i.e. the Fisheries Department of the relevant Ministry) is consulted by those branches of Government responsible for forestry, agriculture and development control in respect of activities that could impact upon the marine environment.

(e) Nature Reserves

3.28 The Wildlife Protection Act , No.9, 1980 affords protection to a wide range of wildlife species across Saint Lucia, with 'wildlife' being defined as including 'mammals, birds, frogs, reptiles, fishes and crustaceans'. The Act also allows for the declaration of 'Wildlife Reserves', with 'wildlife' being subject to the same definition. Unfortunately, this definition does not include plants: a critical omission in terms of the need to conserve not only animal species but also the plant species and habitats upon which they depend.

3.29 The aim of creating a new designation of 'Nature Reserve' is to address this gap so that all flora and fauna, together with their supporting habitats, can be effectively managed and protected. The change in the title to 'Nature Reserve', from Wildlife Reserve, is intended to deliberately signify and raise public awareness of the wider scope of the protection that the new designation affords.

3.30 The objectives of Nature Reserves are:

- to conserve representative examples of Saint Lucia's key wildlife habitats;
- to conserve biodiversity and genetic resources;
- to conserve vulnerable, endemic, rare and endangered species of flora and fauna;
- to facilitate effective conservation management;
- to facilitate scientific research and educational initiatives.

(f) Marine Reserves

3.31 Marine Reserves are designated under Section 22 of the Fisheries Act, No. 10, 1984 and can be declared both over 'fishery waters' and 'any adjacent or surrounding land'. This provision has allowed the Marine Reserve designation to be applied not only to reefs and other marine habitats but also to mangroves and beaches.

3.32 The purposes of Marine Reserves, as defined by the 1984 Act, are:

- to protect flora and fauna (especially species in danger of extinction);
- to protect the breeding grounds and habitats of aquatic life;

- to allow the regeneration of depleted species;
- to promote scientific study and research and
- to preserve areas of natural beauty.

3.33 These purposes should be retained and all new Marine Reserves should continue to be designated under the Fisheries Act, 1984.

(g) Historic Sites

3.34 The 1992 Systems Plan proposed the designation of two 'National Landmarks' and seven 'Historic Areas' in the north west of the island to secure the protection of a suite of key sites that encompass some of the most important examples of Saint Lucia's historic, archaeological and cultural heritage (see Appendix 9). This proposal was not implemented.

3.35 In addition, the 1992 Systems Plan named approximately 58 other sites of historic importance that lay within the boundaries of the proposed 'National Parks' and 'Protected Landscapes' (see Appendix 9). It is assumed that the Plan saw the 'National Park' and 'Protected Landscape' designations as providing sufficient protection to these historic sites, without the need for them to be individually designated. Whilst these sites were listed as 'Historic Sites' or 'National Landmarks', many were simply geographical locations or physiographic features (e.g. 'Martelly Point' and 'Anse Ger ridge'), with no indication as to the nature of their historic significance. Again, none of these proposals was implemented.

3.36 It is understood that 26 sites across Saint Lucia are currently managed by the Saint Lucia National Trust (see Appendix 3). With the exception of Pigeon Island, which is leased to the Trust by the Government, all of these sites are owned by, or vested in the Trust and are therefore regarded as 'inalienable': a status that, of itself, confers a measure of protection. These sites are quite varied in character and include several historic sites, as well as several (often small) offshore islands and a small number of coastal sites: most of the former lie within the two 'National Landmarks' and seven 'Historic Areas' proposed in the 1992 Plan.

3.37 To bring some clarity to this confusing situation and to effect the protection of Saint Lucia's historic, archaeological and cultural heritage, it is proposed that a new protected area designation of 'Historic Site' should be created. The objectives of management would be:

- to conserve sites, areas, structures and artefacts of historical, archaeological or cultural importance;
- to raise understanding, awareness and appreciation of Saint Lucia's historical heritage;
- to promote public access to historic sites so far as this is compatible with the conservation of the resource.

4. A New System of Protected Areas

Overview

4.1 The proposed system of Protected Areas for Saint Lucia is summarized in Table 6. Overview maps are presented in Maps 1 and 2 below. In addition, detailed topographic maps are presented in Appendix 13. In preparing these maps, the boundaries of proposed new protected areas have been drawn on the basis of the best available information although, wherever possible, these boundaries have been kept as simple as possible by following linear features such as roads or streams or by using topographic features such as summits, ridge lines and contours. It is acknowledged that, prior to designation, these boundaries will need to carefully surveyed and redrawn to ensure that they are accurate and wherever possible, relate to visible features on the ground.

Table 6
Proposed System of Protected Areas for Saint Lucia

Designation	Name	Area (ha.)	% Area of System	% Area of Saint Lucia
Forest Reserve	Saint Lucia Forest Reserve[1]	9190	36%	15%
National Parks	Pitons National Park	6160	24%	10%
	Iyanola National Park	5090	20%	8%
Protected Landscape	Anse Cochon Protected Landscape	410	2%	1%
	Dorée Piaye Protected Landscape	1120	4%	2%
	Mandelé Protected Landscape	2060	8%	3%
	Pointe Sable Protected Landscape	770	3%	1%
Marine Management Area	East Coast Marine Management Area	[3]	-	-
	West Coast Marine Management Area [2]	[3]	-	-
	Laborie Marine Management Area	[3]	-	-
	Cold Upwelling Marine Management Area	[3]	-	-
Nature Reserves	Maria Islands Nature Reserve	8	<1%	<1%
	5 minor islands (Frigate, Praslin Scorpion, Dennery & Rat)	c. 5 -10	<1%	<1%
	Parrot Reserve [4]	1328	N/A[4]	N/A[4]
	La Tourney Nature Reserve	110	<1%	<1%
	Cul de Sac Nature Reserve	240	1%	<1%
Marine Reserves	24 Marine Reserves (see Appendix 3) [5]	No Data	-	-
Historic Sites	To be decided pending comprehensive and detailed survey of potential sites.[6]	-	-	-

[1] The Saint Lucia Forest Reserve is made up of a large number of smaller Forest Reserves and Protected Forests
[2] The West Coast Marine Management Area encompasses the Soufriere Local Fisheries Management Area and the Canaries/Anse la Raye Local Fisheries Management Area.
[3] To be determined once the final seaward boundary has been plotted (see Section 4.30 of Plan)
[4] Parrot Reserve lies largely within the Forest Reserve
[5] List is subject to revision, pending survey and assessment (see Section 4.46 – 4.49 of Plan)
[6] See Section 4.50 of Plan for summary of potential sites

Forest Reserves and Protected Forests

4.2 There are currently 12 Forest Reserves and 24 Protected Forests covering about 15% of the island. The Forest Reserves generally occupy the centre of the island at higher elevations, whilst the Protected Forests tend to form a buffer around the periphery. The majority of these Forests form a single contiguous unit with a large central core with 'spurs' running towards the north-east coast (the Castries Waterworks Reserve) and the east coast (Dennery Waterworks Reserve). There are also a small number of outliers, primarily in the north east quarter of the island (e.g. Marquis Forest Reserve).

4.3 These forests encompass a wide range of rich and diverse habitats which support many rare and endemic species such as the Saint Lucia parrot *(Amazona versicolor).* They also fulfill an extremely valuable function in controlling run-off and soil erosion, providing a

sustainable source of timber, and ensuring a clean and reliable source of water for the island's people.

4.4 Small sections of the Forest Reserve lie within other proposed protected areas:

- the eastern section of the Marquis Forest Reserve lies within the proposed Iyanola National Park
- the western edge of the Central Forest Reserve cuts into the proposed Pitons National Park;
- the eastern section of the Dennery Waterworks Reserve lies within the proposed Mandelé Protected Landscape

4.5 It is understood that the Forestry Department is currently investigating opportunities to increase the number of Protected Forests. This is to be commended since it will expand and strengthen the network of forests that are sustainably managed and which further the interests of wildlife and landscape conservation. It is to be hoped that these additions will be identified through a strategic and structured process which gives a stronger focus to the inclusion of dry forest habitats, which are currently under-represented within the Forest Reserve and Protected Forests.

National Parks

4.6 It is proposed that two National Parks should be designated: the Pitons National Park in the south west and the Iyanola National Park in the north east (see Map 1). In addition to the land areas, both of these National Parks include the sections of the Marine Management Areas along their coastal boundaries.

4.7 Alongside the Forest Reserve, these National Parks would represent the 'jewels in the crown' of Saint Lucia's protected area network and will serve not only to protect some of the island's finest landscapes and ecosystems but will also provide the foundation for a new, more sustainable approach to the development of its tourism market.

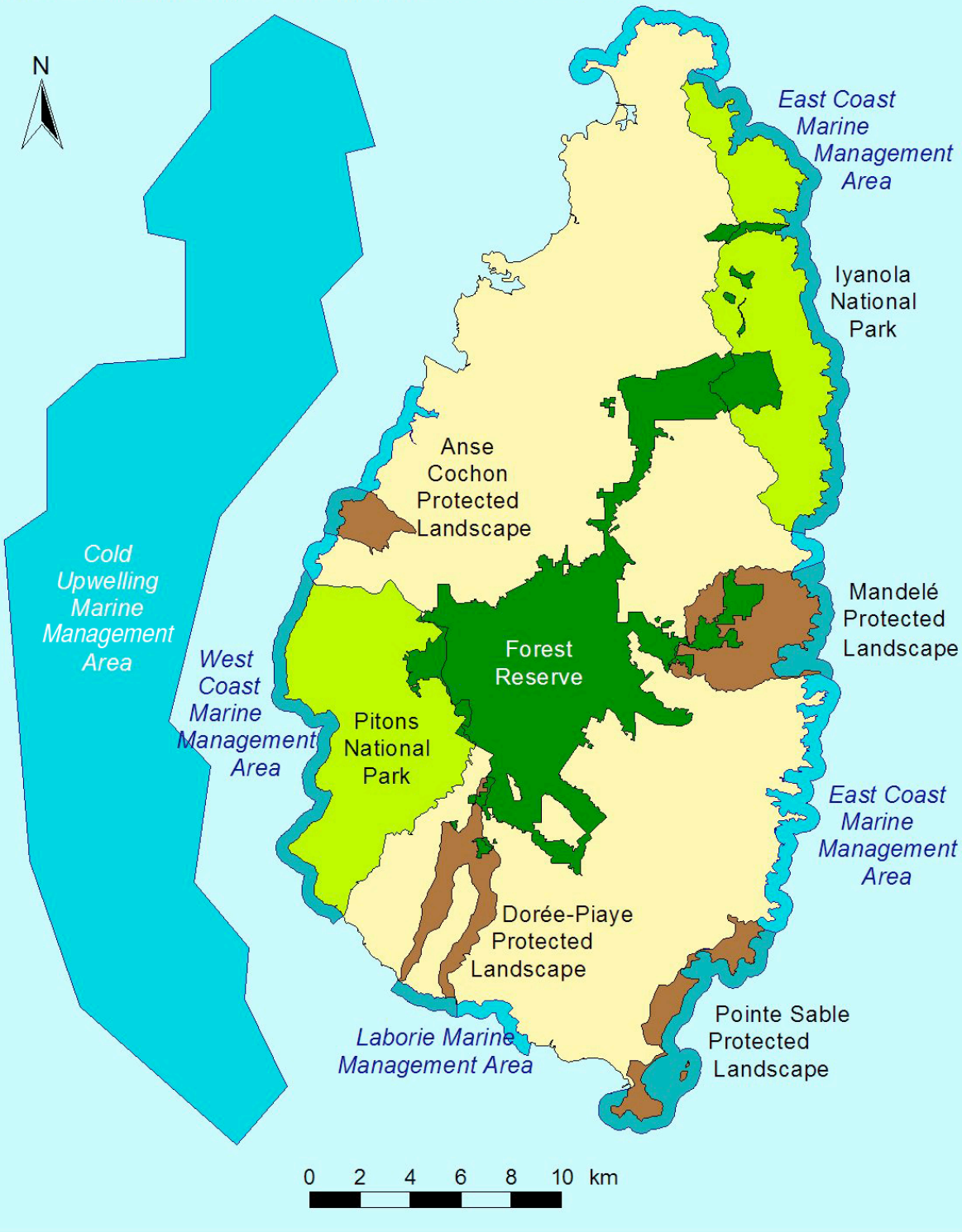
(a) Pitons National Park

4.8 The proposed Pitons National Park encompasses two of the National Parks proposed in the 1992 Systems Plan (Qualibou and Canaries), together with the intervening area around Bouton and Blanche Point. It also includes the section of the proposed West Coast Marine Management Area [see (d) below] between the Park's northern boundary at the Canaries River and its southern boundary near Morne Sion.

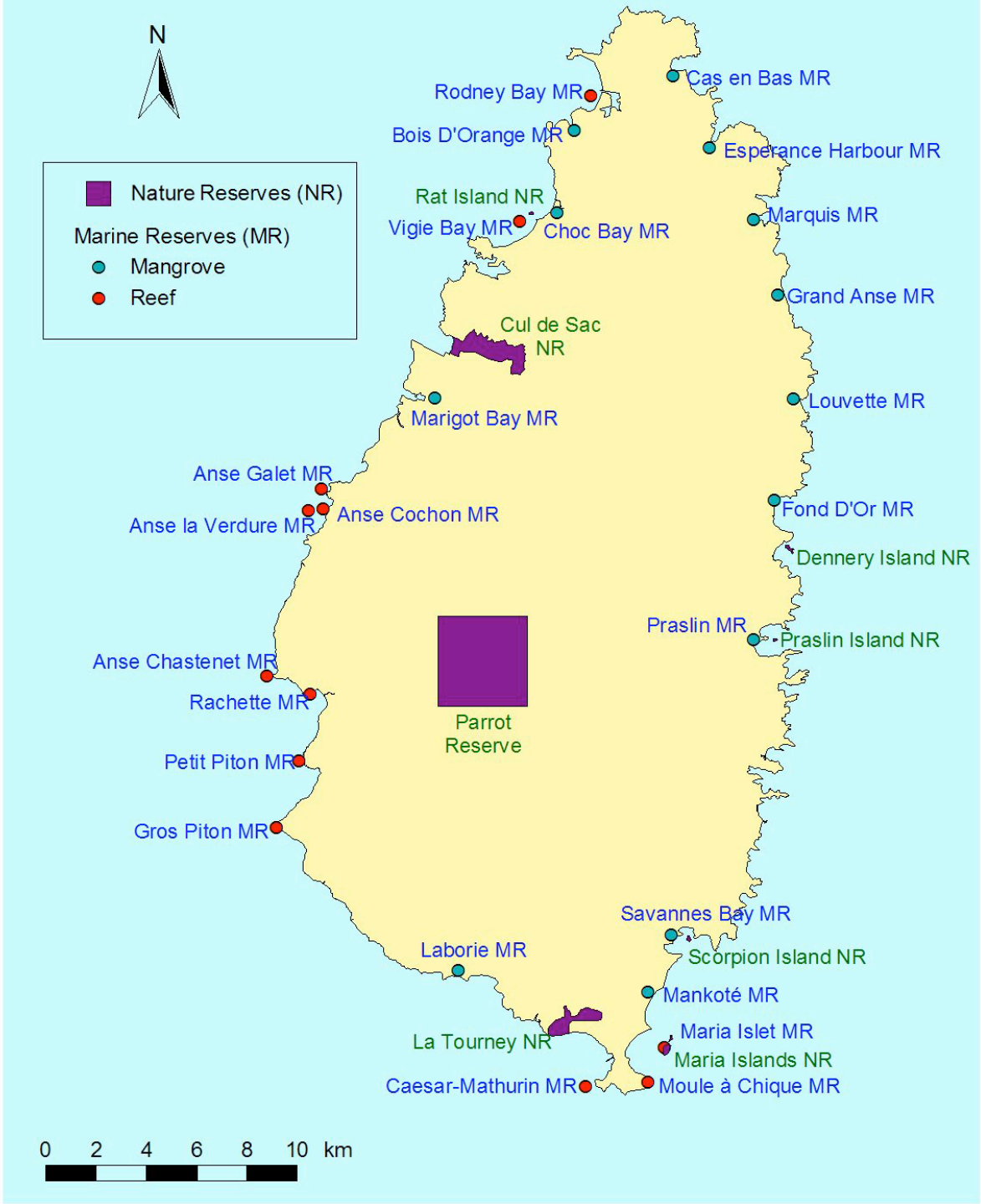
4.9 The southern section of the Park encompasses the spectacular, iconic and world famous landscapes around Gros Piton and Petit Piton, the active volcanic site at Sulphur Springs, and Saint Lucia's highest mountain, Mount Gimie. The topography is one of steep sided hills and deep valleys, with the vegetation cover being mostly secondary forest, although some areas of primary forest, including rainforest and elfin woodland, still exist. Along the coast, the land drops precipitously into the sea to either side of the sheltered and sandy bay at Soufriere. Most of the population of the Park lives in the town of Soufriere, Saint Lucia's former capital, although there are a number of smaller settlements in the valleys that run inland from Soufriere. Much of this southern section of the Park has been designated as a World Heritage Site: this should be unaffected by the change in protected area status.

4.10 The northern section of the Park is centred on the valley of the Canaries River and is characterized by a landscape of high and inaccessible forests cut through by deep canyons running down to the island's rugged west coast. The vegetation cover is mostly secondary subtropical wet forest and rain forest, with elfin woodland at the highest elevations. The main centre of population is the coastal village of Canaries, which lies just outside the northern boundary of the Park and is linked to Soufriere by the west coast highway. Compared to many parts of the west coast, this area has few roads and a relatively small population, and retains a strong sense of wilderness, tranquility and naturalness.

Map 1: The Forest Reserve and Proposed National Parks, Protected Landscapes and Marine Management Areas



Map 2 : Existing/Proposed Marine Reserves and Proposed Nature Reserves



4.11 This Park includes all of the current Pitons Management Area: this designation should be rescinded, concurrently with the designation of the National Park.

4.12 The marine section of the Park (also designated as a Marine Management Area) encompasses the Soufriere Local Fisheries Management Area (LFMA) and the Canaries/Anse la Raye LFMA. These LFMA designations should be retained and hopefully, in due course, the success of the Soufriere Marine Management Association in promoting the sustainable management of the Soufriere LFMA can be rolled out to the Canaries/Anse la Raye LFMA and to other sections of Saint Lucia's coastline, and especially those within the proposed Marine Management Areas.

4.13 The pressures upon the area within the Pitons National Park are immense, especially from large/medium scale tourism development. The attractiveness of this area as an international tourism destination stems from the natural beauty and unspoilt character of its landscapes, combined with its atmosphere of peace and tranquility. These qualities are now under threat from the tourism pressures that they generate and unless this issue is addressed, the adverse economic, environmental and social consequences could be irreversible.

4.14 Other threats to the character and quality of this area arise from:

- marine pollution, primarily from runoff/siltation and untreated/inadequately treated waste water and sewage;
- tree felling, land clearance for agriculture, and deforestation;
- unregulated expansion of settlements and new developments in undeveloped areas

(b) Iyanola National Park

4.15 The proposed Iyanola National Park encompasses three of the designated areas proposed in the 1992 Systems Plan: Grande Anse National Park, Esperance Protected Landscape and Fond D'Or Protected Landscape. It also extends further inland near Babonneau and Marquis so as to encompass critical ecosystems omitted from the 1992 designation and to create a protected area with a greater measure of coherence and integrity.

4.16 This National Park covers an area of approximately 5090 hectares in the north east of the island (see Map 1) and will serve to protect the only extensive area of undeveloped coastline remaining in Saint Lucia. This area encompasses most of the island's intact dry forest ecosystems and is critical to the continued survival of some of its most rare and threatened endemic species, most notably iguanas and turtles.

4.17 The Park is characterized by rolling hills, steeps cliffs and deeply incised bays. The dry forests of this area create a very distinctive landscape which contrasts sharply with the wetter and more tropical forests in the south and west of the island. The sandy beaches of the major bays, such as Fond D'Or and Grand Anse, are of national importance, not only for their natural beauty but also because they are the island's two most important breeding sites for sea turtles. Despite its proximity to the major population centres and tourist areas of the north west coast, this area has few roads or settlements, no tourism infrastructure development and is subject to minimal tourism pressure, except occasional wildlife tours and safaris. There are relatively few areas of cultivated land and the main activities are fishing and extensive livestock grazing.

4.18 With increasing pressures for tourism development in Saint Lucia, this area is already being seen as a potential growth area. In terms of creating a genuinely sustainable tourism product, to submit to these pressures would be a major step backwards. The establishment of this National Park offers perhaps the last opportunity to safeguard this beautiful and untouched area for future generations. This could provide local communities within and around the Park with the opportunity to promote genuinely environmentally friendly patterns of recreation and tourism activity that provide social and economic benefits without adverse impacts on the quality and character of the environment.

Protected Landscapes

4.19 It is proposed that four Protected Landscapes should be designated: Anse Cochon, Dorée-Piaye, Mandelé and Pointe Sable (see Map 1). In addition to the land areas, the Protected Landscapes include the Marine Management Areas along their coastal boundaries.

4.20 The 1992 Systems Plan proposed the designation of 4 National Parks and 10 Protected Landscapes. Some of these areas have been incorporated in the Pitons National Park and the Iyanola National Park, whilst others are retained as one of the four Protected Landscape proposed in this Systems Plan and described below. It is important to recognize, however, that several of the 1992 Protected Landscapes are no longer worthy of designation, due primarily to the impact of tourism and residential development; e.g. Anse Galet, Marigot, Bois D'Orange and Fairview. In other cases, the Protected Landscapes are retained but it is clear that their character and quality has been eroded over the intervening 17 years. The message appears to be clear: that failure to designate and statutorily protect the National Parks and Protected Areas identified in this Plan will inevitably lead to further losses in the future.

(a) Anse Cochon Protected Landscape

4.21 The Anse Cochon Protected Landscape comprises 410 hectares of land to the south of Anse la Raye on the west coast. The area is characterized by rolling hills covered with scrub vegetation and rising to about 650 feet in altitude, that are cut through by the valleys of the Anse Galet and Anse Cochon rivers. There are no major settlements, except the Ti Kaye tourist resort at Anse Cochon, and the area is bisected by the west coast highway.

4.22 The accessibility of this area, its proximity to Anse la Raye and the popularity of the reefs for diving are all putting pressure on this area and, without protection and effective management, there are significant risks that there will be a gradual attrition of the intrinsic beauty, biodiversity (both marine and terrestrial) and tranquility of this area.

(b) Dorée-Piaye Protected Landscape

4.23 The Dorée-Piaye Protected Landscape is 1120 hectares in area and comprises the twin valleys of the River Dorée and the River Piaye which both run down from Mount Grand Magazin to the south coast. These valleys are steep sided and densely wooded and contain some of the most diverse and intact natural ecosytems on the island, including many rare and endangered plant and animal species. The area has a good network of roads and includes several villages such as Saltibus, Dorée and Gertrine. However, the main areas of ecological importance are the more inaccessible and deeply incised river valley where there are few settlements and development and agricultural pressures are limited.

(c) Mandelé Protected Landscape

4.24 The proposed Mandelé Protected Landscape is 2060 hectares in extent and is roughly circular in outline, including the section of coastline from Martelly Point in the south to the Dennery River in the north. The landscape of gentle rolling hills is characterized by dry deciduous forest and scrub vegetation which supports the vast majority of the surviving population of white breasted thrasher – one of Saint Lucia's most distinctive and endangered bird species. The area also encompasses a large part of the Dennery Waterworks Forest Reserve and several sites of historic and cultural significance. The marine area is quite shallow, with some small reef patches and an extensive mangrove in Praslin Bay.

4.25 In recent years consent has been given for a major golf course and hotel/villa development at Praslin: this is still in its early stages of construction. The inclusion of this site within the proposed Protected Landscape is justified on the grounds that the area still retains significant ecological interest and is critical to the ecological and geographical integrity of the Protected Landscape. It is also hoped that the designation will lend weight to arguments that the development and future management of the area should give greater weight to the protection of terrestrial and marine habitats, the improved management and/or restoration of remaining areas of natural habitat, and the enhancement of the area's visual appearance.

(d) Pointe Sable Protected Landscape

4.26 The proposed Pointe Sable Protected Landscape is a narrow strip of coastline at the south-eastern tip of the island, stretching from the Canelles River in the north to the Moule a Chique peninsula in the south. The terrestrial component is characterized by long sandy beaches, tropical dry forest and open grassland, interspersed with coconut groves, scrub and mangroves – with the latter including the Savannes Bay and Mankoté mangroves which are Saint Lucia's only two RAMSAR sites. Offshore, the seas are shallow and encompass several coral reefs, an offshore sand bank, Scorpion Island and the Maria Islands. The Maria Islands support two endemic species that occur nowhere else in the world: the kouwès (a grass snake *Liophis ornatus*) and the zandoli tè (Maria Islands ground lizard *Cnemidophorus vanzoi*)[8].

4.27 The population of this area is low, with the main activities being livestock grazing, fishing and recreation. The Coconut Bay Hotel, just to the north of Hewanorra Airport is the only major tourism development, although Anse de Sables to the south is popular for day trips, picnics and watersports. The presence of shallow seas and long sandy beaches backed by a flat coastal plain means that the area is potentially a prime site for hotel development and it is understood that, in recent years, a number of proposals have been put forward.

4.28 The proposed Protected Landscape is virtually identical to the Pointe Sable Environmental Protection Area, although the boundaries of the latter have yet to be finally defined. The establishment of the Protected Landscape would mean that the EPA designation should be rescinded.

Marine Management Areas

4.29 It is proposed that three Marine Management Areas (MMAs) should be established along Saint Lucia's Coastline: i.e. East Coast MMA, Laborie MMA and West Coast MMA. Collectively, these would encompass approximately 70% of this coastline. In addition, it is proposed that a Marine Management Area should be declared over the core of the 'Cold Upwelling' off the west coast, which is understood to be of critical importance to the productivity of the island's west coast fisheries (see Map 1).

4.30 The process of developing this Systems Plan has revealed that there are significant gaps in the bathymetric data for the seas around Saint Lucia. Marine specialists have indicated that the seaward boundary of the three coastal MMAs should extend to 75 metres in depth or 300 metres from high water, whichever is the greater. This criterion also applies to the extent of the MMA around offshore islands. At the present time, there is insufficient bathymetric data to plot this line. Therefore, Map 1 includes a provisional seaward boundary at a standard distance of 500 metres from high water, both from the mainland and around offshore islands. It is believed that in most areas, and especially on the west coast, this will encompass all of the proposed MMA plus a buffer. This line should be treated as the temporary boundary of the MMA until such time as bathymetric data is available which allows the correct 75 metre/300 metre boundary to be plotted.

(a) East Coast Marine Management *Area*

4.31 The East Coast MMA extends from Pigeon Island in the north and along the east coast to Mathurin Point near the southern tip of the island.

4.32 From a point just to the north of Giromon Point in Anse Louvette Bay to the Fond D'Or River in Fond D'Or Bay, this MMA forms a part of the Iyanola National Park.

4.33 The east coast of Saint Lucia tends to be quite considerably shallower than the west coast and therefore this MMA is likely to extend a greater distance out sea than in the other two coastal MMAs. The presence of several offshore islands along this east coast (e.g. Dennery Island, Praslin Island, Scorpion Island and the Maria islands) will tend to accentuate this.

[8] The zandoli tè (Maria Islands ground lizard *Cnemidophorus vanzoi)* is also found on Rat Island and Praslin Island following the translocation of some individuals to these sites from the Maria Islands in 1997 and 2008.

4.34 The MMA is believed to encompass all or a part of 12 Marine Reserves[9], most of which are of importance for the protection of mangroves and turtle nesting beaches:

- Marquis Mangroves Marine Reserve
- Anse Pointe Sable - Mankoté Marine Reserve
- Maria Islet Reef Marine Reserve
- Savannes Bay Mangrove Marine Reserve
- Esperance Harbour Mangrove Marine Reserve
- Praslin Mangrove Marine Reserve
- Fond d'or Beach and Mangrove Marine Reserve
- Louvette Mangrove Marine Reserve
- Grand Anse Beach and Mangrove Marine Reserve
- Cas-en-bas Mangrove Marine Reserve
- Moule-a-Chique Artificial Reef Marine Reserve
- Caesar - Mathurin Reefs Marine Reserve

(b) West Coast Marine Management Area

4.35 The West Coast MMA extends from Marigot Point in the north to near Morne Sion in the south (a point that is coincident with the southern boundary of the Pitons National Park).

4.36 From the southern edge of Canaries to Morne Sion, the MMA forms part of proposed Pitons National Park.

4.37 The seabed along this west coast slopes quite steeply and therefore the 75 metre depth contour is likely to be quite close to the shore. Once detailed bathymetric surveys have been completed, it is likely that a significant part of the MMA boundary will be pulled back to 300 metres from high water.

4.38 The MMA is believed to encompass all or a part of 8 Marine Reserves[10], all of which are of importance for the protection of natural or artificial reef ecosystems:

- Anse Cochon Artificial Reef Marine Reserve
- Anse Galet Reefs Marine Reserve
- Rachette Reefs Marine Reserve
- Anse Chastenet Reefs Marine Reserve
- Rachette Reefs Marine Reserve
- Petit Piton Reefs Marine Reserve
- Gros Piton Reefs Marine Reserve
- Anse la Verdure Artificial Reef Marine Reserve

4.39 The MMA also encompasses two Local Fisheries Management Areas (LFMAs): the Soufriere LFMA and the Anse la Raye/Canaries LFMA.

(c) Laborie Marine Management Area

4.40 The Laborie MMA includes the section of the south coast between Laborie and Choiseul. There is relatively little information about marine ecosystems along this coast but is believed that there are extensive areas of significant conservation interest. Survey work is required to confirm the nature and extent of the area of interest.

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[9] The absence of information on the boundaries and extent of the Marine Reserves means that it is not possible to be definitive

4.41 This MMA does not include any existing Marine Reserves but one area from Laborie Bay to the mouth of the River Dorée has been flagged up as a potentially important reef which warrants further research and could potentially be worthy of designation as a Marine Reserve.

(d) Cold Upwelling Marine Management Area

4.42 This MMA covers an extensive area to the west of Saint Lucia which is understood to be of significant importance for the fishing industry as an upwelling of mineral rich waters.

Nature Reserves

4.43 It is proposed that 9 Nature Reserves should be established: these are listed in Table 7 and shown on Map 2. It should be noted that some of these Nature Reserves lie within proposed National Parks or Protected Landscapes and that this will therefore result in the 'over-layering' of designations. We see no problem with this and would expect that some of the additional Nature Reserves that may be identified in future will also lie within these more extensive protected areas.

Table 7: Proposed Nature Reserves in Saint Lucia

Site Name	Nature of Interest	
Maria Islands	Island habitat. An existing 'Wildlife Reserve' that supports two endemic species that are naturally found only at this site: the kouwès (a grass snake *Liophis ornatus*) and the zandoli tè (Maria islands ground lizard *Cnemidophorus vanzoi*). This site is currently designated as a Wildlife Reserve: this designation would be redundant and should be rescinded, concurrently with the designation of the site as a Nature Reserve.	
Frigate Island	Island habitat. Important nesting site for Frigate Birds.	Also of potential importance as refuge for rare/ threatened/endemic species, once introduced and alien species have been eradicated
Praslin Island	Island habitat.	
Scorpion Island	Island habitat.	
Dennery Island	Island habitat.	
Rat Island	Island habitat.	
Parrot Reserve	An existing Wildlife Reserve of 1328 ha. in extent within the Forest Reserve. Vital habitat for the rare and endemic Saint Lucia Parrot *(Amazona versicolor).* This site is currently designated as a Wildlife Reserve: this designation should be rescinded, concurrently with the designation of the site as a Nature Reserve.	
La Tourney	Approximately 16ha. of marshland and open water land along the Vieux Fort River which represents one of the few remaining freshwater wetlands in Saint Lucia. The site was proposed as a Nature Reserve in the 1992 Systems Plan.	
Cul de Sac	An important wetland site along the Cul de Sac River	

4.44 The list of sites in Table 7 is based upon current knowledge of the natural history of Saint Lucia and focuses on specific sites that support rare or threatened habitats and/or species. It is acknowledged that this list is likely to be incomplete and that further research and survey work should be carried out at the earliest opportunity in order to identify additional sites that may require designation.

4.45 It is envisaged that Nature Reserves will generally be small in size (often less than 100 ha.) and that they should be managed:

- by the Department of Forestry where a Nature Reserve is on Crown land;
- by the Saint Lucia National Trust (as is currently the case with the Maria Islands Wildlife Reserve) where the land is owned by, vested in or leased to the Trust;
- via a legal 'management agreement' with a private landowner where the landowner consents to such designation and is agreeable to the management of the area for biodiversity conservation purposes: this would be administered by the Forestry Department.

Marine Reserves

4.46 There are currently 24 Marine Reserves designated under Section 22 of the Fisheries Act, No. 10, 1984 (see Map 2 and Appendix 3 for a complete list). These sites were designated

for the purpose of conserving Saint Lucia's key marine and shoreline ecosystems, especially mangroves, reefs and turtle nesting sites, which are of critical environmental, economic and social importance in:

- sustaining local fisheries and the livelihoods of local fishing communities;
- protecting the coastline from erosion and tropical storms;
- conserving biodiversity, and especially iconic, endangered and internationally important species such as leatherback, loggerhead, hawksbill and green turtles;
- retaining Saint Lucia's reputation as one of the world's best diving areas.

4.47 Whilst this may appear to be a significant number of Reserves, these designations are currently of little, if any, conservation value because:

- none of the existing Marine Reserves have been mapped and therefore have an imprecise location, no identifiable boundaries and no spatial dimensions;
- there is no current data on their status or condition;
- there is no active management, no enforcement of their statutory protection and no regime of inspection or policing – even for some of the most important Marine Reserves such as Grand Anse;
- planning permission for developments that will damage or destroy Marine Reserves is granted with little apparent attempt to avoid or mitigate adverse impacts (e.g. Praslin), whilst in other cases damaging activities, such as beach sand extraction (e.g. Grand Anse), are seemingly ignored by the relevant authorities.

4.48 All of these issues should be urgently addressed through the formal adoption and implementation of this Systems Plan. For the time being, all existing Marine Reserves should be retained, pending a survey and review of their status and condition. Those that are found to no longer be of conservation value should be deleted from the list.

4.49 In common with the current position in relation to Nature Reserves (see paragraph 4.44 above), it is acknowledged that this list of Marine Reserves is likely to be incomplete and that further research and survey work should be carried out at the earliest opportunity to identify additional sites that may require designation under Section 22 of the Fisheries Act, No. 10, 1984.

Historic Sites

4.50 The proposals within the 1992 Systems Plan in relation to sites of historic, archaeological and cultural significance (see Sections 3.34 – 3.35) were not implemented and, as a consequence, most such sites receive no formal protection. In addition, there is little information on the present condition of many of these sites, some of which may have been damaged or destroyed. It is therefore considered essential that a survey and assessment of all known sites is undertaken at the earliest opportunity. This work should be coordinated by the Saint Lucia National Trust in collaboration with the Saint Lucia Archaeological and Historical Society and should encompass:

- those of the 26 sites currently managed by the Saint Lucia National Trust that are potentially of historic, archaeological or cultural significance (see Appendix 3);
- the two 'National Landmarks' and seven 'Historic Areas' proposed in the 1992 Systems Plan (see Appendix 9);
- the 58 (approx.) other 'Historic Sites' and 'National Landmarks' named in the 1992 Systems Plan but for which no details were provided (see Appendix 9);
- any other sites of potential importance that are brought to the attention of the surveyors.

4.51 Following on from the surveys and assessments, it is proposed that a 'list' of sites of historical, cultural or archaeological significance should be drawn up by the Saint Lucia National Trust and the Saint Lucia Archaeological and Historical Society. The process of

protecting these 'listed' sites should be effected by the following means:

- In relation to those 'listed' sites that lie within the boundaries of a new National Park or Protected Landscape, then the statutory designation order for each National Park or Protected Landscape should include a schedule of all 'listed' historic/cultural/ archaeological sites that will be protected: these should be referred to by the protected area title of 'Historic Sites'.
- In relation to those 'listed' sites that do not lie within one of the new National Parks or Protected Landscapes, then each should be statutorily designated as an 'Historic Site' and thereby afforded protection. In such cases, the fact that a 'listed' site is owned or vested in the Saint Lucia National Trust should not be seen as providing sufficient protection and all such sites should be statutorily protected as a designated Historic Site.

4.52 In the 1992 Systems Plan it was suggested that some of these sites had considerable potential for education and heritage tourism, provided that there were improvements in site protection, physical access and interpretive provision. This point of view still holds true today and it is recommended that steps are taken at an early opportunity to develop the educational, interpretive and tourism potential of those sites which lend themselves to this form of development.

4.53 The process of listing and protecting Historic Sites, as outlined above will require new legislation. This legislation should make provision not only for sites to be protected from damage or destruction but should also include powers for the Government to oblige a private landowner to repair or maintain a designated Historic Site. This latter provision will be essential in preventing structures (such as old sugar mills) from being allowed to decay or become derelict either through neglect or a deliberate lack of maintenance. In such cases, the legislation should provide for the landowner to enter into a legal 'management agreement' through which they agree to maintain a structure and allow public access and site interpretation in return for assistance towards its maintenance, and possibly restoration.

5. Linkages between the Systems Plan and National Planning Policies

International Context

5.1 The United Nations Conference on Sustainable Development of Small Island States, held in Bridgetown Barbados in 1994 agreed a Small Island Developing States Plan of Action (SIDS PoA) (8). This was subsequently adopted by all OECS Members States and set out the specific actions and measures that would be taken at the international, national and regional levels.

5.2 The PoA provided the platform for the signature in April 2001 by all OECS Member States of the *St. George's Declaration of Principles for Environmental Sustainability in the OECS* (9). This Declaration set out the agenda for environmental management in the OECS region and included a commitment to the conservation of biological diversity and the protection of areas of outstanding scientific, cultural, spiritual, ecological, scenic and aesthetic significance. The declaration contains 21 Principles to which the OECS Member States have agreed to adhere, and among these, Principle 12 (Protect Cultural and Natural Heritage) and Principle 13 (Protect and Conserve Biological Diversity) address matters relating to protected areas.

5.3 Following on from the *St. George's Declaration*, the *OECS Environmental Management Strategy* of March 2002 established the actions that would be taken to implement the Declaration and set out a common framework to promote integration of environmental management into development planning at the regional and national levels (10). The *Environmental Management Strategy* was also a key milestone in the development and harmonisation of environmental policy across the OECS in that it sets out the most critical actions needed to give effect to each of the principles identified in the St. George's Declaration.

5.4 From the perspective of all of the OECS 'small island developing states', protected areas are seen as being of particular importance in providing a mechanism for conserving biodiversity and other natural, cultural and historical resources. This is especially true in relation to the sustainable planning and management of tourism development. Tourism currently underpins the economies of many of these states and, as one of few potential growth sectors, it is recognised that it will continue to be a key driver of regional economic development. However, it was also acknowledged in the SIDS PoA that 'if not properly planned and managed, tourism could significantly degrade the environment on which it is so dependent.'. Key areas in which protected areas are seen as offering an effective mechanism for the sustainable planning and management of these resources include water and watershed management; the use and management of terrestrial and marine resources for agriculture, forestry, fishing etc.; coastal zone management; biodiversity conservation; and protection of historical and cultural resources.

5.5 In 2003 the OECS undertook a review of progress by Member States in implementing the 1994 SIDS PoA (11). Overall, this painted an optimistic picture of the future and expressed confidence that ' the people-centred sustainable development vision for the region expounded by the OECS region will ensure a sustainable future for us all.' However, at a more detailed level it also made a number of cautionary remarks about the capability of Members States to effectively manage their protected areas and conserve natural resources, drawing particular attention to the absence of comprehensive national land policies; the failure to fully implement national land and housing policies and environmental regulations; and a lack of understanding as to how sustainable development principles and processes can be integrated into planning and implementation strategies.

National Context

5.6 The current review of Saint Lucia's Protected Areas System Plan is taking place at a time of considerable activity in the development of national environmental, land use and sustainable development policies. The Systems Plan must therefore be seen in the context of several Government reviews and policy statements, most notably:

- the 'National Biodiversity Strategy and Action Plan', 2000 (13);

- a report on 'Coastal Zone Management in Saint Lucia: Policy, Guidelines and Selected Projects' 2004 (14);
- a 'State of the Environment Report' for Saint Lucia, (2006) (15);
- a 'National Land Policy' White Paper, 2005 (16);
- a 'National Environmental Policy' and 'National Environmental Management Strategy', 2004 (17).

5.7 The impact and relevance of many of these documents to the revision of the Systems Plan has been reviewed and analysed by a number of studies including:

- a Review of Institutional Capacities and Constraints on Saint Lucia (2004) (18)
- a 'Review of Legal and Institutional Frameworks for the Management of Protected Areas in Saint Lucia' (2005) (19)
- a 'Framework for Revision of the Systems Plan of Protected Areas for St. Lucia' (2005) (20)
- a 'Comparative Analysis for Developing a Harmonised Protected Areas Management Framework within the OECS Region' (2006) (21)
- a 'Review of the Policy, Legal and Institutional Frameworks for Protected Areas Management in Saint Lucia' (2007) (4)
- a review of 'The Institutional Arrangements for Protected Areas Management in relation to The OECS Policy on Protected Areas Systems and The OECS Model Protected Areas Systems Act'. (2008) (22)

5.8 The range of issues covered by these reports is extremely broad but, in the context of this review of the Systems Plan, the important point is that they synthesise knowledge and expertise about St. Lucia's environmental assets and seek to promote effective policy and practice in relation to their sustainable management and development. Many of these documents express grave concerns about the current state of the nation's terrestrial and marine resources and emphasise that if the current trend of decline in environmental quality is to be reversed then there needs to be significant improvements to policy, legal and institutional frameworks, a strengthened commitment to environmental protection at all levels of Government, and enhanced levels of resources devoted to environmental management. These conclusions, which reflect a common consensus amongst many of the individuals, organisations and institutions involved in the preparation of these reports, lend strong support to the case for the establishment of a network of terrestrial and marine protected areas across Saint Lucia.

5.9 The case for establishing protected areas is also supported by the need for Saint Lucia to meet its environmental obligations under the various international conventions which the Government has ratified or to which it has acceded (see Appendix 2). These conventions are aimed at preventing or mitigating the impact of human activity which could have significant adverse consequences not only for Saint Lucia but also for the wider Caribbean region and potentially for the whole planet. Key environmental issues where the establishment of protected areas could play a beneficial role include:

- controlling CO_2 emissions and maintaining the country's overall carbon balance;
- limiting climate change and sea level rise;
- biodiversity conservation;
- controlling marine pollution;
- arresting deforestation;
- conservation of water resources

5.10 A key document in setting out the strategic direction and future shape of environmental policies is the National Environmental Policy (NEP) and National Environmental Management Strategy (NEMS) published in 2005 (17). The two components of the

NEP/NEMS are mutually supportive and are seen by government as a 'statement of intent' which offers 'formal expressions of the nation's commitment to arrest and reverse trends of environmental degradation and to ensure that sound environmental management is fully integrated into the national development policy framework.' The goal of the NEP is 'to ensure that development is environmentally sustainable, while optimising the contribution of the environment to the economic, social and cultural dimensions of development.' To achieve this goal, the NEP sets out the broad framework for environmental management and establishes links with policies and programmes in all relevant sectors of economic and social development. Following on from this, the NEMS provides the specific directions and mechanisms for more effective policy implementation, including the expected results and the actions that will be necessary to realise the policy objectives. Components of the NEP that are of direct relevance to the development and implementation of the revised Systems Plan are summarized in Table 9 below.

5.11 The policy objectives contained within the NEP/NEMS suggest that this new Systems Plan could form a key plank of the Government's future environmental policies: it is therefore to be hoped that this will lead to its prompt adoption and implementation.

Table 8
National Environmental Policy and the National Environmental Management Strategy
Key Provisions relevant to Protected Areas

Objectives	Main Instruments to be used in Implementation
1. Maintain the diversity of ecosystems, species and genes.	Review and revision of the Protected Areas Systems Plan and preparation of list of areas requiring statutory protection and a programme for their establishment. Effective management of existing protected areas & implementation of management programmes in research, conservation, sustainable use, monitoring and evaluation, and public awareness. Effective enforcement of the provisions of the Wildlife Protection Act and other legislation relevant to ecosystem and species conservation.
2. Maintain and enhance the natural productivity of ecosystems and ecological processes	Review and revision of the plan for a System of Protected Areas and preparation of an indicative list of areas requiring statutory protection and of a work programme for the establishment of such areas.
3. Optimise the contribution of natural and environmental resources to the production and trade of economic goods and services.	Identification and promotion of sustainable use practices in all relevant sectors, including agriculture, fisheries and tourism. Integration of nature and heritage tourism in national tourism policies and programmes, and promotion of heritage tourism ventures and projects.
4. Optimise the contribution of natural and environmental resources to social and cultural development.	Formulation and adoption of guidelines for landscape management, for use in development planning and control.
5. Prevent and mitigate the negative impacts of environmental change and natural disasters.	Comprehensive and effective application of regulations governing environmental impact assessment in development planning processes and procedures.
6. Maintain and enhance the contribution of the environment to human health.	Completion, adoption and implementation of strategies and plans relating to waste management, pollution, and health, safety and environmental quality.
7. Fulfill regional and international responsibilities.	Application of the St. George's Declaration of Principles and adherence to the provisions of relevant international conventions.

5.12 From a policy perspective, it is absolutely essential that the network of protected areas proposed in this Systems Plan is seen as part of a national land use plan. The IUCN guidance on protected areas (2) places considerable emphasis on the point that 'Protected areas are not isolated units. Ecologically, economically, politically, culturally, they are linked to the areas around them. For that reason, the planning and management of protected areas must be incorporated within regional planning, and supported by the policies adopted

for wider areas'. This is especially true in small island states where land is in short supply and different types of land use, such as residential, industrial, commercial, tourism, transport, agriculture, forestry etc., will tend to be closely integrated and competing for space.

5.13 To this end the Government of Saint Lucia published a 'National Land Policy' in 2007 (23), the goal of which is 'to guide the use, management, development and administration of land resources in Saint Lucia in order to optimise the contribution of land to sustainable development.'. The Policy sets out a comprehensive list of 'guiding principles' and 'strategic objectives' and then describes a series of 'policy directions' and 'priority policy instruments and actions' in relation to:

- development planning and human settlements;
- land use and development in key economic sectors;
- environment and natural resource management;
- legal framework, institutional arrangements and organisational capacity.

5.14 By virtue of the strategic and 'broad-brush' nature of this National Land Policy, the concepts that it espouses are not inconsistent with those of this Systems Plan. The key problem is that the Policy is not backed up by a national Land Use Plan or Development Plan which presents, in far greater detail, a zonation of different types of land use and identifies where development will be permitted and what form such development should take, for example in relation to type, location, size, design, environmental safeguards etc. The preparation of such a Plan should be accorded the very highest priority by the Government of Saint Lucia since, without it, this Systems Plan and any other spatial plans, have no national context and lack a firm foundation upon which planning and development policies can be built. The recently prepared 'Quadrant Plan' is a start in this direction but, again, by virtue of its strategic nature, it does not provide the necessary level of detail. It is reassuring however, that the Quadrant Plan does acknowledge, for example, the importance of the north east quarter of the island as an area where a high priority will be given to biodiversity conservation.

6. Institutional Arrangements

Review of Existing Institutional Arrangements

6.1 A comprehensive review of the institutional framework for protected areas management in Saint Lucia has been undertaken as part of the OPAAL project and was presented to the OECS in the report '*Review of the Policy, Legal and Institutional Frameworks for Protected Areas Management in Saint Lucia'* (4) produced in 2007. Consistent with the approach taken in this earlier report and with other work undertaken through the OPAAL Project, management institutions are defined in this Systems Plan as those institutions that have primary responsibility for the daily operations of a protected area.

6.2 Management institutions with current responsibilities for protected areas are as follows:

Table 9: Current Protected Areas Management Responsibilities

Management Institution	Protected Areas Responsibility
Saint Lucia National Trust	Historic sites and other sites of natural/cultural importance that are owned or managed by the Trust (of which there are understood to be 26 no. - see Appendix 3 for complete list). These include the Maria Islands Wildlife Reserve.
Forestry Department of the Ministry of Agriculture, Lands, Forestry and Fisheries	All Forest Reserves All Protected Forests Parrot Reserve (a statutory 'Wildlife Reserve') The Forestry Department also functions as the National Focal Point for the RAMSAR Convention (Note: there are 2 RAMSAR sites in Saint Lucia: both are mangroves designated as Marine Reserves.)
Fisheries Department of the Ministry of Agriculture, Lands, Forestry and Fisheries	All Marine Reserves (24 no.).
Soufriere Marine Management Association	Soufriere Local Fisheries Management Area
Pitons Management Area Advisory Committee	Pitons Management Area.
National Conservation Authority	No protected areas

Institutional Arrangements Proposed in the 1992 Systems Plan.

6.3 The 1992 Systems Plan (3) proposed that 'four principal directions' should be taken 'to provide new institutional arrangements':

- ensuring that the activities of the various protected areas management agencies are properly coordinated;
- strengthening the management capabilities of existing institutions;
- establishing collaborative arrangements for protected areas management;
- meeting staffing needs for protected areas management.

6.4 The Plan included very detailed recommendations in relation to each of these four 'directions', focussing especially on improving the effectiveness of existing agencies and institutions. One of the principal recommendations concerned the establishment by the Minister of Planning, of an Advisory Board of 13 persons comprising the Director of the Saint Lucia National Trust, 9 representatives from public sector agencies, 1 representative from a non-governmental organisation and 2 persons appointed by the Minister 'on the basis of their experience in resource management and rural development'. In addition, it was proposed that, *inter alia***,** the Board should establish:

- 3 permanent committees to assist with programme monitoring, formulation and evaluation and comprising an Education Committee, a Technical Committee and a Development Committee;

- a Management Committee for each of the (4) National Parks and (10) Protected Landscapes.

Institutional Arrangements Proposed in the 2007 Review of Frameworks

6.5 The conclusions of the 2007 'Frameworks' study with regard to the strengths and weaknesses of current institutional arrangements are highly relevant to this Systems Plan. Key points are summarised below[10]:

- staffing levels are inadequate in all protected areas management institutions and, as a consequence, activities such as enforcement, research, monitoring and evaluation are not consistently undertaken;
- given the small pool of expertise, there are gaps in the necessary skill sets in relation to the design, development and management of protected areas;
- financial resources are inadequate;
- protected area management institutions generally have a positive and constructive approach to public consultation and collaboration;
- increasing public awareness of the potential benefits of protected areas has led to the greater involvement of communities and institutions in protected area development and management;
- constraints experienced by institutions can arise from factors outside of their control.

6.6 The report also highlighted a number of 'the most urgent institutional issues…that have to be addressed to effect an improvement in the management of protected areas in Saint Lucia':

- there is a general lack of information and reporting on the state of protected areas and the status of programmes and there is no legislation requiring such reports to be prepared;
- there is no overall institutional coordinating mechanism for protected areas management and no single lead agency has been designated;
- the development and management of each protected area and the overall protected areas system should be subject to agreed guidelines and standard operating procedures that are adhered to by all supporting institutions.

6.7 The 2007 Review of Protected Areas Frameworks (4) contained relatively few recommendations in relation to the institutional arrangement that should be put in place to strengthen protected areas management. Its key proposal was that the coordinating role for protected areas development and management should be assigned to the Sustainable Development and Environment Unit of the then Ministry of Physical Development and Environment. It also endorsed the 1992 proposal for the establishment of an Advisory Board, although it was suggested that it this should include 'more representation from civil society and communities'.

Requirements of New Institutional Arrangements

6.8 The adoption and implementation of this new Systems Plan will require that new institutional arrangements are put in place: these should:

- be 'fit for purpose' in terms of their capacity to achieve the stated objectives of protected areas;
- be simple, logical and easy to operate;
- build on existing institutional arrangements, so far as this is possible, and avoid duplication of effort;
- be cost effective and robust;

[10] A more detailed account can also be found in the full report (4)

- reflect and respect the needs, interests and aspirations of all stakeholders, including government departments and agencies, non-governmental organisations and local communities;
- command broad support and promote a coordinated and collaborative approach to management.

Proposed Ministerial and Departmental Responsibilities for Protected Areas

6.9 Given the diverse nature of protected areas in Saint Lucia, it is seen as logical and sensible that responsibilities for management should rest with the most appropriate Ministry, rather than being allocated to a single Ministry. The proposed distribution of responsibilities is summarised in Table 10 below.

Table 10: Proposed Ministerial Protected Areas Management Responsibilities

Responsible Ministry	Responsible Chief Officer	Protected Areas Responsibility
Ministry responsible for Forestry	Chief Forestry Officer (existing post)	Forest Reserve Protected Forests Nature Reserves
Ministry responsible for Physical Development	Chief National Parks and Protected Landscapes Officer (proposed new post)	National Parks Protected Landscapes Historic Sites [1]
Ministry responsible for Fisheries	Chief Fisheries Officer (existing post)	Marine Management Areas Marine Reserves

[1] Except those that are owned by, vested in or managed by the Saint Lucia National Trust

6.10 It will be seen that the Forest Reserve, Protected Forests, Marine Management Areas, Nature Reserves and Marine Reserves are to become (or continue to be) the responsibility of existing Chief Officers, whilst National Parks, Protected Landscapes and (most) Historic Sites are to be the responsibility of a new Chief Officer within the Ministry responsible for Physical Development.

6.11 As outlined above, the 'Review of the Policy, Legal and Institutional Frameworks for Protected Areas in Saint Lucia' (4) completed by Lloyd Gardner in 2007 concluded that there was a need for a mechanism to coordinate protected areas development and management across Saint Lucia. We agree with this conclusion and recommend that this role is taken on by the proposed new post of Chief National Parks and Protected Landscapes Officer, supported by the Protected Areas Advisory Board (see below). The Institutional Frameworks report recommended that this role should be fulfilled by the Sustainable Development and Environment Unit and, whilst we can appreciate the logic of this proposal, our consultations have revealed that it is not one that is considered to be appropriate or likely to receive widespread support.

6.12 Our detailed proposals with respect to the different categories of protected area are set out below.

(a) Management of Forest Reserve and Protected Forests

6.13 It is proposed that there should be no structural change to the arrangements for the management of the Forest Reserve and the Protected Forests and this should continue to be undertaken by the Forestry Department (currently within the Ministry of Agriculture, Lands, Forestry and Fisheries). The Forestry Department should also maintain its responsibility for the management of the Parrot Reserve[11].

6.14 It will be seen from Map 1 that there is some small degree of overlap between the Forest Reserve/Protected Forests and some of the National Parks and Protected Landscapes. In these cases, primary responsibility for management will remain with the Chief Forestry

[11] Section 4 of this Plan proposes that the Parrot Reserve, alongside the Maria Islands (the only two Wildlife Reserves designated under the Wildlife Protection Act, 1980) should be re-designated as 'Nature Reserves' under new legislation. Following re-designation, the Parrot Reserve should retain its existing title.

Officer, although this should be undertaken in close consultation with the proposed Chief National Parks and Protected Landscapes Officer who will be within the Ministry responsible for Physical Development (currently the Ministry of Physical Development and Environment) and who will have responsibility for National Parks and Protected Landscapes [see (b) below].

6.15 The inclusion of the Forest Reserve and Protected Forests within the new Systems Plan should not give rise to significant additional demands on financial or personnel resources. There are, however, opportunities to strengthen the role of the Forest Reserve in environmental education and interpretation and in promoting sustainable recreation and tourism. Such initiatives should be facilitated by the proposed 'Protected Areas Sustainable Tourism Officer' and 'Protected Areas Interpretation Officer' (see Section 6.43) who would be part of the team under the proposed Chief National Parks and Protected Landscapes Officer, but who would work across all protected areas and, where appropriate, in collaboration with both the Forestry Department and Fisheries Departments.

(b) Management of National Parks and Protected Landscapes

6.16 It is proposed that the development and management of all National Parks and Protected Landscapes should be assigned to the Ministry responsible for Physical Development, with a new post of Chief National Parks and Protected Landscapes Officer being created within the Ministry to head up a new team of staff to oversee the management and development of these protected areas (see Section 6.40 below for staffing details).

6.17 With respect to this proposal, the following points should be noted:

- This proposal is at variance with the draft Biodiversity Conservation and Sustainable Use Bill which identifies the 'Minister with responsibility for Agriculture, Lands, Fisheries and Forestry' as the minister responsible for the designation and management of all protected areas. We have not followed this approach because we feel that the principal threat to the proposed National Parks and Protected Landscapes comes from development pressures and that the Ministry responsible for Physical Development is best placed to resist such pressures and to take an holistic and strategic view of national land use policies, within which these protected areas will play such a critical part.
- The Ministry of Physical Development and Environment is currently responsible for the establishment and management of Environmental Protection Areas (under Section 34(2) the Physical Planning and Development Act, 2001): the nearest equivalent of the National Park and Protected Landscape designations envisaged by this Systems Plan. In terms of fulfilling our goals for the new institutional arrangements, as set out in Section 6.8 above, it appears to makes sense to keep this responsibility within the same Ministry.
- The creation of the post of Chief National Parks and Protected Landscapes Officer, together with his/her team, is critical to the success of this proposal. This post should be kept separate from the planning and development control activities of the Ministry so that it can act as a champion and advocate for these protected areas; can take an independent view upon the ways in which such areas are managed and developed; and can be fully committed to upholding and fulfilling their management objectives, as set out in this Systems Plan.

(c) Management of Nature Reserves

6.18 In view of the fact that the Forestry Department (currently within the Ministry of Agriculture, Lands, Forestry and Fisheries) is currently responsible for Wildlife Reserves and has staff with expertise in habitat management and biodiversity conservation, it is proposed this Department should also assume responsibility for all Nature Reserves declared over Crown land. The only Wildlife Reserve currently on Crown land is the Parrot Reserve but, as set out above in Section 4.44, future research and survey work may reveal other pieces of Crown land over which it is seen as necessary or desirable to establish a Nature Reserve.

6.19 Some Nature Reserves will also occur on land that is owned by, or vested in the Saint Lucia National Trust: for example, the Maria Islands (currently a Wildlife Reserve and proposed for re-designation as a Nature Reserve) together with several other east coast islands (also proposed in this Plan as Nature Reserves – see Table 7). It is proposed that these should continue to be managed by the Trust in close consultation with the Forestry Department.

6.20 It is also proposed that, in the future, Nature Reserves may, with a landowner's consent, be declared over private land and managed via a legal 'management agreement': in such cases the Department of Forestry should be the arm of Government with responsibility for administering such an agreement and for offering technical advice and guidance to the landowner. Where necessary and appropriate, the Government should also consider the compulsory acquisition of an area designated as a Nature Reserve. The Biodiversity Conservation and Sustainable Use Bill includes provision both for protected area management agreements and for the Crown to 'acquire the land comprising (a) protected area in whole or in part in accordance with the Land Acquisition Act, Cap. 5.04.'.

(d) Management of Marine Management Areas, Marine Reserves and Local Fisheries Management Areas

6.21 Marine Management Areas and Marine Reserves should be the responsibility of the Department of Fisheries (currently within the Ministry of Agriculture, Lands, Forestry and Fisheries).

6.22 It was noted in Sections 3 and 4 of this Plan that the National Park and Protected Landscape designations overlay the Marine Management Areas along their coastal boundaries: the aim of this proposal is to ensure the integrated management of marine and terrestrial ecosystems. Similarly, the National Parks and Protected Landscapes encompass many of the Marine Reserves, and in some cases the Marine Reserves encompass terrestrial habitats such as beaches or mangrove. In all cases, primary responsibility for the management of Marine Management Areas and Marine Reserves should remain with the Department of Fisheries, although, for the reasons stated above, where overlap occurs, such management should be undertaken in close liaison and cooperation with the Chief National Parks and Protected Areas Officer within the Physical Development Department.

6.23 As indicated above in Sections 3.25 – 3.26, the Soufriere Marine Management Association, as the body responsible for the Soufriere Local Fisheries Management Area, is seen as a model of the type of 'Local Fisheries Management Authority', which should be rolled out to other sections of Saint Lucia's coast. The Department of Fisheries should continue to be responsible for providing advice to the Minister on the establishment of future Local Fisheries Management Areas and Local Fisheries Management Authorities. Where an LFM Area is to be designated within the marine component of a National Park or Protected Landscape, this should be carried out in close consultation with the Chief National Parks and Protected Areas Officer within the Physical Development Department.

(e) Management of Historic Sites

6.24 The process of 'listing' and protecting sites of historic/archaeological/cultural importance (referred to as 'Historic Sites') has been outlined above in Sections 4.50 – 4.53.

6.25 Those 'Historic Sites' that are owned by or vested in the Trust or are managed by the Trust, should continue to be managed by the Trust.

6.26 The protection of all listed 'Historic Sites' lying within the boundaries of the two National Parks and four Protected Landscapes should be the responsibility of the Department of Physical Development within the relevant Ministry, through the new post of Chief National Parks and Protected Landscapes Officer.

6.27 The protection of all listed 'Historic Sites' outside of the boundaries of the two National Parks and four Protected Landscapes should also be the responsibility of the Department of Physical Development within the Ministry of Physical Development and the Environment, through the new post of Chief National Parks and Protected Landscape Officer.

6.28 The Chief National Parks and Protected Landscape Officer should be responsible for negotiating any 'management agreements' for 'Historic Sites' (see Section 4.53 above)

6.29 In securing the protection and management of all listed 'Historic Sites', the Chief National Parks and Protected Landscape Officer should liaise, as necessary, with the Saint Lucia National Trust and the Saint Lucia Archaeological and Historical Society

Establishment of a Protected Areas Advisory Board

6.30 An Advisory Board should be established to promote the cooperative and collaborative approach to management advocated above, especially with respect to overlapping protected area designations. More specifically, it will provide guidance and advice on protected areas policy and practice to:

- the Chief National Parks and Protected Landscapes Officer within the Ministry responsible for Physical Development (currently the Ministry of Physical Development and Environment) in respect of National Parks, Protected Landscapes and (some) Historic Sites;
- the Chief Forestry Officer within the relevant Ministry (currently the Ministry of Agriculture, Lands, Forestry and Fisheries) in respect of Forest Reserves, Protected Forests and Nature Reserves on Crown land or managed via a 'management agreement' with a private landowner;
- the Chief Fisheries Officer within the relevant Ministry (currently the Ministry of Agriculture, Lands, Forestry and Fisheries) in respect of Marine Management Areas and Marine Reserves;
- the Saint Lucia National Trust in respect of Historic Sites and Nature Reserves on land owned by, vested in or leased to the National Trust.

6.31 The Advisory Board should have 16 members to include:

- the following nine representatives of Government Departments:
  - Chief National Parks and Protected Landscapes Officer of the (current) Ministry of Physical Development and Environment;
  - Chief Sustainable Development and Environment Officer of the (current) Ministry of Physical Development and Environment;
  - Chief Physical Planner of the (current) Ministry of Physical Development and Environment;
  - Chief Fisheries Officer of the (current) Ministry of Agriculture, Lands, Forestry and Fisheries;
  - Chief Forestry Officer of the (current) Ministry of Agriculture, Lands, Forestry and Fisheries;
  - Commissioner of Crown Lands;
  - Director of Agricultural Services of the (current) Ministry of Agriculture, Lands, Forestry and Fisheries;
  - Biodiversity Coordinator of the (current) Ministry of Physical Development and Environment;
  - Chief Tourism Officer;
- one representative from each of three non-governmental organisations concerned with environmental or cultural matters, to include:
  - the Saint Lucia National Trust, to input expertise on historical and cultural issues;
  - WWF, TNC, the Durrell Wildlife Conservation Trust or some other similar organisation with national/international expertise in ecological and conservation issues;
  - one other, preferably with marine/fishing expertise such as the National Fisherfolk Organisation.
- the chair of each of the four 'Protected Area Fora' (see below).

6.32 It is proposed that the Advisory Board should be a sub-committee of the National Environmental Commission

Establishment of Protected Areas Fora

6.33 To facilitate the engagement of local communities and community organisations in the management and development of protected areas, it is proposed that four 'Protected Area Fora' should be established. These would each cover distinct parts of the island and would provide a mechanism for local people and organisations to input to the management of the protected areas within their locality. The geographical distribution of the Fora, as summarised below, is intended to ensure that each is reasonably 'local' and geographically distinct, whilst also keeping the number of fora across the island to a manageable number:

- 'Protected Areas Forum - North' based in Gros Islet or Babonneau
- 'Protected Areas Forum - East' based in Dennery
- 'Protected Areas Forum - West' based in Soufriere
- 'Protected Areas Forum - South' based in Laborie or Vieux Fort

6.34 It is proposed that in order to 'get things off the ground', each Forum would initially be convened by the Saint Lucia National Trust but it is hoped that, as soon as practical, each Forum would become self-managing and appoint its own chair and, if necessary, a management committee. Whilst each Forum would be open to all members of the local community, it is envisaged that key members would be the representatives of local organisations concerned with:

- farming and agriculture;
- fishing;
- tourism;
- sports and recreation;
- local trade associations.

6.35 It is proposed that the elected chair of each Forum would become a member of the Protected Areas Advisory Board [see (e) above]. It is intended that this would enable local interests and concerns raised by each Forum to be fed through to the national level so that they can be taken into account in the development of protected area management policies and in the design and implementation of projects and initiatives.

Staffing

6.36 The proposals within this Systems Plan are considered to have no staffing implications for the Forestry Department of the Ministry of Agriculture, Lands, Forestry and Fisheries.

6.37 New staff will be required to meet the additional responsibilities placed upon:

- the Ministry with responsibility for Physical Development, in respect of the establishment and management of National Parks and Protected Landscapes;
- the Department of Fisheries (currently within the Ministry of Agriculture, Lands, Forestry and Fisheries) in respect of the establishment and management of Marine Management Areas and Marine Reserves.

6.38 The key purposes of the new staff appointed to these two Ministries will be in:

- serving as a visible presence on the ground and demonstrating the government's commitment to the protection and effective management of these areas;
- building relationships with local communities;
- acting as a link between the various departments of government that will be involved in the management of protected areas;
- coordinating the preparation of management plans;

- developing and implementing projects and initiatives;
- serving as a point of contact for local organisations and businesses;
- monitoring and enforcing site protection (in collaboration with law enforcement agencies);
- raising understanding and awareness of the importance of protected areas.

6.39 It is our view that the minimum staffing complement should be as follows. A summary of the key responsibilities of each of these staff is set out in Appendix 10.

(a) Protected Areas Management within the Ministry responsible for Physical Development

6.40 A new 'National Parks and Protected Landscapes Section' should be established within the Department of Physical Development (currently part of the Ministry of Physical Development and Environment) which should be structured as follows:

- the Section should be headed by a 'Chief National Parks and Protected Landscapes Officer' with responsibility for coordinating the management of all National Parks, Protected Landscapes and (most) Historic Sites across Saint Lucia and supervising the following four staff;
- a 'National Parks & Protected Landscapes Officer – West' with responsibility for the Pitons National Park; Anse Cochon and Dorée-Piaye Protected Landscapes and Historic Sites on the west coast of the island;
- a 'National Parks & Protected Landscapes Ranger – West' working to the 'National Parks & Protected Landscapes Officer – West';
- a 'National Parks & Protected Landscapes Officer – East' with responsibility for the Iyanola National Park; Mandelé and Pointe Sable Protected Landscapes and all Historic Sites on the east coast of the island;
- a 'National Parks & Protected Landscapes Ranger – East' working to the 'National Parks & Protected Landscapes Officer – East';

(b) Protected Areas Management within the Fisheries Department of the Ministry responsible for Fisheries

6.41 Two Marine Protected Areas Officers should be appointed to the Department of Fisheries to take responsibility for Marine Management Areas and Marine Reserves, working alongside other disciplines such as research, resource management, extension etc. These would comprise:

- a 'West Coast Marine Protected Areas Officer' with responsibility for coordinating the management of the West Coast Marine Management Area, the Laborie Marine Management Area, the Cold Upwelling Marine Management Area and all Marine Reserves on the west coast;
- an 'East Coast Marine Protected Areas Officer' with responsibility for coordinating the management of the East Coast Marine Management Area and all Marine Reserves on the east coast.

(c) Joint Appointments across Forestry, Physical Development and Fisheries

6.42 Two additional appointments should be made to the 'National Parks and Protected Landscapes Section' of the Ministry responsible for Physical Development, although these staff would work across all protected areas, including those administered by the Forestry Department and the Fisheries Department:

- a Protected Areas Sustainable Tourism Officer;
- a Protected Areas Heritage Interpretation Officer.

7. Legal and Legislative Requirements

7.1 Sections 3 and 4 of this Plan have outlined proposals for a new system of protected areas for Saint Lucia. In some cases, these involve the creation of new protected area designations which have significant legal and legislative implications. This section of the Plan reviews current and draft legislation in terms of its suitability as a vehicle for the designation of the categories of protected area advocated in this Plan

Forest Reserve and Protected Forests

7.2 The Forest, Soil and Water Conservation Ordinance (Chapter 25) 1946, as amended by the Forest, Soil and Water Conservation Ordinance (Amendment) Acts 1983 and 1995 provide for the designation of Forest Reserves on Crown Land and Protected Forests on private land. It is expected that future new Forest Reserves and Protected Forests will continue to be designated under this legislation.

National Parks and Protected Landscapes

7.3 The Protected Areas Workshop held on 7th - 8th April 2009 (see paragraph 3.6) looked very carefully at the legislative implications of creating the two new protected area designations of 'National Parks' and 'Protected Landscapes'. These discussions and those held during the November 2009 consultations centred on three existing pieces of legislation, together with one that is currently in the process of being drafted; namely:

- the National Conservation Authority Act, 1999;
- the Physical Planning Act, 2001;
- the Land Conservation and Improvement Act, 1992;
- the Biodiversity Conservation and Sustainable Use Bill (in preparation).

7.4 The potential relevance of each of these existing/proposed statutes is reviewed in Appendix 11. Key conclusions arising from this review are:

- Although the National Conservation Authority Act, 1999, makes provision for the 'creation of a recreational area or national park', it is not seen as relevant to this Systems Plan because the concept of a national park is quite different in scale and purpose.
- The Physical Planning and Development Act, 2001 was used to designate the Pitons Management Area and the Pointe Sable Environmental Protection Area. However, the compensation provisions within the Act means that it is inconsistent with the concept of National Parks and Protected Landscapes envisaged by this Systems Plan.
- The Land Conservation and Improvement Act, 1992 contains a number of provisions that may be relevant to the implementation of this Systems Plan but these are considered to be insufficiently specific for them to be used to designate the proposed National Parks and Protected Landscapes.
- A 'Biodiversity Conservation and Sustainable Use Bill' is currently in preparation but, at the time of writing, is only in a 'Final Draft' form, dated August 2008. The draft Bill includes a range of very relevant proposals for the establishment and management of a range of 'protected areas', although it is important to stress that, given its current status, it may be subject to further amendment and modification and has yet to become law.

7.5 In the light of above review, our conclusion is that, in their present form, neither the National Conservation Authority Act 1999, nor the Physical Planning and Development Act 2001, nor the Land Conservation and Improvement Act 1992 is a suitable vehicle for the designation and management of the National Parks and Protected Landscapes proposed in this Systems Plan. These three Acts also do not appear to readily lend themselves to amendment in such a way that they could be used for this purpose, although expert legal opinion would need to be sought if any of these Acts was considered to be an option.

7.6 In contrast, the Biodiversity Conservation and Sustainable Use Bill does appear to have considerable potential for the purpose of designating and managing the National Parks and Protected Landscapes proposed in this Plan. A number of amendments to the Bill would, however, be required, specifically in relation to:

- giving responsibility for National Parks and Protected Landscapes to the Ministry responsible for Physical Development rather than the Ministry of Lands, Agriculture, Forestry and Fisheries (see Section 6 above);
- changing the title, membership and remit of the 'Biodiversity Advisory Committee' proposed by the Bill so that it more closely reflects the proposals set out in Section 6.30 – 6.32 above for a 'Protected Areas Advisory Board', or creating a completely separate 'Protected Areas Advisory Board';
- making provision for the establishment of the four 'Protected Area Fora' and their inclusion in the 'Protected Areas Advisory Board';
- clarifying the 'compensatory measures' that are proposed in the Bill in relation to protected areas to ensure that there is no right to compensation arising from protected area designation or any restrictions that such designation might impose upon the use, management or development of land.

7.7 In our view, the only alternative to amending the Biodiversity Conservation and Sustainable Use Bill would be to create new bespoke legislation, although this would be time consuming and costly and would duplicate many of the provisions of the Bill. Whichever legislative route is followed, it will be necessary for the Pitons Management Area and the Pointe Sable Environmental Protection Area (both designated under Section 34(2) the Physical Planning and Development Act, 2001) to be re-designated within the appropriate new category of protected area.

Marine Management Areas

7.8 Part III (Division 4) of the Biodiversity Conservation and Sustainable Use Bill provides for the establishment of 'protected landscapes and seascapes' (see Appendix 11 for details). Consistent with our comments above in relation to the potential use of the Bill (as and when it becomes law) to effect the designation of National Parks and Protected Landscapes, it is also seen to be an appropriate mechanism for the establishment of the four proposed 'Marine Management Areas'. The provisions of the Bill are seen as being especially appropriate from an institutional perspective in that the 'responsible Minister' for these MMAs would be the 'Minister with responsibility for Agriculture, Lands, Fisheries and Forestry'.

Nature Reserves

7.9 Sections 3.27 – 3.29 have outlined the rationale for the establishment of Nature Reserves to replace and extend the current designation of 'Wildlife Reserve'. Subject to legal opinion, it is our view that there are two ways in which this could be effected: either through the amendment of the Wildlife Protection Act , No.9, 1980 or through the Biodiversity Conservation and Sustainable Use Bill (as and when it becomes law), although, as indicated above, this would require some minor revisions to establish conformity with the proposals in this Systems Plan.

7.10 The draft Biodiversity Conservation and Sustainable Use Bill, defines 'wildlife' as 'all animals including terrestrial, marine or freshwater wild animals, migratory species, vertebrate and invertebrate, plants, fungi or micro-organisms but does not include domesticated animals or plants'. This wider definition addresses the concerns outlined above in Section 3.27 that the term 'wildlife' in the Wildlife Protection Act, No. 9, 1980 is too restrictive. Unfortunately, the Bill does not appear to include a proposal that this new definition of 'wildlife' would amend the definition in the 1980 Act.

7.11 Part III (Division 4) of the Bill proposes the designation of several different categories of protected area including 'natural sites' (defined as 'an area of land or sea possessing outstanding or representative ecosystems, geological or physiological features; or species available primarily for scientific research or environmental monitoring') and 'habitats and

species management areas'. Either of these two categories of protected area would be appropriate for the designation of the type of Nature Reserve proposed in this Systems Plan. The various other clauses contained within the Bill that would apply to such 'protected areas' (key points are summarised Appendix 11) would also appear to be consistent with this Plan's proposals relating to Nature Reserves. We would therefore recommend that the Bill is modified to establish conformity with the proposals in this Plan and that, as and when it becomes law (as the Biodiversity Conservation and Sustainable Use Act), it is used to effect the designation of the proposed new Nature Reserves and the re-designation of the two existing Wildlife Reserves (i.e. Parrot Reserve and Maria Islands). It could also be used to designate any other new Nature Reserves that are identified in the future, following the survey and evaluation work recommended in Section 4.44.

Marine Reserves

7.12 Marine Reserves are designated under Section 22 of the Fisheries Act, No. 10, 1984 for the purpose of protecting flora and fauna (especially species in danger of extinction); protecting the breeding grounds and habitats of aquatic life; allowing the regeneration of depleted species; promoting scientific study and research; and preserving areas of natural beauty. Whilst the protection and management of existing Marine Reserves has been largely ineffective, the actual legislation is considered to be fit for purpose and we see no reason for any future Marine Reserves not to be designated under the 1984 Act.

Historic Sites

7.13 The "Biodiversity Conservation and Sustainable Use Bill' refers to seven different categories of 'protected area', including 'heritage sites', which are defined as sites 'exhibiting great beauty or uniqueness or supporting endangered animal species or species': unfortunately this definition does not appear to encompass the types of 'Historic Site' that are the concern of this Systems Plan.

7.14 It is proposed that the 'Biodiversity Conservation and Sustainable Use Bill' should be amended to include an eighth category of protected area; namely 'Historic Site', defined as a 'site, structure or artefact of significant historic, archaeological or cultural importance'. The Bill would also need to be amended to address the 'listing' process and protection mechanisms outlined in Sections 4.50 – 4.53, together with the minor revisions set out in Section 7.6 necessary to establish conformity with the other aspects of this Systems Plan.

Context within the OPAAL Project

7.15 Finally, it should be noted that, as part of the OPAAL Project, a report has been prepared on the requirements of participating countries with regard to new 'Institutional Arrangements for Protected Areas Management' (22): this includes 'a framework/harmonized policy document or legislative instrument which creates an appropriate institutional arrangement for protected areas management'. It is understood that, as a follow-on from this work, a national 'Protected Areas System Act' will be drafted for each of the six participating countries, including Saint Lucia. It is assumed that the process of preparing this national legislation will take account of the provisions within the draft Biodiversity Conservation and Sustainable Use Bill and the proposals contained within this Systems Plan.

8. Operational Aspects of Protected Areas Management

Capacity Building

8.1 The Management Effectiveness Assessment workshop undertaken in February 2009 (see Appendix 8) examined 'inputs' to protected areas management in relation to 'staffing, communication, infrastructure and facilities, and financing' and identified 'a system lacking resources in practically all levels of management'. It will be essential that these issues are addressed if the protected areas proposed in this Systems Plan are to succeed in achieving their objectives: failure to allocate adequate resources will mean that most will become 'paper' designations that have little, if any, value or purpose.

8.2 Section 6 of this Plan has proposed the appointment of several new staff to coordinate the management of protected areas, although in many cases these personnel will be working alongside existing specialist staff, especially in the Forestry Department and Fisheries Department. The capacity of these new staff to 'deliver' on the objectives of the protected areas will require that:

- the Chief National Parks and Protected Landscapes Officer within the Department of Physical Development should be appointed at a sufficiently senior level to enable him/her to influence government policy and to operate at a high level across other government ministries and departments;
- the persons appointed to the posts of National Parks & Protected Landscapes Officers (2 no.) and the Marine Protected Areas Officers (2 no.) should have significant experience and expertise in relevant aspects of protected areas and resources management;
- all staff should given training to develop and strengthen their skills;
- an adequate and secure budget should be allocated to the management of protected areas, especially so that the following priority issues can be effectively addressed:
  - site survey, research and monitoring;
  - preparation and implementation of management plans;
  - the rigorous and effective enforcement of site protection;
  - outreach and education to raise awareness and understanding of the purpose and value of protected areas amongst local communities, public bodies and politicians and private sector organizations;
  - development of initiatives to assist local communities in deriving income and employment, especially from visitor and tourism activities.

Joint Working

8.3 The 2007 Institutional Framework Report (4) and the 2009 Management Effectiveness Assessment both concluded that the effective management of protected areas will require significant improvements to arrangements for joint working, especially within the public sector. This view reflects the fact that protected areas can potentially impact upon the interests of many branches of government, yet there is currently no formal mechanism to facilitate debate or discussion or to exchange ideas and information. The establishment of protected areas will also have a significant bearing upon private sector business interests and upon local communities and it will be essential that mechanisms are put in place to enable people to voice their aspirations and concerns and to feel that they can have a say in how such areas are managed.

8.4 The proposed establishment of the Protected Areas Advisory Board and the two Protected Area Fora will go a long way towards creating lines of communication between the government departments, private sector business interests and local communities. However, the primary responsibility for management rests with government and specific measures that should be taken include the following:

- government ministries should seek to develop a protocol which articulates a shared vision and collective commitment to securing the objectives of protected areas;
- mechanisms should be developed to facilitate the exchange of information between government departments in relation to protected areas; for example, the minutes of

meetings of the Protected Areas Advisory Board should be circulated to all Departmental heads;

- the Protected Areas Advisory Board should be a formal consultee in relation to all significant development proposals within or in close proximity to any protected area, which could potentially impact upon its character or special qualities.

9 Protected Area Funding

Establishment and Management Costs

9.1 The establishment and management of the System of Protected Areas recommended within this Plan will have significant financial implications. Key areas of expenditure will arise from the following:

- staff salaries and associated employment costs;
- staff expenses (e.g. vehicles, travel, equipment and associated running costs);
- project costs (e.g. field survey, education and outreach, sustainable tourism, infrastructure improvements, site interpretation, species conservation, etc);
- administrative costs (e.g. clerical support, office overheads).

9.2 Section 6 of this Plan has set out proposals for the minimum staffing level that is considered necessary for the effective implementation of this Plan. These include the appointment of five staff to manage the terrestrial protected areas and two staff to manage the marine protected areas, although the former excludes the Forest Reserve and Protected Forests for which it is assumed that the Forestry Department's current staff complement is adequate. In addition, it has identified priorities for two additional staff appointments, should the necessary resources become available. In presenting these recommendations, we have sought to be realistic and sensible, recognising that whilst the optimum is rarely achievable or affordable, there is also a bottom-line minimum level of resourcing that is essential if the Protected Areas are to achieve their basic objectives.

9.3 Some costs associated with the management of existing protected areas are already accounted for within current levels of Government spending. So far as we have been able to ascertain, these include:

- The Forestry Department of the Ministry of Agriculture, Lands, Forestry and Fisheries undertakes the management of the Forest Reserve and Protected Forests. The budgetary allocation for this work is not known.
- The Soufriere Local Fisheries Management Area is managed by the Soufriere Marine Management Association which funds its operations by raising income [currently understood to be $EC600,000 per annum (24)] from yachting, diving and snorkelling fees. The Association works very closely with the Fisheries Department of the Ministry of Agriculture, Lands, Forestry and Fisheries.
- The Pitons Management Area (PMA) has a designated Manager. It is understood that in 2009/10 the capital budget for the PMA was approximately EC$350,000.
- The Saint Lucia National Trust manages 26 sites across Saint Lucia: these are mostly of historic or cultural interest but also includes some sites of ecological importance (see Appendix 3). The Trust has an income of EC$2m. of which EC$700,000 come as a subvention from Government, and the bulk of the rest comes from entrance fees and sales to visitors, mostly at its principal site, Pigeon Island.

9.4 We would estimate that a base budget for the protected areas (i.e. to include staff salaries and associated employment costs; staff expenses, and administrative costs but excluding project costs) would be in the region of $US500,000 to $US750,0000 per year. Project costs cannot be quantified since these will depend entirely upon how proactive the Government wishes to be in managing the areas, for example by improving site infrastructure, undertaking habitat management and restoration, developing walking trails, improving interpretation etc. etc.

Financing Mechanisms

9.5 Traditionally, the acquisition of funding for the creation, development and management of protected areas in developing countries has focussed on a relatively limited number of sources including grant funding from donors and NGO programmes, government budgetary subventions and user fees. In more recent years, as the number of protected areas has increased, government's have looked for new and more innovative ways of meeting both

the capital development costs (e.g. for site infrastructure and other non-recurring items) and ongoing revenue costs (e.g. for staff salaries, administrative costs and overheads).

9.6 It is understood that the Global Environment Facility (GEF)[12] has allocated funding from the 4th Resource Allocation Framework for Biodiversity to enable a Protected Area Trust Fund to be established in each of five OECS countries, including St Lucia, to support the financing of the development and management of protected areas. Each national level Protected Area Trust will have an endowment of US$3 million - all of these funds have already been identified, with US$1.5 million from the GEF, US$600K from The Nature Conservancy, and US$900K from KfW (German Development Bank). A requirement of this funding is that countries will pool their funds for management purposes, although each country's fund will be in a separate account and decisions on how to spend the fund will be made by the Board of each respective national level Protected Area Trust.

9.7 It will be important that St. Lucia, as well as the other Caribbean countries involved, identify other potential funding mechanisms for their protected areas because the endowments of each national level Protected Area Trust is being set up as an incentive fund. This means that other fund raising mechanisms will need to be created (with the funds directed through the national level PA Trust's revolving fund window) within a reasonable timeframe or potentially lose access to their endowment proceeds until such time as these other mechanisms are put in place.

9.8 A report commissioned by the OECS as part of the OPAAL Project is looking specifically at existing and potential mechanisms for the sustainable financing of the protected areas in the OECS (23). Work on this report is still in progress but it has identified 'some 39 different approaches to protected area financing', each of which has been 'tried already somewhere or other in the world'. The report also observed that 'constraints to implementation may include legal or cultural barriers, as well as consideration of the nature of the resources contained within a protected area'. Within these 39 approaches there were seen to be six different categories of 'funding mechanism', i.e.:

- international support for protected area funding;
- national public sector support for protected area funding;
- resource use/extraction fees and permits;
- environmental services payments;
- private and corporate donations;
- enabling environment and cost-effective management.

9.9 We are very conscious of the need not to pre-empt the conclusions of this sustainable financing study by presenting in this Systems Plan any specific recommendations as to how the establishment and management of the proposed protected areas in Saint Lucia should be funded. However, in the course of preparing this Plan we have received feedback on a small number of potential funding mechanisms upon which some comment is appropriate

(a) Protected Areas User Fees

9.10 This approach to the funding of protected areas is one that has attracted considerable attention in some of the other OECS countries involved in the OPAAL Project. Given the size and character of many of the protected areas proposed in this Plan, with most covering private land and encompassing local communities, we are of the opinion that entrance fees would be neither practical nor acceptable.

[12] The Global Environment Facility (GEF) is a global partnership of 178 countries, international institutions, non-governmental organizations (NGOs) and the private sector which seeks to address global environmental issues while supporting national sustainable development initiatives. It provides grants for projects related to six focal areas: biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. GEF funds are contributed by donor countries. In 2002, 32 donor countries pledged $3 billion to fund operations through 2006. At the Fourth GEF Assembly in 2006, an additional $3.13 billion was committed.

(b) Hypothecated Tourism Taxes and Levies

9.11 Saint Lucia has a thriving tourism industry, with large numbers of overseas visitors arriving via cruise ships and by air. In 2005 (the most recent year for which data are available[13]) total visitor numbers were just over 800,000, with 298,000 arriving by air, 481,000 arriving on cruise ships and 23,000 on yachts. Given that the attractiveness of Saint Lucia as a tourism destination is linked very strongly to the quality of its natural environment, the levying of a modest arrival or departure tax on all visitors, of say $US1 or $US2, would not be seen as inappropriate and would generate significant revenues. If it were to be made clear to visitors that this tax would be used solely for the management of Saint Lucia's protected areas, it is likely that the majority would be sympathetic and supportive.

(c) Direct Fund Raising

9.12 The Soufriere Marine Management Association currently raises its annual income of EC$600,000 from charges made for anchorage and from diving and snorkelling fees. This is permitted via a provision in the Companies Act which allows NGOs and other associations to run non-profit-making financial ventures. This approach is one that could be used to raise funds for the establishment and management of other Local Fisheries Protection Areas or Marine Management Areas.

[13] St Lucia Tourist Board data <www.acs-aec.org/Tourism/Statistics2005/English/StLucia_en.htm>

10. Systems Plan Development and Implementation

Consultation on the Draft Systems Plan

10.1 The consultations on a Draft version of this Systems Plan were carried out in late October and early November 2009. A specialist consultant (Sylvester Clauzel of Scribal Consultancy Services) was contracted by the OECS to work with the Saint Lucia National Trust and the Systems Plan Consultant in handling all of the arrangements and logistics for this consultation exercise. A full report on the consultation process and outputs has been prepared by Scribal Consultancy Services although this is currently only available in draft form (25): the Final Report is due for completion by January 15th 2010.

10.2 In the course of this consultation exercise, the following actions and activities were undertaken:

- a PDF version of the Draft Plan was placed on the website of the Saint Lucia National Trust – this was widely publicised in order to maximise the Plan's exposure;
- a press release was published and circulated to describe the consultation process and identify the venues and dates of the five consultation meetings that had been arranged;
- the venues and dates of the five consultation meetings were advertised via a public service announcement on three radio stations;
- a large number of individuals and organisations were contacted directly to invite them to the programme of consultation meetings;
- four community consultation meetings were held at Dennery, Soufriere, Gros Islet and Laborie between October 29th 2009 and November 2nd 2009;
- an open meeting was held at Rodney Bay on November 4th 2009 for the public and private sectors and civil society;
- Mr. David Haffey (the Systems Planning Consultant), Mr. Bishnu Tulsie (Director of the Saint Lucia National Trust) and Mr. Sylvester Clauzel (Scribal Consultancy Services) took part in 'The Agenda' programme hosted by Dave Samuel's of Radio Saint Lucia on November 3rd.
- Mr. David Haffey (the Systems Planning Consultant) and Mr. Bishnu Tulsie (Director of the Saint Lucia National Trust) held a meeting on 10th November 2009 with Mr George James (Permanent Secretary, Ministry of Physical Development and Environment) and other Government staff.

10.3 A description of the four community consultations and the one open meeting, together with a summary of the key outputs, is attached at Appendix 12.

10.4 In the light of the comments received during the consultation process, the Systems Plan was amended. This final version of the Systems Plan was submitted to the OECS on 9th December 2009.

Requirements for Implementation of the Systems Plan

10.5 The successful implementation of this Plan will require three key conditions to be met:

- cross-party political support and commitment in relation to both the establishment of the various protected areas and to their long term protection and sustainable management;
- grass roots support from the people of Saint Lucia, and especially from those living within and close to the protected areas, based upon an appreciation of the purpose and value of protected areas to individuals, communities and the nation as a whole;
- secure and sustainable financing that allows for the appointment of the well resourced, trained and committed staff who can manage all protected areas in an effective and efficient manner.

10.6 With regard to the second of the above bullet points, a key issue to come out of the November 2009 consultations on the Draft Plan (see Appendix 12) was that there is a need for a comprehensive public education and awareness raising exercise so that people understand the purposes of protected areas and their potential impact on the social, economic and environmental well-being of local communities. Whilst the November consultations took some initial steps to address this issue, it was widely acknowledged that considerably more needs to be done if the process of protected areas designation is to achieve the necessary level of public support. Specific suggestions put forward by consultees included:

- the arts, including visual, performing and literary arts, all have considerable potential as a medium for conveying messages about the importance of heritage conservation and the role of protected areas;
- case studies can be used to demonstrate that appropriately-scaled and monitored tourism development initiatives can bring high economic and social benefits to small rural communities and that large scale development is not necessarily the answer to addressing poverty and economic displacement in small island developing states;
- a high priority should be given to educating the younger generations since they will be the decision makers of the future and will have ability to influence the attitudes of their parents and peers.

Implementation Process

10.7 The process of implementation will involve the following steps. Whilst most will need to be carried out sequentially, many could be carried out concurrently so as to accelerate the process.

(a) Protected Area Establishment

- approval of the Systems Plan by cabinet;
- the drafting and enactment of legislation to allow for the creation of each of the different categories of protected area;
- detailed site survey to identify the boundaries of each protected area and assemble background information on, for example, vegetation, land use, population, economic activity, conservation interest (including ecological, historical and cultural assets) etc etc.
- consultation with local communities on issues such as protected area boundaries, key purposes, management and governance;
- legal establishment of all new protected areas.

(b) Protected Area Financing

- agreement by cabinet on the management and governance arrangements for the protected areas;
- development of 5 year capital and revenue budgets for the establishment and management of the protected areas and the implementation of the approved management and governance arrangements;
- development of a finance plan to secure the long-term funding necessary to meet the agreed budgets;
- implementation of the finance plan.

(c) Management and Governance Arrangements

- establishment of the Protected Areas Advisory Board;
- establishment of the Protected Area Fora
- appointment of protected areas staff

(d) Development of Management Plans for Individual Protected Areas

- execution of surveys to expand, as necessary, the site information collected under (a) above;
- development of management objectives, policies and prescriptions for each protected area (including a zonation plan where appropriate);
- preparation of draft 5 year Management Plans for each protected area;
- consultation on draft Management Plans with relevant government departments and local communities;
- finalising of Management Plans and implementation.

Implementation Timescale

10.8 At this stage in the process of Plan preparation, when it has yet to receive formal cabinet approval, it is not possible to be precise about the timescale for the completion of the various steps but the goal should certainly be to have effected the statutory designation of all protected areas and established all management and governance structures within 5 years from the date of approval of the Plan.

10.9 In the course of the consultations on the Draft Plan held during early November 2009, it was suggested by a small number of consultees that the Plan should be implemented in an incremental or phased manner. The key reasons for proposing this course of action focused on:

- the failure of past attempts to convince local people and successive governments of the need to declare protected areas, and hence the need for a more sensitive and progressive approach;
- the financial and other limitations on government which may constrain implementation;
- the political implications of protected areas designation at the community level.

10.10 This suggestion did not receive widespread support, primarily because of concerns that there would be further losses of heritage resources during the period of phased implementation and that such losses could jeopardise the integrity and conservation value of the protected areas established in the latter stages of this process. As authors of this Plan, we support that latter view and recommend that the Plan should be implemented, in its entirety, at the earliest opportunity. To adopt a phased approach would, in our opinion, merely serve to protract the 'patterns of degradation and destruction' highlighted by the very first paragraph of the 1992 Systems Plan, which have continued unabated to the present day.

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Appendices

Appendix 1

A System of Protected Areas for Saint Lucia, 1992
Summary of Protected Area Proposals

Management Categories		Management Areas		
Existing Management Categories	**Proposed Management Categories (not implemented)**	**Existing Management Areas**	**Proposed New Management Areas**	**Additional Sites (often within 'Management Areas')**
Forest Reserve	-	Central Forest Reserve	Central Forest Reserve Extension	-
Wildlife Reserve	-	Parrot Sanctuary[1] Maria Islands	-	-
Marine Reserve	-	-	-	22 existing sites & 7 proposed new sites
	Nature Reserve		La Tourney Roseau Union	9 proposed new sites
	National Landmark		River Dorée Pigeon Island	3 proposed new sites
	Historic Area/Site		Morne Fortune Tapion Vigie Choc Roseau Morne du Don Paix Bouche	58 proposed new sites & 4 'existing sites' (i.e. sites managed by the Saint Lucia National Trust
	National Park		Grande Anse Pointe Sable Qualibou Canaries	
	Protected Landscape		Anse Galet Esperance Fond D'Or Praslin Anse Ger. Piaye Anse Cochon Marigot Bois d'Orange Fairview	2 proposed new sites

[1] Conflicting guidance has been received as to whether the Parrot Sanctuary has been formally designated. On balance, it seems likely that it has.

Appendix 2

Relevant International Environmental Conventions Signed by Saint Lucia

Source: Compendium of Environmental Statistics 2001 (as summarized in Gardner, L (2007) *Review of the Policy, Legal and Institutional Frameworks for Protected Areas. Management in St Lucia. OECS Protected Areas and Associated Livelihoods Project.)*

International Convention for the Regulation of Whaling
Date of entry of St. Lucia: 29/6/1981
Responsible Government Department: Department of Fisheries

Convention Concerning the Protection of the World Cultural and Natural Heritage
Date of St. Lucia's ratification:14/10/1991
Responsible Government Department: Department of Forests and Lands/Department of Fisheries

Convention on the Prevention of Marine Pollution by Dumping of Waste and other Matter at Sea
Date of accession of St. Lucia: 23/8/1985
Responsible Government Department: Department of Fisheries

Convention on the Prohibition of the Development, Production and Stockpiling of Biological and Toxic Weapons and on their Destruction
Date of succession of St. Lucia: 26/11/1986
Responsible Government Department: Ministry of Foreign Affairs

Convention of International Trade in Endangered Species of Wild Fauna and Flora
Date of Accession of St. Lucia 15/12/1982
Responsible Government Department: Department of Forests and Lands/Department of Fisheries

United Nations Convention on the Law of the Sea
Date of St. Lucia's signature: 10/12/1982
Date of St. Lucia's Ratification: 27/3/1985
Responsible Government Department: Department of Fisheries

Agreement for the Implementation of the Provision of the United Nations Conventions on the Law of the Sea 10/12/1982 relating to the Conservation and Management of Straddling Fish Stock and Highly Migratory Fish Stocks.
Date of St. Lucia's Signature: 12/12/1995
Date of St. Lucia's Ratification: 9/8/1996
Responsible Government Department: Department of Fisheries

Convention for the protection and Development of the Marine Environment of the Wider Caribbean Region and Protocol on Co-operation in combating Oil Spills (Cartagena Convention)
Date of St. Lucia's signature: 24/3/1983
Date of Entry of St. Lucia: 30/11/1984
Responsible Government Department: Department of the Environment

Vienna Convention for the Protection of the Ozone Layer
Date of adoption: 22/3/1985
Date of entry into force:22/9/1988
Responsible Government Department: Ministry Planning and Sustainable Development

The Montreal Protocol on Substances that Deplete the Ozone Layer
Date of entry of St. Lucia: 28/7/1993
Date of last report: 5/11/1997
Responsible Government Department: Planning and Sustainable Development.

Basel Convention on the Control of Trans-boundary Movements of Hazardous Waste and their Disposal
Date of Accession: 9/12/1993
Date of last report: October 1-4, 1996
Responsible Government Department: Planning and Sustainable Development

Protocol on Specially Protected Areas and Wildlife to the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region
Date of St. Lucia's signature: 18/1/1990
Responsible Government Department: Department of Fisheries /Department of Forests and Lands

United Nations Convention on Biological Diversity
Date of Accession: 28/7/1993
Responsible Government Department: Ministry of Agriculture, Forestry, Fisheries and the Environment

United Nations Framework Convention on Climate Change
Date of entry of St. Lucia: 14/6/1993
Responsible Government Department: Planning and Sustainable Development

Convention to Combat Desertification
Date of entry of St. Lucia: 30/9/1997
Responsible Government Department: Department of Forests and Lands

Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10December 1982 relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stock
Date of St. Lucia's signature: 12/12/1995
Date of St. Lucia's ratification: 9/8/1996
Responsible Government Department: Ministry of Fisheries

Convention on the Prohibition of Military or any other Hostile use of Environmental Modification Techniques
Date of St. Lucia's Succession: 27/5/1993
Responsible Government Department: Planning and Sustainable Development

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemicals Weapons and on their destruction
Date of St. Lucia's signature: 29/3/1993
Responsible Government Department: Planning and Sustainable Development

Treaty for the Non-Proliferation of Nuclear Weapon in Latin American and the Caribbean
Data on adoption and signature were not avail able

Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region
Date of St. Lucia's Signature: 24/3/1983
Date of ratification: 30/11/1984
Responsible Government Department: Ministry of Agriculture (Fisheries)

London Amendment to the Montreal Protocol
Date of accession: 24/8/1999
Responsible Government Department: Planning and Sustainable Development

(Copenhagen) Amendment to the Montreal Protocol
Date of accession: 24/8/1999
Responsible Government Department: Planning and Sustainable Development

Convention on Wetlands of International Importance especially as Waterfowl Habitat
Date of accession: 19/6/2002
Responsible Government Department: Ministry of Agriculture (Fisheries)

Existing Multilateral Environmental Agreements being Considered for Ratification

Convention on the Prevention of Marine Pollution by dumping from Ships and Aircraft s (as amended)
Date of Entry into force: 7/4/1974, 1/9/1989
Responsible Government Department: Ministry of Planning (Sustainable Development)

Protocol concerning Land Based Sources of Marine Pollution in the Wider Caribbean Region, 1999 (LBSMP)
Responsible Government Department: Ministry of Planning (Environment)

International Convention for the Safety of Life at Sea, 1974 (SOLAS)
Responsible Government Department: St. Lucia Ai r and Sea Ports Authority

International Convention on Civil Liability for Oil Pollution Damage,
Date of Adoption: 29/11/1969
Responsible Government Department: SLASPA, Maritime Authority

International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
Date of Adoption: 25/5/1984
Responsible Government Department: SLASPA, Maritime Authority

International Convention on Oil Pollution Preparedness, Response and Cooperation
Date of Adoption: 30/11/1990
Responsible Government Department: SLASPA, Maritime Authority

Rotterdam Convention on the Prior Informed Concerts Procedure for Certain Hazardous Chemicals and Pesticides in International Trade 1998 (PIC)
Responsible Government Department: Ministry of Agriculture, (Department of Agriculture)

Treaties under Negotiation

Treaty on Persistent Organic Pollutants
Responsible Government Department: Ministry of Agriculture

Biosafety Protocol to the Convention on Biological Diversity
Responsible Government Department: Ministry of Agriculture

Appendix 3

Current Protected Areas in Saint Lucia: 2009

Forest Reserves

Forest Reserves are designated under the Forest, Soil and Water Conservation Ordinance (Chapter 25) 1946, as amended by the Forest, Soil and Water Conservation Ordinance (Amendment) Acts 1983 and 1995. These Acts provide for the designation of Forest Reserves on Crown Land and Protected Forests on private land. To date, 12 Forest Reserves and 24 Protected Forests have been declared under this Act. Many of these areas are contiguous, with the Forest Reserves forming a single block covering much of the centre of the island and the Protected Forests effectively forming a buffer around its periphery.

Wildlife Reserves

The Wildlife Protection Act, No.9, 1980 provides for the protection, conservation and management of wildlife in Saint Lucia. Under the Act, Wildlife Reserves can be declared over 'any area of land or water or the territorial sea', although this does not confer any protection on plant species and can only be used to protect mammals, birds, frogs, reptiles, fishes and crustaceans. To date, two sites has been designated as Wildlife Reserves: the Maria Islands and the Parrot Sanctuary.

Marine Reserves

Marine Reserves are designated under Section 22 of the Fisheries Act, No. 10, 1984 for the purpose of protecting flora and fauna (especially species in danger of extinction); protecting the breeding grounds and habitats of aquatic life; allowing the regeneration of depleted species; promoting scientific study and research; and preserving areas of natural beauty. To date, 24 Marine Reserves have been declared, with official notices posted in the Saint Lucia Gazette. The most recent revision of this list dates from 29 April 2000. It is understood that there is no information as to the precise location (other than the site name below), the extent/area, or the boundaries of these Reserves. The majority of these Marine Reserves have been declared in order to protect mangroves and reefs and beaches that are important turtle nesting sites.

Marine Reserves [1]	
Name	**Year of Designation** [1]
Marquis Mangroves Marine Reserve	1986
Rodney Bay Artificial Reefs Marine Reserve	1986
Marigot May Mangroves Marine Reserve	1986
Rachette Reefs Marine Reserve [2]	1986
Anse Pointe Sable - Mankoté Marine Reserve	1986
Maria Islet Reef Marine Reserve	1986
Savannes Bay Mangrove Marine Reserve	1986
Petit Piton Reef Marine Reserve [2]	1986
Gros Piton Reef Marine Reserve [2]	1986
Esperance Harbour Mangrove Marine Reserve	1986
Praslin Mangrove Marine Reserve	1986
Fond d'or Beach and Mangrove Marine Reserve	1986
Louvette Mangrove Marine Reserve	1986
Grand Anse Beach and Mangrove Marine Reserve	1986
Bois d'Orange Mangrove Marine Reserve	1986
Cas-en-bas Mangrove Marine Reserve	1986
Choc Bay Mangrove Marine Reserve	1986
Anse Chastanet Reefs Marine Reserve [2]	1990
Anse Cochon Artificial Reef Marine Reserve [2]	1990
Anse Galet Reefs Marine Reserve [2]	1990
Vigie Bay Artificial Reef Marine Reserve	1990
Moule-a-Chique Artificial Reef Marine Reserve	1990
Caesar - Mathurin Reefs Marine Reserve [2]	1990
Anse la Verdure Artificial Reef Marine Reserve [2]	2000
[1] Gazette Notice No. 8 of 1986; the Gazette Notice No. 7 of 1990 and the Fisheries Division, 2006	
[2] Titles adopted by this Systems Plan - see Addendum below for full Gazette description	

Addendum to Table of Marine Reserves	
Abbreviated Marine Reserve Title adopted for Systems Plan	**Description in Saint Lucia Gazette, 29 April 2000**
Anse Cochon Artificial Reef Marine Reserve	Artificial Reef at Anse Cochon (Lesleen 'M')
Anse Galet Reefs Marine Reserve	Reefs extending from Rocky Shore South of Anse Galet to the northern most point of Anse Cochon Beach
Caesar - Mathurin Reefs Marine Reserve	Reefs extending from Caesar Point to Mathurin Point
Anse Chastenet Reefs Marine Reserve	Reefs from Anse Chastenet Bay, including Turtle Reef, to the Western most point of Trou au Diable Beach
Rachette Reefs Marine Reserve	Reefs from just west of Rachette Point to and including Bat Cave
Petit Piton Reefs Marine Reserve	Reefs from southern end of Malgretoute Beach to northern end of Jalousie Beach (i.e. reefs around Petit Piton)
Gros Piton Reefs Marine Reserve	Reefs from northern extent of Gros Piton to - the western most point of Gros-Piton
Anse la Verdure Artificial Reef Marine Reserve	Artificial Reef at Anse la Verdure (Daini-Koyomaru Dredger).

Local Fisheries Management Areas

Section 18 of the Fisheries Act No. 10, 1984 provides for the establishment of Local Fisheries Management Areas. The Act also provides for the creation of a Local Fisheries Management Authority for the purpose of regulating fishing operations within the area: these should comprise representatives of relevant local agencies and community organisations. One of the key benefits of this designation is that it allows for the zonation of the area so that different, and potentially competing, activities can be managed in an integrated, coordinated and sustainable manner.

Local Fisheries Management Areas		
Name	**Approx. Extent (ha.)**	**Year of Designation**
Soufriere Local Fisheries Management Area	Between Anse l'Ivrogne in the south and Anse Mamin in the north (a distance of approx.12km), from the shore to a depth of 75 meters.	1994
Canaries/Anse la Raye Local Fisheries Management Area	No Data Available	1998

Environmental Protection Areas

The Physical Planning and Development Act, No. 29, 2001 allows the relevant Minister to declare certain areas as 'environmental protection areas'. Such areas should be 'of natural beauty or natural interest, including submarine and subterranean areas', and should be designated so as to afford them 'special protection'. The designation provides for the 'protection or rehabilitation of the environment of the area' and may also be used to 'restrict or prohibit development'

To date, two areas have been designated under this Act, although in each case a different protected area title has been applied

Environmental Protection Areas		
Name	**Approx. Extent (ha.)**	**Year of Designation**
Pitons Management Area	2909	2004
Pointe Sable Environmental Protection Area	No known. Boundary not defined	2007

World Heritage Sites

World Heritage Sites are designated under the World Heritage Convention, 1972. There is only one World Heritage Site in Saint Lucia; the Pitons Management Area, which was inscribed in 2005. This area was established as a WHS on the basis of two 'selection criteria' relating to its exceptional natural beauty and aesthetic importance and its representation of a major stage of earth's geological history.

Ramsar Sites

Ramsar Sites are designated under the Ramsar Convention on Wetlands, 1971. To date, two sites (believed to be coincident with Marine Reserves) have been declared as Ramsar Sites.

Ramsar Sites		
Name	**Approx. Extent (ha.)**	**Year of Designation**
Mankoté Mangrove	60	2002
Savannes Bay	25	2002

Saint Lucia National Trust Sites

The Saint Lucia National Trust was established by the Saint Lucia National Trust Act, 1975. The Trust currently manages 26 sites: most of these are of historic and cultural interest but some are of significant ecological importance (e.g. Maria Islands and many of the other east coast islands). The majority of these sites have a significant measure of protection because they are owned by the Trust or they are vested in the Trust and therefore have the status of being inalienable. The Trust has also adopted by-laws for certain of these sites for the purpose of 'protecting, preserving and maintaining' them.

Saint Lucia National Trust Sites		
Name	**Location**	**Approx. Extent (ha.)**
Pigeon Island	Gros Islet	No Data Available
Choc Park	Castries	0.22
Married Women Quarters	Castries	No Data Available
Meadow's Battery	Castries	No Data Available
Half Moon Battery	Castries	No Data Available
Old Agricultural Building Site	Castries	No Data Available
Apostles Battery	Castries	No Data Available
Provost Park	Castries	No Data Available
Powder Magazine	Castries	No Data Available
French & British Cemeteries	Castries	No Data Available
Inniskilling Monument	Castries	1.23
Marigot Estate	Castries	13.48
Anse Galet	Anse la Raye	No Data Available
Anse La Liberte	Canaries	56.00
Mandelé Estate	Dennery	53.83
Maria Islands	Vieux Fort	8.02
L'Islet Island	Micoud	0.56
Liverpool Rock	Micoud	0.48
Frigate Islands	Praslin	0.37
Dennery Islands	Dennery	2.80
Bateaux Island	Dennery	1.40
Rouche Island	Dennery	1.40
L'Islet a Ramier (Ramier Island)	Dennery	0.50
Lapins Islands	Dauphin	0.67
Fous Islands	Dauphin	0.50
Coastline Area	Praslin	2.02
Note: all of the above site are owned or vested in the Saint Lucia National Trust, with the exception of Pigeon Island which is leased to the Trust by the Government of Saint Lucia.		

Appendix 4

IUCN Protected Area Management Categories: Definitions

Protected Area: An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

Category Ia: ***Strict nature reserve/wilderness protection area managed mainly for science or wilderness protection*** – an area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Category Ib: ***Wilderness area: protected area managed mainly for wilderness protection*** – large area of unmodified or slightly modified land and/or sea, retaining its natural characteristics and influence, without permanent or significant habitation, which is protected and managed to preserve its natural condition.

Category II: ***National park: protected area managed mainly for ecosystem protection and recreation*** – natural area of land and/or sea designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

Category III: ***Natural monument: protected area managed mainly for conservation of specific natural features*** – area containing specific natural or natural/cultural feature(s) of outstanding or unique value because of their inherent rarity, representativeness or aesthetic qualities or cultural significance.

Category IV: ***Habitat/Species Management Area: protected area managed mainly for conservation through management intervention*** – area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats to meet the requirements of specific species.

Category V: ***Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation or recreation*** – area of land, with coast or sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

Category VI: ***Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural resources*** – area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while also providing a sustainable flow of natural products and services to meet community needs.

Appendix 5

Matrix of Management Objectives & IUCN Protected Area Management Categories

	Management Category						
Management Objective	**1a**	**1b**	**II**	**III**	**IV**	**V**	**VI**
scientific research	1	3	2	2	2	2	3
wilderness protection	2	1	2	3	3	-	2
preservation of species and genetic diversity	1	2	1	1	1	2	1
maintenance of environmental services	2	1	1	-	1	2	1
protection of specific cultural and natural features	-	-	2	1	3	1	3
tourism and recreation	-	2	1	1	3	1	3
education	-	-	2	2	2	2	3
sustainable use of resources from natural ecosystems	-	3	3	-	2	2	1
maintenance of cultural and traditional attributes.	-	-	-	-	-	1	2

Note:
1 = Primary Objective
2 = Secondary Objective
3 = Potentially Applicable Objective
- = Not Applicable

Appendix 6

Composition of Systems Plan Technical Steering Team

Departments of Forestry and Fisheries
Ministry of Physical Development, Environment and Housing (Sustainable Development and Environment Section)
Department of Physical Planning
Department of Surveys & Mapping
Department of Crown Lands
Ministry of Social Transformation, Culture and Local Government
Ministry of Tourism
Archaeological & Historical Society
Folk Research Centre
National Conservation Authority
St. Lucia Hotel and Tourism Association
Saint Lucia National Trust
National Youth Council
Cultural Development Foundation
Community representatives (selected from strategic areas island wide)

Appendix 7

Findings and Conclusions of the Saint Lucia Protected Area Ecological GAP Workshops

(This is a summary of the full report "Anon. 2009. *Results of the Saint Lucia Protected Area Ecological GAP Workshops, January 30th, 2009*. Saint Lucia National Trust: Internal Report.")

Overview

Experts from the Nature Conservancy (TNC), a US-based non-profit environmental organization, visited Saint Lucia in July 2008 and January 2009 to assist natural resource management agencies in conducting a 'Protected Area Ecological Gap Assessment'. The TNC staff facilitated two workshops for local experts in order to determine where and how to scientifically strengthen Saint Lucia's protected area network so that it effectively represents the full range of biodiversity that exists on the island and in its surrounding marine waters.

Conservation Targets, Goals and Threats

The first workshop had three key goals:

- to identify the terrestrial, freshwater, and marine key species and ecological systems that need protection (referred to as 'targets');
- to set conservation goals for each target;
- to document the associated threats to the targets.

Conservation 'targets' were defined as the elements of biodiversity and related cultural features that should be the focus of conservation and management planning efforts. These encompassed both marine or terrestrial environments and potentially included:

- broad habitats and ecosystems;
- important areas for target species;
- rare or imperiled communities;
- places of cultural significance;
- threatened, endemic and flagship species;
- species of cultural significance, or economic importance.

Identified threats to the conservation targets included natural impacts (natural disasters, climate change, etc.) and human-induced impacts (extractive activities, unsustainable land practices, urban development, pollution etc). To ensure widespread consultation and participation in the review process, the Saint Lucia National Trust sought input from a range of natural resource management agencies, private consultants and interested individuals in determining the conservation targets and threats. Very few responses to this request were received, and a literature survey was used for further identification of targets and threats to natural resource conservation.

The lack of information on the status and distribution of some key habitats and species was a key problem during this phase of the study and resulted in their exclusion from the target list. In some cases, the local knowledge of workshop participants could be used but there remained a many gaps in knowledge which were seen as a priority for future research. During this workshop, several mapping gaps were also identified. To address this problem, TNC hired student interns to register the 2004 aerial photos; to manually digitize many of the missing targets; and to use the aerial photographs to refine the targets that needed further validation.

The output of this stage of the GAP Assessment was a list of critical conservation targets for Saint Lucia. Local experts then set conservation goals for each target and each target was spatially mapped so that it could be manipulated through the Marxan[14] software. These targets and goals are presented in the Table below.

[14] This software was developed by the University of Queensland (Ball and Possingham, 2000) and has been widely adopted around the world as a tool for spatially optimizing conservation goals through the input of conservation targets, goals and corresponding threats.

Conservation Targets and Goals for Key Habitats and Species		
Target	**Goal**	**Source**
TERRESTRIAL		
Forest: Moist Cloud	30%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Dry Deciduous	50%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Lowland Mixed	30%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Moist Elfin	30%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Moist Evergreen & Seasonal	30%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Moist Transitional	30%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Semi Deciduous	50%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Forest: Xeric Scrub	80%	IITF Forest Formations map derived from Landsat ETM+ satellite imagery (2002) and refined with high resolution aerial photos (2004)
Littoral Vegetation	50%	Mapped using a 100m buffer from the coast and identifying areas of elevated coastal ridges with a low slope (< 5%)
Offshore Islands	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, St. Lucia.
Riparian Vegetation	50%	Riparian vegetation represent remaining forested areas (based on the IITF 2002 forest formation product) that lie within all major riverine corridors mapped at a 100m width on each side of the river
Birds: Saint Lucia Nightjar (points)	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, Saint Lucia.
Birds: Forest Thrush (points)	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, Saint Lucia.
Birds: White Breasted Thrasher (points)	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, Saint Lucia.
Birds: Saint Lucia Wren (points)	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, Saint Lucia.
Mammals: Bats (points)	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, Saint Lucia.
Reptiles: Saint Lucia Iguana (points)	100%	Mr. Matthew Morton, Durrell Wildlife Conservation Trust, Saint Lucia.
FRESHWATER		
High Elevation Watersheds	75%	Watershed that begin above 300m and were mapped from a 30m Digital Elevation Model (DEM) using Rivertools 3.0 software.
High Elevation Wetlands	100%	Remaining wetlands that exist above 300m and verified by Mr. Robert Devaux
Low Elevation Wetlands	100%	Remaining wetlands that exist above 300m and verified by Mr. Robert Devaux
Riparian Corridors	75%	Modelled riparian corridors based on a 30m DEM an corresponding hydrological-derived streams using a 100m stream buffer
Natural Lakes and Ponds (points)	50%	Point locations of remaining natural lake and pond features. Obtained from Mrs. Portia St. Catherine at Crown Lands
MARINE		
Areas of Cold Upwelling	30%	Areas of cold, nutrient-rich upwelling waters identified from MODIS and SeaWifs satellite imagery using modelled temperature and chlorophyll concentrations.
Beach	30%	Beach locations manually digitized from 2004 aerial photography
Coral Reef	80%	Coral reef locations obtained from Mr. Allan Smith
Lagoons	50%	Lagoon locations manually digitized from 2004 aerial photography
Mangrove	80%	mangrove locations obtained from Mr. Allan Smith and manually digitized from 2004 aerial photography
Rocky Shores	30%	Modelled rocky shores based on areas of high coastal slope (>5%) using a 30m DEM and verified by 2004 aerial photography
Seagrass	50%	Seagrass locations manually digitized from 2004 aerial photography
Offshore Shallow Banks	30%	Mapped using local knowledge
Turtle Nesting Sites (points)	100%	Point locations of remaining turtle nesting sites and verified by Fisheries Department.

Conservation Goals

At the second workshop, local experts reviewed the spatial distribution for each of the target layers, paying particular attention to the new targets that had been mapped using the aerial photographs. Participants were also trained in the Marxan mapping software, which was then used to generate an optimum conservation solution that efficiently met all target goals. GIS software was also used to map the interaction between identified areas of conservation importance and the actual/potential threats to which they are exposed. The mapped areas were then manually manipulated to take account of external constraints which might impact upon their potential inclusion within a protected area network. This helped to steer site selection away from high-risk areas where the abatement of pressures on biodiversity seemed less likely.

The final output was a series of maps that show the optimal spatial configuration of a protected area network that is needed to efficiently address the identified conservation goals. Copies of all of these maps are included in the full report.

Appendix 8

Findings and Conclusions of the Management Effectiveness Assessment for Saint Lucia Protected Area System

(This is a summary of the full report "Lopez, C. M. 2009. *Management Effectiveness Assessment Report for Saint Lucia Protected Area System.* Internal report for OECS Protected Areas and Associated Livelihoods Project and The Nature Conservancy')

Introduction

This assessment was effected through a peer review using the 'Rapid Assessment and Prioritization of Protected Areas Management' (RAPPAM) methodology developed by WWF to determine the strengths, weaknesses and management challenges of protected area systems.

The workshop was attended by representatives of Government departments; the Saint Lucia National Trust and other NGOs, and the OECS Secretariat. The following areas were assessed:

- Pitons Management Area (PMA)
- Soufriere Marine Management Area (SMMA)
- Pigeon Island National Landmark (PINL)
- Pointe Sable Environmental Protection Area (PSEPA)
- Saint Lucia Forest Reserve
- Mangroves
- Grande Anse
- Other Marine Reserves

A participatory approach was used which allowed participants to work in small groups to score individual Protected Areas by context and management challenges. The results were presented in a plenary session. Discussions were facilitated to achieve a consensus in refining and validating the outputs. System level challenges were also assessed in the plenary session and finally the most critical issues were prioritized.

The RAPPAM Methodology

'Management effectiveness evaluation' is a process for determining how well protected areas are conserving valued resources and achieving their stated goals and objectives. The term 'management effectiveness' reflects three main 'themes' in protected area management:

- design issues relating to both individual sites and protected area systems;
- adequacy and appropriateness of management systems and processes;
- delivery of protected area objectives including conservation of valued resources.

The RAPPAM methodology is a tool that provides protected areas agencies with a country-wide overview of the effectiveness of protected area management, threats, vulnerabilities and degradation. In addition it can provide recommendations aimed at improving the effectiveness of protected area management. More specifically, RAPPAM can:

- identify management strengths and weaknesses;
- analyze the scope, severity, prevalence and distribution of a variety of threats and pressures;
- identify areas of high ecological and social importance and vulnerability;
- indicate the urgency and conservation priority for individual protected areas; and
- help to develop and prioritize appropriate policy interventions and follow-up steps to improve protected area management effectiveness.

It is important to note that RAPPAM makes a distinction between 'pressures' and 'threats': the former are forces, activities, or events that have already had an impact on the integrity of the protected area whilst the latter are potential or impending pressures in which an impact is likely to occur or continue to occur in the future.

The following section of this Appendix summarises the findings and conclusions of the workshop

Assessment Findings and Conclusions

A. Overall Context

Threats and Pressures

- the three protected areas subject to the greatest threats and pressures are the Pitons MA, the Soufriere MMA and Grand Anse;
- key threats and pressures facing protected areas in Saint Lucia are coastal development, sand mining, climate change and natural disasters;
- coastal development and sand mining affect 50% of protected areas;
- key pressures and threats identified in relation to each of the eight sites covered by the evaluation are set out in the table below.

Key Threats and Pressures affecting Existing Protected Areas in Saint Lucia	
Protected Area	**Threats and Pressures**
Pigeon Island National Landmark	Mass crowd events Political threats
Pitons Management Area	Natural disasters Solid waste and sewage Sand mining Erosion Climate change Unsustainable fishing practices Tourism
Pointe Sable Environmental Protection Area	Terrestrial invasive species Marine invasive species Fire
Soufriere Marine Management Area	Solid waste and sewage Coastal development Sand mining Erosion Climate change Unsustainable fishing practices Tourism
Saint Lucia Forest Reserve	Natural disasters Terrestrial invasive species Squatting Hunting/poaching Non-timber forest products
Mangroves	Coastal development
Grande Anse	Coastal development Sand mining Marine invasive species Hunting/poaching Non-timber forest products Highway construction
Other Marine Reserves	Threats not assessed.

Vulnerability

- the most vulnerable protected areas were considered to be the Pitons MA, Soufriere MMA, mangroves and other Marine Reserves;
- vulnerability derives primarily from the accessibility of sites, either because of their close proximity to roads and/or easy access to local markets;
- moderate vulnerability issues are illegal activities and low law enforcement, as a result of lack of adequate regulations, capacity and resources.

Biological and Socio-Economic Importance

- Saint Lucia Forest Reserve, Pitons MA, Point Sable EPA, other Marine Reserves and Soufriere MMA are very important for biological and socioeconomic reasons since they contain relatively high levels of biodiversity and a number of rare, threatened or endangered species with high degree of endemism, high recreational value, and unusual features of aesthetic importance. These areas are also a relatively important source of employment for local communities and contain significant ecosystem services.

B. Management Challenges at the Site Level

Planning Issues
- many sites have no management plans or management plans need to be updated;
- conservation objectives are often not supported by local communities;
- enforcement of site protection is limited due to the lack, or absence, of staff and financial resources;
- planning is strong in some areas such as PMA, SMMA and St. Lucia Forest Reserve, while very weak in Other Marine Reserves, mangroves and Grande Anse.

Inputs
- the analysis of inputs to protected area management in relation to staffing, communication, infrastructure and facilities, and financing reveals a system lacking resources at practically all levels of management;
- financing is the most critical issue, and is linked to the low level (or absence) of staffing and poor infrastructure;
- inputs are high in PINL and Saint Lucia Forest Reserve, but very weak in PMA, Other Marine Reserves, mangroves and Grande Anse.

Processes
- most protected areas do not have a management plan, while others have draft or outdated management plans, and in many cases there are no work plans or strategies to abate threats;
- while the decision-making process is generally a strong area ,with transparency and participation, decision-making is often limited by poor inter-agency collaboration and communication;
- research and monitoring (social and biological) are poor and suffer from insufficient data: this hampers decision-making and the design of strategies to abate the impact of threats;
- processes to conduct management effectively are strong in the Soufriere MMA, PINL and St. Lucia Forest Reserve, whilst are very weak in PMA, other Marine Reserves, mangroves and practically absent in Grande Anse.

Outputs
- areas for improvement are site infrastructure, management planning, threat prevention, research and site restoration;
- critical areas for future investment are outreach and education to raise public awareness, visitor/tourism management, threat prevention, restoration of sites/areas, and staff management;
- outputs, except for St. Lucia Forest Reserve are very weak, and are a direct response to inadequate inputs and processes.

C. Enabling Conditions at the System Level

Protected System Level Design Issues
- there are many gaps in Saint Lucia's protected area system;
- the most significant weaknesses of the current system are the absence of an array of large protected areas containing exemplary and intact ecosystems and the lack of effective protection against the extinction of vulnerable, endemic, rare, threatened or endangered species.

Protected Area Policies
- protected area policies are strong in relation to the existence of a comprehensive inventory and ongoing research, although there is still a lack of information and an inventory of all species
- critical issues that need to be addressed are:
  - the development of a national protected area policy that clearly articulates a vision, goals, and objectives for the protected area system;
  - a demonstrable commitment by relevant authorities to protecting a viable and representative protected area network,
  - the definition and establishment of restoration targets for under-represented and/or greatly diminished ecosystems;
  - periodic review of the protected area system to address gaps and weaknesses;
  - increased emphasis on training and capacity building.

Protected Area Policy Environment

- key strengths are the complementary nature of laws relating to protected area objectives and the degree of communication between natural resources departments, especially in the field.
- key weaknesses are insufficient funding, a lack of effective law enforcement, and weak national policies to promote sustainable land use and land conservation.

D. Overall Conclusions

Key Strengths of Saint Lucia Protected Area System

- overall management effectiveness is quite strong;
- planning is relatively strong, along with biodiversity objectives and legal security;
- at the site level, protected area design is adequate; the existing limited staff complement is qualified; and the decision making process is transparent and participatory.
- the most important outcome is the effort in community outreach and education, but improvement and continuity is needed.

Critical challenges for effective management of the system are:

- improved community support for biodiversity and natural resources conservation objectives;
- improved policy mechanisms to promote sustainable land use in areas surrounding protected areas;
- stable and sustained funding/resources;
- adequate level of staffing and employment conditions;
- development of threat prevention strategies
- enhanced system design and layout to improve representativeness of ecosystems and connectivity to avoid extinctions of endemic, rare, threatened or endangered species.
- effective protected area policies with clear vision, goals and objectives
- demonstrable commitment from politicians and decision makers;
- periodic review of management effectiveness at the system and site level and ecological gap analysis;
- effective law enforcement
- effective inter-agency collaboration and communication.

Appendix 9

Historic Sites Identified in the 1992 Systems Plan

Specific 'National Landmarks' and 'Historic Areas' proposed in the 1992 Plan	
Site Name	**Nature of Interest**
Pigeon Island National Landmark	An 18 ha. promontory north of Rodney Bay that is nationally recognized as one of Saint Lucia's most emblematic sites. It had a fascinating history, especially during the 18th and 19th centuries and, along with some old fortifications, it now houses an interpretation centre and the offices of the Saint Lucia National Trust. It is heavily used for recreation and for educational and cultural purposes.
River Dorée National landmark	A 19 ha. corridor along a steep and spectacular river gorge. Much folklore surrounds the area and it encompasses the remains of two sugar mills.
Morne Fortune Historic Area	A 29 ha. site occupying high ground to the south of Castries which includes remnant fortifications and military buildings dating from the 18th and 19th centuries including Apostles Battery, Provost Park and Redoubt, Powder Magazine, Inniskilling Memorial, and a 19th century cemetery.
Tapion Historic Area	A 7 ha. site at the south western entrance to Castries Harbour with a range of 19th century buildings (e.g. Halfmoon Battery) and some attractive natural features.
Vigie Historic Area	A 49ha. site on the northern edge of Castries Harbour that is very significant in Saint Lucia's history and includes several old military forts dating from the 17th, 18th and 19th centuries, including Meadows Battery.
Choc Historic Area	This small site includes only the mainland section on which there are the remains of Choc Fort built in the 1660s and therefore the earliest fort in Saint Lucia.
Roseau Historic Area	This site contains various 18th and 19th century remnants of Saint Lucia's industrial past, including a sugar factory and a slave cell which are considered to be the best surviving examples on the island.
Morne du Don Historic Area	A very small site close to the centre of Castries which contains some remnants of the Saint Lucia's Amerindian culture
Paix Bouche Historic Area	A small site that is the alleged birthplace of Empress Josephine, the wife of Napoleon Bonaparte

Other 'Historic Sites' identified in the 1992 Systems Plan (including details of their location in relation to the protected areas proposed in the current Systems Plan	
Proposed New Protected Area	**Historic Site Name (as given in 1992 Systems Plan)**
Forest Reserve	Two brigand sites
Iyanola National Park	Northern promontory of Petite Anse
	Grand Anse Valley
	Petroglyph and rock basin on Anse la Sorclere river
	Southern promontory at Anse la Sorclere
	Trou Halhal Valley
	Comerette Point
	Rouge Point
	Southern promontory at Esperance
	Ancient town and petroglyph at Dauphin
	Ruins of old fort on Fond D'Or River
	Mill ruins on Fond D'Or River
Pitons National Park	Soufriere Estate
	Diamond Estate
	Brigand sites (2)
	Old French canal
	Union Vale Water Mill and selected sugar mills
	Stonefield (petroglyph)
	Belfond (megalith)
	Beausejour (petroglyph)
Pointe Sable Protected Landscape	Saltibus Point
	Burgot Point
	Belle Vue Sugar Mill
	Amerindian site to north west of Pointe Sable
	Sites of two old forts at Moule-a-Chique
	Amerindian site north of L'Islet Point
	L'Islet Point
	Pointe de Caille
Mandelé Protected Landscape	Promontory south of Dennery Village
	Between Mandele and Linnis Points
	Anse Galet
	Trou Zambe
	Mainland at Trou Barlow
	Sugar Mill and Amerindian site near Trois Islets Bridge
	Southern section of Praslin Bay
	Martelly Point
	Ruins of two old forts*
	Site of old cemetery*
	Ruins of 18th century church*
Anse Cochon Protected Landscape	Brigand sites along Anse Galet River
	Northern side of Anse Cochon
None	Fort at Mount du Cap (near Anse Galet)
	La Croix Point (near Fond D'Or)
	Trou Gras (central) (near Praslin)
	Trou Gras Point (near Praslin)
	Vierge point – two sites
	Troumassee Bay (near Anse Ger)
	Micoud Point (near Anse Ger)
	Anse Ger ridge (near Anse Ger)
	Pointe des Canelles (near Anse Ger)
	Troumassee Water Mill (near Anse Ger)
	Canelles Water Mill (near Anse Ger) (near Anse Ger)
	Brigand Site on the Canelles River
	Brigand site near the coast (near Piaye)
	Aqueduct and water mill at Balembouche Estate (near Piaye)
	Ruins of old fort at Marigot Point
	Old fort at Mt. Pimard (near Bois D'orange)
	Fairview Sugar Mill
* *Unclear whether site lies within proposed new protected area or just outside*	

Appendix 10

Principal Responsibilities of Proposed Protected Areas Staff

Chief National Parks and Protected Areas Officer (1)

- to coordinate work on policy, management, institutional, legal and enforcement issues relating to National Parks, Protected Landscape and Nature Reserves;
- to liaise with senior staff within other branches of government and national NGOs regarding to the management of these protected areas;
- to supervise and coordinate the work of the two Protected Areas Officers
- to oversee all staffing, budgetary, personnel and administrative issues relating to these protected areas;

National Parks and Protected Areas Officers (2) – East and West

- to prepare and coordinate the implementation of a management plans for each of the protected areas for which they responsible;
- to coordinate all policy and day-to-day management issues for these protected areas;
- to liaise with relevant local staff within government and NGOs regarding the management of these protected areas;
- to supervise the work of the Ranger and any contract or temporary project staff.

National Parks and Protected Areas Rangers (2) – East and West

- to promote a close, trusting and effective relationship with local communities
- to promote understanding and awareness amongst local communities of the purpose and value of the protected areas through education and community outreach;
- in collaboration with the relevant national law enforcement authorities, to seek to secure the protection of the area from inappropriate and illegal activities;
- to undertake survey work (of sites, species, habitats, recreation, tourism etc) so as to increase knowledge of the area's natural cultural and historic resources.

Marine Protected Areas Officers (2) - East and West

- to prepare and coordinate the implementation of management plans for each of the protected areas for which they responsible;
- to promote a close, trusting and effective relationship with local communities;
- to promote understanding and awareness amongst local communities and users (including fishing, diving and yachting and other tourism activities) of the purpose and value of the protected area, particularly through education and community outreach work;
- to seek to encourage cooperation amongst different users and promote sustainable uses of marine resources.

Protected Areas Sustainable Tourism Officer (1)

- to facilitate the development of sustainable tourism/recreation initiatives (e.g. guided walking tours and trails; self guided walks with leaflets and on-site interpretation; wildlife watching events; development of local crafts markets);
- to develop educational projects to raise awareness and understanding of protected areas, especially amongst school children;
- to assist local communities in developing their own tourism/recreation projects which might help to increase local employment and/or generate income for local people

Protected Areas Heritage Interpretation Officer (1)

- to develop information and interpretive material which support the work of the Sustainable Tourism Officer about the natural, cultural and historic heritage of Saint Lucia, [e.g. publications (such self-guided walks leaflets), on-site interpretive panels, local events]

Appendix 11

Review of Current and Proposed Legislation in relation to Institutional Arrangements for the Establishment and Management of National Parks and Protected Landscapes

National Conservation Authority Act, 1999

Section 3 of the National Conservation Authority Act, 1999 makes provision for the 'creation of a recreational area or national park'. However, the concept of a national park within this Act is quite different from that proposed in this System Plan in that the 1999 Act appears to envisage national parks as being quite small areas used for 'education and enjoyment' and 'vested in the Government'. Given the extensive nature of the National Parks proposed in this Systems Plan, their focus on conservation objectives, and the fact that most land will be in private ownership, the 1999 Act was considered by the Protected Areas Workshop held in April 2009 to be an inappropriate vehicle for National Park designation.

Physical Planning and Development Act, 2001

Section 34(2) the Physical Planning and Development Act, 2001, provides for the designation of 'environmental protection areas'. Section 34(5) of the Act states that 'where any land within an area declared an environmental protection area….depreciates in value as a result of any restriction placed on its use or development….adequate compensation shall be paid to the owners of the land.' It was the view of the Protected Areas Workshop that such a provision undermines the very foundation of protected area designations because it is contrary to the ethic that a nation's natural and cultural heritage belongs to its people rather than to the individuals who own the land[15]. It was also concluded that the potential costs of this, and any future protected area designations under the Physical Planning and Development Act, 2001, could be very substantial indeed. It is therefore proposed that existing protected areas designated under this legislation (i.e. Pitons MA and Pointe Sable EPA) should be re-designated under new bespoke legislation for National Parks and Protected Landscapes which does not include a right to compensation for any loss in land values or potential profits forgone that arise from designation.

Land Conservation and Improvement Act, 1992

The Land Conservation and Improvement Act, 1992, also contains provisions which may be relevant to the designation and/or management of National Parks and Protected Landscapes. This Act established a Land Conservation Board which has a number of functions relating to the use and management of land and water resources. Section 6 of this Act allows the Board to make a 'General Protection Order' which can apply to any number of different parcels of land. However, such an Order is primarily restrictive in nature, in focussing on the prohibition of certain, potentially damaging activities. Section 12 of the Act empowers the Board, subject to approval by Cabinet, to 'declare any lands, including Crown lands, to be a conservation area'. The purposes of a 'conservation area' are quite numerous and, in comparison with a 'General Protection Order, give greater emphasis to active land management and include 'the preservation of soil fertility, scenic beauty, cultural and other unique characteristics'. In designating a 'conservation area' the Board must also prepare 'a proposal for the long term management of the area and regulations for its protection'. To facilitate this process the Board, subject to Ministerial approval, can appoint 'conservation officers' to assist them 'in supervising the use of and encouraging conservation and improvement of land and water resources'. The Act permits a landowner to appeal against the establishment of a 'conservation area' and may allow for the payment of compensation for any 'damage or loss'.

Whilst the Land Conservation and Improvement Act, 1992 appears to contain a number of provisions that may be relevant to the implementation of this Systems Plan, it would appear to lack provisions that are sufficiently specific that they could be used to designate National Parks and Protected Landscapes. This view is supported by the fact that this Act was not used by Government for the establishment of the Pitons Management Area or the Pointe Sable Environmental Protection Area – the only two landscape-scale protected areas in Saint Lucia.

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15 A precedent for this view already exists in Saint Lucia legislation in Section 6 of The Wildlife Protection Act, No. 9, 1980 states that all 'wildlife, resident or migratory, indigenous or alien'…(with a few exceptions)…'are the property of the Crown'.

Biodiversity Conservation and Sustainable Use Bill

A 'Biodiversity Conservation and Sustainable Use Bill' is currently in preparation but, at the time of writing, is in a 'Final Draft' form, dated August 2008. The draft Bill includes a range of proposals that are directly relevant to the Systems Plan, although it is important to stress that, given its current status, it may be subject to further amendment and modification and has yet to become law.

Part III (Division 4) of the Bill addresses the issue of 'Protected Areas' and proposes a range of different categories including, *inter alia*, 'national parks' and 'protected landscapes and seascapes'. The definitions of these two categories of protected area that are included in Part I of the Bill are drawn from the IUCN Guidelines (2) and are therefore entirely consistent with the definitions used in this Systems Plan. The draft Bill also describes the process for declaring protected areas and provides guidelines for the preparation of management plans. Other key proposals that are relevant to this Systems Plan are:

- the Minister responsible for protected areas is the 'Minister with responsibility for Agriculture, Lands, Fisheries and Forestry';
- the Minister should appoint 'Designated Officer(s)' who have wide ranging responsibilities for administering 'the Act and Regulations made under (the) Act';
- a 'Biodiversity Advisory Committee' should be established to provide guidance and advice to the 'Designated Officer(s)' [although it should be noted that the composition and responsibilities of this Committee are more restricted than those proposed in this Systems Plan for the 'Protected Areas Advisory Board' (see Sections 6.30 – 6.32)]
- protected areas can include Crown land and private land;
- a proposal for declaring a protected area should include a 'description of any compensatory measures that may need to be taken as a result of the declaration of an area as a protected area', although it is not clear what these might entail;
- local communities should be closely involved in the process of designation and in the preparation and implementation of the management plan;
- the Crown may acquire land in a protected area, either by agreement or compulsorily, in order to ensure 'adequate management';
- the management plan should identify 'permitted activities' for the protected area and 'surrounding areas';
- no person can carry out any activity (including public works) in a protected area unless it is a defined 'permitted activity', with sanctions against those who contrave this requirement.

Appendix 12
Consultations on the Draft Systems Plan: October 29th – November 4th 2009

Consultation Process

The consultations on a Draft version of this Systems Plan were carried out in late October and early November 2009. A specialist consultant (Sylvester Clauzel of Scribal Consultancy Services) was contracted by the OECS to work with the Saint Lucia National Trust and the Systems Plan Consultant in handling all of the arrangements and logistics for this consultation exercise. A full report on the consultation process and outputs has been prepared by Scribal Consultancy Services although this is currently only available in draft form (25): the Final Report is due for completion by January 15th 2010.

At the heart of the consultation process was a series of five meetings aimed at public, private, civil and community sectors: these are summarised in the Table below.

Summary of Consultation Meetings			
Meeting Location	**Date**	**Target Audience**	**No.of Attendees**
Dennery	October 29th 2009	Communities in the east of Saint Lucia including Dennery, Bexon, Praslin & Micoud	19
Soufriere	November 1st 2009	Communities in the south west of Saint Lucia including Choiseul, Canaries & Anse La Raye	1
Gros Islet	November 2nd 2009	Communities in the north of Saint Lucia including Gros Islet, Rodney Bay and Babonneau	8
Laborie	November 2nd 2009	Communities in the south of Saint Lucia, including Vieux Fort and Laborie	6
Rodney Bay	November 4th 2009	Public/private sector and civil society groups	20

As part of this consultancy process, and in support of the consultation meetings, the following actions and activities were also undertaken:

- a PDF version of the Draft Plan was placed on the website of the Saint Lucia National Trust – this was widely publicised in order to maximise the Plan's exposure;
- a press release was published and circulated to describe the consultation process and identify the venues and dates of the five consultation meetings that had been arranged;
- the venues and dates of the five consultation meetings were advertised via a public service announcement on three radio stations;
- a large number of individuals and organisations were contacted directly to invite them to the programme of consultation meetings, with a focus on community leaders and other local organisations that had good networks in the surrounding area and had the capacity to encourage attendance;
- Mr. David Haffey (the Systems Planning Consultant), Mr. Bishnu Tulsie (Director of the Saint Lucia National Trust) and Mr. Sylvester Clauzel (Scribal Consultancy Services) took part in 'The Agenda' programme hosted by Dave Samuel's of Radio Saint Lucia on November 3rd.
- Mr. David Haffey (the Systems Planning Consultant) and Mr. Bishnu Tulsie (Director of the Saint Lucia National Trust) held a meeting on 10th November 2009 with Mr George James (Permanent Secretary, Ministry of Physical Development and Environment) and other Government staff.

Key Points Arising from Consultations

Whilst the turnout at the four community consultations was disappointing, the full report on these meetings (25) concluded that this may have been due to a combination of consultation fatigue, general disinterest in conservation matters, apathy towards development issues and a pre-

occupation with more livelihood concerns. However, it also commented that the responses from persons present at the meetings were encouraging, informative, and indicated a high level of knowledge about environmental management and development issues.

The following points summarise the key comments made by the attendees at the various meetings

Institutional Issues

- There is confusion over the current administrative arrangements for the management of protected areas. This issue should be addressed through the Systems Plan via a clear management structure and a requirement that there is greater coordination between Departments and Ministries that are responsible for the new suite of Protected Areas.
- The Draft Systems Plan proposes that management responsibility for National Parks and Protected Landscapes should rest with the Sustainable Development and Environment Section (SDES) of the Ministry of Planning. There was a consensus amongst those attending the meeting on 4th November that this recommendation should be less specific and should simply refer to the Ministry with responsibility for Physical Planning. This meeting also suggested that responsibility for Nature Reserves should be with the Department of Forestry rather than with SDES.
- It was proposed at the meeting on November 4th that representatives of the following should be included on the Protected Areas Advisory Board:
    - the Ministry of Social Transformation because it has a role to play as major stakeholder in forging community support for protected areas;
    - the National Development Corporation because they own and manage a significant percentage of industrial development lands particularly in the south (Vieux-Fort) and east (Dennery).

Systems Plan Concepts & Approach

- It was suggested that the title 'Marine Management Area' should be used instead of 'Marine Protected Area' because the former is likely to be more acceptable to politicians and the general public and avoids connotations of restriction and preservation.
- The Local Fisheries Management Areas (Soufriere and Canaries/Anse la Raye) should not be seen as a protected area designation but as a legal instrument to delegate authority and promote integrated use and management of marine resources.
- Some participants argued that the failure of the existing suite of Marine Reserves to provide effective protection demonstrated the need to reduce the number of such Reserves so that greater focus can be given to a few key sites which can be used to demonstrate good practice. The counter argument proposed that the de-designation of any Marine Reserves should only take place after the detailed survey proposed by the Plan and that decisions about protection should not be based upon such pragmatic criteria or upon the lack of political will to implement effective protection measures.

Policy Issues

- There was support for the approach of this Systems Plan which, in comparison with the 1992 Systems Plan, focussed on the establishment of a smaller number of larger and more coherent protected areas (especially the National Parks and Protected Landscapes);
- The implementation of the Systems Plan could help to deliver on many of the Government's environmental commitments (e.g. climate change, biodiversity conservation etc. protection of the marine environment etc).
- The Systems Plan needs to make reference to the Government's Land Use Policy and comment upon the need for a Land Use Plan or National Development Plan to provide a context for this Systems Plan and for other planning related activities and policies.
- The Systems Plan should (and does) make reference to the links between the objectives of protected areas and relevant environmental legislation, policy statements and international obligations.

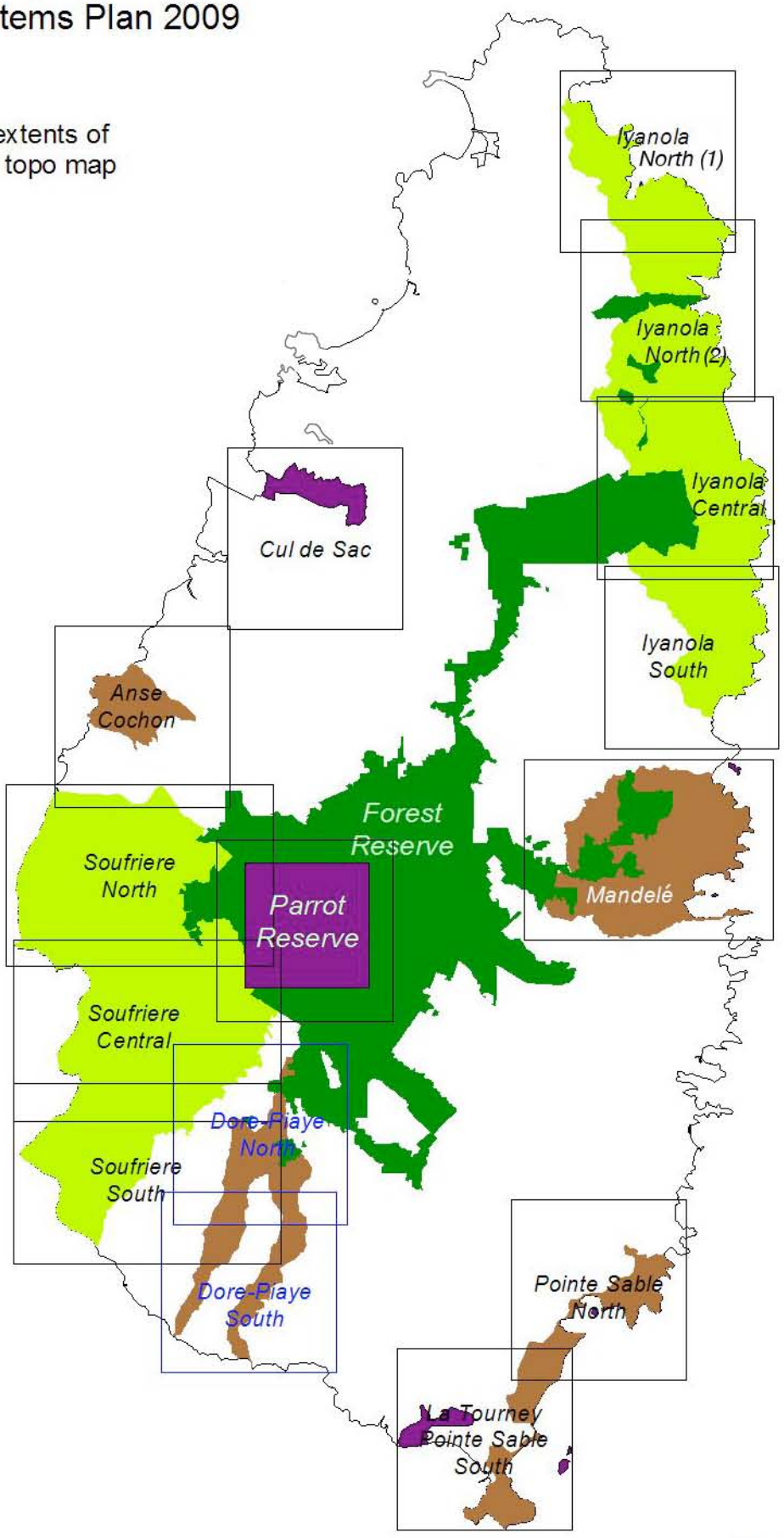
Community Engagement

- The consultation meetings highlighted several issues linked to local perceptions of protected area, especially in relation to:
  - the general lack of interest in environmental protection issues – and therefore in protected areas;
  - environmental messages are seen as boring and uninteresting;
  - peoples' failure to make a clear linkage between environmental quality and the quality of their livelihoods;
  - if protected areas are seen as a hindrance or deterrent to development (primarily tourism development) that will generate employment then there will be achieve little support with local communities.
- There was a broad consensus that if this Systems Plan is to achieve wide support amongst the population of Saint Lucia then considerable efforts will need to be made to raise understanding and awareness of the purpose of protected areas; the role that local communities can play in establishing and managing them; and the social, economic and environmental benefits that protected areas can generate for those communities.
- Proposals in relation to the 'national community mobilisation' included:
  - implanting major public educational programmes that use more people-friendly media to communicate environmental messages, e.g. television animations, creative arts, teacher and student workshop
  - focussing the educational message on cultural change, patriotism and appreciation for country
  - communicating in a non-adversarial manner
  - using case studies that provide informed findings on projects that have not demonstrated good environmental or socio-economic practices, e.g. Jalousie, Le Paradis, Ruffles, Pigeon Island Causeway, Cotton Bay, etc.
  - promoting projects that demonstrate sensitivity simultaneously to socio economic and environmental concerns like SMMA, SRDF, SLNT (Community and NGO) Fond Doux Plantation Resort, Ladera Resort, Anse Chastanet (Private sector);
  - promoting good action by Government e.g. declaration of Ramsar sites of Savannes Bay and Mankótè Mangrove; designation of Piton Management Area (PMA) and support for World Heritage site declaration; devolution of power for management to local communities [e.g. Soufriere Regional Development Foundation (SRDF) and SLNT]; and budgetary support for SLNT and Southern Tourism Development Corporation (STDC)
  - promoting the availability of support from GEF-UNEP and IUCN fro protected area management initiatives and other issues related to natural resource management
  - promoting an inter-sectoral approach to educational programme.

Appendix 13.
Topographic Maps of Proposed Protected Areas

Overview: Systems Plan 2009

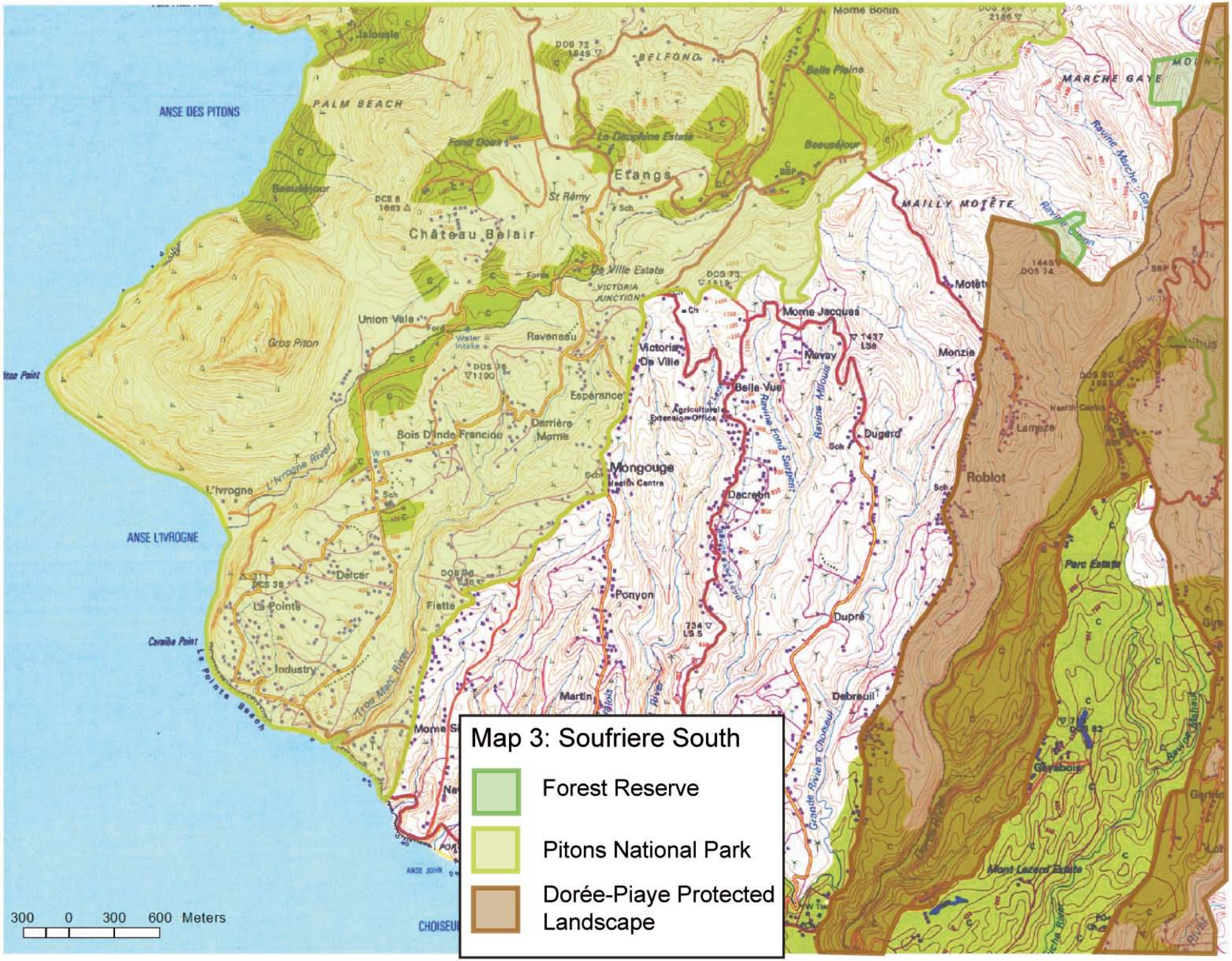
Rectangles show extents of zoomed-in tiles on topo map

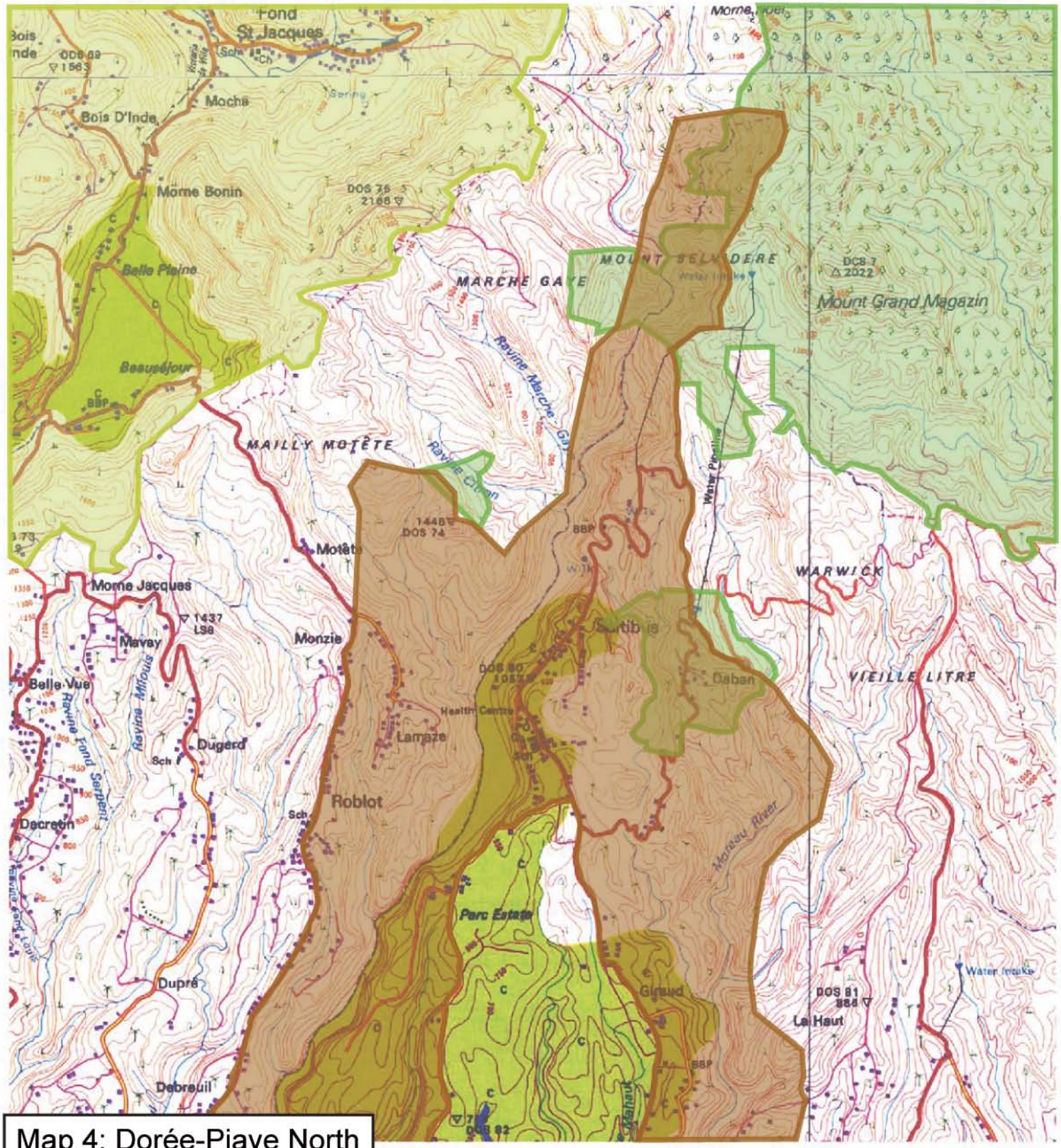


M Morton / Durrell 2009


Map 1: Soufriere North
Forest Reserve
Pitons National Park
CANARIES
Mount Regnier
Canaries River
GRAND BOIS FOREST
Esperance
SIBIEUX
Belvedere
Mahaut
Mount Sigout
RAVINE DUVAL
Bouton
Blanche Point
Mount Boire Dessolidre
DES BOTTES
MAL MASON
Bonhomme Point
Mount Tabac
Anse Mamin Estate
Mount Lastic
Colombette
ANSE CHASTANET
Fond Cannes
Mount Gimie
SCOLONS
Zenon
Ruby
Rachette Point
Cresslands
SOUFRIÈRE
300 0 300 600 Meters

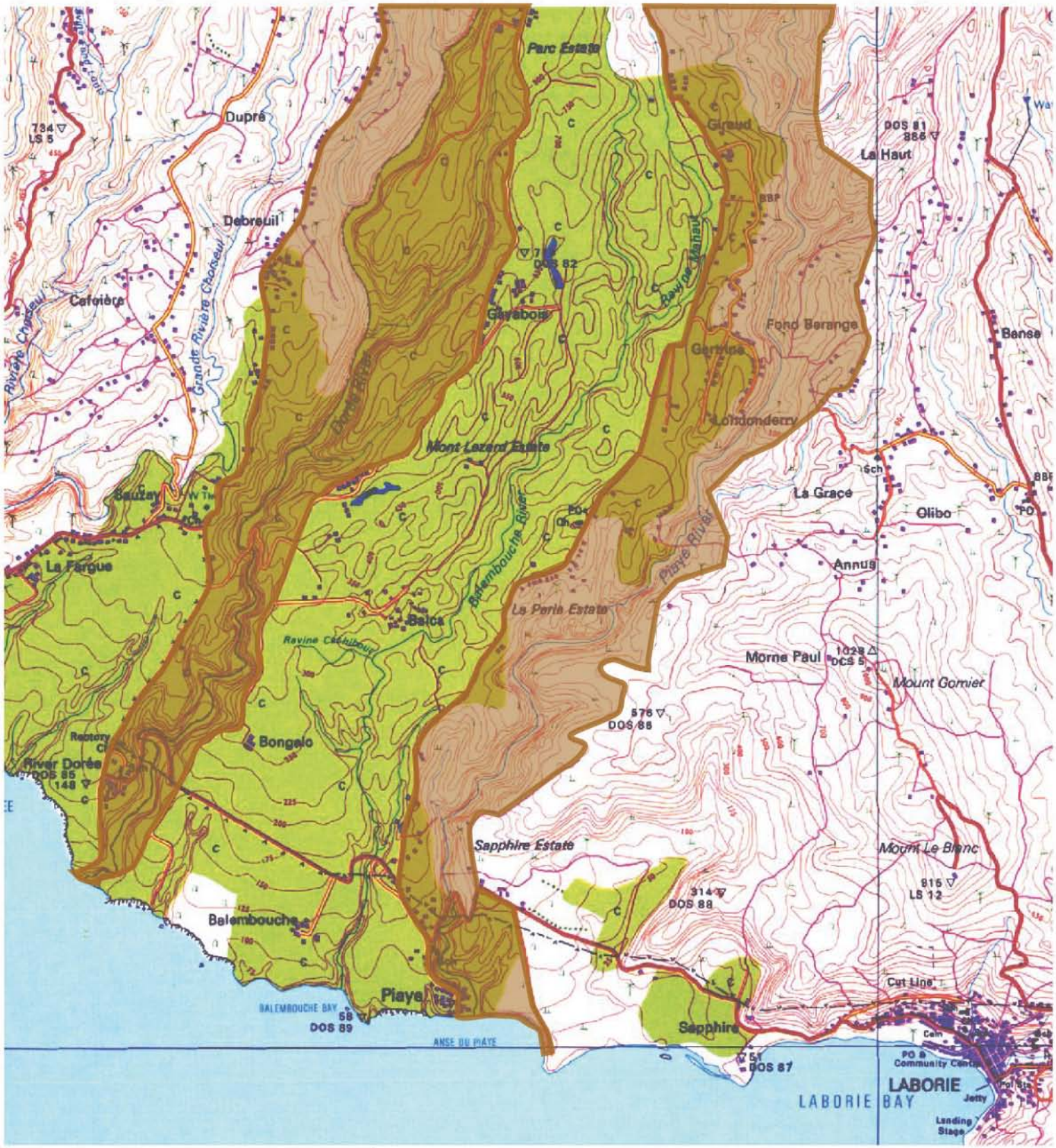

Anse Mamin Estate
Mount Lastic
Colombette
Anse Chastanet Hotel
ANSE CHASTANET
Ruisseaux
TROU AU DIABLE
Fond Cannes
La Haut
Ruby
Zanon
DESCOLONS
Mount Gimie
Mount Gimie 3117
Rachette Point
Fond Estates
La Pearle
Soufrière River
Cresslands
Piton Calfari
SOUFRIÈRE
SOUFRIÈRE BAY
Diamond
Ravine Claire
Mount Casteau
CALVAIRE
Coubaril
Saphire
STONEFIELD
MAMIGRETOUTE
Terre Blanche
Flat Pays
SULPHUR SPRINGS
St Phillip
Espérance Estate
Fond St Jacques
MIGNY
Bois D'inde
Mocha
Petit Piton
Rabot
Hermitage
FOND LLOYD
Plaisance
Jalousie
Mome Bonin
BELFOND
Belle Plaine
MARCHE GAYE
PALM BEACH
ANSE DES PITONS
La Dauphine Estate
Beausejour
Fond Doux
Etangs
St Rémy
Château Belair
De Ville Estate
VICTORIA JUNCTION
300 0 300 600 Meters
Map 2: Soufriere Central
Forest Reserve
Pitons National Park


Map 3: Soufriere South
Forest Reserve
Pitons National Park
Dorée-Piaye Protected Landscape
300 0 300 600 Meters
ANSE DES PITONS
PALM BEACH
Jalousie
BELFOND
Morne Bonin
Belle Plaine
MARCHE GAYE
Ravine Marche Gaye
Beausejour
Fond Doux
La Dauphine Estate
Etangs
St Rémy
Château Belair
MAILLY MOTÊTE
Ravine Lucan
De Ville Estate
VICTORIA JUNCTION
Motête
Morne Jacques
Union Vale
Ravineau
Victoria De Ville
Mavay
Monzie
Gros Piton
Belle Vue
Espérance
Agricultural Extension Office
Ravine Mitous
Ravine Fond Serpent
Dugard
Lamaze
Bois D'inde Francion
Derrière Morne
Mongouge
Roblot
L'Ivrogne River
L'Ivrogne
ANSE L'IVROGNE
Dacrebn
Delcer
La Pointe
Fiatte
Ponyon
Dupré
Parc Estate
Industry
Trou Nanc River
Martin
Debreuil
Grande Rivière Choiseul
Mont Lezard Estate
Glyabois
ANSE JOHN
CHOISEUL



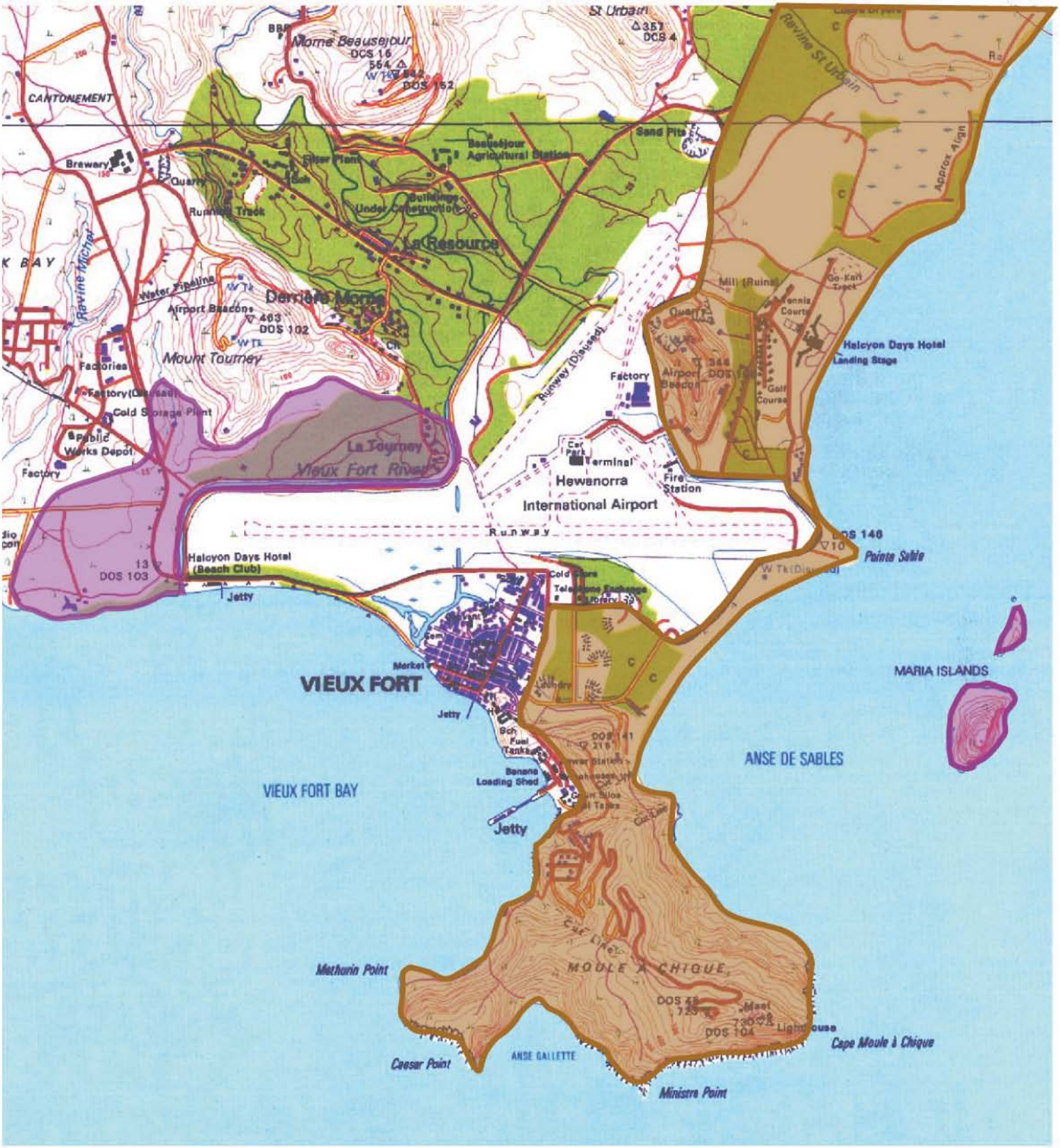
Map 4: Dorée-Piaye North

- Forest Reserve
- Pitons National Park
- Dorée-Piaye Protected Landscape



Map 5: Dorée-Piaye South

Dorée-Piaye Protected Landscape



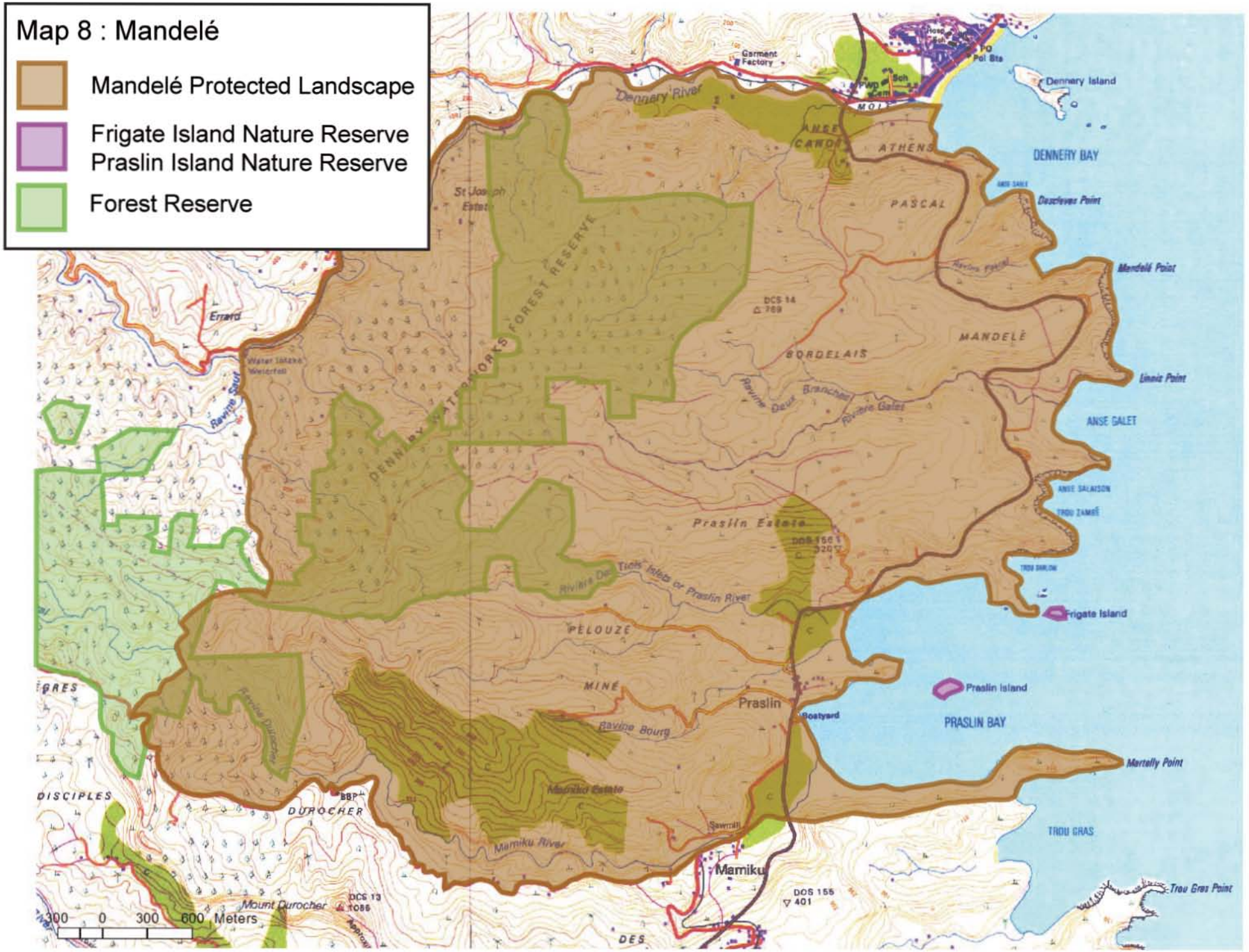
Map 6: Pointe Sable South

- Pointe Sable Protected Landscape
- La Tourney Nature Reserve
- Maria Islands Nature Reserve

300 0 300 600 Meters

Map 7: Pointe Sable North

- Pointe Sable Protected Landscape
- Scorpion Island Nature Reserve


Map 8 : Mandelé
Mandelé Protected Landscape
Frigate Island Nature Reserve
Praslin Island Nature Reserve
Forest Reserve
Dennery River
DENNERY BAY
Dennery Island
Deadeyes Point
Mandelé Point
Linois Point
ANSE GALET
Frigate Island
Praslin Island
PRASLIN BAY
Martelly Point
TROU GRAS
Trou Gras Point
Praslin
Praslin Estate
Rivière Des Tilois (also Praslin River)
Ravine Bourg
Mamiku River
Mamiku
Mount Durocher
DENNERY WATERWORKS FOREST RESERVE
PASCAL
MANDELÉ
BORDELAIS
PÉLOUZE
DISCIPLES
DUROCHER
ATHENS
Garment Factory
St Joseph Estate
Errard
Ravine Sauté
Ravine Deux Branches
Rivière Galet
Ravine Bourg
Ravine Durocher
Madriké Estate
Sawmill
Boatyard
DCS 14 769
DCS 13 1086
DOS 155 401
300 0 300 600 Meters

Map 9: Iyanola North 1

Iyanola National Park

Map 10: Iyanola North 2

Forest Reserve

Iyanola National Park

Map 11: Iyanola Central

- Forest Reserve
- Iyanola National Park

Map 12: Iyanola South

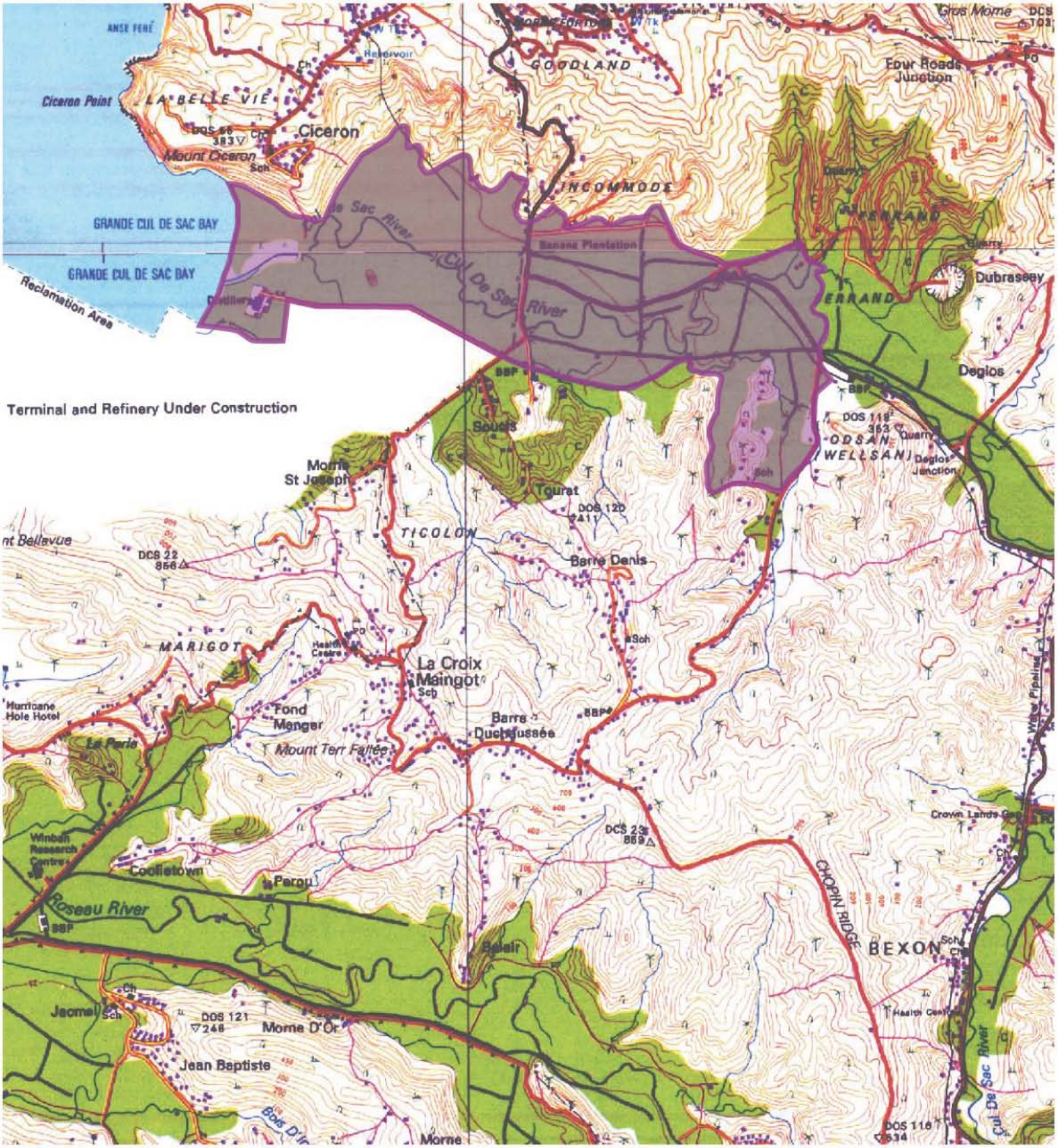
Iyanola National Park

300 0 300 600 Meters

Map 13: Anse Cochon

Pitons National Park

Anse Cochon Protected Landscape



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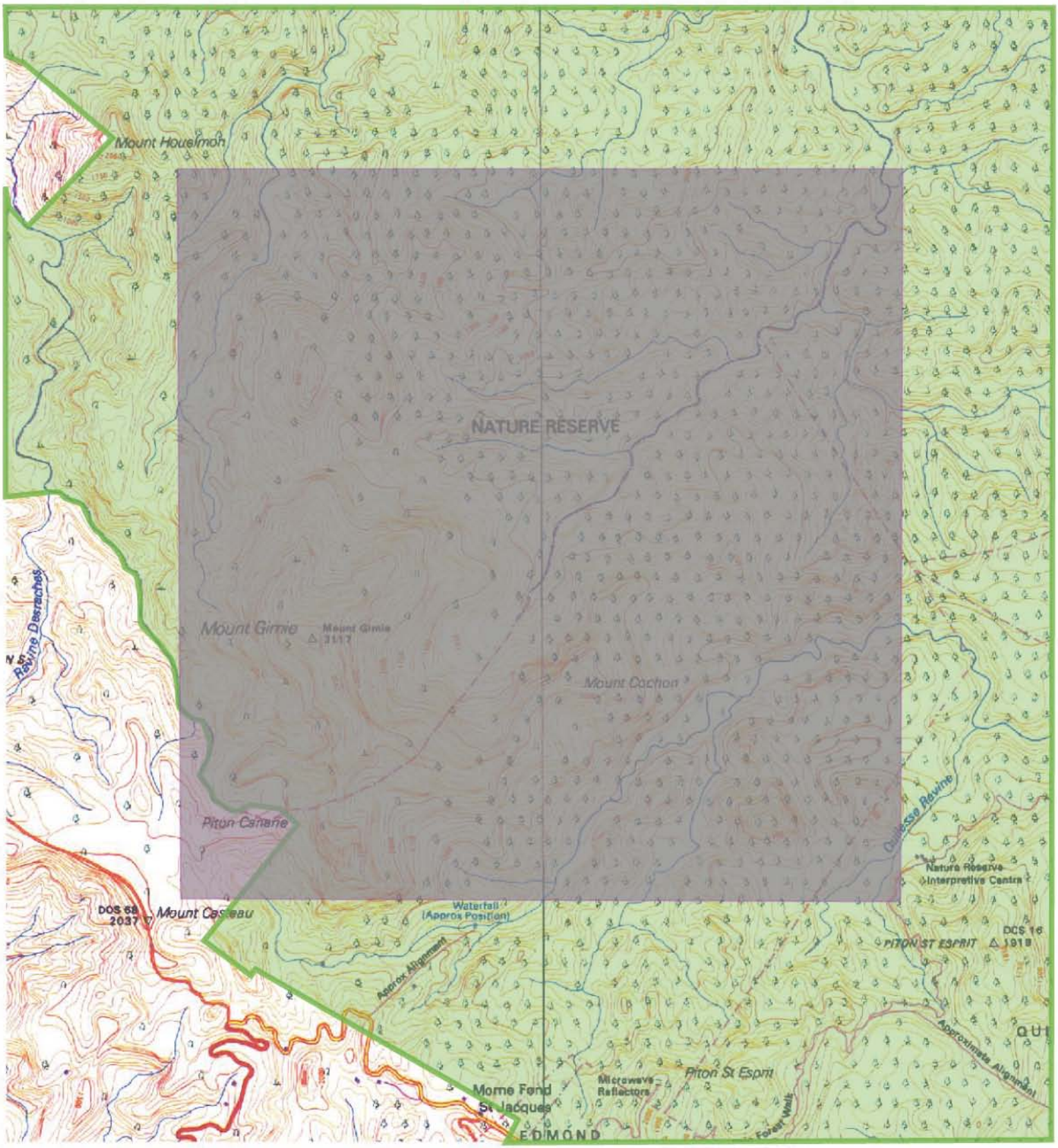
Map 14: Cul de Sac

Cul de Sac Nature Reserve



Map 15: Parrot Reserve

Forest Reserve

Parrot Reserve