



# GEO Saint Lucia

## 2006



**State of the Environment**

GEO



# Table of Contents

Preface .....	4
List of Tables .....	5
List of Figures .....	5
List of Acronyms .....	6
Chapter 1 .....	8
1. INTRODUCTION: SOCIO-ECONOMIC AND CULTURAL BACKGROUND .....	9
1.1 LOCATION AND HISTORY .....	9
1.2 SOCIO-CONTEXT .....	9
1.2.1 POPULATION GROWTH AND DENSITY .....	9
1.2.2 HEALTH AND EDUCATION .....	9
1.2.3 INFRASTRUCTURE .....	9
1.2.4 ECONOMIC PROFILE .....	10
Chapter 2 .....	12
2. STATE OF THE ENVIRONMENT .....	13
2.1 MARINE AND COASTAL SYSTEMS .....	13
2.1.1 BACKGROUND .....	13
2.1.2 STATE OF SYSTEMS .....	13
2.1.3 EXISTING PRESSURES .....	15
2.1.4 IMPACTS .....	16
2.2 FOREST SYSTEMS .....	17
2.2.1 BACKGROUND .....	17
2.2.2 STATE OF SYSTEMS .....	17
2.2.3 EXISTING PRESSURES .....	17
2.3 FRESHWATER SYSTEMS .....	19
2.3.1 BACKGROUND .....	19
2.3.2 STATE OF SYSTEMS .....	19
2.3.3 EXISTING PRESSURES .....	21
2.3.4 IMPACTS .....	22
2.4 LAND USE AND MANAGEMENT .....	23
2.4.1 BACKGROUND .....	23
2.4.2 EXISTING PRESSURES .....	23
2.4.3 STATE OF SYSTEMS .....	23
2.4.4 CURRENT SITUATION .....	23
2.5 WASTE MANAGEMENT .....	23
2.5.1 BACKGROUND .....	23
2.5.2 STATE OF SYSTEMS .....	24
2.5.3 EXISTING PRESSURES .....	26
2.5.4 IMPACTS .....	26
2.6 CHEMICAL USE .....	27
2.6.1 CURRENT SITUATION .....	27
2.6.2 EXISTING PRESSURES .....	27
2.7 CLIMATE CHANGE .....	27
2.7.1 BACKGROUND .....	27
2.7.2 CURRENT SITUATION AND PROJECTIONS .....	28
2.7.3 PRESSURES .....	28
2.7.4 IMPACTS .....	29
2.8 AIR AND NOISE POLLUTION CONTROL .....	30
2.8.1 BACKGROUND .....	30
2.8.2 CURRENT SITUATION .....	30
Chapter 3 .....	32
3. POLICY RESPONSES .....	33
3.1 MARINE AND COASTAL SYSTEMS .....	33
3.2 FOREST SYSTEMS .....	33
3.3 FRESHWATER SYSTEMS .....	34
3.4 LAND USE AND MANAGEMENT .....	35

3.5	WASTE MANAGEMENT .....	35
3.6	CHEMICAL USE .....	36
3.7	CLIMATE CHANGE.....	36
3.7.1	MITIGATION .....	37
3.7.2	ADAPTATION .....	37
3.8	AIR AND NOISE POLLUTION CONTROL.....	38
3.8.1	THE PUBLIC HEALTH BOARD .....	38
3.8.2	THE PESTISIDE CONTROL AND TOXIC CHEMICALS BOARD.....	38
Chapter 4 .....		40
4.	OUTLOOK.....	41
4.1	MARINE AND COASTAL SYSTEMS .....	41
4.1.1	BUSINESS AS USUAL .....	41
4.1.2	SUSTAINABILITY FIRST.....	41
4.2	FOREST SYSTEMS .....	41
4.2.1	BUSINESS AS USUAL .....	41
4.2.2	SUSTAINABILITY FIRST.....	41
4.3	FRESHWATER SYSTEMS .....	41
4.3.1	BUSINESS AS USUAL .....	41
4.3.2	SUSTAINABILITY FIRST.....	42
4.4	LAND USE AND MANAGEMENT .....	42
4.4.1	BUSINESS AS USUAL .....	42
4.4.2	SUSTAINABILITY FIRST.....	42
4.5	WASTE MANAGEMENT .....	42
4.5.1	BUSINESS AS USUAL .....	42
4.5.2	SUSTAINABILITY FIRST.....	42
4.6	CHEMICAL USE .....	42
4.6.1	BUSINESS AS USUAL .....	42
4.6.2	SUSTAINABILITY FIRST.....	43
4.7	CLIMATE CHANGE.....	43
4.7.1	BUSINESS AS USUAL .....	43
4.7.2	SUSTAINABILITY FIRST.....	43
4.8	AIR AND NOISE POLLUTION CONTROL.....	43
4.8.1	BUSINESS AS USUAL .....	43
4.8.2	SUSTAINABILITY FIRST.....	43
Chapter 5 .....		45
5.	WAY FORWARD .....	46
5.1	MARINE AND COASTAL SYSTEMS .....	46
5.2	FOREST SYSTEMS.....	46
5.3	FRESHWATER SYSTEMS .....	46
5.4	LAND USE AND MANAGEMENT .....	47
5.5	WASTE MANAGEMENT .....	47
5.6	CHEMICAL USE .....	48
5.7	CLIMATE CHANGE.....	48
5.8	AIR AND NOISE POLLUTION CONTROL.....	48
5.8.1	POLICY.....	49
5.8.2	LEGISLATION .....	49
5.8.3	INSTITUTIONAL.....	49

# Preface

This is the first State of the Environment Report for Saint Lucia. This was an effort of the Sustainable Development and Environment Section of the Ministry of Physical Development, Environment and Housing. The report was developed in consultation with public and private sector agencies, as well as non-governmental agencies (NGOs) and community based organization (CBOs). The report speaks to 3 Key Systems namely: Marine and Coastal Systems, Forest Systems and Fresh Waster Systems and 5 Key issues; Land Use Management, Waste Management, Chemical Use, Climate Change and Air and Noise Pollution.

The Sate of the Environment Report for Saint Lucia seeks to provide objective environmental information to support decision-making for sustainable development in Saint Lucia, through the provision of credible environmental information and data. It presents data and trends on the 3 key systems and 5 key issues and their implications and impacts on ecosystems, human health and well-being and the economy.

The Government of Saint Lucia would like to express its gratitude to the United Nations Environment Programme (UNEP) Division of Early Warning and Assessment (DEWA) and the International Institute for Sustainable Development (IISD) for supporting and guiding this initiative. Special thanks goes to the Lead Authors, Editor of this report and the technical team at the Sustainable Development and Environment Section and the various agencies that contributed to this process.

## The Production Team

---

### **Coordinator**

Donnalyne Charles  
Sustainable Development and Environment Section

---

### **Editor**

Bishnu Tulsie

---

### **Lead Authors**

Susanna Scott Department of Fisheries	Emlyn Jean Saint Lucia Solid Waste Management Authority
--	---

Michael Bobb Department of Forestry	Guy Mathurin Ministry of Agriculture
--	---

Sylvester Chastanet	Bishnu Tulsie
---------------------	---------------

Daune Heholdt	Lesmond Magloire Department of Health and Safety
---------------	--

---

### **Graphic Designer**

Marcathian Alexander  
Sustainable Development and Environment Section

## List of Tables

TABLE 2-1 STATUS OF COASTAL AND MARINE ECOSYSTEMS .....	13
TABLE 2-2 REEF BLEACHING IN SAINT LUCIA, AUGUST 2005 .....	15
TABLE 2-3 FISH LANDINGS FOR 2000-2005 (TONNES).....	15
TABLE 2-4 IMPACTS ON COASTAL AND MARINE ECOSYSTEMS.....	16
TABLE 2-5 ESTABLISHMENT OF FOREST RESERVES.....	18
TABLE 2-6 TYPES OF LAND USE AND COVERAGE .....	18
TABLE 2-7 FOREST TRAILS AND VISITORS .....	19
TABLE 2-8 WATERSHEDS AND MAIN RIVERS.....	19
TABLE 2-9 STATUS OF MAJOR RIVERS IN SAINT LUCIA .....	20
TABLE 2-10 EXAMPLES OF WETLANDS IN SAINT LUCIA .....	20
TABLE 2-11 CONFIRMED CASES OF WATER BORNE AND OTHER DISEASES .....	22
TABLE 2-12 YEARLY STATISTICS FOR LEAD ACID BATTERIES .....	26
TABLE 2-13 SAINT LUCIA'S CONTRIBUTION TO CARBON DIOXIDE EMISSIONS (MILLION METRIC TONNES) .....	28
TABLE 2-14 MAJOR SOURCES AND TYPES OF AIR POLLUTION.....	30
TABLE 2-15 SOUND LEVELS AND EFFECTS .....	30
TABLE 3-1 LEGISLATION IMPACTING FRESHWATER SYSTEMS.....	34
TABLE 3-2 REGULATORY BODIES .....	38

## List of Figures

FIGURE 1-1 SECONDARY SCHOOL ENROLMENTS FOR 1990-2005 .....	9
FIGURE 2-1 AREA CHANGES AT VIGIE BEACH 1990-2002 .....	14
FIGURE 2-2 AREA CHANGES AT FOND D'OR BEACH 1994-2002.....	14
FIGURE 2-3 AREA CHANGES AT REDUIT BEACH 1994-10 .....	14
FIGURE 2-4 CORAL REEFS ALONG THE NORTH-WEST COAST .....	14
FIGURE 2-5 FOREST RESERVES OF SAINT LUCIA .....	17
FIGURE 2-6 DEFORESTATION .....	18
FIGURE 2-7 AVERAGE YEARLY PRODUCTION FIGURES AT THEOBALDS WATER TREATMENT PLANT .....	20
FIGURE 2-8 AVERAGE MONTHLY RAINFALLS FOR SAINT LUCIA .....	20
FIGURE 2-9 BASE FLOW COMPARISONS AT MAJOR RIVERS IN SEVEN WATERSHEDS .....	21
FIGURE 2-10 LAND USE PATTERN IN ST. LUCIA .....	21
FIGURE 2-11 SEDIMENTATION IN ROSEAU RIVER AFTER HEAVY RAINS .....	21
FIGURE 2-12 DEGLOS SANITARY LANDFILL.....	24
FIGURE 2-13 VIEUX FORT SOLID WASTE MANAGEMENT FACILITY .....	24
FIGURE 2-14 WASTE QUANTITIES FOR 2004-2006 .....	25
FIGURE 2-15 CATEGORIES OF WASTE COLLECTED IN 2002 .....	25
FIGURE 2-16 DISTRIBUTION OF TOILET FACILITIES FOR 1991 AND 2001 .....	25
FIGURE 2-17 GLOBAL TEMPERATURE RISE .....	28
FIGURE 2-18 RISE IN SEA LEVELS .....	28
FIGURE 2-19 WORLD CARBON DIOXIDE EMISSIONS 1998-2003....	28
FIGURE 2-20 VEHICLES IN SAINT LUCIA.....	30
FIGURE 3-1 SMMA ZONING MAP .....	33

## List of Acronyms

CBO	-	Community Based Organizations
CIDA	-	Canadian International Development Agency
CPU	-	Central Planning Unit
CZM	-	Coastal Zone Management
CITES	-	Convention on International Trade in Endangered Species of Flora and Fauna
DEWA	-	Division fo Early warning and Assessment
DOA	-	Department of Agriculture
DOF	-	Department of Forestry
DCA	-	Development Control Authority
EIA	-	Environmental Impact Assessments
GIS	-	Geographic Information Systems
GOSL	-	Government of Saint Lucia
GDP	-	Gross Domestic Product
IDP	-	Integrated Development Planning
IISD	-	International Institute of Sustainable Development
IPM	-	Integrated Pest Management
IPCC	-	International Panel on Climate Change
ISO	-	International Standards Organization
ISM	-	Island System Management
MAFF	-	Ministry of Agriculture, Forestry and Fisheries
MCWT&PU	-	Ministry of Communications, Works, Transport and Public Utilities
MCLC	-	Ministry of Community Development, Local Governments and Cooperatives
MOH	-	Ministry of Health, Human Services, Family Affairs and Gender Relations
MPDEH	-	Ministry of Physical Development, Environment and Housing
MEA	-	Multilateral Environmental Agreements
NEMS	-	National Environment Management Strategy
NEP	-	National Environment Policy
NCA	-	National Conservation Authority
NGO	-	Non-Governmental Organization

OECS	-	Organization of Eastern Caribbean States
POPs	-	Persistent Organic Pollutants
PCB	-	Pesticides and Toxic Chemicals Control Board
PROUD	-	Programme for the Regularization of Unplanned Development
PIC	-	Prior Informed Consent
SGD	-	Saint George's Declaration of Principles for Environmental Sustainability
SLASPA	-	Saint Lucia Air and Sea Ports Authority
SLSWMA	-	Saint Lucia Solid Waste Management Authority
SMMA	-	Soufriere Marie Management Authority
UNEP	-	United Nations Environment Programme
WASCO	-	Water and Sewerage Company
WTO	-	World Trade Organization

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_11227](https://www.yunbaogao.cn/report/index/report?reportId=5_11227)

