



Government of St.Lucia



United Nations Environment
Programme

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN OF ST. LUCIA

PROTECTING THE FUTURE

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St. Lucia, 2000**



The Bahamas

ATLANTIC OCEAN

Cayman
Islands

Jamaica

Dominican
Republic

British
Virgin
Islands

Anguilla

U.S.
Virgin
Islands

St Martin/ St Maarten

St Barts

Barbuda

St Kitts
& Nevis

Antigua

Dominica

St Lucia

Barbados

Aruba

Curaçao

Tobago

Trinidad

TABLE OF CONTENTS

	Foreword	
1.	Introduction	1
2.	The Vision	3
3.	Issues and Trends	4
	Historical Factors	5
	Economic Factors	5
	Cultural Factors	6
	Social Factors	6
	Resource tenure and access	8
	Institutional and legal context	8
	Policy context	9
4.	Aim and Objectives	10
5.	Approach	11
6.	Conditions and Requirements	13
7.	Programme	15
	Planning and Policy formulation	15
	Research and monitoring	16
	Conservation	17
	Sustainable use	18
	Education and awareness	19
8.	Implementation	20
	Institutional arrangements	20
	Legal instruments	21
	Organisational development and capacity building	22
	Financing	22
	Monitoring and evaluation	23
	Regional and international cooperation	24

9. Projects	25
Project 1: Policy, institutional and legislative review	25
Project 2: Identification and selection of methods, tools, baseline variables, indicators and parameters needed for effective monitoring	26
Project 3: Comprehensive inventory of terrestrial biological resources	27
Project 4: Inventory of marine and coastal biodiversity	29
Project 5: Assessment of the stock of the Queen Conch, <i>Strombus gigas</i>	29
Project 6: Assessment and management of wetlands	30
Project 7: Assessment of freshwater biological resources	32
Project 8: Inventory of biological resources of importance to agriculture	34
Project 9: Study and determination of the carrying capacity of critical areas used for tourism and recreation	36
Project 10: Design of standards and guidelines of behaviour in nature tourism sites and attractions	37
Project 11: Review of the national plan for a system of protected areas	39
Project 12: The economies of biodiversity loss and conservation	40
Project 13: Training	41
Project 14: Establishment of management programmes for the protection of the endemic and rare species of birds	42
Project 15: Establishment of a turtle monitoring programme	43
Project 16: Establishment of a photographic and videographic data base on biodiversity	44
Project 17: Education, public awareness and participation	45
Project 18: Upgrading of national herbarium and creation of sub-collections	46
Project 19: Development of artificial habitats for coastal and marine resources	49
Project 20: Evaluation of the medicinal and culinary properties of herbs	49
Project 21: Promotion of organic farming	50
Project 22: Increasing and managing plant diversity for sustainable rural livelihoods	51
Appendices:	
Appendix 1: Trends affecting St. Lucia's Biodiversity and causes of these trends	53
Appendix 2: Relationship between Biodiversity and the main social and economic sectors	57
Appendix 3: Participants in consultative meetings	65

FOREWORD

The preparation and release of this National Biodiversity Strategy and Action Plan (NBSAP), which was approved by the Cabinet of Ministers on September 14th 2000, are significant in many respects.

St. Lucia, as a young developing nation, is committed to international cooperation in the field of conservation and sustainable development, and this document is another testimony of this commitment. In accordance with the provisions of the Convention on Biological Diversity (CBD), we have outlined the policies and actions, which are needed to conserve our natural assets and use them sustainably. We have identified a number of programmes and projects, and we have begun to put in place the institutional mechanisms required for effective implementation. We look forward to the support and collaboration of our regional and international partners in making this NBSAP a reality.

This document is also important because it is another expression of our collective awareness of the fact that our future depends, to a very large extent, on our ability to manage our natural capital. Our quality and uniqueness as a tourism destination, our cultural identity, our agriculture, our fisheries and the health of so many other sectors rely on the maintenance of our biological diversity and on our ability to use it wisely, sustainably and creatively. This plan demonstrates that conservation is an integral part of development, and that development could not be lasting without the ecosystems, the species and the genes with which we have been endowed, and which we have the responsibility to manage.

The significance of this document is not only in its contents, but it is also, and perhaps more importantly, in the process by which it has been developed. Under the competent leadership of its Co-ordinator, Mrs. Dawn Pierre-Nathoniell of our Department of Fisheries, the NBSAP Team has facilitated an innovative consultative process, which has involved an impressive number of stakeholders from various horizons. Thanks to the support from the United Nations Environment Programme/Global Environmental Facility (UNEP/GEF), we have been able to mobilise our own national experts, and to build our own understanding of issues, needs and priorities. As a result, we have a document which reflects the views of all parties concerned, which has benefited from our own knowledge and expertise, and which provides a realistic path for action.

I express my gratitude to all those who have been involved in this unique and exciting process, and I call on every St. Lucian to participate in the urgent task of conserving and managing the rich biological diversity of our island home.



HON. B. CASSIUS ELIAS
Minister of Agriculture, Forestry and Fisheries

1. INTRODUCTION

In spite of its small size, St. Lucia is a diverse country. Surrounded by the Atlantic Ocean and the Caribbean Sea, its mountainous landscape and tropical location have endowed the island with a range of habitats on land and in the sea. Diverse communities of plants and animals live in these habitats, and several species -- such as the St. Lucia parrot, *Amazona versicolor* -- are found nowhere else in the world. St. Lucia is also diverse in the origin of its people. During the past four centuries of a sometimes turbulent history, the Amerindians were joined by peoples who came from Africa, South Asia, and Europe. St. Lucia's diverse environment and rich cultural history have combined to make it an unusually beautiful and distinctive country.

As in other countries, St. Lucia's biodiversity is threatened by a range of human activities. Agricultural, commercial and residential developments are transforming natural habitats. Freshwater and coastal ecosystems are stressed by high sediment loads and agricultural chemicals. The disposal of raw sewage and the inadequacy of many sewage treatment facilities pose significant risks to human health and natural systems. Some marine species -- especially reef fishes and conch -- show signs of over-exploitation in several areas. Habitat transformation, pollution, and over-harvesting are common factors contributing to the decline of biodiversity around the world.

St. Lucia's biological resources are part of its capital for development, and the health of the country's economy, especially in agriculture, tourism, and fisheries, is intimately tied to the health of its environment. These resources also form an intimate part of the country's natural and cultural heritage. St. Lucia, as all countries of the world, must therefore fashion its own strategy -- reflecting its unique social, economic, and environmental conditions -- to use sustainably and conserve its biological wealth. This is the purpose of the National Biodiversity Strategy and Action Plan (NBSAP).

WHAT IS BIODIVERSITY?

Biodiversity is the term used to describe collectively the various forms of life, namely the genes, species and ecosystems found within a country or region. Ecosystem diversity relates to the variety of different environments: these not only differ in species composition, but also in physical structures. Ecosystems found on the island include coral reefs, seagrass beds, mangroves, and various types of forests. Species diversity refers to the variety of different species which exist in a specific area. Plant species diversity in St. Lucia, for example, is relatively high - over 1,300 species - and many of these species are useful for food, timber and medicines, while others serve as ornamentals. Genetic diversity is the diversity of genetic information that exists in individual organisms. For example, the *Musa* genus (plantains and bananas) includes a number of sub-species and cultivars.

In June 1992, representatives of over 175 countries gathered in Rio de Janeiro, Brazil for the United Nations Conference on Environment and Development. One of the most important agreements to come out of this "Earth Summit" was the Convention on Biological Diversity (CBD). The Convention was designed to help member countries reduce the loss of biodiversity and share in the benefits arising from new uses of genetic resources. St. Lucia -- one of the first countries to sign the treaty at the Earth Summit -- ratified the agreement on 28 July 1993.

THE CONVENTION ON BIOLOGICAL DIVERSITY

The Convention on Biological Diversity (CBD) marks an historic commitment. It is a commitment by the nations of the world to conserve biological diversity, to use biological resources sustainably and to share equitably the benefits arising from the use of genetic resources. It is the first global agreement to address comprehensively all aspects of biological diversity – genetic resources, species and ecosystems. While the Convention does not tell member countries how to conserve and use sustainably their biological resources, it does express general goals that countries should strive to achieve with respect to genetic resources, species and ecosystems. For example, among other goals, it also calls upon nations to include all ecosystems within a network of protected areas and to establish the capacity to conserve economically important genetic resources. It calls upon developed countries to provide financial and technical assistance to help developing countries conserve and use their biological resources sustainably.

To assist in the complex task of using sustainably and conserving their biodiversity, the Convention, in its Article 6, requires all member countries to develop a national strategy and action plan. The purpose of these plans is to identify important problems, evaluate the most urgent and practical actions to remedy those problems, prepare a detailed plan of action to implement those remedies, and establish a mechanism for the on-going monitoring and review of the plan's implementation. While the CBD does not specify how these strategies and action plans should be developed, experience in other countries indicates that broad participation is likely to increase public support for proposed actions to use sustainably and conserve biodiversity.

In November 1997, a Steering Committee established by the Government of St. Lucia and comprising representatives from all relevant sectors began work on the development of the National Biodiversity Strategy and Action Plan. A National Steering Committee was assembled under the direction of a Coordinator to assess the status of biological resources in St. Lucia and to identify important management, policy, and information needs. National experts were commissioned to conduct country studies in six main sectors (forest ecosystems, fresh water ecosystems, coastal and marine ecosystems, agricultural biodiversity, tourism, and socio-economic factors) to assess the current status of biological diversity, and identify issues, needs, gaps and actions. Four public consultations were held involving a wide range of stakeholders, leading to two broad-based national consultative meetings held in March and

August 1999. It is on the basis of these studies and consultations, augmented by the contributions of individual experts and agencies and by the deliberations of the National Steering Committee, that the strategy and action plan has been prepared.

The present report should therefore be read against the background of and in conjunction with the Country Study Report, which provides detailed information on biological resources, issues and trends.

ST. LUCIA NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (NBSAP) TEAM

National Coordinator

Dawn Pierre-Nathoniell, Department of Fisheries

Consultants

Michael Andrew, Forest ecosystems
Dunstan Campbell, Socio-economic factors
Marie-Louise Felix, Freshwater ecosystems
Agnes Francis, Tourism
Joan Norville, Agricultural biodiversity
Susanna De Beauville-Scott, Coastal and Marine ecosystems
Elizabeth Charles-Soomer, Andrina Abraham, Geographic Information Systems
Deborah Lambert, Editing
Yves Renard, Facilitation and writing
Lucius Doxerie, Public outreach

Technical and financial assistance was provided by UNEP/GEF

National Steering Committee

Former Department of the Environment
(Chair): Cornelius Fevrier and Anita James
Ministry of Planning, Development, Environment and Housing: Crispin d'Auvergne, John Calixte, Christopher Corbin and Bishnu Tulsie
Ministry of Tourism: Jacqueline Alexander
Ministry of Health: Harold Andrew
Department of Agriculture: Alicia Daniel George
Department of Forestry: Brian James
St. Lucia Bureau of Standards: Thomas Edmund
St. Lucia National Trust: Charmaine Nathaniel

International Consultant

Nels Johnson, World Resources Institute

2. THE VISION

The vision for the future of St. Lucia's biological diversity includes the following elements:

- ▶ the status of biological resources is known, the people of St. Lucia and visitors to the island are all aware of the value and importance of these resources, and respect for biodiversity is integrated within the nation's culture;
- ▶ governmental agencies, non-governmental organisations, the private sector and communities are conscious, active and responsible participants in the management of biodiversity, and the concerns for the management of biodiversity are taken into account within policy-making processes at all levels;
- ▶ the integrity of the country's biological diversity is maintained and, whenever possible, restored;

- ▶ biodiversity contributes optimally, through sustainable uses, to the social, economic and cultural development of the country, and to the physical, spiritual, and psychological well-being of all its people;
- ▶ national, regional and international efforts aimed at conserving biological diversity are consistent, mutually-supportive, and effective.

3. ISSUES AND TRENDS

St. Lucia's biological diversity and its current status can be characterised by the following:

- ▶ a relatively high diversity of species, as illustrated by the fact that there is a total of over 1,300 known species of plants (including seven endemics) and over 150 species of birds (including five endemics). Approximately 250 reef fish species and 50 coral species have been identified for the island;
- ▶ a genetic diversity which is largely the product of the country's history, with the introduction and use of a wide range of species, breeds and cultivars, and with the production of a number of cross-breeds;
- ▶ a high diversity of ecosystems, ranging from dry cactus scrubs to rainforest, and including mangroves and coral reefs;
- ▶ high natural fragility and vulnerability of these ecosystems, due mainly to their small size and to their scattered spatial distribution;
- ▶ high levels of natural productivity within most ecosystems;
- ▶ a significant contribution of this biological diversity to the local economy, with the possibility of increasing benefits in several areas, such as the use of plants for medicinal purposes and the development of heritage tourism;
- ▶ a diversity of property and management regimes, with all marine and many terrestrial ecosystems under public ownership, but with some terrestrial ecosystems placed almost entirely under private ownership (especially the dry forest formations);
- ▶ high levels of impacts from human activities, which have transformed many natural habitats and have resulted in the loss of some of the country's biological diversity;
- ▶ uneven distribution of impacts and threats among species and ecosystems;
- ▶ an insufficient knowledge of biological resources and their potential;

- ▶ the achievement of significant successes in several biodiversity conservation and management programmes (e.g. recovery of the St. Lucia parrot, protection of the Maria Islands Nature Reserve and its two endemic species, management of the Forest Reserve, and management of Marine Reserves).

Social, cultural and economic factors play a key role in shaping and determining the conservation, use and management of St. Lucia's biological resources. These factors can be summarised as follows:

Historical factors

Amerindian societies in the Caribbean were characterised by the diversity of indigenous plant and animal species upon which their systems of production were based. In contrast, the development of the plantation system in the 18th and 19th centuries was based on monoculture crops and on the use of many imported species. As a result, natural systems have been profoundly transformed, and rural landscapes bear little resemblance to the natural formations which existed prior to European colonisation. With the exception of the rainforest and montane forest formations, terrestrial environments have been radically transformed by human activity.

Economic factors

The economy of St. Lucia is built, and continues to depend to a large extent, on the production of goods and services for external consumption. Since the establishment of the plantation system, the main economic sector has been agriculture, with the production of cocoa and coffee, later replaced by sugar, and more recently by banana. Over the past twenty years, tourism has grown to rival agriculture as the largest sector of the economy. In the agricultural sector, bananas constitute the bulk of exports.

St. Lucia has shown slow but steady economic growth during the past decade. However, economic growth has not kept pace with population growth so per capita income has fallen slightly from US\$2,653 to US\$2,626 between 1993 and 1997. A decline in banana markets is a major factor in this slow growth, while rapid expansion in the tourism sector has kept declines in the agricultural sector from depressing the entire economy. Unemployment is relatively high (16.7% in 1996), especially among young people.

The relationship between economic development and biodiversity is complex. The tourism and fishing sectors depend, to a significant extent, on the maintenance of that diversity, and most sectors could benefit from a more systematic exploration and promotion of sustainable uses of species and genetic resources. But economic needs also generate substantial negative impacts on the resource base, because of the need to transform natural habitats for agriculture, residential and commercial construction, and public infrastructures.

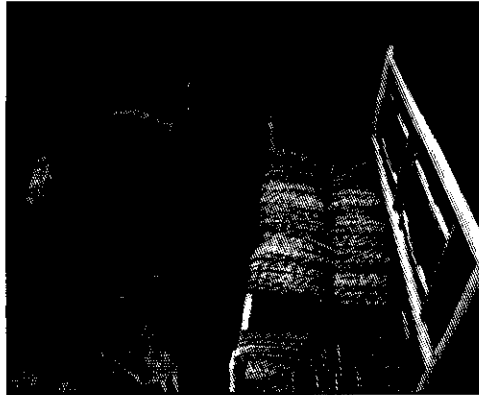
Cultural factors

St. Lucia has rich cultural traditions, and there is an important reservoir of traditional and popular knowledge, much of which is related to using and managing the country's biological resources. Several activities, including the production of charcoal, lumber, furniture, dug-out canoes and utensils, depend on an intimate knowledge of elements of local biological resources. Small farming systems have incorporated several cultural influences and are based on a wide variety of species and cultivars. Folk medicine makes extensive use of local plants. There are therefore a number of positive linkages between people and the biological diversity which they use and depend on.

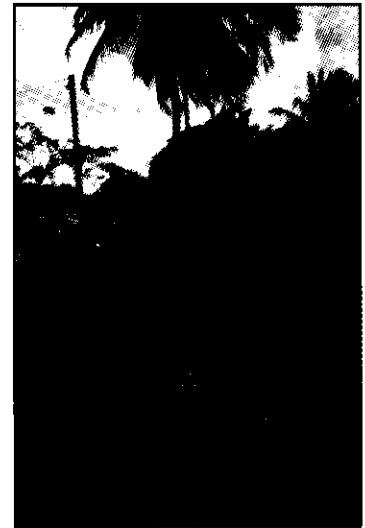
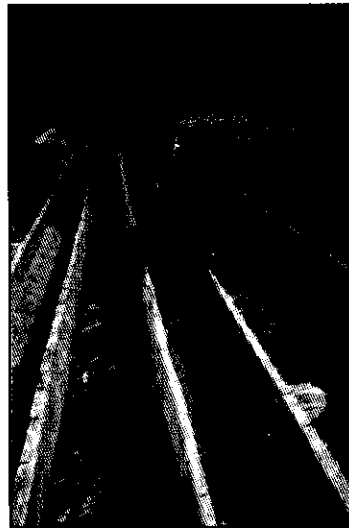
Cultural patterns and values have however evolved rapidly over the past decades, with a significant increase in consumption of imported goods, and the concentration of large sectors of the population in urban centres. Many St. Lucians appear not to be conscious of the importance of biological diversity, and of its current and potential impact on the quality of their lives. There are many cultural patterns, perceptions and attitudes which impact negatively on the natural environment, and on the quality of the relationship that people can develop with it.

Social factors

St. Lucia's population is growing at 1.64% annually, a rate slightly higher than the global average of 1.4%, and now totals approximately 154,540. The United Nations estimates that St. Lucia's population will be approximately 200,000 in 2025. Most of this population growth is concentrated in Castries, along the northwest coast, and in other coastal areas (where many endangered species occur). In fact, more than 50% of the population is now found in Castries and Gros Islet. The population density of this area (over 700 people per square kilometre) is extremely high and puts serious pressures on water supplies, transportation, sanitation and sewage, and solid waste disposal. This rate of population growth is increased by the migration of rural people to the capital city area in search of employment. Because of these growth patterns, remaining natural areas and processes are under severe pressure in the Castries and Gros Islet districts.



Craft making using natural plant materials



Construction of dug-out canoes—a less common but traditional activity