

### Resource tenure and access

Most agricultural lands, and a majority of forest lands, are privately owned. Two significant trends can be observed: on the one hand, many larger farms are being sold and broken into smaller holdings, while, at the lowest end of the scale, small farms between 2 and 4 hectares in size are increasing. Tenure is governed by the Napoleonic code in which all family members can lay claim to the land. This tenurial system fragments family lands, provides few incentives for long-term sustainable land management, and drives land-poor rural residents to clear steep slopes and forest areas. This has adverse impacts on people living, and activities occurring, in the lower parts of the catchment areas, and is a major threat to biodiversity.

There are however large areas of the forest which are under public ownership and management, and the government has embarked on a programme of land acquisition, for the purpose of protecting and managing important watersheds. This programme will have a positive impact on the ability of the forestry administration to conserve and manage the biological diversity contained in these areas.

All marine and most coastal ecosystems are under public ownership and management, and have suffered from a *de facto* situation of open access. This situation has however changed over the past two decades, with the establishment of new legislation for the management of marine resources and areas (1984), and with the strengthening of the agencies responsible for marine resource management, notably the Department of Fisheries in the Ministry of Agriculture, Forestry and Fisheries.

### Institutional and legal context

The current institutional and legal context for biodiversity conservation and management is characterised by the following features:

- ▶ management responsibilities for biological resources are placed primarily within the Ministry of Agriculture, Forestry and Fisheries, but there is no formal mechanism for coordination among its various departments concerned with biodiversity issues;
- ▶ sectoral management agencies are strong, and have clear mandates for the management of biological diversity in specific sectors (forestry and wildlife, fisheries and marine resources, and agriculture);
- ▶ research and data management programmes and activities are insufficient to meet the information needs for biodiversity conservation and use in the country;
- ▶ legal instruments for the conservation and management of publicly owned resources appear generally adequate, but mechanisms for conservation and management of biodiversity on private property are weak;

- ▶ a new Physical Planning and Development Act is being considered, which will replace the existing legislation concerning physical planning and development control. The new Act will include Regulations governing the conduct of Environmental Impact Assessments;
- ▶ even when adequate legal instruments are in place, enforcement is often lacking;
- ▶ the country has established a small number of innovative participatory and collaborative natural resource management arrangements which provide examples of institutional arrangements which may be suitable to other areas.

### Policy context

The policy context within which biodiversity conservation and management programmes are designed and implemented is characterised by the following:

- ▶ generally, low priority is given to biodiversity issues, which are not mentioned in the main national planning and policy making instruments. This reality is reflected in insufficient funding for biodiversity programmes;
- ▶ there is no overall policy framework to guide the conservation and management of biological diversity, except for the plan for a System of Protected Areas, which was prepared in 1992 under the auspices of the St. Lucia National Trust, but which has not been formally approved by government;
- ▶ there is no overall land and resource use plan. There are physical development plans, at various stages of formulation, for specific regions;
- ▶ policy guidance on biodiversity issues is provided, primarily, by the legislation governing individual sectors (Fisheries Act; Wildlife Protection Act; Forest, Soil and Water Conservation Ordinance), and by the relevant sectoral management plans (1992-2002 Forest Management Plan);
- ▶ there are a number of other sectors where policies impact significantly on the country's biodiversity. Indeed, it can be observed that the status of that diversity is determined, to a large extent, by prevailing policies in other sectors, namely:
  - \* agricultural development policies, which determine land use patterns as well as the use of selected species and varieties;
  - \* taxation policies and fiscal incentives, which have an impact on land use patterns and on technologies used in various sectors;
  - \* development control policies and procedures, which regulate many aspects of the construction and industrial sectors;
  - \* tourism development policies, particularly in relation to land use;

- ▶ regional and international agreements also provide policy guidance and direction, sometimes in very specific terms. Conventions of which St. Lucia is a contracting Party and which relate directly to biological diversity are as follows (see Country Study Report for detailed listing and description of status):
  - \* the United Nations Convention on Biological Diversity;
  - \* the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES);
  - \* the United Nations Convention on the Law of the Sea, and the Agreement for the Implementation of the Provisions of the UN Convention on the Law of the Sea Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks;
  - \* the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, known as the Cartagena Convention;
  - \* the Convention Concerning the Protection of the World Cultural and Natural Heritage;
  - \* the International Convention for the Regulation of Whaling;
  
- ▶ there exist some discrepancies between the national frameworks and instruments on the one hand, and the requirements of international agreements on the other.

A summary of issues, which are described in greater detail in the Country Study Report, is presented in the following appendices:

Appendix 1: trends affecting St. Lucia's biodiversity and causes of these trends;

Appendix 2: relationship between biodiversity and the main social and economic sectors.

#### **4. AIM AND OBJECTIVES**

The aim of the National Biodiversity Strategy and Action Plan (NBSAP) is to optimise the contribution of biological diversity to the sustainable economic, social and cultural development of St. Lucia.

The objectives of the strategy and action plan are to:

- ▶ conserve the country's diversity of ecosystems, species and genetic resources;
- ▶ promote sustainable uses of these resources in support of human development;
- ▶ encourage the equitable distribution of the benefits derived from the use of biodiversity;

- ▶ facilitate the participation of people and institutions in the management of biodiversity.

In order to achieve these objectives, the present strategy and action plan has been developed for the specific purpose of:

- ▶ providing a mandate and a set of policy directions to management authorities, developers and policy-makers;
- ▶ giving a reference point to government, non-governmental organisations, community-based groups and the general public to assist in the design and implementation of programmes and actions related to biodiversity;
- ▶ helping garner support, internally and externally, for the implementation of projects related to biodiversity.

## **5. APPROACH**

An analysis of the issues and trends affecting St. Lucia's biological diversity reveals that they are the products of the patterns of development and management which have prevailed throughout the country's modern history. The vision for St. Lucia's biodiversity, as expressed in section 2 above, demands the adoption of a new approach to development, based on the principles of equity, sustainability and social justice.

A shift towards this new approach to development will require new management systems, at all levels, characterised by the following elements:

- ▶ *equity*: all stakeholders should have the opportunity to access the country's natural capital, and to generate benefits from the use of natural resources;
- ▶ *participation*: all sectors of society should have the opportunity to participate in the formulation and implementation of decisions which affect their lives and their future;
- ▶ *institutional collaboration*: management requires functional linkages and collaborative approaches among a wide range of institutions within government and civil society;
- ▶ *decentralisation and co-management*: whenever desirable and possible, management arrangements should be decentralised, and institutional collaboration should be governed by formal co-management agreements;
- ▶ *transparency*: the rationale for policies and decision, as well as the modalities of their implementation, should be accessible to all within society;

- ▶ *acceptance of change*: natural and human systems are constantly changing, and this reality must be accepted by all. There is no static condition, and change must be managed and built upon;
- ▶ *use of appropriate time frames*: management systems must recognise that the adoption of new management systems may take time, and that realistic time frames must be used in all interventions;
- ▶ *building of resilience*: there is need to build the capacity of systems and institutions to cope with and adapt to change;
- ▶ *enhancement of diversity*: in both natural and human systems, diversity is considered an asset and a guarantee of resilience and flexibility. It must therefore be maintained and enhanced whenever possible;
- ▶ *optimal sustainable use*: uses of biological resources must be sustainable. They must also be optimised, in order to ensure that they contribute as fully as possible to social and economic development;
- ▶ *increase in productivity*: in many instances, the conservation of biological diversity requires that systems be made more productive, to maximise benefits and reduce undesirable impacts;
- ▶ *respect for and reliance on experience and tradition*: in the design and implementation of new systems, there is need to build on the assets of the past, in a realistic manner;
- ▶ *innovation*: at the same time, there is need for new approaches and tools, and for technological innovation in all aspects of production and management;
- ▶ *flexibility in design and implementation*: management systems must not be rigid, and must be able to adapt to rapidly changing conditions;
- ▶ *provision of alternatives*: in cases where uses and practices are considered undesirable and may not be continued, there is need to offer realistic alternatives which guarantee, to the maximum extent possible, continued access to goods and services;
- ▶ *provision of benefits and incentives*: management must be based on voluntary compliance and self-enforcement, and is therefore helped by the provision of direct social and economic benefits and incentives to people;
- ▶ *initiative and use of forward planning*: management must not be reactive, it must be based on clear objectives and be able to anticipate issues and needs;

- ▶ *multi-disciplinarity and use of cross-sectoral approaches*: human and natural systems are so complex that their management needs to benefit from all skills and sources of knowledge, and should be based on an appreciation and understanding of that complexity;
- ▶ *preference for in situ conservation*: in all conservation activities, preference must be given, whenever possible, to maintaining species and genetic diversity in their natural state, rather than creating artificial conditions;
- ▶ *use of knowledge*: all management systems and activities must be based on the best available information, and appropriate measures must therefore be taken to ensure that such information is generated and made accessible;
- ▶ *precaution*: the management of natural systems must be guided by the precautionary principle, which demands that preference be given for uses and interventions which reduce risk and are least likely to provoke irreversible changes;
- ▶ *national interest, global responsibility*: all management systems must be guided by the national needs, but must also assume the country's responsibility to contribute to regional and international conservation objectives.

## **6. CONDITIONS AND REQUIREMENTS**

The National Biodiversity Strategy and Action Plan must be part of a broader national initiative aimed at achieving environmental and economic sustainability, enhancing the quality of the lives of all St. Lucians, and preserving the nation's natural capital. It is recognised that the objectives outlined in section 4 above will not be met, and that the programmes described below will not be realised, in the absence of a radical shift in attitudes and approaches, and without the definition of a new policy framework for environmental management and sustainable development in the country.

This policy framework must recognise the critical role played by natural resources in supporting social and economic development, and should therefore integrate the conservation imperatives within the broader development agenda. It must accept that the quality and sustainability of all development processes will depend on the proper conservation and management of the country's fragile natural assets.

Effective implementation of the NBSAP will therefore require:

- ▶ the formulation, on the basis of previous studies and plans, notably the National Environmental Action Plan (NEAP), of a national environmental policy;
- ▶ the establishment of a national policy and coordinating body to guide implementation, monitoring and review of that national policy;

- ▶ the formulation, adoption and implementation of a comprehensive land policy to guide spatial development, land use and terrestrial resource allocation.

In addition, the success of the NBSAP will depend on the simultaneous adoption and implementation of suitable policies and programmes in key sectors, notably:

- ▶ *watershed and water resources management*: there is need for a comprehensive national policy to guide the management of watersheds and water resources, and for the formulation and implementation of integrated management plans for critical watershed areas;
- ▶ *agriculture*: there is need for a progressive transformation of the agricultural sector, with the diversification of production, the reduction of negative environmental impacts, and the strengthening of linkages between agriculture and other sectors of the economy, notably tourism;
- ▶ *tourism*: as the fastest growing sector of the economy, tourism needs to be guided by policies which guarantee the integrity of the natural resource base, increase the sustainable use of natural and cultural resources in support of tourism development, create positive linkages with people and their culture, and enhance the relationship between tourism and other sectors;
- ▶ *fisheries*: there is need to manage and develop the sector through the modernisation of fishing techniques, facilities and gear, increased production, the advancement of the social status of fishing families and communities, and the enhancement of linkages with other sectors of the economy.

## **PROGRAMME**

In order to achieve the aim and objectives of the strategy and action plan, action is needed in five broad programme areas, which are considered to be mutually reinforcing, and thus require simultaneous implementation.

### Planning and policy formulation

The *objectives* of this programme area, which relates to the provisions of Articles 6, 15 and 19 of the CBD, are to:

- ▶ guide all actions in the field of biodiversity conservation and management;
- ▶ ensure that concerns for biodiversity conservation and management are properly integrated into other relevant policies and policy instruments.

*Activities* to be undertaken under this programme area are as follows:

- ▶ on-going assessment of needs, and formulation of programmes and projects to respond to these needs;
- ▶ review of policies and legal instruments related to or impacting on biological diversity, to minimise or eliminate negative impacts, and to contribute, whenever possible, to the conservation and management of biodiversity;
- ▶ review of copyright legislation, to ensure that it provides for the registration of patents and for the protection of Intellectual Property Rights (IPR). The Caribbean Task Force which comprises the Inter-American Institute for Cooperation in Agriculture (IICA), the Organisation of Eastern Caribbean States (OECS), the CARICOM Secretariat and governments of the region is currently in the process of developing a legal framework for IPRs in agriculture;
- ▶ review of issues associated with biosafety and the potential impacts from the introduction of genetically modified organisms, and participation discussions of the Biosafety Protocol under the CBD;
- ▶ formulation of new and specific policy instruments when needed;
- ▶ formulation of area and watershed management plans for all critical zones;
- ▶ identification and introduction of fiscal and other incentives in support of conservation and sustainable use.

*Responsibility for coordination and implementation* will rest with the Ministry of Agriculture, Forestry and Fisheries and the Department of Environment of the Ministry of Planning, Development, Environment and Housing (or its successor in title and authority for environmental matters), in collaboration with all other relevant agencies at the governmental and non-governmental levels. Responsibility for legal review, notably as it relates to patents and property rights, will rest with the Attorney General's Chambers.

### Research and monitoring

The *objectives* of this programme area, which relates to the provisions of Articles 7 and 12 of the CBD, are to:

- ▶ assess the status of biodiversity and understand the causes of biodiversity loss;
- ▶ provide the information needed for the formulation of programmes, actions, policies and priorities;
- ▶ contribute to the development of new knowledge on biological diversity at the local, regional and global levels.

*Activities* to be undertaken under this programme area are as follows:

- ▶ study of the threats affecting, and likely to affect, biological diversity, and identification of conservation priorities;
- ▶ study, design and implementation of a comprehensive monitoring programme, focusing in particular on: populations of threatened, endemic and endangered species; area coverage and status of natural ecosystems; status and evolution of agro-ecosystems;
- ▶ design of a research programme identifying priorities for research, and defining guidelines and procedures aimed at maximising the benefits generated from research activities;
- ▶ liaison with scientific and research institutions, including universities, to guide the contributions of external researchers, develop collaborative scientific programmes, and ensure that the results of research by external agencies are always returned and made available to St. Lucia;
- ▶ maintenance and management of a computerised data base and library with all published materials relevant to the conservation and management of biological diversity in St. Lucia.

*Responsibility for coordination and implementation* will rest with the Ministry of Agriculture, Forestry and Fisheries and the Department of Environment of the Ministry of Planning, Development, Environment and Housing (or its successor in title and authority for environmental matters).

### Conservation

The *objectives* of this programme area, which relates to the provisions of Articles 8 and 9 of the CBD are to:

- ▶ maintain and enhance the genetic diversity within species;
- ▶ preserve rare, endangered and other important species;
- ▶ maintain representative samples of all ecosystems;
- ▶ restore degraded ecosystems whenever desirable and feasible.

Many of the *activities* to be undertaken under this programme area fall within the framework of the national plan for a System of Protected Areas which was prepared in 1992 by the St. Lucia National Trust in collaboration with a wide range of governmental and non-governmental agencies. The implementation of this plan therefore remains the primary vehicle for the conservation and management of natural ecosystems and wildlife in the country.

Other activities related to the conservation of species and genetic diversity *in situ* will include:

- ▶ development of collaborative agreements with selected land owners to ensure the conservation of ecosystems and habitats under private ownership;
- ▶ development of collaborative agreements with selected farmers to ensure the conservation of breeds and cultivars;
- ▶ design and implementation of restoration programmes for critical habitats, notably mangroves;
- ▶ creation and management of artificial habitats, such as artificial reefs, whenever appropriate.

With respect to *ex-situ* conservation, the following activities will be undertaken:

- ▶ creation and management of gardens of trees as well as other medicinal, ornamental and other useful plants;
- ▶ creation of zoos and other facilities for breeding endangered fauna;

- ▶ collaboration with foreign institutions when additional skills and resources are needed to ensure that *ex-situ* conservation is effective;
- ▶ *in vitro* conservation of plant germplasm;
- ▶ where feasible, establishment of field gene banks;
- ▶ maintenance of livestock stations for breeding and distribution of animal germplasm.

*Responsibility for coordination and implementation* will rest with the Ministry of Agriculture, Forestry and Fisheries and the Department of Environment of the Ministry of Planning, Development, Environment and Housing (or its successor in title and authority for environmental matters). Responsibility for the design and implementation of specific activities will rest with each of the participating agencies. With respect to the establishment and management of protected areas, these responsibilities will be allocated as stipulated in the System of Protected Areas.

#### Sustainable use

The *objectives* of this programme area, which relates to the provisions of Articles 10 and 14 of the CBD, are to:

- ▶ generate revenue and benefits from the use of biological resources;
- ▶ ensure that patterns of resource use are sustainable;
- ▶ guarantee the equitable sharing derived from the access to and use of biological resources;
- ▶ maximise the contribution of biodiversity to the achievement of priority objectives of national development.

*Activities* to be undertaken under this programme area are as follows:

- ▶ implementation of the national plan for a System of Protected Areas;
- ▶ design and implementation of a programme on organic farming;
- ▶ design and implementation of a programme on nature-based tourism;
- ▶ design and implementation of a programme on the sustainable use of biological resources and products;

- ▶ provision of training, extension and capacity-building services to users of biological resources, particularly those who depend on such resources to sustain their livelihoods, in order to enhance their ability to access and use resources in a secure and sustainable manner.

*Responsibility for coordination and implementation* will rest with the various participating agencies as appropriate.

### Education and awareness

The *objectives* of this programme area, which relates to the provisions of Article 13 of the CBD, are to:

- ▶ ensure that policy formulation processes make effective use of all available information;
- ▶ create full awareness of the value and contribution of biodiversity to human development;
- ▶ provide materials in support of formal and informal education;
- ▶ encourage public participation in biodiversity conservation and sustainable use.

*Activities* to be undertaken under this programme area are as follows:

- ▶ dissemination of information to technocrats and policy makers;
- ▶ public awareness campaigns;
- ▶ educational programmes with schools, including the preparation and dissemination of materials;
- ▶ training of trainers and media personnel;
- ▶ development and operation of a system to collect, process and disseminate information on biodiversity issues and activities to the media, policy-makers, government agencies, community groups, and other target groups.

*Responsibility for coordination and implementation* will rest with the Ministry of Agriculture, Forestry and Fisheries and the Department of Environment of the Ministry of Planning, Development, Environment and Housing (or its successor in title and authority for environmental matters), working in close collaboration with a range of partners, including the Ministry of Education, the Government Information Service, media houses and other partners.