

8. IMPLEMENTATION

Institutional arrangements

In accordance with the provisions of Article 4, 6 and 18(4) of the CBD, the design and operation of improved institutional arrangements for the conservation and management of the use of biodiversity should be guided by the principles identified in section 5 above, and notably by the following directions:

- ▶ *coordination*: there is need for improved coordination of policies and activities relevant to, or impacting on, biological diversity, as many of the problems currently observed result from the fragmentation of policy instruments and from the absence of effective coordination among actors;
- ▶ *collaboration*: there is need to establish effective partnerships among governmental and non-governmental partners, in order to mobilise the resources available from the public and private sectors, and to decentralise management authority;
- ▶ *effectiveness*: effective coordination and collaboration demand that overlaps in institutional responsibilities be avoided, and that authority be clearly allocated. In addition, individual management agencies must be allowed to perform their responsibilities fully.

In order to meet the expressed need for improved coordination, the Government of St. Lucia will establish, under the auspices of 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), a mechanism which will have the responsibility:

- ▶ to coordinate the implementation, monitoring and review of the National Biodiversity Strategy and Action Plan, including the mobilisation of funding;
- ▶ to oversee, support, and, whenever appropriate, conduct activities and programmes to study, and monitor the status of, biological diversity;
- ▶ to design and implement national awareness and education programmes;
- ▶ to provide support to governmental and non-governmental agencies participating in the implementation of the National Biodiversity Strategy and Action Plan.

This mechanism could be constituted as a permanent or *ad hoc* committee, and should comprise representatives of government agencies, non-governmental organisations, community-based organisations, scientific bodies and natural resource user groups.

In the event that a National Environmental Commission or similar body is established, the mechanism created to coordinate the implementation of this National Biodiversity Strategy and Action Plan should be placed under its umbrella.

Legal instruments

The implementation of the National Biodiversity Strategy and Action Plan will rest primarily on the appropriate and effective enforcement of existing legislation. This will be made possible through:

- ▶ a greater involvement of law enforcement institutions in matters of biodiversity management and conservation, through increased collaboration with natural resource management agencies;
- ▶ a greater awareness of and sensitivity to biodiversity issues on the part of the judiciary;
- ▶ the participation of communities and non-governmental organisations in selected activities in support of enforcement;
- ▶ the development of specific regulations whenever they are needed.

At the same time, the agencies involved in the implementation of the National Biodiversity Strategy and Action Plan will work towards the adoption of new instruments, including new legislation to address issues associated with the destruction of biological resources on private lands, and to govern the conservation and use of wild plants and animals. It will also study the desirability and feasibility of:

- ▶ preparing a comprehensive piece of legislation to address a range of environmental issues and rationalise environmental management;
- ▶ establishing an environmental court to deal with offenses related to the environment;
- ▶ establishing formal mechanisms for collaborative enforcement among two or more management authorities.

Another important instrument in the implementation of the National Biodiversity Strategy and Action Plan will be the development and adoption of standards to guide the use of biological resources and the conduct of activities which may impact on these resources.

These legal instruments will all be consistent with the provisions of the CBD.

Organisational development and capacity building

The implementation of this National Biodiversity Strategy and Action Plan requires that all partners in the process have the full capacity to play their role effectively, as stipulated by the CBD, notably in Articles 12(a), 18(4) and 18(5). There is also need to ensure access to appropriate technology, as provided in Article 16.

In many respects, the approach described above calls for a shift in the role of agencies, with government departments acting as facilitators and supporters of processes which involve a number of public and private sector partners.

There is also need for training activities aimed at:

- ▶ governmental agencies, notably in the areas of participatory planning, conflict management, protected area management, research and resource monitoring, and conservation;
- ▶ community-based and non-governmental organisations, notably in the areas of resource monitoring, technologies for sustainable use, enforcement and public education;
- ▶ the private sector, notably with respect to technologies for sustainable resource use.

Community-based and non-governmental organisations involved in biodiversity management and conservation must also have improved access to the technical expertise available within governmental agencies and academic institutions.

Financing

In accordance with the provisions of Articles 11, 20(1), 20(6) and 21(4) of the CBD, a number of principles will guide the financing of biodiversity conservation and management programmes:

- ▶ financing must be seen in the broader context of the economic policies and instruments that will be used to promote biodiversity conservation and sustainable use;
- ▶ user fees will constitute an important source of revenue, but will also be designed as incentives for conservation and sustainable use;
- ▶ all sectors and stakeholders have a role to play in contributing to the cost of biological diversity conservation and management;
- ▶ because of the status of these resources, the financing of biological diversity conservation and management however remains a very special responsibility of the state;

- ▶ the international community has a key role to play in supporting St. Lucia's effort to manage its biological resources.

A number of instruments will therefore be put in place and utilised, including fees, grants, licenses, permits and taxes. While the "polluter pays" principle may also be applied, with the imposition of fines, measures will be taken to prevent it from being used by offenders as a license to impact negatively on biological resources.

Agencies responsible for the implementation of the National Biodiversity Strategy and Action Plan will also explore the desirability and feasibility of establishing a funding mechanism, which could be devoted solely to biodiversity or could encompass a broader environmental mandate, which could assist greatly in the generation and management of resources for the implementation of the strategy and action plan.

The possibility of establishing a funding mechanism for community initiatives in biodiversity conservation will also be explored, with particular attention to the option of capitalising such a fund through a partnership between government, the private sector and donor agencies.

Monitoring and evaluation

As stipulated in Articles 7 and 14 of the CBD, monitoring and evaluation will be an integral part of the implementation of the National Biodiversity Strategy and Action Plan. The following elements will therefore be put in place:

- ▶ indicators of sustainability, equity, effectiveness and efficiency;
- ▶ a national data base on biodiversity, covering areas such as: geographic coverage of critical systems, habitats and species populations, trends and threats;
- ▶ monitoring programmes at the national and local levels;
- ▶ participation of communities and non-governmental partners in the design and implementation of monitoring programmes;
- ▶ periodic evaluation of impacts of management;
- ▶ periodic publication of reports on the state of the environment, with an identification of trends and issues for the future.

Regional and international cooperation

The implementation of the National Biodiversity Strategy and Action Plan will require effective collaboration with a range of regional and international partners, as recommended by Articles 5, 17, and 18 of the CBD.

The objectives of this collaboration will be:

- ▶ to guarantee the compatibility of St. Lucia's efforts with those of other countries and regions;
- ▶ to facilitate the sharing of skills and expertise;
- ▶ to generate support for national activities and institutions, notably in the areas of training, research and information management, and project implementation.

The implementing agencies will therefore maintain and enhance their linkages with international institutions involved in biodiversity (for example IUCN - the World Conservation Union and the United Nations Environment Programme), bi-lateral agencies interested in supporting the conservation and sustainable use of St. Lucia's biodiversity, external non-governmental organisations, regional institutions and programmes, and research and academic institutions. They will also establish and maintain linkages with the national initiatives of relevant international organisations, notably UNESCO and its National Commission's Sub-Commission on Science and Technology.

9. PROJECTS [1\$US=2.6882 Eastern Caribbean (EC) Dollars]

Project 1: Policy, institutional and legislative review

Rationale: As demonstrated by the studies and consultations carried out as part of the process of formulation of the NBSAP, there is need for a comprehensive policy framework to guide biodiversity conservation and management, there are critical gaps and overlaps in institutional arrangements, and the legal framework is inadequate to achieve the objectives of the strategy and action plan.

Objectives: The objectives of this project are to:

- provide an adequate and effective policy framework;
- identify the most appropriate institutional arrangements for effective biodiversity conservation and management;
- identify the legal requirements for effective policy implementation, including the harmonisation of laws, the preparation of new laws and regulations, and the refinement of enforcement mechanisms;
- enhance the capacity of relevant institutions to implement policy and to manage the use of biological resources effectively.

Activities: The main steps to be followed in this project are as follows:

- review of the National Environmental Action Plan (NEAP) and its recommendations, particularly as it relates to the establishment of the National Environmental Commission (NEC);
- study of the policy implications of the National Biodiversity Strategy and Action Plan;
- identification of policy issues requiring consideration or clarification;
- participatory formulation of specific policies when needed (including a policy on wildlife, for which a need has already been clearly identified);
- review of current institutional arrangements and formulation of recommendations, including the preparation of capacity-development plans for key organisations;
- study of the desirability and feasibility of establishing an institution or mechanism specifically dedicated to financing biodiversity programmes;

- review of current legal instruments, identification of gaps and overlaps, and formulation of recommendations;
- review of international conventions, their relevance to national needs, and the desirability of modifying St. Lucia's participation in these international instruments;
- determination of the feasibility and desirability of establishing a special court to deal with environmental offenses;
- consultation with land owners and other stakeholders, and identification of the most appropriate instruments to ensure the conservation of the biological diversity on private lands;
- development of new laws and regulations when needed (notably for the management of wild plants and animals).

Total estimated costs: EC\$ 85,000/US\$ 31,620.

Implementation and institutional arrangements. This project should be implemented under the auspices of 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), by a broad-based committee established specifically for this purpose.

Project 2: Identification and selection of methods, tools, baseline variables, indicators and parameters needed for effective monitoring

Rationale: There is need for serious and effective monitoring of the status of biological diversity and the trends affecting its components, as this information is indispensable for management. Monitoring activities are typically based on carefully designed and selected instruments which provide the necessary information in the most effective and efficient manner. Considering this strategy and action plan's emphasis on participation, it is also essential to select parameters and indicators which can easily be understood and applied by non-scientists, and to devise mechanisms and activities which would document and use popular environmental knowledge.

Objectives: The objectives of this project are to:

- develop a national research focal point for biodiversity resource investigation;
- establish research protocols for investigations and the dissemination of information;
- implement mechanisms for the facilitation of coordination and collaboration between agencies concerned with biodiversity research.

Activities: The main components of this project are as follows:

- conduct a comprehensive review of research needs and compile current and proposed research initiatives in biodiversity investigations. This includes the identification of deficiencies and strengths within agencies, and the definition of areas of overlap between agencies concerned with data collection;
- identify research priorities and opportunities, with particular attention to the need to understand current and future threats to biological diversity, their root causes, and the measures required to manage them;
- draft a national policy on biological diversity research along with the development of research protocols, standards and mechanisms for dissemination of information;
- establish a national focal point for the coordination and streamlining of research initiatives between concerned agencies. This focal point will have strong institutional linkage with the Sir Arthur Lewis Community College and the University of the West Indies.

Total estimated costs: EC\$ 900,000/US\$ 334,797.

Implementation and institutional arrangements: This project will be a joint effort between facets of all local agencies concerned with research and will be spearheaded by 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 collaboration with all other ministries and agencies concerned with scientific research and monitoring in relevant disciplines. The project will be phased over 4 years from initial assessments to development of research policy to establishment of the national research focal point.

Project 3: Comprehensive inventory of terrestrial biological resources

Rationale: There is a pressing need to compile data on local floral and faunal diversity and terrestrial ecosystems, with a view to assessing their status and identifying existing and potential threats to their survival. Little work has been carried out in this area and hence ecological relationships between species and the impacts of human interactions are poorly understood. Such a project will yield important baseline data upon which to develop effective management strategies, taking into account social and developmental issues and concerns.

Objectives: The objectives of this project are to:

- provide baseline data on the status of floral and faunal biodiversity on St. Lucia for monitoring and management;

- identify species and habitats that are currently endangered and develop management strategies to ensure population viability and habitat maintenance;
- expand the knowledge base on the uses and potential economic/social uses of local flora in their application in areas such as medicine, craft, soil and water conservation;
- increase public awareness on the need to conserve populations and habitats.

Activities: The main components of this project are as follows:

- identification of and consultation with relevant agencies and groups concerned with this data to assist in development of terms of reference for the project;
- development of the methodology for assessment of forest biodiversity; spatial characterization of vegetation types (aerial mapping) and on-ground survey assessment;
- setting criteria and standards, and identification of technologies for data capture;
- training of technicians and resource persons attached to the project;
- aerial mapping of all natural ecosystems on St. Lucia; subsequent conversion to digital (GIS) format for storage and analysis;
- ground survey for detailed assessment of ecological parameters;
- compilation of the active and latent social/economic importance of forest resources (medicinal, artisanal, etc.);
- processing and treatments of data and development of database on biological resources;
- dissemination of research results.

Total estimated costs: EC\$ 1.5 million/US\$ 557,994.

Implementation and institutional arrangements. This is a long-term initiative which will require a phased approach. It should be coordinated by the Department of Forestry, who should assume responsibility for the preparation of the project documents.

Project 4: Inventory of marine and coastal biodiversity

Rationale: In general, studies relating to biodiversity within coastal and marine areas focus on the wider Caribbean region rather than on specific islands. Hence, there is little, if any, information on the existence of indigenous, rare and endangered species in the coastal and marine areas of St. Lucia. In order to effectively protect and manage such biodiversity, there is first a need to conduct an inventory of biological resources in areas of potential interest. This inventory would provide baseline data essential to the monitoring and management of coastal and marine resources.

Objectives: The objectives of this project are to:

- provide a status report on all biological resources within the areas of focus;
- establish baselines required for effective monitoring and management of biological resources.

Activities: This project will be implemented as follows:

- acquisition of appropriate research team;
- identification of the extent of the study area;
- design and implementation of project;
- establishment of data base;
- production of document on findings;
- dissemination of research results.

Total estimated costs: EC\$ 850,000/US\$ 316,197

Implementation and institutional arrangements: This project will be coordinated by the Department of Fisheries.

Project 5: Assessment of the stocks of the Queen Conch, *Strombus gigas*

Rationale: The Queen Conch, *Strombus gigas*, locally known as lambi, is an important commercial species. Fish landing data and surveys conducted by the Department of Fisheries indicate that population density is declining and that the population may become threatened if a suitable management strategy is not implemented in the very near future.

It is thus necessary that the current status of the conch population, as well as the fluctuations over time, be determined island wide.

Objectives: The objectives of this project are to:

- determine the major conch habitats and population densities around the island;
- determine current and past fishing efforts;
- establish an effective management system.

Activities: The main activities to be implemented in this project are as follows:

- conduct, over an initial period of three years, quarterly underwater surveys of conch habitats, with emphasis on conch population locations and densities, impact of fishing effort, and environmental threats;
- conduct consultations with fishers and other stakeholders to review existing management arrangements and define new strategies.

Total estimated costs: EC\$ 50,000 per year/US\$ 18,600 per year.

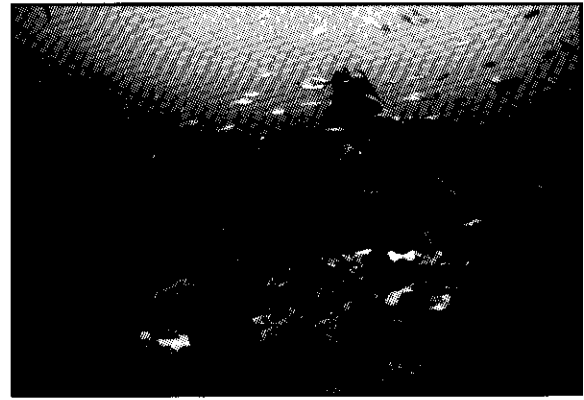
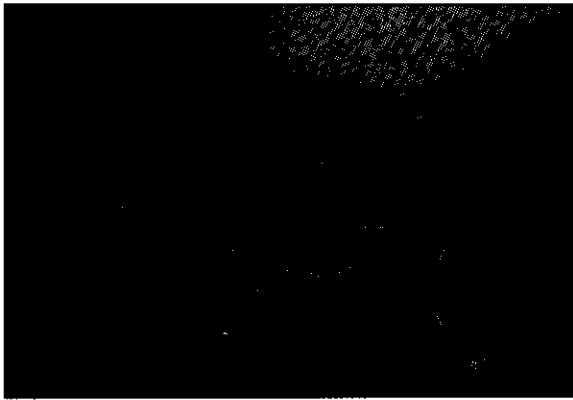
Implementation and institutional arrangements: This project will be implemented by the Department of Fisheries in collaboration with fishing communities. In the formulation of new management arrangements, the option of establishing formal co-management agreements will be considered.

Project 6: Assessment and management of wetlands

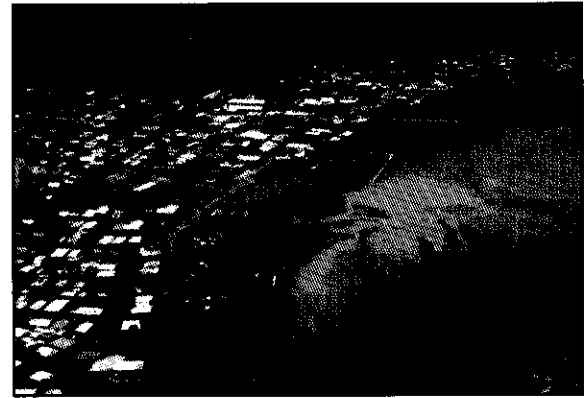
Rationale: Wetlands, including mangroves and other formations, are severely under threat from a variety of impacts, including changes in drainage patterns, land reclamation, waste disposal, coastal erosion and wood harvesting. There is need to conserve the remaining samples of these habitats, and this can only be achieved if there is a strong rationale for that conservation.

Objectives: The objectives of this project are to:

- assess the current status of wetlands in St. Lucia;
- identify the sources of impact and the issues requiring management;
- provide the basis for the development of conservation and management plans and arrangements for all remaining wetlands in St. Lucia;
- develop the economic and social argument to support policy decisions related to the future of wetlands.



A healthy marine environment



Activities on the land can have negative effects on the marine environment



Coral bleaching—an increasingly common phenomenon



Mangroves can help reduce the amount of sediment entering the marine environment

Activities: The main steps to be followed in this project are as follows:

- surveying and mapping of all wetlands;
- field surveys to assess status, identify stakeholders and management issues, and collect data on bio-physical conditions, uses and impacts;
- participatory planning processes to define management plans and establish new management arrangements;
- monitoring of the implementation of the mangrove management plans, and of the status of wetlands over time.

Total estimated costs: EC\$ 80,000/US\$ 29,760.

Implementation and institutional arrangements: This project will be implemented jointly by the Ministry of Agriculture, Forestry and Fisheries through its Departments of Fisheries and Forestry, working in collaboration with the St. Lucia National Trust, the Ministry of Communications, Works, Transport and Public Utilities, and the Ministry of Community Development, Culture, Local Development and Co-operatives. Communities living near wetlands and making use of these resources will also be involved.

Project 7: Assessment of freshwater biological resources

Rationale: Little is known about freshwater biological resources in St. Lucia, and freshwater ecosystems are possibly the most threatened on the island at this time. The real impacts of these factors (pollution, collapse or alteration of river banks, mining for sand and stones, sedimentation) are not properly documented and assessed, largely because of the absence of baseline data. There is a legitimate fear that biodiversity loss may only be realised when population numbers have fallen below those levels at which recovery remains possible.

Objectives: The objectives of this project are to:

- identify freshwater biological resources;
- establish a baseline of data (species distribution, migratory patterns, population densities, breeding patterns);
- establish management systems whenever required.