

Executive Summary

On May 14, 1997, Barbados signed the United Nations Convention to Combat Desertification and Drought. The Convention came into force for Barbados on 14 August 1997.

This Convention is very important to Barbados for two reasons:

1. The island experiences extreme cases of soil erosion in the Scotland District area
2. The island is considered to be a water scarce country by the United Nations Development Programme (UNDP) and the Food and Agriculture Organisation (FAO)

All measures which Barbados currently has in place to combat desertification and drought were all developed prior to Barbados' involvement with the UNCCD. Barbados is now in the process of preparing its' National Action Plan in accordance with UNCCD principles.

ES 1. Strategies Established Within the Framework of Sustainable Development Plans and/or Policies

The Government of Barbados has put in place policies and programmes aimed at achieving sustainable development in accordance with the principles of Agenda 21.

In Barbados, the issue of desertification is addressed through policies on land resources. A synopsis of the relevant plans and policies pertaining to this area are given below.

Draft National Physical Development Plan (1998)

This document is intended to provide a vision for the future growth and development of the Nation by setting out policies to guide relationships among land uses, community facilities and physical infrastructure.

Area Development Plan

The ADP is a project undertaken by the Town & Country Development Planning Office which examines agriculture and non-agricultural land classes, as well as the future land use policies affecting agricultural land.

The National Park Development Plan 1998 (Final Draft)

This plan seeks to promote land management within the designated park boundaries in such a way that the biodiversity of the various ecological systems are preserved and enhanced for the benefit and enjoyment of the Barbadian society. The Scotland District, an area which experiences severe land degradation, is encompassed in this plan.

The Environment and Natural Resources Management Plan (1998)

This plan seeks to address the issue of sound use and development of all natural resources in the island in a manner that is harmonious with the natural ecosystems.

The Medium Term Macro-Economic Strategy (1996-1999)

Development policies enunciated in this document establish the Government of Barbados' intentions and expectations for each sector of the economy over the medium and long term.

Integrated Coastal Zone Management Plan (1998)

This plan addresses issues regarding land use and resource use in the agricultural sector. Run-off containing substances originating from the misuse of pesticides from agricultural production, contaminate water supplies and affect marine life.

Barbados Tourism Development Plan (1998)

The Tourism Development Programme sets out the framework for development of an integrated rural land use policy bringing greater tourism access and sustainable development to rural areas, such as the Scotland District.

National Tourism Policy

The National Tourism Policy addresses the issues of land degradation and water conservation as these resources are vital to the prosperity of the industry. The broad policy objective of this sector incorporates sustainable development principles through conservation of natural resources.

National Water Conservation Plan

The National Water Conservation Plan is currently undergoing its implementation phase. The measures adopted have been developed to attempt to maximise voluntary reductions, before moving to penalising measures, pressure reductions and system shutdown.

Desalination

There has been a steady increase in water consumption levels which can be attributed to growth in the economy and increased living standards. Facing the prospects of insufficient water to satisfy the Barbadian population, the Board of Directors of the Barbados Water Authority contracted a consultant in August 1995 to examine the feasibility of establishing a desalination facility in Barbados.

In August 1997, PPC examined a submission on a "Framework for the Development and Management of the Water Resources of Barbados" and accepted among other things, the recommendation that desalination was a viable option for augmentation of the BWA's potable water supply.

The principal constraints hindering Barbados from achieving a sustainable water supply for the next twenty years were identified as:

1. A lack of consistent and appropriate data upon which management decisions can be made; and
2. A lack of technically qualified personnel capable of interpreting that data and implementing the appropriate responses

The Emergency Drought Plan

This Plan identifies parameters, such as rainfall measurements, ground water measurements, salinity and weather data, that would be used to monitor and forecast and give the impact of

drought. The Emergency Drought Plan seeks to define the conditions under which a drought-induced water supply emergency exists and to specify the actions that are to be taken in response.

Legislation Review

The pieces of legislation of direct relevance to desertification include the Cultivation of Trees Act (1951), the Trees Preservation Act (1981) and the Soil Conservation (Scotland District) Act (1959). Previous studies on environmental legislation have all concluded that a more cohesive link needs to be made between the legislation as matters relating to similar issues are addressed over a number of statute areas.

ES 2. Institutional measures taken to Implement the Convention

To facilitate implementation of the UNCCD, Barbados appointed a National Focal Point and established a National Coordination Body. The Ministry of the Environment, Energy and Natural Resources was appointed as the National Focal Point and a Committee comprising members from various agencies closely associated with the issues of desertification and drought was convened by the Ministry and forms the National Coordination Body.

National Coordinating Body

The NCB acts as an advisory body and has the mandate to provide potential solutions to the problem of land degradation in the Scotland District first and foremost and to articulate and facilitate concrete actions utilising low technology and strong community based solutions, thus empowering users towards management.

Financial resources allocated to desertification in the Ministry of the Environment are made available from the biodiversity budget. In 2000, the allocated amount is 1/10 of the allocation for biodiversity under which the programme for desertification falls. The Ministry's budget for biodiversity ranges from BDS\$12,000 to BDS\$18,000 or US\$6,000 to US\$ 9, 000 annually. These funds are used for policy related issues and public awareness. Infrastructural work falls under the Ministry of Agriculture. In the 1997- 1998 budget, actual expenditure for structures was BDS\$702, 145 (US\$351, 072) and in 1998-1999 it was BDS\$840, 601 (US\$420, 300).

A work programme is currently being prepared to facilitate a more coordinated approach to the work of the NCB. The NCB currently does not have any databases of its own.

No specific national strategy or policy exists for strengthening national institutions and administrative capacity to ensure compliance with environmental laws and standards. However, under the EMLUP Study, recommendations were made to improve the environmental institutions, however due to lack of funds or human resources these recommendations can not be implemented.

ES 3. Consultation Process to Formulate the National Action Plan

Consultation with relevant stakeholders are held in order to facilitate the participatory approach to dealing with desertification and drought problems in Barbados. Further consultations are planned to assist in the preparation of the National Action Plan. One such consultation has

already taken place in the form of a National Workshop. The UNCCD Secretariat funded this workshop. The National Workshop identified three areas that were seen as requiring Action Plans and it is in these areas that the National Action Plan will focus. They are:

1. Agriculture

The relevant agencies represented at the workshop had the vision that agriculture remain a vital part of the development of the Scotland District, thus contributing towards the reduction in loss of topsoil and the prevention of land degradation. Economic activity through agriculture should be promoted so as to benefit the locals in the area.

2. Settlement

The management of settlement and associated activities as they relate to land degradation within the Scotland District needs to be addressed. The specific objectives of which would be to improve management of existing settlements, combatting degradation associated with settlements and rationalising and planning for present and future settlements.

2. Resource Use and Conservation

Conservation and appropriate use of water, arable land, sand, clay, oil, flora and fauna and people is the vision for this area.

The aim is to utilise an integrated information approach based on the available body of knowledge in conjunction with consultation with stakeholders, for use in an integrated management system.

ES 4 Participatory Approach to Combatting Desertification and Drought

In Barbados, much emphasis is being placed on public awareness and communication by the various sectors involved in the issues of desertification and drought.

In 1997, the National Conservation Commission agreed that a more co-ordinated approach should be taken regarding the planting and maintenance of trees. In an effort to increase forestation on the island, a committee was established to formulate plans on how best to involve and encourage the local people in the island wide planting of trees. The objectives of the Committee were:-

- I. To establish a national day for tree planting
- II. To sensitise the general public about the importance of trees
- III. To encourage community groups and schools to assist in the preservation of the environment
- IV. To establish an education programme for schools
- V. Reforestation

Water Conservation Programmes

The BWA is involved in public education programmes as they see it as an important part of any conservation programme. These programmes should be on-going but really only take effect during the drought.

Coastal Conservation Programme

The community surrounding Barclay's Park in St. Andrew were the main participants in this effort. The project was implemented between April 1998 and March 1999. The demonstration project focused on practical solutions to the threat of dune instability.

The purpose of the project was to establish a framework for a working partnership among business enterprise, the community, NGOs and Government for sustainable use and protection of dune systems in the island, and to put this partnership to work on practical activities.

Soil Conservation Programmes

The Soil Conservation Unit is based in the Scotland District and is the main government department responsible for this area. The SCU is involved in education of farmers with respect to encouraging sustainable farming practices. These practices include teaching them to keep the soil covered, incorporation of organic matter to assist in percolation, encouraging reduction in the use of fertilisers and incorporation of the principles of Integrated Pest Management into their practices.

ES 5. Financial Resources Allocated to Combatting Desertification and Drought

Currently any monies needed are obtained from the biodiversity budget. Some monies were allocated in 1999/2000 for public awareness activities and low cost community projects. Any other projects undertaken, were funded by monies obtained from the Convention Secretariat. For the financial year 2000/2001, funds are allocated for public awareness from the biodiversity budget, however it is foreseen that these will not be adequate to fully allow for the development of a comprehensive plan for implementation. Biodiversity has a total budget of BDS\$18000 (US\$9000) which has to be split among ten sub areas of which CCD is one. No money has been allocated to formulate the NAP, as this will be undertaken by the committee.

In addition to needing funding, Barbados is also lacking in some areas and requires more technical expertise. In general, personnel currently employed have experience in their various subject areas but require training in specific technical areas.

ES 6. Benchmarks and indicators utilised to measure progress

At the United Nations Summit on Environment and Development held in Rio de Janeiro in 1992, it was resolved that a core set of indicators be developed in order to measure and assess progress towards achieving sustainable development. This list of indicators comprises indicators applicable to the issue of land degradation in Barbados. These are:-

1. annual rates of erosion
2. downstream siltation
3. degree of flooding,
4. extent of activities threatening erosion,
5. extent of soil conservation measures employed
6. rainfall levels.

ES 7. Conclusion

A few areas can be identified as hindering Barbados' efforts to encourage effective environmental management and in so doing fully adopt the CCD:

- I. Lack of funding and technical expertise.
- II. Lack of inter-sectoral co-operation. The efforts of environmental agencies are dispersed, there needs to be a more co-ordinated approach to issues pertaining to the environment. information transfer among organisations and institutions also needs to be enhanced. A more cohesive programme needs to be encouraged among the environmental sector.
- III. Insufficient incorporation of environmental considerations into development proposals by the private sector.
- IV. Education of the general public is not widely seen as a priority issue. It should be realised that environmental education needs to be promoted at all levels.
- V. Development strategies have not given enough consideration to the limited and exhaustible nature of environmental resources.
- VI. The constant low priority given to environmental issues primarily due to the fact that those projects geared to bring in large economic incentives are usually those with possible negative environmental effects.

With the necessary aid, specifically monetary assistance to provide for increased human resources and project implementation, training of current staff and provision of equipment, Barbados would be well underway to implement projects geared towards mitigating the effects of desertification and implementing measures to assist in periods of drought.