

GRENADA, CARRIACOU & PETIT MARTINIQUE

NATIONAL REPORT

ON THE IMPLEMENTATION OF THE UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION AND/OR DROUGHT (UNCCD)

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ACRONYMS AND ABBREVIATIONS

ART	Agency for Rural Transformation
DFID	Department for International Development
FNPD	Forestry and National Parks Department
GOGCP	Government of Grenada, Carriacou and Petit Martinique
NGO's	Non-Governmental Organizations
GRENCODA	Grenada Community Development Agency
MOALFF	Ministry of Agriculture, Lands, Forestry and Fisheries
MOF	Ministry of Finance
MOHE	Ministry of Health and the Environment
NAWASA	National Water and Sewage Authority
NBSAP	National Biodiversity Strategy and Action Plan
NFAP	National Forestry Action Programme/Plan
OAS	Organization of American States
OECSNRMU	Organization of Eastern Caribbean States Natural Resources Management Unit
OECS	Organization of Eastern Caribbean States
NAPCD	National Action Plan to Combat Desertification
NEAP	National Environmental Action Plan
UNDP	United Nations Development Programme
NPEDP's	National Physical and Environmental Development Plans
NSC	National Steering Committee
NSDC	National Sustainable Development Council
UNCCD	United Nations Convention to Combat Desertification and/or Drought

TABLE OF CONTENTS

	Page
ABBREVIATIONS AND ACRONYMS	i
EXECUTIVE SUMMARY	1 - 6
CHAPTER ONE	7
1.0 INTRODUCTION	
1.1 UNCCD process in Grenada	
1.2 Structure and Content of Report	7
1.3 Data Collection	8
1.4 Definition of Terms	8
CHAPTER TWO	10
2.0 BACKGROUND INFORMATION ON GRENADA AND ITS LAND DEGRADATION PROBLEMS.	
2.1 Background	10
2.1.1 Location, Area	10
2.1.2 Climate	10
2.1.3 Geology, Topography, Soil	10
2.1.4 Population/ demography	11
2.1.5 Land Use	11
2.1.6 Macro Economic review	13
2.1.7 Economic Policy	14
2.2 Land Degradation Problems in Grenada Carriaxou & Petit Martinique	15
2.2.1 Grenada	15
2.2.2 Carriacou and Petit Martinique	17
2.3 Underlying causes of Land Degradation	17
CHAPTER THREE	21
3.0 STRATEGIES AND PRIORITIES ESTABLISHED WITHIN THE FRAMEWORK OF SUSTAINABLE DEVELOPMENT PLANS AND/OR POLICIES	
3.1 National Plans and strategies in other social and economic areas	21

3.1.1	Country Environmental Profile	21
3.1.2	National Environmental Action Plan	21
3.1.3	National Forests Action Programme/Plan	22
3.1.4	National Physical Development Plan	23
3.1.5	National Biological Diversity Strategy and Action Plan	23
3.2	Other Plans and Strategies	23
3.2.1	Ministry of Agriculture	23
3.2.2	Ministry of Tourism	25
3.2.3	Ministry of Health and the Environment	25
3.2.4	Ministry of Youth, Sports, Culture and Community Development	25
3.2.5	Non-Governmental Organizations	26
3.2.6	Carriacou	30
3.3	National Plans and Strategies developed before the UNCCD	26
3.3.1	Physical Development Strategy	26
3.3.2	Country and Town Planning Act	27
3.3.3	Plan for a System of Parks and Protected Areas	27
CHAPTER FOUR		28
4.0	INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION	
4.1	National Coordination Bodies	28
4.2	Institutional framework for land degradation control	31
4.3	Analysis of legislation on Environment and related fields	32
4.4	Measures to adept current legislation	35
CHAPTER FIVE		36
5.0	PLANNED STRATEGIES FOR DEVELOPMENT OF A NATIONAL ACTION PLAN TO COMBAT DESERTIFICATION (UNCCD)	
5.1	Development of National Action Programme	36
5.2	Identification of financial resources	36
5.3	Conclusion	36
ANNEXES		
1.	Grenada New Forest Policy	37
2.	Grenada Forestry Policy development process	41
3.	Persons Interviewed	42
4.	Literature Reviewed	47

LIST OF FIGURES

	Page
1. Percentage slope of land are in Grenada	
2. Existing Land use in Grenada	12
3. Existing land use in Carriacou and Petit Martinique	16
4. Soil erosion status map of Grenada	18
5. Soil erosion status map of Carriacou and Petit Martinique	19

EXECUTIVE SUMMARY

Introduction

The objective of this report is to inform the Conference of the Parties on the situation of the country with regard to measures taken to implement the United Nations Convention to Combat Desertification (UNCCD) at the national level. Since signing the UNCCD in 1997, Grenada has done little to implement its objectives. This situation is the result of change in responsibilities of the initial Focal Point and general lack of information about the Convention.

As part of its obligations, Grenada is required to:

- ❑ Give priority to combating desertification and mitigating the effects of drought and allocate adequate resources.
- ❑ Establish strategies and priorities within the framework of sustainable development plans and/or policies to combat desertification and mitigate the effects of drought.
- ❑ Address the underlying causes of desertification and pay attention to socio-economic factors contributing to desertification processes.
- ❑ Promote awareness to facilitate the participation of local populations in efforts to combat desertification and mitigate the effects of drought.
- ❑ Strengthening of appropriate existing relevant legislation, enacting new laws and establish long-term policies and action programmes.

Structure and Content of Report

A National Action Plan to Combat Desertification (NAPCD) will not be a component of this report. Grenada is just beginning to implement the Convention. More time is required to consolidate public involvement and participation in the planning, design and development of a National Action Plan.

The structure and content of this report is based, in part, on recommendations from the UNCCD Regional Advisor, who visited the country in March, 2000, and not fully on the guidelines provided by the UNCCD Secretariat for preparing National Reports.

Data collection

Two methods were used in gathering information contained in this report, consultation with individuals and review of several past and recent references. Discussions were held with several individuals in Government Ministries and Departments, Non-Governmental organizations, and environmentalists. Some of the references reviewed include the Grenada Environmental Profile, National Environmental Action Plan, and National Biodiversity Strategy and Action plan.

Definition of Terms

Desertification is defined as "land degradation in arid, semi arid and dry sub-humid areas, resulting from various factors, including climatic variations and human activities" (Article 1(f) of the Convention. It means, reduction or loss, in arid, semi arid and dry sub-humid areas, of the biological and or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands, resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns such as:

- ❑ Soil erosion caused by wind and / or water
- ❑ Deterioration of the physical, chemical and biological or economic properties of soil and
- ❑ Long-term loss of natural vegetation

Background on Grenada and its Land Degradation Problems

Grenada is an island developing state, which is small, relatively isolated, with limited resources and diversity, ecologically fragile and economically vulnerable (Agenda 21). It is the largest of three main islands, which make up the nation of Grenada, the other two being Carriacou and Petit Martinique.

The climate of Grenada is humid-tropical-marine, with little seasonal or diurnal variation. It is influenced by a constant northeast trade wind. In the mountainous interior, annual rainfall range from 3,750 - 5,000 mm and in coastal areas between 990 - 1,500 mm. The population is 95,597. Owing to past migration, population pressure is not an immediate environmental concern.

Grenada's forests are classified as Cloud forest (Mountain Thicket, Palm Break and Elfin Woodlands), Rain Forests and Lower Montane Forest, Deciduous Seasonal Forests and Dry Woodlands, Littoral Woodlands (scrub and cactus), and Mangrove swamps (Beard 1949).

Agriculture plays a significant role in Grenada's economy as a source of income, export earnings and employment. Contribution to GDP in the 1990's averaged 9.1%. In 1987-1989, very high prices for nutmeg and mace accounted for most of the increased earnings of the sector. Value contributions have been downward since 1989 due, not only to price declines (mostly for nutmeg, and to a lesser extent cocoa), but also to production deficiencies (banana and cocoa). A marked feature of the structure of agriculture in Grenada is the preponderance of small farms Holdings less than five acres represent over 88% of the number of farms but occupy 31% of the cultivated acreage. Farms, 5-50 acres in 1981 represented 11% of total holdings and 30% of total acreage. Farms over 50 acres represent less than 1% of total acreage. Grenada's agriculture is highly defined between export and domestic agriculture. Within export agriculture, there are the cocoa, banana and nutmeg sub-sectors. The output of "other crops" are being affected by the following factors - the small size unit; scattered production; low level techniques; limited availability of planting space; scarcity and cost of labour; and praedial larceny.

Grenada's economy attained a favorable growth rate of 5.8% in 1998, compared with a growth rate of 4.2% and 2.9% for the year 1997 and 1996 respectively. The Offshore Financial sector established in 1997, showed positive growth in 1998 and is expected to continue significantly to the economy in the medium term. The economic prospect for 1999 is for an expected growth rate of 6.1% and 7% in the year 2000. There is no national economic policy for Grenada; however, the present administration will implement a five-point strategy for growth, equity, and poverty eradication.

Land Degradation Problems

The small size of the island limits the area available for various land use types. The natural resource base is under extreme pressure from settlement, tourism development, infrastructure, agriculture and forestry. This competing demand for the limited land area, results in land use problems, which is manifested through, deforestation and loss of biodiversity, increased soil erosion, shortage of water, decreased agricultural productivity, and coastal erosion.

Soil erosion in Grenada is a problem. Ternan & Williams, 1989, indicated that soil erosion rates are already excessive, e.g. an estimated 700 tonnes/year of soil is lost from the Annandale watershed. Soil erosion results mainly from clearing on slopes too steep for agriculture, removal of vegetation and farming too close to riverbanks, and removal of trees on roadsides. The problem is not as serious on Government owned lands as it is on private lands.

Private ownership characterized the land use tenure pattern in Grenada. One of the problems of private ownership is the lack of control, which Government has over land usage. The small size of farms encourages part time farming with inappropriate and inefficient soil-conservation practices, indiscriminate use of artificial fertilizers, herbicides and pesticides. Family-type ownership of land results in further fragmentation, which further contributes to inefficient land use.

Forest loss is due mainly to the clearing of land for the production of agricultural-crops and settlement. In the south, housing development is the major threat to forest loss. Tourism has emerged as a lead growth sector, and has increased demand for land for tourism and housing.

Degradation of mangrove ecosystems on the coastline of Grenada results from various activities: indiscriminate felling of trees for firewood, charcoal production, clearing for construction purposes and dumping of solid and liquid waste.

Coastal erosion is a serious problem and results from both natural and human activities. Erosion of beaches in the north and southwest of the island is most noticeable. Extensive sand mining has contributed to serious erosion at Grand Mal, Beausejour, Palmiste, Conference, Levera and Telescape beaches. The impact of the waves from 'Hurricane Lennie' caused tremendous damage to the coastlines of Grenada, Carriacou and Petit Martinique, damaging roads, buildings, and eroding soil.

Underlying Causes of Land Degradation

The visible symptoms of land degradation in Grenada is a manifestation of underlying causes, which includes: lack of a land use policy, lack of an agricultural policy, lack of coordination of land management Institutions, inadequate capacity of land management Institutions, lack of enforcement of regulations, and lack of public awareness.

There is no official national land use policy or agricultural policy in Grenada, although the Ministry of Agriculture, Lands, Forestry and Fisheries (MOALFF) made several efforts to produce and implement one. The most recent development of a sector policy and strategic plan was by the Forestry Department in 1999.

The weak institutional base for land use management adds to the problem of land degradation. The existence of linkages, in planning and management, among institutions involved in natural resources management is weak

Environmental legislation is outdated and hardly enforced and public awareness on environmental issue are periodic and usually the component of an externally funded project.

National Plans and strategies

The Government of Grenada, Carriacou and Petit Martinique (GOGCP) has been implementing initiatives to address environmental problems. A Country Environmental Profile was developed for

(GOGCP) in 1992. The document addresses the environmental problems, constraints, and the policy directions. In 1993, a National Environmental Action Plan (NEAP) was prepared for GOGCP. The environmental priorities as outlined in the NEAP are; Solid waste management, water supply and liquid waste management, land Use management, Coastal zone management, Water pollution, Forestry and protected areas and Natural hazards.

Grenada participated in the FAO Tropical Forests Action Plan (TFAP) during the 1990's. The Forestry Department, in Agriculture, Lands, Forestry and Fisheries MOALFF), coordinated the exercise, which resulted in the development of a National Forest Action Programme (NAFAP) for Grenada.

The Government also commissioned the development of National Physical Development Plans (NFDP) for Grenada, Carriacou and Petit Martinique. The plans are intended to provide a framework for rational Utilization of the finite land resource to minimize adverse effects of socio-economic development on terrestrial, marine and atmospheric environments.

Other Plans and Strategies

Both Government and Non-Government institutions are currently implementing programmes, which will contribute to reducing land degradation. Some of these initiatives are listed below.

- ❑ Natural Resources Information and Management Systems Project (1994 – 1995).
- ❑ Rehabilitation and Strengthening of Agricultural Production and support Systems
- ❑ OECS Agricultural Crop Diversification Project,
- ❑ Forestry Department Forest Management on Public lands Project for Grenada,
- ❑ Integrated Land Use and forest Management Project for Carriacou.
- ❑ Establishment of a bird sanctuary at Perseverance, and a National Park at Mt. Hatman.
- ❑ OECS/NRMU Marine and Protected areas project.
- ❑ Ministry of Tourism Master Plan
- ❑ OECS 'Solid and Ship generated waste Management Project
- ❑ Base line Community Survey to assess Poverty
- ❑ Water of Life Community Environmental Project'

National Plans and Strategies developed before the UNCCD

Several other strategies and plans were implemented Grenada, Carriacou and Petit Martinique (GCPM) before the UNCCD. These include the Physical Development Strategy, Country and Town Planning Act and Plan for of System of National Parks and Protected Areas

National Coordination Bodies

The Government appointed National Sustainable Development Council (NSDC) and a National Steering Committee (NSC) are responsible for implementation of the UNCCD in Grenada. The NSC was commissioned by the NSDC to plan and coordinate the implementation. The focal point will work with the NSC in preparing Grenada's National Action Plan to combat land degradation.

Institutions involved in Land Management

The Responsibility for land use management in Grenada is dispersed among several Departments in Government Ministries: They are the Land Use Division, Lands and Survey's, Forestry and National Parks the Ministry of Health and the Environment, the National Water and Sewage Authority

(NAWASA), the National Housing Authority, the Industrial Development Corporation; the Ministry of Communication and Works, and the Grenada Ports Authority.

An overall assessment of these institutions reveals that there is lack of long term planning, lack of coordination in planning between departments, untrained staff, and ill defined responsibilities without clear guidance about functional relationships between agencies. No measures have yet been taken to strengthen these institutions at the local and national level to combat land degradation.

Analysis of legislation on environment and related fields

There are several legislation which are related to the environment. Some of the principal ones include:

- ❑ The Forest, Soil and Water Conservation Act, Cap. 116 (1949)
- ❑ National Parks and Protected Areas Act, Cap. 206 (1990)
- ❑ Grand Etang Forest Reserve Act, Cap. 124 (1906)
- ❑ Birds and Other Wildlife (Protection) Act, Cap.34. (1957)
- ❑ *National Water and Sewage Authority Act, Cap. 208 (1991)*
- ❑ *Land Development Control Act, Cap. 160 (1968)*
- ❑ *Town and Country Planning Act, Cap. 322 (1946)*
- ❑ *Prohibition of Birds Exportation Act (1991)*
- ❑ *Noxious Weeds Act, Cap. 213 (1912)*
- ❑ *Protection from Disease (Plants) Act, Cap. 258 (1925)*
- ❑ *Land Settlement Act, Cap. 161 (1933)*
- ❑ *Carriacou Land Settlement and Development Act, Cap. 42 (1955)*
- ❑ *National Trust Act, Cap. 207 (1967)*
- ❑ *Public Health Act, Cap. 263. (1925)*
- ❑ *Slum Clearance and Housing Act, Cap. 306 (1946)*
- ❑ *Crown Proceedings Act, Cap. 74 (1959).*

Measures to adapt current legislation or introduce new enactment's

The effectiveness of environmental legislation is hindered by three factors, they are outdated, not enforced and there is little public knowledge of their existence. The Forestry Department recently coordinated a review of the Forestry and related legislation in terms of their status and deficiencies. Redrafting of New Forest legislation is expected to occur

Financial Resources

Grenada does not have the financial resources to develop and later, implement its National Action Plan to combat land degradation. In accordance with Article 20 & 21 of the Convention, Grenada will make the effort to ensure that financial resources are available for development of an Action Plan and Programmes to combat desertification and mitigate the effects of drought.

Planned Strategies for the Development of a NAPCD

The National Steering Committee during its first meeting on March 29th, 2000 drew up strategies for the development of an action plan to combat land degradation.

- ❑ Launching of an awareness programme to sensitize the public about desertification and drought

- ❑ Establish partnerships with Land Users, Local Communities, Local Authorities, Government Institutions, NGO's and the Private Sector, which are engaged in or are affected by land use management and water resources in identifying, problems, constraints and solutions.
- ❑ Establish linkages with relevant local institutions and other related initiatives to avoid duplication of effort
- ❑ Establish partnerships with regional and international Agencies in support of the Convention to procure technical and financial assistance to developing and implementing an Action Programme to combat desertification and drought.

Some of the issues that will be addressed in the NAPCD include the following:

- ❑ Attain political awareness and support
- ❑ Development of policies for land use and management
- ❑ Review of existing legislation governing land use and management
- ❑ Strengthening of appropriate institutions
- ❑ Establishment of networks to combating land degradation
- ❑ Development of a comprehensive Information Systems for land degradation
- ❑ Establishment and strengthening and Early Warning Systems for land degradation
- ❑ Expanding and Improving Education and Training
- ❑ Promoting Public Awareness of the effects of land degradation.
- ❑ Promotion of research and extension
- ❑ Promotion of conservation technologies
- ❑ *Formation of emergency plans to deal with the effects of drought
- ❑ Sustainable management of forest resources
- ❑ Food security and sustainable development and management of agricultural resources
- ❑ Conservation and sustainable us of Biodiversity
- ❑ Integration of land degradation programmes in national agricultural and forestry plan

Identification of Resources for Implementation of Convention

In accordance with Article 20 & 21 of the Convention, Grenada will make the effort to ensure that financial resources are available for the implementation of the NAPCD and mitigate the effects of drought. Financial support (from UNCCD/UNDP) for the preparation of the NAPCD has recently been received. No other sources of funding have yet been identified.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Grenada and the UNCCD Process

The objective of this report is to inform the Conference of the Parties on the situation of the country with regard to measures taken to implement United Nations Convention to Combat Desertification (UNCCD) at the national level.

Since signing the UNCCD in 1997, Grenada has done little to implement its objectives. This situation is the result of change in responsibilities of the initial Focal Point and general lack of information about the Convention. The Focal Point for the Convention was originally located in the Ministry of Foreign Affairs. However, no effort was made to transfer information to relevant institutions. In an effort to move the process of implementation forward, the Government recently appointed the Chief Forestry Officer in the Forestry and National Parks Department (FNPD) as the new Focal Point.

The objective of the UNCCD is to combat desertification, and mitigate the effects of drought, in countries experiencing serious drought and /or desertification, through effective action at all levels, supported by international corporation and partnership arrangements, in the framework of an integrated approach, consistent with Agenda 21.

As part of its obligations, Grenada is required to:

- ❑ Give priority to combating desertification and mitigating the effects of drought and allocate adequate resources.
- ❑ Establish strategies and priorities within the framework of sustainable development plans and/or policies to combat desertification and mitigate the effects of drought.
- ❑ Address the underlying causes of desertification and pay attention to socio-economic factors contributing to desertification processes.
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1.2 Structure and Content of Report

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consolidate public involvement and participation in the planning, design and development of the NAPCD.

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The report is divided into five chapters. Chapter 2 provides brief information on Grenada in terms of its physical features, population, land use, its economy and the land degradation issues affecting the country.

Chapter 3 gives an outline of the policies, plans and strategies established within the framework of sustainable development in Grenada. It also outlines some of the major activities being implemented by government and non-governmental organizations in the area of sustainable development and the environment.

Chapter 4 discusses some of the measures currently being taken to implement the UNCCD and the institutional and legal framework relevant to land degradation.

Chapter 5 looks at the planned strategies for the development of an action programme for implementation of the UNCCD and financial requirements..

1.3 Data Collection

Two methods were used in gathering the information contained in this report, consultation with individuals and review of several past and recent references. Discussions were held with essential individuals in Government Ministries and Departments, Non-Governmental organizations, and environmentalists. Some of the references reviewed include the National Environmental Action Plan, the National Biodiversity Strategy and Action plan.

1.4 Definition of Terms

Article 1(f) of the Convention defines desertification, as “land degradation in arid, semi arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.”

A precise definition for land degradation is impossible given the many factors, which may be responsible. In the Convention, land degradation means, “reduction or loss, in arid, semi arid and dry sub-humid areas, of the biological and or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands, resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns” such as:

- ❑ Soil erosion caused by wind and / or water
- ❑ Deterioration of the physical, chemical and biological or economic properties of soil and
- ❑ Long-term loss of natural vegetation

Barrow J (1991), defines land degradation as the 'loss of utility or potential utility or the reduction, loss or damage to features or organisms which cannot be replaced'. It implies a reduction in rank or status. Blaikie & Brookfield (1987), suggested that land is degraded when it suffers a loss of intrinsic qualities or a decline in its capabilities.

CHAPTER TWO

2.0 BACKGROUND ON GRENADA AND ITS LAND DEGRADATION PROBLEMS

2.1 Background

2.1.1. Location & Area

Grenada is located at the southern end of the chain of Lesser Antillean islands, at Latitude 11° 58' and 12° 13' N, and Longitude 61° 20' and 61° 35' West. It is the largest of three main islands, which make up the nation of Grenada, the other two being Carriacou and Petit Martinique. Mainland Grenada has an area of 312 km².

2.1.2 Climate

The climate of Grenada is humid-tropical-marine, with little seasonal or diurnal variation. It is influenced by a constant northeast trade wind. An analysis indicated that rainfall varies directly with elevation. In the mountainous interior, annual rainfall range from 3,750 - 5,000 mm and in coastal areas between 990 - 1,500 mm. The driest month is March, and the wettest, November. The northeastern and southern parts of the island receive the lowest rainfall, and have the longest dry periods. Such areas will only support species, which are adapts to low rainfall.

2.1.3 Geology, Topography & Soils

In 1985, Johnson studied the geology of Grenada. According to his findings, Grenada is almost entirely volcanic, being composed of andesite lava, pyroclastic rocks and basalt. The first occurs in the mountainous center of the island, the latter along the rim in the form of a belt. Deposits of limestone occurs in isolated outcrops; tuffaceous shale along the northwest coast and some valleys and alluvial deposits in the lower corners of streams and rivers.

The interior of Grenada is dominated by mountainous peaks, steep ridges and deep, narrow- valleys. Fast flowing streams, with high gradients, occur in the valley bottoms. Relief tends to be very high with a 60m drop over 1.6 km horizontal distance in some areas. A single north-south trending peak is also the major watershed in the island. The western side of the island is more rugged as the central ridge is nearer to the coast on that side. The slopes are gentler on the east, and there are some extensive coastal plains. The topography of the northeastern and southwestern parts of the island consists of low hills. Ten percent of the land surface comprise of slopes below 10%; 20% between 10 - 20%; 45% between 21 - 30% and 25% in excess of 30% (Figures 1).

The most important single factor in soil formation in Grenada is climate, mainly manifested in differences in total annual rainfall, and in the length of the dry season. The wetter areas of more intense weathering show the kaolinitic-latosolic *Red earth's* of moderate to low base status. The drier areas exhibit the montmorillinitic ash-gray shoals, and less weathered ash soils of moderately high to very high base status. *Brown earth's* tends to be intermediate between the two groups. In the southeastern and eastern drier fringes of the island, there are, however, some *Red-earth's*, of fairly high base status.

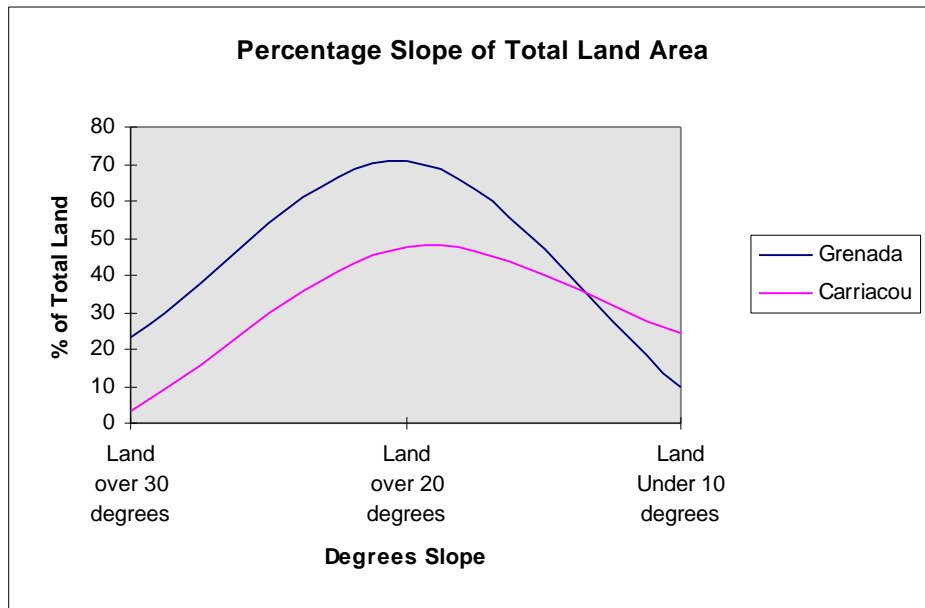


Figure 1. Percentage Slope of Total Land Area in Grenada

2.1.4 Population Demography

According to the 1996 population census, Grenada has a population of 95,597. Owing in part to past migration, population pressure is not an immediate environmental concern. The population actually declined in the 70s, however, migration slowed it in the 1980s and it grew in these years by about 0.2 percent per annum. Like many of the islands in the Caribbean, Grenada has a very young population, with about 41 percent being below the age of 15.

2.1.5 Land Use

Grenada's agricultural system is one of mixed cultivation. A marked feature of the structure of agriculture is the preponderance of small farms. Holdings less than five acres represent over 88% of farms but occupy 31% of the cultivated acreage. Farms, 5-50 acres in 1981, represented 11% of total holdings and 30% of total acreage. Farms over 50 acres represent less than 1% of total acreage. Figure 2 displays the current land use in Grenada.

Cocoa, nutmeg and bananas dominate the production patterns of Grenada's agricultural sector. However, a large number of commodities are produced for domestic consumption, though some of these (minor spices and fruits) have been exported to regional and extra-regional markets. The output of "other crops" are being affected by the following factors - the small size unit; scattered production; low level techniques; limited availability of planting space; scarcity and cost of labour; and praedial larceny.

Approximately 30% of the island is covered with forests and woodlands (Table 1). Grenada's forests are classified as follows - Cloud forest (Mountain Thicket, Palm Break and Elfin Woodlands), Rain Forests and Lower Montane Forest, Deciduous Seasonal Forests and Dry Woodlands, Littoral Woodland (scrub and cactus), and Mangrove swamps (Beard 1949)

Forest Type	Area	% of Total land Area
Forests	3970	12.7
Woodlands & Scrub	5270	16.9
Mangroves	190	0.6
Inland Swamps	30	0.1

Table 1. Forest Types and Area (Source Ternan et al, 1989)

Evergreen and semi-evergreen forests are found in areas where rainfall averages 2,000 mm - 2,500 mm per year. Morne Delice Hill, a 20 ha forest block, is an intact area of moist forest. It is located in the southern part of the island in a cloud tract, and gets more rain than expected. *Tabebuia pallida*, *Manilkara bidentata*, *Bursera simaruba*, and *Richeria grandis* are the principal species.

Deciduous forests occupy the lower elevations. Rainfall in these areas ranges from 1,000 - 2,000 mm per year, for five months. They exist in the north and south in a degraded condition.

Littoral Woodlands are found along the coast, but most had been removed for settlement. *Conocarpus erectus*, *Jacquinia barbosca* and *Tabebuia* form the edge of the Levera Woodland. Behind is a mixture of species including *Coccolobis uvifera*, *Pisonis fragrans*, *Hipponame manchinella* and *Erithalis fruticosa*.

Fringes of mangrove forests are found mainly along the northeastern and southwest coastlines of Grenada. Four species of mangroves are found - *Avicennia racemosa*, *Conocarpus erectus*, *Rhizophora mangle* and *Laguncularis racemosa*

2.1.7 Macro Economic Review

The Grenada economy attained a favorable growth rate of 5.8% in 1998, compared with a growth rate of 4.2% and 2.9% for the year 1997 and 1996 respectively. This is a result of higher levels of manufacturing activity, buoyancy in the construction sector, falling inflation and a stable financial sector. Other sectors influencing the growth attained in 1998 were -, electricity & water, mining & quarrying, agriculture and tourism. These sectors recorded growth rates of 8.0%, 11%, and 2.1% respectively.

Agriculture plays a significant role in Grenada's economy as a source of income, export earnings and employment. Since 1960 however, there have been major changes in the share of income generated by the Sector, and in its traditional role as the largest employer. In the early half of the 60s, the sector accounted for some 36% of the GDP, which declined to a mere 20% in the 80s. Contribution to GDP in the 1990s averaged 9.1%.

The major factor for Agriculture's contribution has been the performance of its three traditional export crops, cocoa, nutmeg & mace, and bananas. In 1987-1989, very high prices for nutmeg and mace

accounted for most of the increased earnings of the sector. Value contributions have been downward since 1989 due, not only to price declines (mostly for nutmeg, and to a lesser extent cocoa), but also to production deficiencies (banana and cocoa).

Grenada's agriculture is highly defined between export and domestic agriculture. Within export agriculture, there are the cocoa, banana and nutmeg sub-sectors. Each of the latter has its own Association providing services and technology peculiar to its "research organization" though in the case of nutmeg, this activity seems to be of less importance.

The Offshore Financial sector established in 1997, showed positive growth in 1998 and is expected to continue significantly to the economy in the medium term. Increased government revenue, heightened employment opportunities and increased levels of foreign exchange are anticipated from this Financial Sector.

The economic prospect for 1999 is for an expected growth rate of 6.1% and 7% in the year 2000. Growth in output of the agricultural sector, expanding construction and manufacturing activities, and financial services are also anticipated to stimulate growth in the medium term.

At present, import duties and taxes account for approximately 50% of Government revenue. The Grenada currency is the Eastern Caribbean Dollar (EC) of 100 cents. (The exchange rate is \$2.7169 to the US\$. (1999).

2.1.8 Economic Policy

There is no national economic policy for Grenada. However strong domestic economic management is imperative to our national goal of sustaining economic growth. In this regard, a comprehensive fiscal review will be undertaken during the year 2000 to inform Government's fiscal and economic policy formulations. The scope of this review will include all taxes, concessions and other incentives.

Despite the above, the present administration will implement a five point strategy for growth, equity, and poverty eradication. These include:

- Sustaining growth in the national economy, through an increased level of investment activities. This in turn will require higher levels of domestic savings.
- Providing greater opportunities for the poor and disadvantaged in our society, to actively participate in the growth process, and also, to share in the benefits of growth.
- Providing additional safety nets for the very poor and disadvantaged.
- Creating an institutional framework to promote rural development.
- Modernization of the state machinery, for the more effective delivery of services to the private sector, and the rural economy.

2.2 Land Degradation Problems in Grenada, Carriacou & Petit Martinique

2.2.1 Grenada

The small size of the islands coupled with climatic and relief variations, soil-type and land tenure systems limit the area available for various land use types. The natural resource base is under extreme pressure from settlement, tourism development infrastructure, agriculture and forestry. This competing demand for the limited land area results in land degradation which is manifested through, deforestation and loss of biodiversity, increased soil erosion, chemical misuse, decrease in agricultural productivity, instability of water supply and coastal erosion.

In spite of having a good protective cover, provided by the forest and agricultural tree crops, soil erosion in Grenada is a problem. Ternan & Williams, 1989, indicated that soil erosion rates are already excessive, e.g. an estimated 700 tones of soil is loss annually from the Annandale watershed. Soil erosion results mainly from clearing on slopes too steep for agriculture, removal of vegetation and farming too close to riverbanks, and removal of trees on roadsides. The problem is not as serious on Government owned lands as it is on private lands. The problem will become more severe as the country continues to open-up more land for development. Figure 3 is a map of Grenada, showing the areas of soil erosion.

Mainly private ownership characterizes the land tenure pattern in Grenada. One of the problems of private ownership is the lack of control, which Government has over land usage. The small size of farms encourages part time farming with inappropriate and efficient soil-conservation practices, indiscriminate use of artificial fertilizers, herbicides and pesticides. Family-type ownership of land results in further fragmentation, which further contributes to inefficient land use.

Forest loss is due mainly to the clearing of land for the production of agricultural-crops; and lowland woodlands for settlement and tourism development. No systematic attempts have been made to monitor changes in forest cover since Beard. Cloud forests have suffered little degradation and are presently under no serious treat. Most of the Lower Montane Rain Forest, except in the upper watershed of the Great River, has disappeared. Agricultural crops have replaced most of the forests in the middle elevations. Remnants of deciduous forests exist in the north and south. In the south, housing development is the major threat to forest loss. Tourism has emerged as a lead growth sector, and has increased demand for land for tourism and housing.

Degradation of mangrove ecosystems on the coastline of Grenada results from various activities: indiscriminate felling of trees for firewood, charcoal production; clearing for construction purposes and dumping of solid and liquid waste. Mangrove areas like Conference and Telescope in the north and in Woburn in the south of Grenada are being seriously affected. At Westerhall, they have almost completely disappeared due to construction.

Coastal erosion was identified as a critical problem during the 1980's, caused by both natural and human activities. Erosion of beaches in the north and southwest of the island is most noticeable. Average beach erosion rate, due mainly to natural causes, of 0.7 m was found at Grand Anse beach (Chambers 1984). Extensive sand mining has contributed to serious erosion at Grand Mal, Beausejour, Palmiste, Conference, Levera and Telescape beaches. The impact of high seas from the influence of

'Hurricane Lennie' caused tremendous damage to the coastlines of Grenada, Carriacou and Petit Martinique, damaging roads, buildings, and eroding soil.

2.2.2 Carriacou and Petit Martinique

Carriacou is 34 km² in area and lies 24 km to the north of Grenada. The island is rugged with three dormant peaks, High North (291 m), Top Hill (236 m) and Chapeau (291 m). Petit Martinique lies 4 km east of Carriacou. It is 2.3 km², rounded in shape with the highest point being 226m. The population of both islands in 1991 was 5726 persons.

Current land use activities in Carriacou include agriculture for subsistence, mixed crop farming and rearing of livestock (cattle, sheep & goats). Crop production has suffered a major decline during the past 15 – 20 years. Figure 4 shows existing land use in Carriacou.

Land degradation issues identified in the Carriacou and Petit Martinique Physical development Plan include, excessive sand mining for construction purposes, removal of mangroves for yachting activities, soil erosion, coastal erosion, loss of forest cover, reduced potential for agriculture and overgrazing of livestock.

The natural resource base of Carriacou is in a state of extreme degradation. The soil was effectively mined by colonial agriculture in the past. During the 18th Century, forests were removed for cultivation and settlement. Recently trees were removed for boat building. Presently soil erosion is at an advanced state. The scrubby and improvised remaining forests do not provide a protected soil cover in upland watersheds. Runoff is almost total resulting in decreasing yields. The problem of land degradation in Carriacou is further compounded by the traditional "let go" season. All year round, and especially during dry periods, tethered animals are let loose to graze freely on the island vegetation. Figure 5 is a soil erosion status map of Carriacou.

2.3 Underlying Causes of Land Degradation

The visible symptoms of land degradation in Grenada are manifestation of underlying causes, which include:

- ❑ Lack of a land use policy and agricultural policy
- ❑ Lack of coordination of land management institutions
- ❑ Inadequate capacity of land management institutions
- ❑ Lack of enforcement of regulations
- ❑ Lack of public awareness

There is no official national land use policy in Grenada. No proper allocation of land has been made for housing, tourism and industrial development. Uncontrolled land use activities are impacting heavily on marginal lands causing deforestation which ultimately leads to soil erosion, water problems, loss of biodiversity and a depletion of coastal ecosystems. The sectors responsible for land use management have plans and policies, which form the basis on which land use and development control

occurs. The Land Use Division has prepared a draft Land Management Development plan (LMDP), which has not yet been approved. The most recent development of a sector policy and strategic plan was by the Forestry Department in 1999.

There is no agricultural policy either, although MOA made several efforts to produce and implement one. In 1998, an agricultural policy and programme for agriculture for 1997 – 2010 was released. A draft Strategic Framework for Agriculture and an Agriculture Sectoral Plan were completed in 1999. None of these plans has been approved or implemented.

The weak institutional base for land use management adds to the problem of land degradation. Inadequate staff, insufficient training opportunities, inadequate budget support from Government and lack of inter-sectoral co-ordination are, all factors affecting land management institutions. The existence of linkages, in planning and management, among institutions involved in natural resources management have been weak until recently. This has resulted in a lack of integrated land use planning. The Government appointed Sustainable Development Council is now playing a major role in coordinating sectoral environmental activities.

A weak legislative base further compounds the absence of a National Land Use policy. Most environmental legislation is outdated and hardly enforced. The Forestry Department is currently reviewing all forestry and related legislation for greater protection of the country's forest resources.

Public awareness programmes on environmental issue are periodic and usually the component of an externally funded project. There are no continuous environmental programmes.

CHAPTER THREE

3.0 STRATEGIES AND PRIORITIES ESTABLISHED WITHIN THE FRAMEWORK OF SUSTAINABLE DEVELOPMENT.

3.1 National Plans and Strategies in Social and Economic Areas

The Government of Grenada is seriously concerned about the environment and the negative impacts its deterioration can have on sustainable social and economic development of the country. In this regard, Government has implemented several initiatives with environmental considerations. Some of these initiatives include the production of a Country Environmental Profile (GCEP), a National Environmental Action Plan (NEAP), a National Forests Action Programme (NFAP), a National Physical Development Plan for Carriacou and Petit Martinique (NPDP&P), a National Biodiversity Strategy and Action Plan (NBSAP), and the New Forest Policy and Ten Year Strategic Plan.

3.1.1 Grenada Country Environmental Profile (GCEP)

A Country Environmental Profile was developed in 1992. The document addresses the environmental problems, constraints, and the policy directions. It also identifies and examines a variety of opportunities and planning tools for meeting environmental goals.

3.1.2 National Environmental Action Plan (NEAP).

In 1993, a National Environmental Action Plan was prepared for Grenada. The identification of environmental priorities, proposed policies and actions to address them, was based on a review of the following documents:

The Country Environmental profile, the Tropical Forests Action Plan, the Policy and Plan for a System of National Parks and Protected Areas, the report on the National Consultation on the Environment, the United Nations Conference on the Environment and Development (UNCED) Report, and other Environmental Documents. The environmental priorities as outlined in the NEAP are:

- ❑ Solid waste management
- ❑ Water supply and liquid waste management
- ❑ Land Use management
- ❑ Coastal zone management
- ❑ Water pollution
- ❑ Forestry and protected areas
- ❑ Natural hazards

Several government agencies are currently implementing programmes to address these priority issues. These are discussed in section 3.2.

3.1.3 National Forests Action Programme (NFAP)

Grenada participated in the Food and Agricultural organization's (FAO) Tropical Forests Action Plan (TFAP) exercise during the 1990s. The Forestry and Parks Department coordinated the exercise, which resulted in the development of a National Forest Action Programme (NFAP) for Grenada. The Caribbean Natural resources Unit (CANARI) provided financial support for the consolidation of public involvement in the exercise. The British Development Division in the Caribbean (now the Division for International Development, DFID), provided technical assistance in project development. One forest management project was developed for Grenada and an integrated land use management project for Carriacou..

3.1.4 National Physical Development Plans (NPDP's)

The Government of Grenada has commissioned the development of a National Physical Development Plan for Grenada. The plan is intended to provide a framework for rational Utilization of the finite land resource to minimize adverse effects of socio-economic development on terrestrial, marine and atmospheric environments. The plan will seek to:

- ❑ Provide impetus to the sustainable development of all sectors of the economy guided by consultative and participatory principles
- ❑ Provide a framework for the rational allocation of land in an effort to minimize the adverse effects of socio-economic development on terrestrial, marine and atmospheric environments
- ❑ Provide a framework for an efficient delivery of social services in accordance with current and projected population distribution,
- ❑ Promote the efficient utilization of social services and economic structure
- ❑ Promote the inter-settlement functional linkages through the establishment of an efficient transportation network.
- ❑ Promote rapid and sustainable growth of the productive sectors through the provision of an enabling environment, and
- ❑ Strengthen the link between economic planning, physical planning and environmental management.

An Inter-sectoral Technical Working Group is guiding the process

An Integrated Physical Development and Environmental Management Plan (IPDEPCP) has recently been completed for Carriacou and Petit Martinique. It aims at establishing an integrated and coherent framework for rational spatial development and sound environmental management.

3.1.5 National Biodiversity Strategy and Action Plan (NBSAP)

Grenada became a party to the United Nations Convention on Biological Diversity (UNCBD), in November, 1994 and the United Nations Convention on Climate Change (UNFCCC), in March, 1994. The country has developed a National Biodiversity Strategy and Action Plan in accordance with Article 6 of the Convention, which is under its final stage of public review. The plan proposes the following objectives for implementation over a five-year period.

- ❑ Broad-based support for conservation and sustainable use of biodiversity
- ❑ Protection of key ecosystems from negative human induced impacts
- ❑ Development and encouragement of sustainable utilization of biological resources that are essential to the livelihood of communities
- ❑ Maintenance, recovery and promotion of genetic resources necessary for sustainable agriculture
- ❑ Insurance of a fair and equitable of the benefits arising out of the utilization of genetic and ecosystem resources
- ❑ Provision of information on key ecosystems for incorporation into national accounts and decisions on national development projects

3.2 Other Plans and Strategies

No specific plans or strategies to address land degradation problems have yet been developed, however, a number of Government and Non-Governmental Agencies are engaged in activities which contributes to better land use management. Some of these agencies include: the Ministry of Agriculture, Lands, Forestry & Fisheries (MOALFF), The Ministry of Health and the Environment (MOHE), and Ministry of Tourism (MOT).

3.2.1 Ministry of Agriculture, Lands, Forestry & Fisheries (MOALFF)

Land Use Division

The Division implemented a 'Natural Resources Information and Management Systems Project (1994 – 1995). The output of the project forms the basis for planning and policy formulation both at the national and sub-regional levels. The objective of the project was to create a technical basis to support rational development and conservation of the country's natural resources. Aspects of the project include:

- ❑ Development of a computerized natural resources information system linked to a geographic information system
- ❑ Establishment of land evaluation procedures to identify land use options
- ❑ Setting up of procedures for identifying the best mix of land uses

- Training of staff.

An operational computerized and geographically referenced land information system (GLIS) is now established in the Land Use Division.

Agricultural Extension Division

The Agricultural Extension Division is implementing two major initiatives towards sustainable agricultural development: The 'Rehabilitation and Strengthening of Agricultural Production and support Systems Project for achieving food security in Grenada, has recently been completed. A second phase of the project will soon begin implementation. The project is intended to:

- Strengthen farmers access to extension inputs with the introduction of participatory extension strategies and methodologies with particular emphasis on group extension approaches and gender equity factors
- Strengthen the planning, organization and technical capacity of extension services and Agricultural services in Grenada, Carriacou and Petit Martinique through staff training and the provision of effective extension planning execution and monitoring guidelines and manuals

The Division is also implementing an OECS Agricultural Crop Diversification Project, which is intended to develop a focused agricultural diversification programme through which farmers, agro-processors and other actors are empowered. Technically and financially, to maximize the returns to be derived from participation in the non-traditional agricultural sub-sector while simultaneously increasing agriculture's contribution to GDP over time. The project has several outputs. It is a three year project, which will terminate in 2001.

Forestry and National Parks

The Forestry and National Parks Department started the implementation of a Forest Management Project in 1996, with technical and financial support from DFID.. The Project was developed after wide public consultation and its ultimate goal is to improve water resources, reduce soil erosion, and increased provision of other forest benefits. The original outputs of the project were the survey and demarcation of forest reserves, review of forest legislation, development of public awareness campaign, development of forest management plans and training. At the onset of implementation, a wide range of stakeholders reviewed the project. The review resulted in a change of focus in the implementation process to involve prior to implementation reviewed the original project document. A forest Policy Review and development component was added.

A New Forest Policy was developed for Grenada, Carriacou and Petit Martinique in 1999 (Annex 1). The policy has been approved by Government The policy development process, which is unique in the Caribbean, is outlined in Annex 2.

The Forestry and National Parks Department has responded to the Policy by developing a ten-year strategic plan, which is pending approved by Government. Other outputs of the project include the survey and demarcation of two major forest regions, Morne Gazo and Annandale Watershed. A proposed boundary has been identified for the Mt. St. Catherine forests, but survey and demarcation will occur during the possible second phase of the project. The human resource capacity of the

Department has also been strengthened through training. The three-year project will terminate in March 2000. A second phase is being negotiated between DFID and GOGCP.

The National Parks Authority, formally under the Ministry of Tourism, has recently been merged with the Forestry Department in the MOALFF. The Authority implemented a project, which resulted in the establishment of a bird sanctuary at Perseverance, and a National Park at Mt. Hatman for the Grenada Dove.

Fisheries

The Fisheries Department is involved in the Organization of Eastern Caribbean States Natural Resources Management Unit (OECSNRMU) Marine and Protected areas Project. One of the project's objective is to conserve, protect and recover marine habits that are critical to fisheries and tourism. Efforts are under way for the formation of two MPA's, one at Woburn, in the south of the island, and the other at Moliniere and Bousejour.

3.2.2 Ministry of Tourism (MOT)

The Ministry of Tourism coordinated the preparation of a Master Plan in 1997. The plan focuses on product diversification, 'quality improvement and sustainable development in harmony with resource endowments, to ensure that any adverse effects on the physical, social and environmental character of the country minimized. One of the plan's policy objectives is to ensure that Tourism development is consistent with the protection and conservation of the country's natural and cultural resources. Government has approved the plan.

3.2.3 Ministry of Health and the Environment (MOHE)

A Grenada Solid Waste Management Authority (GSWMA) was recently constituted to implementing the OECS 'Solid and Ship generated waste Management Project. The aim of the project is to improve the collection and disposal of garbage, upgrade existing landfills and build new ones, development and implementation of programmes for reducing garbage, recycling, recovery and updating of laws relating to garbage management. The project is regional in nature and is in compliance with the 1973 International Convention for the prevention of Pollution from ships (MARPOL).

3.2.4 Ministry of Youth, Sports, Culture & Community Development (MYSC&CD)

The Community Development Unit, in MYSC&CD is conducting a Base line Community Survey to assess Poverty in Grenada and also implementing a Community Development Project.

The objectives of the base line survey were to

- Increase understanding of the correlates of poverty at the community level.
- Provide guidance on the types of programmatic action that could be effective in combating community poverty

- Provide benchmark data/information for assessing, evaluating and monitoring the results of programme intervention

A poverty assessment report was produced in 1998. It provides an examination of the economic and social conditions of the population and a review the impact and sustainability of the Community Development Programmes and in particular the benefits, which have accrued to poorer people. The report identifies alternative opportunities for GOGCP and DFID to work together to reduce poverty and make recommendations on a future poverty-focused project.

3.2.5 Non-Governmental Organizations (NGO"s)

Three NGO's in Grenada are actively involved in activities, which contribute to sustainable development: the Agency for Rural Transformation, Friends of the Earth (Grenada), and GRENCODA.

The Agency for Rural Transformation (ART) is a very active, non-profit, non-governmental, rural development agency. It works to improve the quality of life of the rural poor and disadvantaged. The Agency is currently executing a Water of Life Community Environmental Project' in the Soubise area in Grenville. The project has several objectives including the sensitization of communities and groups on the concept of environmental protection and conservation through an environmental programme.

3.2.5 Carriacou

The implementation of a three-year "Land Use and forest Management Project" for Carriacou started in 1998. The objective of the project is to develop appropriate systems for restoring the ecosystem in Carriacou so as to lay the foundation for economically and environmentally suitable agriculture development. The main elements of the project are:

- Animal management and control
- Supply of water to farmers for irrigation and livestock
- Establishment of agro-silvi-pastoral demonstration farms
- Strengthening of forest management.

The project was reviewed before implementation, and it was emphasized that the communities must develop the solutions to land degradation problems. It was also suggested that the four components of the project be used together as a tool to address the general problems of livestock grazing and environmental degradation (Dunn 1989).

3.3 National Plans and Strategies developed before the UNCCD

3.3.1 The Physical Development Strategy (PDS)

A proposed development strategy was developed for Grenada in 1997, focusing on focusing on integrated economic expansion via planning for land use, urban design, housing construction, sanitation and public health, education and recreation. This strategy was never formally approved, nor

were its guidelines for development formally accepted. This lack of acceptance of the plan was partly due to the political situation in 1998 and the revolution, which followed.

3.3.2 The Country and Town Planning Act

In 1978, a New Town and Country Act was drafted, with assistance from UNDP, to remedy the deficiencies of the 1968 Town and Country Planning legislation. Government had not accepted this plan.

3.3.3 The Plan for of System of National Parks and Protected Areas (PSNPPA)

The Government of Grenada and the Organization of American States (OAS) published a Plan and Policy for a System of Parks and Protected Areas in Grenada, in 1988. The purpose of the plan was to identify and provide a course of action for the protection and use of the countries out-standing natural and cultural heritage.

CHAPTER FOUR

4.0 INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION

4.1 National Coordination Bodies

The National Sustainable Development Council (NSDC), appointed by Government, and a National Steering Committee (NSC) appointed by the NSDC, are the bodies responsible for coordinating the implementation of UNCCD objectives.

The NSDC

Government established the NSDC as part of an Agenda 21 Capacity project. The Management body of the Council is located in the Ministry of Finance (MOF). Its primary function is to analyze, evaluate and formulate sector and inter-sectoral strategies for the promotion of sustainable development and to appropriately advise policy makers in the public and private sector and community at large. The Council's mandate is as follows:

- ❑ To ensure inter-agency co-ordination of policies and programmes geared to the attainment of sustainable development, so as to minimize duplication of effort, and to promote the greatest complementarity.
- ❑ To facilitate national level co-ordination mechanisms, for the adoption of a holistic approach to development, offering opportunities for the widest possible participation by all groups in the discussion of issues of national interest.
- ❑ To advise Government on measures required to integrate environmental and economic considerations in decision-making processes and on local, regional and global issues of sustainable development
- ❑ To promote greater understanding and public awareness of the cultural, social, economic and policy approached to attaining sustainable development in Grenada.
- ❑ To provide a forum for monitoring progress and recommendations made.

The Council is composed of representatives from Governmental and non-Governmental Agencies, the Private Sector, Community groups, Environmentalists and the Public in general.

Government Agencies and Statutory Bodies

- ❑ Ministry of Finance Physical Planning Unit
- ❑ Ministry of Finance Economic Affairs Division
- ❑ Ministry of Finance Energy Unit
- ❑ Ministry of Finance Statistics Unit
- ❑ Ministry of Agriculture Planning Division
- ❑ Ministry of Agriculture Land Use Division

- ❑ Ministry of Agriculture Extension Division
- ❑ Ministry of Agriculture Forestry Department
- ❑ Ministry of Agriculture Fisheries Department
- ❑ Ministry of Tourism
- ❑ Ministry of Health and the Environment
- ❑ Ministry of Works
- ❑ Ministry of Trade
- ❑ Ministry of Tourism
- ❑ Physical Planning Unit

- ❑ Grenada Chamber of Commerce
- ❑ Marketing and National Importing Board
- ❑ Grenada Board of Tourism
- ❑ Gravel and Concrete
- ❑ Grenada Development Bank
- ❑ National Emergency Relied Organization (NERO)
- ❑ Grenada International Airport
- ❑ Grenada Bureau of Standards
- ❑ Grenada Ports Authority
- ❑ National Water and Sewage Authority

Non-Governmental Organizations

- ❑ Agency for Rural Transformation
- ❑ Friends of the Earth
- ❑ Grenada Community Development Agency
- ❑ Grenada Conference of Churches
- ❑ JECO

Private Sector

- ❑ Cable and Wireless
- ❑ True Value

The social and economic sectors relevant to land degradation with representation in the NSDC, are the Ministry of Agriculture (Land Use, Extension, Lands and Surveys Divisions), Forestry and National Parks Department,

A Chairman directs the affairs of the Council. Meetings are held once every month and membership is open to the public. The Council does not operate with a budget, or a written plan of activities, since its role is mainly advisory. Logistical support, however, is provided by the MOF.

Networking among members is facilitated mainly through regular meetings, the circulation of literature and the use of dialogue, the telephone and the electronic media. The council has several sub-committees responsible for specific issues. National sustainable development issues and those affecting the various agencies are discussed and recommended actions are proposed.

The Council does not operate a database. The only databases on the island with relevance to land degradation is the Land Use Division GLIS System, and the Physical Planning Unit's GIS System. There is currently a lack of adequate data on land degradation in Grenada..

Exchange of information internally, occurs mainly through literature, which is circulated among council members and through regular meetings. External information exchange occur electronically (E. Mail) and Fax, and sometimes through the post.

NSC

The role of the NSC is to plan and coordinate the implementation of UNCCD. The composition of the committee and Agencies represented are:

- | | |
|--|---|
| <input type="checkbox"/> Forestry and National Parks | Alan Joseph, Chief Forestry officer (Focal Point) |
| <input type="checkbox"/> Land Use Division (MOA) | Land Use Officer |
| <input type="checkbox"/> Extension Division (MOA | George Phillip |
| <input type="checkbox"/> Ministry of Finance | Mrs. Joycelyn Paul |
| <input type="checkbox"/> Agency for Rural Transformation | Mrs. Sandra Ferguson |

During its first meeting on March 29th 2000, the committee drew up a reviewed its mandate and drew up strategies for the development of an action plan (chapter 5) to combat land degradation.

The terms of reference of the Steering Committee

- Provide guidance on the overall nature of the planning process to ensure that planning work is on track and headed in the right direction
- provide guidance to ensure that the National action plan is finalized in the proper format
- Review National Report and Action Plan and make suggestions for improvement and assist the Focal Point in making revisions
- Promote awareness of the Convention to the public
- Participate in national consultations on land degradation

The Focal Point will work with the NSC in preparing Grenada's NAPCD. In particular he will:

- Brief the NSC on the specific planning methodologies
- Coordinate the development of a work-plan
- Review with the NSC, the national report

- ❑ Plan and participate in public consultations
- ❑ Work with the NSC to develop the action plan framework
- ❑ Integration of Action plan with other initiatives

4.2 Institutional Framework for Coherent and Functional Land Degradation Control

The Responsibility for land use management in Grenada is dispersed among several Government Ministries and Departments

- ❑ The Land Use Division in MOALFF, plays a role in agricultural land use planning and zoning. The Division performs an advisory role with reference to soil and water conservation on private and non-forested state lands.
- ❑ The Lands and Survey's Division in the MOALFF is responsible for development control, management and use of all state-owned lands including crown lands.
- ❑ The Forestry and National Parks Department manages forests on state lands and Grenada's outstanding natural and cultural heritage
- ❑ The Ministry of Health and the Environment is responsible for solid waste management, wastewater treatment and the health of the population.
- ❑ The National Water and Sewage Authority (NAWASA), manages the nations water and liquid waste
- ❑ The National Housing Authority has the authority to undertake housing development without the consent of other agencies.
- ❑ The Ministry of Communication and Works is responsible for government 's construction and maintenance activities, for the building of roads, for beach protection and granting approval for the mining of aggregates.
- ❑ Other include the Industrial Development Corporation and the Grenada Ports Authority

An overall assessment of these institutions reveals the following deficiencies:

- ❑ Lack of coordination in planning between departments
- ❑ Lack of long term planning
- ❑ Untrained staff
- ❑ Ill defined responsibilities without clear guidance about functional relationships between agencies

No measures have yet been taken to strengthen these institutions at the local and national level to combat land degradation. Capacity development is one of the issues that will be addressed in the National Action Plan.

4.3 Analysis of Legislation on Environment and Related Fields

There is several legislation in Grenada with relevance to the environment. The main ones are as follows:

Forest, Soil and Water Conservation Act, Cap. 116 (1949)

This Act makes provision for the conservation of forest, soil, water and other natural resources. Various terms are defined, such as Crown land, forest offence, forest officer, forest produce, livestock, Minister, private land, prohibited area, property mark, timber and tree. It provides for the establishment of a Forestry Department within the Ministry of Agriculture, Lands, Forestry and Fisheries.

National Parks and Protected Areas Act, Cap. 206 (1990).

This Act provides for the designation and maintenance of National Parks and Protected Areas. Section 2 of the Act provides a definition for four words only and they are 'Council', 'Director', 'Minister' and 'Park Attendant'. By the Act, Government land may from time to time be added to a national park or be declared a protected area for public uses. It also provides that the responsible Minister shall discharge his responsibility through the National Parks Authority.

Grand Etang Forest Reserve Act, Cap. 124 (1906).

The Act's title states that it provides for the preservation of forest growth in the Grand Etang as a forest reserve for the benefit of Grenada. This Forest Reserve was established in 1906. The main objects of the Act are clearly set out in its preamble. They are stated to be conservation and promotion of rainfall and prevention of encroachment being made in the forest growth.

Birds and Other Wildlife (Protection) Act, Cap.34. (1957).

This Act provides for the protection of wild birds and other wildlife including fish, lobsters, turtles and oysters through "closed seasons". It provides only one definition and that is for wild birds. Section 3 of the Act provides an absolute prohibition against killing, wounding, taking any wild bird or its eggs and that any one found with a bird killed, wounded or with the eggs or nest is guilty of an offence. This provision pertains to all wild birds except several which are enumerated in the Second Schedule (Appendix 'B'). The exportation of any wild bird is absolutely prohibited with the exception of those enumerated in the Second Schedule (Appendix 'B'). There is a "closed season" for the wild birds set out in the Second Schedule. A closed season is also set for lobsters, turtle and oysters.

National Water and Sewage Authority Act, Cap. 208 (1991).

This is a relatively recent Act; it came into force in January 1991. It establishes the National Water and Sewerage Authority as a corporate body, and sets out its functions and powers as the sole Authority responsible for the provision of water supplies, conservation, augmentation, distribution, preservation

and protection of catchment areas in Grenada. It is also responsible for the treatment and disposal of sewage and other effluents.

Land Development Control Act, Cap. 160 (1968).

The Act provides for the orderly and progressive development of land. Definitions are provided for words such as 'building', 'building operations', 'development', 'land' Comptroller, and 'owner'. It provides for the establishment of a Development Control Authority with membership drawn from physical planning, the public works, health, agriculture and housing departments. The Act prescribes that the Authority meet as necessary or expedient for transacting business. Four members form a quorum for the meetings and it has power to regulate its own proceedings.

Town and Country Planning Act, Cap. 322 (1946).

This is an Act to make provision for the orderly and progressive development of land, towns and other areas, whether urban or rural, to preserve and improve the amenities thereof, and for connected purposes.

Prohibition of Birds Exportation Act (1991)

The Act prohibits the exportation of birds from Grenada. Section 3 of the Act states that as otherwise provided, no bird of any description shall be exported from the State without a written license to do so issued by the Minister. Section 4 provides that the Minister may issue licenses for birds to be exported on such conditions as he sees fit. It is also provided that any person who without a license, exports birds, or causes birds to be exported or aids such exportation is guilty of an offence. On summary conviction such a person is liable to a term of imprisonment in the first instance of 18 months; for a second or subsequent conviction, such a person shall be liable to a term of imprisonment of 24 months.

Noxious Weeds Act, Cap. 213 (1912).

This Act was passed in 1912 and makes provision for the eradication of noxious weeds. Noxious weeds are defined as any plant which the Minister may declare to be a noxious weed, either throughout the whole of Grenada or in one or more districts. There is provision for the appointment of inspectors who may be assigned duties.

Protection from Disease (Plants) Act, Cap. 258 (1925).

This Act provides for the eradication of plant disease. Section 2 is specific in terms of what is defined as a plant. Plant includes "tree, plants, roots, herb or grass, or part thereof". "Plant disease" includes any condition conducive to the deterioration or destruction of a plant or part of a plant whether such deterioration or destruction be due to disease, insects, blight, fungus or any other cause and whether communicable or not. The Minister is empowered to declare any district, area, or parcel of land infected or suspected or being infected with plant disease; prescribe the means of isolation of any such district, area or parcel of land infected or suspected of being infected with plant disease; prescribe and regulate the destruction and removal of plants and products within a district, area or parcel of land

infected or suspected of being infected with plant disease among other actions. The Minister can appoint officers to carry out the provisions of the Act.

Land Settlement Act, Cap. 161 (1933).

This Act provides for the establishment and location of smallholdings. Only three words are defined in the Act: "Board", which means the Land Settlement Development Board; "peasant proprietor" meaning the person who is "the owner or occupier of not more than 10 acres of land and who is an agriculturist, labourer, domestic or menial servant, artificer, handicraftsman, or who is otherwise engaged in manual labour" and "small holding" meaning the agricultural holding which does not exceed 5 acres of land within the boundaries of any land declared to be a land settlement area. Section 3 provides for the establishment of a corporate body known as the Land Settlement Development Board. The Board, with the approval of the Minister may, for the purpose of providing smallholdings, buy, take or lease land by agreement with the owner, and declare such land to be a land settlement area.

Carriacou Land Settlement and Development Act, Cap. 42 (1955).

This Act establishes and empowers a body corporate to regulate and control land settlement and development in Carriacou. Section 3 provides for the establishment of a Board known as the Carriacou Land Settlement and Development Board. The Board has the power to control, develop and recognize whatever such lands as may be vested in it with the economic and social requirements of the community, and with the need for conserving natural resources of soil, forest and water. The Board is also authorized to lease any such lands, as it deems necessary.

National Trust Act, Cap. 207 (1967).

The title of this Act states that it is an Act to incorporate the Grenada National Trust with limited liability. The Trust as a corporate body has power to hold real estate, chattels, items of historic interest and other property. If the National Trust is dissolved, it provides that all of its holdings shall become vested in the Government. The Trust is to be administered by a Council, and certain members who are elected by the Minister.

Crown Proceedings Act, Cap. 74 (1959).

This Act relates to the civil liabilities and rights of the Crown and to civil proceedings by and against the Crown. Additionally it provides for civil liabilities of persons other than the Crown in certain cases involving the affairs or property of the Crown, and for connected purposes. It sets out the right of any person to sue the Crown, and the liability of the Crown, in respect of wrong committed by its servants or agents, in respect of breaches of duties owed by its servants or agents and in respect of any breach of duties attaching at common law to ownership, occupation, possession or control of property.

4.4 Measures to adapt current legislation

The effectiveness of environmental legislation is hindered by three factors, they are outdated, not enforced and there is little public knowledge of their existence. Most of these laws were developed during the Colonial period and needs to be reviewed for consistency with new concepts, strategies and policies of conservation, and adapted to create effective and appropriate conditions for the management, planning and sustained use of resources.

CHAPTER 5

5.0 PLANNED STRATEGIES FOR DEVELOPMENT OF A NATIONAL ACTION PLAN TO COMBAT DESERTIFICATION (NAPCD)

5/1 Development of NAPCD

Grenada is currently putting structures in place to develop its NAPCD. The Government of Grenada apologizes for any inconvenience caused to the Conference of the Parties (COP). The COP, however, can be assured that the Government will make every possible effort to speed up the process of development of the NAPCD.

The NSC, During its first meeting on March 29th 2000 drew up strategies for the development of an action plan to combat land degradation. An outline is shown below:

- ❑ Launching of an awareness programme to sensitize the public about desertification and drought
- ❑ Establish partnerships with land users, local communities, local authorities, government institutions, ngo's and the private sector, which are engaged in or are affected by land use management and water resources. in identifying, problems, constraints and solutions.
- ❑ Establish linkages with relevant local institutions and other related initiatives to avoid duplication of effort
- ❑ Establish partnerships with regional and international Agencies in support of the Convention to procure technical and financial assistance to developing and implementing an Action Programme to combat desertification and drought.

Several issues have already been identified to be addressed in the NAPCD

- ❑ Attain political awareness and support
- ❑ Development of policies for land use and management
- ❑ Review of existing legislation governing land use and management
- ❑ Strengthening of appropriate institutions
- ❑ Establishment of networks to combating land degradation
- ❑ Development of a comprehensive Information Systems for land degradation
- ❑ Establishment and strengthening and Early Warning Systems for land degradation
- ❑ Expanding and Improving Education and Training
- ❑ Promoting Public Awareness of the effects of land degradation.
- ❑ Promotion of research and extension
- ❑ Promotion of conservation technologies

- ❑ *Formation of emergency plans to deal with the effects of drought
- ❑ Sustainable management of forest resources
- ❑ Food security and sustainable development and management of agricultural resources
- ❑ Conservation and sustainable use of biodiversity
- ❑ Integration of land degradation programmes in national agricultural and forestry plan

5.2 Identification of Resources for Implementation of NAPCD

In accordance with Article 20 & 21 of the Convention, Grenada will make the effort to ensure that financial resources are available for the development and implementation of the NAPCD. Financial support for the preparation of the NAPCD has recently been received from the United Nations Development Programme (UNDP). No other sources of funding have yet been identified, however, Grenada will seek to achieve the following:

- ❑ Mobilize financial resources to support implementation of programmes to combat land degradation and mitigate the effects of drought.
- ❑ Promote the mobilization of adequate financial resources from the Global Environmental Facility.
- ❑ Facilitate the transfer of appropriate knowledge and technology through international cooperation.
- ❑ Develop regional and sub-regional cooperation to support national efforts

5.3 Conclusion

The increasing demand for land by the various land use types coupled with the limited land resource will continue to result in land degradation. The problem is compounded by the lack of a land use policy, inadequate legislation, lack of public awareness, and weak institutions. Solutions to the problems of land degradation must involve the participation of all stakeholders in identifying problems, constraints, and opportunities in land degradation, and in the development and implementation of programmes to combat land degradation. The Government recognizes the importance of integrating environmental considerations with economic development to achieve sustainability. In this respect, the government should make every effort to implement the objective of the UNCCD.

Annex 1. Forest Policy for Grenada, Carriacou and Petit Martinique

1. Preamble

Forests and forest resources play an essential role in the economic, social and cultural development of Grenada¹. They provide essential goods and services, and are an integral part of the national heritage. The conservation of the country's forest resources is an economic, social and moral imperative. It should contribute to national development objectives, including the elimination of poverty.

Grenadian's require an environment which is clean, safe and healthy for all (people, plants and animals), and which is well-managed for its economic, social, cultural, aesthetic and other benefits, with the maintenance of its full natural productive capacity.

This policy is intended to provide guidance to all stakeholders concerned with the wise use and sound management of the nation's forest resources. 'Forest' is understood to include all forest ecosystems² and non-agricultural trees, as well as the goods and services that they provide.

2 Goal

Maximize the contribution of forests to environmentally-sound social and economic development.

3 Objectives

- a) conserve species, ecosystems, and genetic diversity
- b) maintain, enhance and restore the ability of forests to provide goods and services on a sustainable basis
- c) optimize the contribution of forest resources to social and economic development
- d) maintain a positive relationship between the Grenadian people and their forest environment

4 **strategic directions**

A number of important directions have been identified, to guide the implementation of the objectives in a number of sub-sectors (in alphabetical order – apart from Carriacou and Petit Martinique):

4.1 Biodiversity

- a) maintain representative samples of all forest ecosystems
- b) protect all species which are important because of their endemism, rarity or value
- c) establish and maintain a base of knowledge on Grenada's Biodiversity
- d) build awareness and appreciation of biodiversity and its importance
- e) promote the sustainable use of genetic resources for social, spiritual and economic benefits
- f) build the capacity of Grenadian institutions to participate in the conservation and management of the country's biodiversity
- g) create incentives and other mechanisms to encourage the conservation of privately-owned forests
- h) encourage the participation of government and community stakeholders in programmes for biodiversity conservation
- i) minimize conversion of natural forest into plantations, particularly in upland areas
- j) minimize and control all burning and wild fires in forest areas

4.2 Mangroves

¹ In this document 'Grenada' means 'Grenada, Carriacou and Petit Martinique'

² From coastal scrub and mangroves through to cloud forests

- a) develop a positive perception of mangroves
- b) promote sustainable uses of mangroves
- c) develop and establish a structured collaborative management system with clearly defined roles and responsibilities
- d) develop legislation to control the use of mangroves and to allow for contractual agreements between owners, users and government

4.3 Non-timber forest products

- a) promote the incorporation of non-timber forest product management in all forest areas
- b) establish collaborative management arrangements between users and owners, where appropriate
- c) conduct research into the traditional, modern and potential uses of non-timber forest products
- d) increase the supply of raw materials for arts and craft

e)

4.4 Recreation and eco-tourism

- a) provide opportunities for forest-based recreation
- b) enhance and diversify the nation's tourism product
- c) bring social and economic benefits to communities located near forest areas
- d) minimize negative impacts of recreational and touristic uses on the forest
- e) involve communities in the development and management of eco-tourism sites
- f) review institutional arrangements for the management of protected forest areas to ensure that it is integrated, effective and efficient

4.5 Timber production

- a) rationalize the production of timber
- b) meet the local demand for high-value hard wood for the furniture industry
- c) develop and use a Code of Practice for all timber harvesting and extraction on State land

4.6 Tree planting

- a) encourage tree planting to reduce soil erosion, improve soil fertility, beautify and enhance the environment, provide timber and other products and maintain biodiversity
- b) develop programmes to encourage stakeholders (e.g. schools and other community groups / organizations) in tree planting in urban and rural areas
- c) create incentives for tree planting on private lands

4.7 Watershed management

- a) adopt an integrated approach to watershed management, with appropriate institutional arrangements
- b) conserve all ground and surface water resources and protect from pollution and depletion
- c) maximize soil cover and prevent deforestation, as far as possible, in all watershed areas
- d) minimize soil erosion and sedimentation, particularly for the benefit of aquatic species and ecosystems (both freshwater and marine)
- e) control infra-structural development and improve farming practices in catchment areas
- f) develop incentives for proper watershed management practices
- g) identify and recommend alternatives for activities detrimental to watersheds

4.8 Wildlife management

- a) conserve wildlife for the benefit of public education, hunting, recreation and biodiversity
- b) limit the negative impacts of wildlife on agriculture
- c) conduct research on population dynamics of important wildlife species
- d) develop effective systems to control hunting and the sale of wild meat

4.9 Carriacou and Petit Martinique

- a) ensure that the specificity of Carriacou and Petit Martinique is taken into account in the implementation of all aspects of this policy
- b) develop effective systems for the control of grazing and the movement of animals

5 Requirements for implementation

The attainment of the goal, objectives and strategic directions will require the following elements:

- a) adoption of the policy by the Government of Grenada
- b) commitment of the Government of Grenada and all other stakeholders to its effective implementation
- c) participation of people and institutions in all aspects of implementation, on the basis of a full and informed understanding of the rationale for and contents of the policy
- d) greater public awareness of the importance of the forest and the requirements for its conservation at all levels through effective environmental education
- e) use of effective, workable and practical approaches and tools, compatible with other policy instruments
- f) transparency and accountability, with an adequate flow of information among all concerned parties, and with mechanisms for feedback
- g) clear definition of the roles and responsibilities of the various partners in the implementation of the policy
- h) integration, institutional linkages and collaborative arrangements among relevant governmental agencies, as well as between government and civil society, including the establishment of coordinating bodies for key areas such as environmental education and watershed management
- i) respect for and compatibility with internationally accepted norms and practices and participation in relevant international agreements
- j) establishment of procedures and indicators for on-going monitoring and evaluation of impacts and external factors, and for adaptation of policy directions and instruments on that basis
- k) adequate capacity within all relevant institutions
- l) appropriate financing from:
 - government
 - other sources (NGO-secured, grants, etc.)
 - revenue generation (e.g. user fees)
- m) adoption of a facilitatory role by key Government departments, in particular the Forestry Department (Ministry of Agriculture) and the Agriculture Division (Ministry of Carriacou and Petit Martinique Affairs)
- n) review of forest-related legislation and to ensure its conformity with the terms of the policy and enforcement of all forest-related legislation
- o) formulation and effective implementation of strategic plans, programmes and projects

Grenada's Forest Policy Development Process: May '97 – September '98.

May '97		2-day 'Visioning' workshop	
-			
June '97		Main conclusion: 1984 Forest Policy needed a consultative and participatory review	
-			
July '97		The Ministry of Agriculture approves the Forestry Department's request for a Forest Policy review	
-			
Aug. '97		Discussions held concerning the policy development process.	
-			
Sept. '97		----- ®	
-			
	<u>Forest Policy Studies</u>	<u>Forest Policy Process Committee</u>	<u>Stakeholder consultation process</u>
Oct. '97	The forest resource / biodiversity	Conclusions of <u>First Meeting</u> :	with guidance from the Committee
-	Watershed management	1) The policy is for whole Nation.	
-	Processing / harvesting options	2) We should be concerned with a good <u>content</u> and <u>process</u> .	
-	Private planting of seedlings	3) The consultation process should cover all of society.	
Nov. '97	Recreation / eco-tourism	4) It must be well-informed and participatory with the stakeholders 1) <u>Forest Policy questionnaire</u>	
-	Mangrove /coastal management	both the makers and beneficiaries.	430 questionnaires returned.
-	'Vision' / institutional linkages	5) The policy should relate to both the resource and the goods	Comments and scores analyzed
Dec. '97	Wildlife conservation	and services that it provides.	and circulated.
-	Non-timber Forest Products		
-	Environmental education & culture		
Jan. '98	Carriacou & Petit Martinique		
-			
-	Studies reviewed		2) 14 Community consultation
Feb. '98	by Committee	<u>Second Meeting</u> : Study summaries reviewed	meetings throughout
-		Members agree to chair community consultation meetings ® ® ® Grenada,	Carriacou and
-	<u>Research conducted</u> :	and take part in radio phone-in programmes ® ® ® ®	Petit Martinique.
Mar. '98	Literature / legislation reviews		
-			
-	Field visits / observations		
April '98			3) Four radio phone-ins
-	Interviews / meetings		
-		<u>Third Meeting</u> : Agreement reached concerning objectives,	
May '98	Circulation of questionnaires	structure, location and participants of July workshop.	
-			
-	Writing up, editing and circulation to		
June '98	workshop participants		
-			
July '98		----- ®	
-			
		<u>5-day Consensus-building Workshop</u> : representatives from all stakeholder groups	
Aug. '98		Forest Policy document drafted based on July workshop.	
-			
-		Review of draft policy and submission to Cabinet for approval	

PERSONS INTERVIEWED

Aden Forteaau	Forestry and National Parks Division (MOALFF)
Aaron Francois	Planning Division (MOALFF)
Anthony Jeremiah	Forestry and National Parks Division (MOALFF)
Bernard McIntosh	Chief Agricultural Officer, Carriacou & Petit Martinique
David Antoine	Ministry of Finance
George Phillip	Extension Division (MOALFF)
Joseph Antoine	President, Friends of the Earth, Grenada
James Finley	Chief Fisheries Officer (MOALFF)
Paul Phillip	Fisheries Division (MOALFF)
Raymond Baptiste	Land Use Division (MOALFF)
Sandra Ferguson	Director Agency for Rural Transformation
Selby Dabreo	Solid Waste Authority, Ministry of Health and the Environment
Issiac Bhagwan	Community Development Coordinator, Ministry of Youth, Sports, Culture and Community Development
Wilfred Jones	Permanent Secretary, , Ministry of Youth, Sports, Culture and Community Development

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