

# FINAL REPORT

**POLICY AND LEGAL  
CROSS-CUTTING REPORT**

Prepared for National Environment  
and Planning Agency The National Capacity  
Self Assessment Project (NCSA) - Jamaica  
10 Caledonia Avenue  
Kingston 5 Jamaica, W.I.



Prepared by Hugh Hyman and Rainee Oliphant  
May 2005

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10 Caledonia Avenue  
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Jamaica**

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**September 2005**

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## LIST OF ACRONYMS

ACCC	Adapting to Global Climate Change in the Caribbean
BCH	Biosafety Clearing House
BPOA	Barbados Programme of Action
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
COL	Commissioner of Lands
COP	Conference of Parties
CPACC	Caribbean Planning for Adaptation to Global Climate Change
EMS	Environmental Management Systems
FD	Forestry Department
GDMS	Geographic Data Management System
GHG	Green House Gases
GIS	Geographic Information Systems
JPSCo.	Jamaica Public Service Company
LICJ	Land Information Council of Jamaica
LMO	Living Modified Organism
MCT	Ministry of Commerce and Technology
MFAFT	Ministry of Foreign Affairs and Foreign Trade
MLE	Ministry of Land and Environment
MOA	Ministry of Agriculture
MACC	Mainstreaming for Adaptation to Climate Change
NCSA	National Capacity Self-Assessment Project
NCSP	National Communication Support Programme
NEPA	National Environment and Planning Agency
NEPPS	National Environment and Planning Policy and Strategy
NFMCP	National Forest Management and Conservation Plan
NIP	National Industrial Policy
NLP	National Land Policy
NSWMA	National Solid Waste Management Authority
NSMWP	National Solid Waste Management Policy
ODPEM	Office of Disaster Preparedness and Emergency Management
OUR	Office of Utility Regulation
PA	Protected Area
PCJ	Petroleum Corporation of Jamaica
PIOJ	Planning Institute of Jamaica
PSMU	Public Sector Modernization Unit
PSMVS	Public Sector Modernization Vision and Strategy
SD	Survey Department
SIDS	Small Island Developing State
SRC	Scientific Research Council
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCC	United Nations Framework Convention on Climate Change
UWI	University of the West Indies
WRA	Water Resources Authority

## **ACKNOWLEDGEMENTS**

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Special thanks go to Mrs. Winsome Townsend, Director Strategic Planning Policy and Projects Division (NEPA) and chair of PSC, Miss Keina Montaque, Project Assistant (NCSA) and the Convention Focal Points for their support.

Funding for the NCSA was provided by the Government of Jamaica, United Nations Development Programme and the Global Environment Facility.

## EXECUTIVE SUMMARY

The main objectives of the policy and legal cross cutting assessment are to:

- provide an outline of the existing capacity gaps in the legislative, non-regulatory and policy framework governing the implementation of Jamaica's responsibilities under the three Rio Conventions (**United Nations Convention to Combat Desertification, the Convention on Biological Diversity and the United Nations Convention on Climate Change**);
- highlight the opportunities that obtain for fulfilling these obligations; and
- identify actual and proposed programmes and project ideas which will facilitate this process of implementation.

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An in-depth analysis of relevant national policies, action plans and legislation was the main mechanism used to aid the development of this report. The work/output also benefited from direct consultations and meetings with other consultants, the representatives of various government agencies and stakeholders. This process resulted in the formulation of some basic findings which are summarized as follows.

### Legislative Framework

The legislative framework has been generally found to be facilitative of implementation of the Conventions' provisions. This is reflected in the fact that Jamaica did not find it necessary to enact legislation before becoming a party to the Conventions.

However a number of legislative changes are desirable, mainly for a more focused and efficacious implementation of the Conventions' requirements.

Streamlining of areas of overlap among legislative provisions and jurisdiction among agencies are already being pursued in respect of the new Environment and Planning legislation, a new legal framework for protected areas and pending new water services legislation.

A major priority is to update the applicable penalties as in a number of instances, the penalties are so low that it would be virtually tantamount to wasting judicial time, to institute a prosecution.

A number of general problems as regards environmental legislation development and enforcement also need to be addressed and provide opportunities for project formulation and pursuit.



It is proposed that the following be done towards ensuring a more facilitative setting for implementation of the Conventions:

- i. educate citizens as to their rights re the environment and explore having private citizens and environmental non-governmental organizations (NGOs) more empowered to bring “public interest” court actions where their interest in the due conservation of the environment is breached and make the requisite legislative changes to address technical legal impediments to bringing such actions;
- ii. carry out a periodic review and updating of penalties for breaches of environmental laws;
- iii. periodically, consult with and sensitize the judiciary as to the full implications and/or gravity of particular environmental breaches;
- iv. have environmental law breaches and their implications feature prominently in the training of members of the police force;
- v. enhance capacity to develop and adhere to appropriate action time tables towards speedy implementation of Regulations needed to give efficacy to enacted primary legislation;
- vi. have legislation indicate timeframe for passage of particular Regulations, after primary legislation comes into force;
- vii. enhance capacity to enact timely legislation necessary to incorporate international treaties to which Jamaica becomes a party;
- viii. empower citizens to take action to have relevant government agencies act without undue delay (having regard to all relevant circumstances);
- ix. explore how best protection is to be provided for the rights of private citizens as regards the environment under the Jamaican Constitution (bearing in mind that discussions appear imminent to advance the proposed new Charter of Rights and Freedoms, to create “the right, compatible with sustainable development, to enjoy a healthy and productive environment”<sup>1</sup>).
- x. amend **The Criminal Justice (Reform) Act, 1978** (which sets out sentencing options for the courts) or otherwise make provision for increasing the sentencing options as regards breaches of environmental law.

Additionally, there are a number of areas of constraint, which have been indicated in respect of particular pieces of legislation and which need to be addressed. These areas, particularly those relating to genetic resources, intellectual property protection and the Maroons may be addressed by appropriate projects. In this regard, the following Acts should be strengthened and legislation developed:

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<sup>1</sup> See: *Bill – The Charter of Rights (Constitutional Amendment) Act, 1999, Section 13(2)(o)*.

1. **The Town and Country Planning Act, 1958** to clearly address marine areas beyond Jamaica's land area;
2. Repeal **The Country Fires Act, 1942** and replace with modern legislation put in place to address the setting of or dealing with fires throughout all of Jamaica with appropriate deterrent sanctions for offenders;
3. introduce comprehensive legislative measures to specifically address the issue of control of alien species;
4. enact legislation to address the preservation and utilization of traditional knowledge;
5. develop a clear comprehensive policy as to how to treat with the Maroons, their lands, knowledge, culture and related matters; and
6. develop legislation to protect genetic resources and provide for intellectual property protection for breeders of and accessing new plant varieties.

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Policies need to be utilized, geared or changed to direct usage of legislation to deliberately implement the Conventions' requirements and generally ensure appropriate emphasis is placed on the Conventions' implementation in utilizing and applying existing legislation.

### **Policy Framework**

The existing Policy framework in Jamaica when examined in light of the current obligations under the three UN Conventions is deemed in some respects sufficient to allow for the fulfillment of the responsibilities. There are however areas of concern which need to be addressed to ensure that they are dealt with in a comprehensive manner. The lack of proper or effective implementation of the Policy statements is an area of great concern, even more significant than the issue of poor document formulation.

Policy implementation can only be carried out if the right systems are in place. The proposed mechanism for this is the ten-year Strategy<sup>2</sup> developed by the Public Sector Modernization Unit of the Cabinet Office which rather than reinventing the wheel, could facilitate the modernization of the Policy development process in Jamaica.

Though a plethora of Policy documents in existence which relate to the protection and sustainable use of the environment these have had limited impact on the actual resources which they were formulated to conserve and / or manage. Though many of the Policies suffer from poor construction, the majority of the Policies have mechanisms which outline viable implementation strategies. A thorough assessment of the shortfall needs to

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<sup>2</sup> See reference to Strategy in Chapter 3

be carried out to quantify the impact that non-implementation of these Policies are having on the environment. This it is felt will propel sufficient attention to this matter which by extension will it is anticipated, result in a higher priority ranking by the Government of the environment.

The policies with the potential to affect the implementation of the island's responsibilities should advert specifically to the Conventions as well as outline strategies to achieve these objectives. This would ensure that the plan of action set out what is to be done, the responsible authority, identify the required resources and itemise the methodology to facilitate the actual implementation process.

NEPA though the logical agency for the coordination of activities under the three conventions, does not have the capacity to implement all of the policies it has developed. Many of the Policies which are relevant to the implementation process also do not fall under the remit of NEPA. There is a need therefore in the development of the various Policy documents to include a schematic outlining the agencies which will be involved in the actual implementation e.g. Forestry Department, Water Resources Authority, Rural Physical Planning Unit, National Land Agency etc.

## 1. INTRODUCTION

“The existence of these multiple constraints does not mean that ‘our hands are tied’ and there is little or nothing that can be done. It does not warrant negativism and pessimism. It means only that a way must be found to move within, and around, the constraints, and to move them out so the country can move forward in the drive for growth and development.”<sup>3</sup>

There is a direct correlation between Jamaica’s environmental and ecological sub-systems and the development of sound economic systems. Rational thinking would assume that all relevant policy and legislative instruments should attempt to provide a balance between economic development and environmental conservation thereby ensuring any development is guided by principles of sustainability.

There is a further need however, for the institutionalization of enabling economic policies and sufficiently comprehensive regulatory, legal, institutional and administrative mechanisms to guide the sustainable development process. This it is felt will assist Jamaica in fulfilling the existing responsibilities under the Rio Conventions.

Several existing environmentally related action plans and strategies have a common thread, namely, the recognition of the direct link between the maintenance of a healthy environment and the activities of the various sectors which contribute to the development of the country’s economy.

“Natural and environmental resources are deteriorating partly due to the critical sectors of the economy such as tourism, agriculture, manufacturing and mining and quarrying. The deterioration of the environment jeopardizes these industries and the society at large.”<sup>4</sup>

The aim of this Report is to identify existing policy and legal mechanisms which can be used to fulfill the current obligations under the Rio Conventions whilst simultaneously identifying any existing gaps in the capacity of the Country to meet its international responsibilities. Solutions to meet these shortfalls, especially where these relate to the findings of the Thematic Reports<sup>5</sup> developed in the recent past under the NCSA will also form part of the Reports findings.

The final product will highlight the existing framework, as well as the potential opportunities for meeting identified the priorities. It is anticipated in the near future, that the findings will assist in arresting the current practice which sees the *ad hoc* adoption of policy and legislation. It is felt that this will result in a more coordinated approach to the

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<sup>3</sup> National Industrial Policy – pg 147

<sup>4</sup> Jamaica National Assessment for the Barbados Programme of Action - 2003

<sup>5</sup> Draft Reports (1) Thematic Assessment – United Nations Framework on Climate Change November 2004; (2) Thematic Assessment – United Nations Convention on Combating Desertification – October 2004; and Thematic Assessment – Convention on Biological Diversity and the Cartagena Protocol on Biosafety October 2004

sustainable management of the island's natural resources, as well as the easy establishment of priorities to guide the decision-making organizations within the Country. This as a result of the fact that the process will be a more informed one thereby paving the way for the incorporation of principles similar to those advocated by the three Conventions.

The need for the inclusion of the populace in the development of policy and legislation cannot be discounted, and the recognition of this fact by the key players in the environmental sector has led to an increase in the level of participation by a cross-section of the society. Public consultations to discuss the thematic aspects of each Convention have resulted in the identification of areas that it was felt would require priority attention in order for the obligations to be met.

The participants identified the need for the development of -

1. National Action Plans
2. Enabling local legislation
3. Research and Public Education programmes
4. Information exchange systems
5. Training programmes
6. Reporting mechanisms

Implementation of the areas identified above it is recognised have in the past been thwarted by the non-existence of an effective programmatic framework to tackle the thematic and crosscutting issues related to the three Conventions. The lack of adequate human, financial and physical resources has also served to derail some of the attempts made to fulfill some of the said obligations.

Though none of the policies, legislation or action plans (excepting the NBSA) which were reviewed were created as a direct result of any of the three Conventions, it is recognised that the existing policy framework can be utilised with some modifications to allow for the complete implementation of Jamaica's obligations.

In light of this, the report seeks to identify where the nexus lies in relation to the local framework documents so as to reduce the opportunities for the duplication of effort and by extension waste of the already limited human, financial and natural resources.

## 2. METHODOLOGY

An in-depth analysis of various national policies, plans and legislation was the main activity during the development of this Report, and the information gleaned therein served to inform the interview process that was also undertaken by the Consultants. The intention being, a final product that clearly articulated the constraints affecting the implementation of the island's responsibilities under the Rio Conventions along with the recommendations for corrective measures and priority actions.

The review was conducted on a wide cross-section of relevant legal instruments; policy and non-regulatory mechanisms which are currently in usage in Jamaica, along with the *'Guide for Self-assessment of Country Capacity Needs for the Global Environmental Management'*<sup>6</sup> which served as the overarching backdrop for the review process. Information was also derived from the Stocktaking and Thematic Assessment reports on the Rio Conventions developed during the National Capacity Self-Assessment evaluation process.

By identifying the capacity constraints and analyzing the existing gaps in the relevant laws and policy documents, the consultants were able to outline some basic priority areas which it was felt should be dealt with in the short to medium term. This it was envisioned would create the opportunity to develop a comprehensive capacity needs schedule within the existing legal and policy framework

The work/output benefited from consultations and meetings with other consultants, government agencies and stakeholders along with the perusal of legislation, policy documents and assorted background reading material.

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<sup>6</sup> GEF Secretariat

### 3. CONVENTION ON BIOLOGICAL DIVERSITY

#### 3.1 Objectives

The objectives of the Convention are “*the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.*”<sup>7</sup>

"Biological diversity" is defined to mean “*the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.*”<sup>8</sup>

#### 3.2 Jamaica's Obligations

Jamaica has obligations under the Convention to:-

1. develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes Convention relevant to the Contracting Party concerned;
2. integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.<sup>9</sup>
3. identify and modify components of biological diversity important for its conservation and sustainable use:-
4. carry out insitu conservation:-
  - “(a) *Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;*
  - “(b) *Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;*
  - “(c) *Regulate or manage biological resources important for the conservation of biological diversity whether within or outside*

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<sup>7</sup> per **Article 1.**

<sup>8</sup> per **Article 2.**

<sup>9</sup> per **Article 6.**

*protected areas, with a view to ensuring their conservation and sustainable use;*

- (d) *Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;*
- (e) *Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;*
- (f) *Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies;*
- (g) *Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;*
- (h) *Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;*
- (i) *Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;*
- (j) *Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;*
- (k) *Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations... ”<sup>10</sup>*

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<sup>10</sup> *per Article 8.*



5. carry out ex situ conservation:-
  - “(a) *Adopt measures for the ex-situ conservation of components of biological diversity, preferably in the country of origin of such components;*
  - (b) *Establish and maintain facilities for ex-situ conservation of and research on plants, animals and micro- organisms, preferably in the country of origin of genetic resources;*
  - (c) *Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions... ”<sup>11</sup>*
6. ensure, as far as possible, the sustainable use of components of biological diversity;
7. adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity;
8. carry out research and training;
9. promote public education and awareness and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity;
10. introduce appropriate procedures requiring environmental impact assessment of proposed projects that are likely to have significant adverse effects on biological diversity and generally minimize the risk of adverse impact on biological diversity;
11. have in place appropriate legislation to facilitate access to genetic resources;
12. take legislative, administrative or policy measures towards sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the state party providing such resources;
13. facilitate access to and transfer of technology and in the case of technology subject to patents and other intellectual property rights, access and transfer on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights;
14. take legislative, administrative or policy measures, as appropriate, with the aim that parties to the convention that are developing countries, which

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<sup>11</sup> per **Article 9**.

provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms, including technology protected by patents and other intellectual property rights;

15. take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology for the benefit of both governmental institutions and the private sector of developing countries;
16. cooperate, in recognition that patents and other intellectual property rights may have an influence on the implementation of the Convention, subject to Jamaica's legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives.
17. facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, taking into account the special needs of developing countries;
18. promote international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity, where necessary, through the appropriate international and national institutions;
19. encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of the Convention, in accordance with national legislation and policies;
20. take legislative, administrative or policy measures, as appropriate, to provide for the effective participation in biotechnological research activities by Contracting Parties, especially developing countries, which provide the genetic resources for such research, and where feasible in such Contracting Parties; and
21. reports on measures which it has taken for the implementation of the provisions of the Convention and their effectiveness in meeting the Convention's objectives.

### **3.3 Relevant Policies**

The CBD unlike the other two Conventions has one primary Policy document which seeks to address the concept of Biological Diversity and all of its necessary components. This comes in the form of a National Biodiversity Strategy and Action Plan<sup>12</sup> namely the NBSAP which articulates the position of the government in terms of addressing its obligations under the Convention.

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<sup>12</sup> Which because of the process adopted during its development is in actuality a Policy document

The implementation of the CBD has implications for several Ministries and their various Departments and Agencies. As indicated below, these responsibilities vary from the actual protection of the natural resources, to the provision of habitat and other things necessary for the protection of these. The following are some of the Policies that have a direct bearing on the Convention.

### **3.3.1 The National Biodiversity Strategy and Action Plan**

The NBSAP was completed in 2004 and falls under the authority of NEPA. As discussed previously of the three Conventions this is the only one which has a National Action Plan. The Plan because of its very nature can be deemed a Policy document from the Government to address the CBD and the responsibilities which Jamaica currently has there under.

The NBSAP is a relatively comprehensive document, and seeks to achieve certain goals some of which have to date been met<sup>13</sup>, e.g.

- Development of the National Clearing House Mechanism (CHM) web site;
- A National Biodiversity Strategy and Action Plan (NBSAP);
- A cartoon/comic strip entitled “A Nature Walk” was prepared and launched in commemoration of Biodiversity Day 2003; and
- A CD which includes a video presentation on biodiversity conservation in Jamaica.

The Action Plan, though it has been in place since 2004, was originally commenced in 1998. Its preparation and subsequent implementation has been dogged not by the lack of an overarching document, but by the lack of funding and designated implementing organizations. The Plan provides an evaluation of the biodiversity of Jamaica, and goes further to state the main factors affecting the sustainable management of these resources.

The identification of the projects and listing of priority areas of action is a positive step as it indicates which areas are to be targeted and in what order. It is felt however that the Plan needs to go further and identify funding mechanisms since this is the major factor which has contributed to the ineffective implementation of the Plan to date.

Based on the fact that it was created to meet the obligations of the CBD, there is little fault that can be found with the document, but it is a prime example of the huge divide which currently exists in relation to planning versus actual implementation. It is a clear indication of the fact that even with the existence of a comprehensive document, the lack of human and financial resources will prevent the full implementation.

### **3.3.2 The Biosafety Policy (Draft)**

The draft Biosafety Policy seeks to address the full scope of modern biotechnology and deals with the import, export, transit, contained use, deliberate release or placing on the

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<sup>13</sup> NCSA Draft stock-taking Report – pg. 40

market of any LMOs. The Policy recognized the need for the identification of an accountable organization, which would then guide the process of implementation.

It was recognized that the most logical Ministry to oversee the issue of Biosafety is the Ministry of Agriculture, but that this would be most efficiently achieved in conjunction with the other relevant Ministries. The draft Policy identified a National Focal Point in the form of the National Council on Science and Technology and supported the idea of having a joint national clearing house with the CBD.

The fact that the Policy exists is a step in the right direction, and the process of development allowed for public consultation, and as such it is a more advanced document in some respects. However the draft could benefit especially in light of the fact that it is the subject of a recent initiative from the incorporation of the components of a comprehensive Policy document. In its current state it is more analytical of the requirements of the Protocol but does not provide sufficient information to properly guide the process of implementation.

The components that have been identified as critical for the proper development of a sound Policy document are not incorporated in the process and as such leaves many gaps which must be filled.

### **3.3.3 Beach Policy 2000 (Draft)**

The Beach Policy is currently being administered by the MLE through NEPA. As the name suggests the Beach Policy concentrates mainly on the use and management of Jamaica's beaches with specific focus on factors which relate to the use of these areas, namely:

- Access – the provision of physical and equitable access to the foreshore and sea on a managed basis to all persons<sup>14</sup> and ownership of beachfront lands as far this affects access to the beach;
- Management of coastal resources – includes wildlife, implementation of pollution control, coastal resources vulnerable to the effects of climate change;
- Licensing and income generation; and
- Public safety – implementation of safety measures for beach users

The Policy also addresses pollution and water quality and the impacts that land based waste (sewage, industrial effluent, agricultural activities, urban run-off, modification of natural systems e.g. wetland destruction, urbanization and informal settlements) and ship generated waste (water sports, boats, fishing and commercial ships) has on the coastal resources.

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<sup>14</sup> Page -

### 3.3.4 Policy for Jamaica's System of Protected Areas – 1997

The Policy comes under the auspices of the Ministry of Land and Environment through its implementing agency NRCA. 'The various types of Protected Areas in Jamaica should individually and as part of a comprehensive system, contribute to achieving common environmental, economic, cultural and social goals<sup>15</sup>.' The Policy outlines several goals which are relevant to the this Convention namely–

- The promotion of land management and research into production and harvesting practices;
- The protection of supply and quality of natural resources e.g. productive land base, air and water;
- The preservation of major representative stocks or areas containing biological resources e.g. indigenous plant and animal species, genetic resources, eco-systems, vegetation and habitats.
- The protection of ecological systems which provide goods and services – restore protect and enhance watersheds etc. and ensure that essential resources (soil, water, trees, wildlife) are available for use;
- The restoration and protection of wetlands and forested hillsides that maintain life support processes and decrease the risk from natural disasters.

It is in keeping with several other environmentally related policies in that it also seeks to achieve certain goals (economic development, environmental conservation, sustainable resource use, public participation, and financial sustainability).

These tenets support some of the established objectives of the CBD and can impact its implementation in Jamaica.

### 3.3.5 Ocean and Coastal Zone Management

Another Policy with the potential to affect the implementation process is the Policy on Ocean and Coastal Zone Management.

The Ministry with the final responsibility for the implementation of this Policy is MLE and this is to be achieved with the assistance of NEPA. This Policy can be directly related to two of the three Conventions, namely the UNFCC<sup>16</sup> and the CBD, though the coastal zones can and are being impacted by the effects of the land degradation and as such there is an indirect connection with the UNCCD.

The focus however is on the natural resources found within this marine environment, and as such several issues were identified:

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<sup>15</sup> Protected Areas Policy – pg. 6

<sup>16</sup> Mention is made of the potential effects of global warming on the low lying coastal areas as a result of sea-level rise, namely the inundation of these areas as well as the impact on coral reefs as a result of the increased sea temperatures which result in the bleaching of these resources.

- need for the control of green house gas emissions;
- the increase in extreme weather events and the change in climatic patterns;<sup>17</sup>
- the identification of areas at risk from potential flooding;<sup>18</sup>
- the strict enforcement of building design standards and setback regulations.<sup>19</sup>

Several strategies were identified that if implemented would lessen the pressure on the coastal resources :

- development of sustainable forestry practices and watershed management especially as this related to the formulation of a generic land-based classification system;
- the development of sustainable agricultural practices by assessing land use and drainage systems, implementing soil and water conservation practices to control erosion and surface water run-off, and minimize the use of or transportation of fertilizers and pesticides to coastal areas.
- The promotion of sustainable tourism practices e.g. via the use of EMS, the provision of adequate sewage disposal facilities and the encouragement of the non-harvesting use of resources

The Policy highlights certain objectives, which include :

- i. the need for coordination between relevant agencies and institutions;
- ii. the development of systems and the application of appropriate technology to facilitate the sharing of and access to information;
- iii. the need for institutional capacity building (provision of adequate and properly trained staff);
- iv. creation of incentive schemes to encourage compliance;
- v. the allocation of budgetary and financial resources in accordance with government policy and programme priorities and the appropriation of these funds to the implementing agency.

These five bullets are particularly reminiscent of the issues identified in the development of the three thematic reports, except that within the confines of this policy document, it is directed specifically to the management of the coastal zone resource

### **3.4 Relevant Legislation**

#### **3.4.1 Laws related to Biological Diversity**

The National Strategy and Action Plan on Biological Diversity in Jamaica, July 2003, notes as follows:-

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<sup>17</sup> Connection can be made with the Hazard Mitigation Policy

<sup>18</sup> The Mapping of flood areas by the WRA can be used

<sup>19</sup>

*“Jamaica’s current environmental legislation provides a basic framework for the conservation and sustainable use of biodiversity. There are at least 52 pieces of legislation which have aspects that directly relate to the management of the environment. However, very few of these statutes deal comprehensively with the protection, conservation and sustainable use of biodiversity, as they are primarily sectoral in nature.”<sup>20</sup>*

The legal assessment concurs with that statement and in the Table below list those pieces of legislation which are considered of primary importance. The content of these are described in Appendix I.

**Table 1. Legislation of Primary Importance to the CBD**

<b>Legislation of Primary Importance to the CBD</b>
The Animal (Diseases and Importation) Act, 1948
The Beach Control Act, 1918
The Fishing Industry Act, 1976
The Morant and Pedro Cays Act, 1907
The Maritime Areas Act, 1996
The Wild Life Protection Act, 1945
The Aquaculture, Inland and Marine Products and By-Products (Inspection, Licensing and Export) Act, 1999
The Endangered Species (Protection, Conservation and Regulation of Trade) Act, 1999
The Patent Act, 1857

Most notable among these are **The Natural Resources Conservation Authority Act, 1991**(which is to be replaced by a new Environment and Planning Legislation), **The Forest Act, 1996** and **The Town and Country Planning Act, 1958**.

### **3.4.2 Protocol on Biodiversity (Cartagena Protocol on Biosafety, 2001)**

There is no suitable legislation to support the Protocol on Biosafety. The implementation of the Cartagena Protocol on Biosafety has followed a more logical course in that a

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<sup>20</sup> p. 13.

National Biosafety Committee has been formed, the legal requirements have been reviewed by the Attorney Generals Department, a Public Education Programme has been commenced, a National Focal Point on Biosafety has been identified, a National Focal Point for the Biosafety Clearing House has also been designated, preliminary participation in the BCH has taken place and a National Biosafety Framework has been developed.<sup>21</sup>

The Draft National Biodiversity framework provides as follows:-

*“Jamaica will develop and enact biosafety-specific legislation to ensure that modern biotechnology application proceeds in a manner that promotes human health and environmental safety. Such legislation will allow the country to satisfy the requirements of the Cartagena Protocol. Additionally, legislation dedicated to biosafety allows for refinement and addition of provisions as increasing risk knowledge warrants.”*

*The objective of the Biosafety Act is to contribute to measuring an adequate level of protection in the field of safe transfer, handling and use of Living Modified Organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account risks to human health.”*

### **3.5 Nonregulatory Mechanisms: Debt for Nature Agreements**

The governments of Jamaica and the United States of America have concluded agreements to reduce Jamaica's debt. In return for the debt reduction, the Jamaican government has committed itself to fund projects to conserve and restore important tropical forest resources in Jamaica.

The United States Department of Treasury noted in a press release on October 8, 2004, that:-

“The aim this debt-for-nature swap is to help Jamaica in its fight to safeguard the valuable forests and rich biodiversity in several areas.”

The Tropical Forest Conservation Act, 1998 of the U.S.A. facilitates the provision to eligible developing countries opportunities to reduce concessional debts owed to the U.S.A. while generating funds to conserve their forests.

The debt-for-nature swap mechanism accordingly has the potential to provide funding support for Jamaica's endeavors in respect of the three Conventions. However there are other countries who also seek similar support, which may only be possible at certain times, Jamaica has to be particularly alert to benefit from the opportunities that are afforded under this mechanism.

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<sup>21</sup> Thematic Assessment – Convention on Biological Diversity and the Cartagena Protocol on Biosafety



### **3.6 Policy and Legal Capacity Constraints/Gaps**

#### **3.6.1 Policy Constraints**

##### **Beach Policy**

- Two of the objectives that are outlined in the Policy which are particularly relevant to this assessment process are objectives 5 and 6.<sup>22</sup> The suggestions made in the Policy regarding the sustainable management of these two areas are in the view of the consultant insufficient to address the obligations of either the CBD or the UNFCCC respectively. In the former instance direct correlation between the protection of the habitat and the protection of the wildlife was identified. It was noted that an assessment of the existing resources would have to be conducted but no recommendation was made as to the coordinating or implementing agency. It can be used however as a stepping stone for future interventions relating to the protection of coastal and marine areas and the natural resources contained therein.
- The document does not contain any of the expected documentation relating to the implementation of the areas of focus, which were identified. These include a Plan of Action that would provide specific information on budget, identified priority areas, time-lines, coordinating or implementing agencies etc. This is especially noticeable in light of the fact that this Policy can be viewed as a relatively recent creation. Based on the fact that it has not yet been given official government sanction, should the opportunity arise for the inclusion of more information, then perhaps more detailed documentation on some of Jamaica's obligations under the CBD and UNFCCC could be inserted in the Policy.
- The document is far too basic in its formulation and content, and could serve if properly formulated as a conduit for the implementation of some of the obligations under the CBD and the UNFCCC. This however would require that the requisite alterations be done to bring it in line with the tenets of these Conventions.
- The roles and responsibilities of the various agencies that will be effecting implementation are not clearly articulated, which therefore means that the likelihood of these agencies adopting the responsibility of assisting in the implementation of the Conventions, is almost nil. This being due to the lack of even basic information on what the Conventions are about, and the requirements which need to be fulfilled by the signatory countries.
- Too much focus is being placed on the highly political issue of access, which in the end has served to delay the acceptance of the Policy and not enough emphasis on other areas which would assist Jamaica in fulfilling the existing international obligations.

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<sup>22</sup> Management of coastal wildlife, mangroves, cays and marine areas; and Management of coastal resources in light of their vulnerability to the effects of climate change and natural disasters

- Though attention is drawn to some of the Plans and Policies which have the potential to affect the Beach Policy, many are not in fact dealt with in a comprehensive manner e.g. mangroves, solid waste etc. Based on the potential harm that may obtain from the removal of the wetland or the deposition of solid waste, a link should be made in the Policy document to facilitate the development of linkages between all relevant policies.
- The potential for coastal flooding is of particular interest in light of the threat posed by sea-level rise, yet the Policy does not establish a position in relation to the need to mitigate any such occurrence whether by the imposition of statutorily defined setbacks or some other mechanism.

### **Protected Areas**

- There is no definitive statement on how these various goals should be implemented e.g. it stated that research data and information generated from the Protected Areas is to be shared within government agencies but no mechanism was identified to achieve this; It was stated in the conclusion that these would be addressed in a Protected Areas System Plan, again to date this is not available for use.
- The Policy also highlighted a listing of PA's which were to be declared over a two-year period, yet the stated time frame has passed and no action has been taken. The list needs to be revisited especially in light of the next bullet.
- Many of the areas listed in the Policy are already under one form or other of Protection, and at the risk of inefficiently utilizing the limited resources, perhaps the NRCA could work with the existing agency having a managerial mandate over these areas, to co-manage them rather than attach another designation on paper only.
- Private land conservation comes at a cost, and no mention is made in the Policy on the payment of compensation to private landowners who may be affected negatively by the declaration of their land. This could be in the form of the provision of an incentive(s) the provision of which is also dealt with in the Policy.
- No link is created with the National Land Policy which is one of the overarching Policies dealing with land, and especially in light of the fact that they both now fall under the same Ministerial Portfolio
- It speaks to the involvement of the public in the process of PA declaration yet it does not articulate how this is to be done as the roles and responsibilities are restricted to government entities.
- The reform of the various pieces of legislation that relate to PA's is not dealt with even though there is an obvious need to reform the existing legislative mechanisms which govern the system.

## Ocean and Coastal Zone Policy

- The document was extremely detailed in terms of the actions, which needed to be taken to ensure implementation as well as the agencies with the requisite responsibility for achieving this, but no time frame established or priority listing of the strategies.
- Though the Policy highlights some of the functions which may be undertaken by other environmental organizations, this it is not done in sufficient detail, which would provide information on how these entities would assist in the implementation process.

### 3.6.2 Legislative Gaps

As regards legislative gaps and challenges, the National Strategy and Action Plan on Biological Diversity in Jamaica, July 2003, states the following:-

*“Legislative Gaps and Challenges:*

- *Determining the mechanism to modify the Constitution to support biodiversity conservation, sustainable use of biological resources, and ownership of genetic resources;*
- *Determining the need to incorporate into legislation alternative regulatory instruments, such as economic incentives to promote sustainable use of biodiversity and ways and means to empower and support NGO’s involved in environmental projects;*
- *Developing legislation concerning scientific research and collection;*
- *Developing appropriate legislation with regards to the commercial use of living modified organisms;*
- *Ensuring adequate protection through legislation for various ecosystems e.g. rivers, coastal areas, wetlands, coral reefs, cays, and caves;*
- *Creating memoranda of understanding between departments and agencies of Government to clarify roles and responsibilities in the management of biodiversity;*
- *Establishing mechanisms to ensure awareness by the judiciary of the status of Jamaica’s biodiversity, especially threatened species; and*

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- *Including mechanisms within legislation to make it easier to prove environmental crimes and recover costs for remedial action.*<sup>23</sup>

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These constraints were found to be still relevant as well as:-

- i. control of alien species, persistent organic pollutants, and their importation by way of for instance ballast water (and here Jamaica should consider becoming party to the relevant international Convention for the Control and Management of Ship's Ballast Water and Sediments);
- ii. preservation and utilization of traditional knowledge and their communities (and here, consideration needs to be given to how to treat with Maroons, their lands, knowledge and developments by way of appropriate legislation); and
- iii. putting in place the requisite intellectual property and related legal regime to address how breeders can obtain protection for new varieties they develop or access new varieties developed in other countries and generally genetic resources and related issues.

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<sup>23</sup> p. 25.

## 4. UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

### 4.1 Objective

The ultimate objective of this Convention is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.<sup>24</sup>

### 4.2 Jamaica's Obligations

Under the Convention, Jamaica is committed to:-

- (a) develop, periodically update, publish and make available to the Conference of the Parties to the Convention, national inventories of anthropogenic emissions by sources and removals by sinks<sup>25</sup> of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties;
- (b) formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;
- (c) promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors;
- (d) promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems;
- (e) cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and

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<sup>24</sup> per **Article 2**.

<sup>25</sup> "any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere".

rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods;

- (f) take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change;
- (g) promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;
- (h) promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies;
- (i) promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations; and
- (j) communicate to the Conference of the Parties information related to implementation of the Convention.<sup>26</sup>

### 4.3 Relevant Policies

Several existing environmentally related action plans and strategies have a common thread, namely, the recognition of the direct link between the maintenance of a healthy environment and the activities of the various sectors which contribute to the development of the country's economy.

*“Natural and environmental resources are deteriorating partly due to the critical sectors of the economy such as tourism, agriculture, manufacturing and mining and quarrying. The deterioration of the environment jeopardizes these industries and the society at large.”<sup>27</sup>*

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<sup>26</sup> per **Article 4**.

<sup>27</sup> Jamaica National Assessment of the Barbados Programme of Action - 2003

*'The challenge for environmental policy is to capture the cost of the environment in production and consumption without dislocating the economy and / or imposing undue burdens on the population'<sup>28</sup>,*

The aim of this process is to identify existing mechanisms which can be used to fulfill the current obligations whilst simultaneously determining where the gaps are and providing solutions on how these can be filled.

The BPOA goes further to state that the measurement of the loss sustained to the natural resources is hard to quantify and as such these are not reflected in the GDP of the country '*... and as such conservation of the natural resources is not easily viewed as critical to sustaining the economy. Long term benefits are easily eclipsed by the need for short-term returns on investments. It is difficult for example, to dissuade some farmers from the cultivation of steep slopes, when they have no readily accessible alternatives for income generation.'*<sup>29</sup>

The aim therefore is to determine a point where a balance can be maintained with neither aspect being adversely impacted. Recommendations stemming from the BPOA suggest that the actual developmental process for environmental legislation, policy and guidelines should be the starting point, as this will provide a framework within which the key industry players can carry out sustainable business practices.

#### **4.3.1 Energy Policy**

The major Policy relevant to the UNFCCC is the Energy Policy. It is felt however that this Policy can be more effectively implemented if it is backed by the NIP as the majority of energy consumption and by extension sources of pollution, can be directly linked to Industry. As regards Jamaica's energy sector policy, 1995,<sup>30</sup> stated objectives are, inter alia, to:-

- “(e) minimize the adverse environmental effects and pollution caused by the production, storage, transport and use of energy, and minimize environmental degradation as a result of the use of fuelwood; and*
- (f) establish an appropriate regulatory framework to protect consumers, investors and the environment.”*

The policy provides further that:-

*“A major policy initiative therefore in the power sector will be to ensure than an appropriate regulatory framework under the auspices of the OUR is put in place to:-*

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<sup>28</sup> EMS Policy – pg. 8

<sup>29</sup> BPOA

<sup>30</sup> *The policy was tabled in Parliament on December 19, 1995; Wright, Raymond M.: Jamaica's Energy, PCJ, Kingston, Jamaica, Appendix 2.*

*“... (d) ensure...the protection and preservation of the environment in respect of utility services.”*

***“Government recognizes that the processing of crude is a desirable option and as such will encourage refinery operation in the country.***

*In this context, the Energy Policy will:-*

(g) *seek to maintain the protection of the environment and the preservation/encouragement of natural and cultivated forests.”*

“The protection of the environment is a primary objective of this energy policy and as such the environmental guidelines of the Natural Resource Conservation Authority (NRCA) relating to the energy sector will be enforced.”

(a) The Ministry with responsibility for energy will have overall responsibility for the implementation of the policy.

(b) The recently established Office of Utility Regulation (OUR) will have oversight responsibility for the regulatory framework for the relevant energy sector entities. This office will protect the interests of both the consumer and the investor in the provision and utilization of public utility services.

(c) The Ministry will foster the establishment of a central energy conservation and renewable unit which will act as a facilitator for all new and renewable energy projects. This unit will provide a central point for inputs from the public and the scientific community with regard to technological developments etc. The unit will also provide information to the public.”

As an incentive to the energy sector, the following will be done:-

- the tax to be applied on energy conservation equipment, materials and supplies will be such that it will ensure that the items involved are available to the public and that consumers will be encouraged to invest in the most efficient and endues device/technology.
- the use of solar panels and tubes for water heating and solar cells designed to produce electricity will be encouraged by maintaining a concessionary tax structure on these items...”

The existing Energy Policy of 1996 has among its key features the reduction of the dependence on imported energy by accelerating the exploitation and development of indigenous financially viable energy resources. This is to be done with attempts being



made to promote economic growth whilst minimizing the negative impact on the environment and macro-economy.

Like many policy documents before it the Energy Policy has not been effectively implemented. The Energy Policy is currently under review, and below are some of the major revelations uncovered in this draft document.

The Ministry of Mining and Energy oversees the Energy Policy. The objective of the Energy Policy is to guarantee stable, secure, diverse and sustainable supplies of energy at the least economic cost (renewable energy sources exempted) in a deregulated and liberalized environment. The intent being the reduction of energy intensity, the promotion of economic growth and the minimization of any negative environmental impacts or macro-economic impact on the economy. This would result in the achievement of balance between the environment and the economy.

The Policy though not mentioning Climate Change directly, deals with components of mitigating its effects mainly through the pronouncement on the use of renewable energy<sup>31</sup>, even though the focus is somewhat narrow in that it is directed at a specific sector.

'Government's policy is to obtain the maximum benefit from renewable energy which is clean and eco-friendly and there is to be a statutory obligation on the part of JPS. and the OUR to promote renewable power'<sup>32</sup>

The draft Policy also establishes a target for renewable energy over an eight-year period (2004 – 2012). See Table 2 below.

**Table 2. Target for Renewable Energy (2004-2002)**

<b>YEAR</b>	<b>TARGET %</b>	<b>EST. CAPA (MW)</b>	<b>TARGET (MW)</b>
2004	5.5	780.0	44.0
2006	8.0	830.0 (50)	66.0 (27)
2010	10.0	950.0 (120)	95.0 (51)
2012	15.0	1070 (120)	158.0 (114)

The above-mentioned targets are to be met as a result of the development of renewable energy plants via the provision of a comprehensive incentive package to encourage construction. The Policy goes further in that it mandates the OUR to introduce a simplified procurement system to effect this transition to renewable sources of energy.

The possibility of linking the draft Policy with the NIP is significant as it places a lot of emphasis on the role that industry has to play in the reduction of the energy costs to the country, with encouragement of the use of renewable sources of energy. By lessening the

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<sup>31</sup> Renewable Energy for the electricity sector – pg. 4

<sup>32</sup> Draft Energy Policy – pg.

cost burden to the utilisers of energy, the Policy is increasing the likelihood of successful implementation.

Regulatory mechanisms are also suggested in that a recommendation for the inclusion in the building code of the need to incorporate greater energy efficient technologies e.g. solar panels as a compulsory item. It also suggested the development of an energy efficiency monitoring programme, which would provide information to consumers on the rating for the appliances they use.

The creation of an Efficiency and Renewable Energy Fund<sup>33</sup> in order to provide concessionary financing for energy efficient investments. The removal or discounting of taxes on energy efficient items for a period of five years is another mechanism to encourage the widespread use of these items.

The encouragement of use of energy efficient resources should be carried out within the bauxite industry, this in light of the fact that the sector accounts for more than half of the fuel consumption of the island at this time. The Policy articulates the following:-

*'All necessary improvements are to be made to the existing system to improve the environmental situation in terms of emission air quality and noise abatement. JPSCo. will be required to address the environmental problems of the older plants.'*

It has been recognised that though the actual priority of the government may not be the implementation of for example, the obligations under the UNFCCC, this is still achieved to some extent via the introduction of long-term cost saving mechanisms (e.g. the use of renewable energy sources and making access to these cost-cutting and energy efficient machinery easier), in an attempt by the state to reduce the country's oil bill.

#### 4.3.2 National Industrial Policy 1996

The Office of the Prime Minister assumed responsibility for the implementation of this Policy. The NIP states unequivocally that the 'Private sector is the main engine of growth'. It sets out in the Policy Matrix the following

Table 3. National Industrial Policy 1996 Policy Matrix

OBJECTIVES	POLICIES	INTERVENTIONS / IMPLEMENTATION
Conservation of environment	Environmental Policy	<ul style="list-style-type: none"> <li>▪ Incentives</li> <li>▪ Regulation / Enforcement</li> <li>▪ Public Education</li> </ul>

The Policy recognises the direct consequences and impacts that economic activities of production and consumption have on the natural environment and that there is a need to provide adequate safeguards against these. It went further to state that the environmental

<sup>33</sup> Terms of Reference could be created to outline the duties of a Consultant to investigate the process of forming this fund.

policy would be vigorously pursued with the establishment of regulation and enforcement mechanisms.

The actual segment of the Policy addressing the environment recognises that

***“Most of the economic activities in Jamaica depend on the use of the country’s natural resources. It is therefore important to develop mechanisms for the sustainable management of the country’s industrial activities on the environment. In this regard, the key goal of Government policy in all areas is sustainable economic development<sup>34</sup>.”***

Specific mention is made of need for special attention to be paid to

- improved waste management for solid waste disposal;
- creation of a hazard waste disposal site;
- managed use of pesticides and fertilizer in agriculture;
- forestry and watershed management;
- construction of appropriate drainage systems;
- protection of marine and coastal resources;
- national system of parks and protected areas;
- improvement of standards for discharge of effluents and noxious items.

All of which form part and parcel of the factors which threaten the island’s natural resources and by extension are the areas which are covered under the Conventions. It was also stipulated that incentives for firms could be used as a means of inducing firms to retrofit and use environmentally friendly practices.<sup>35</sup>

### **4.3.3 Environmental Management Systems Policy**

This Policy document was formulated as a result of interventions from NEPA, which it is anticipated will be the Agency that will oversee its implementation. The EMS Policy is a management tool to control, decrease and in some instances prevent the various negative impacts which products and services have on the environment. It is based to some extent on the principle of sustainable development.

The EMS Policy has identified the following constraints to the effective implementation of this tool as a means of sustainably managing the island’s natural resources. These are –

- limited technical and institutional capacity and the urgent need to address this shortfall;
- the nation’s heavy debt burden;
- the various development needs of the country;
- lack of adequate public awareness and education programmes.

These were some of the more recurring themes identified during the development of the capacity needs process. This Policy used as a main strategy, ‘the creation of an enabling environment and the building of capacity within key government agencies to facilitate the

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<sup>34</sup> Pg 104 - NIP

<sup>35</sup> Similar provision was also made in the Draft Energy Policy

application of EMS in public and private sector<sup>36</sup>. This it is felt could be achieved via the use of technical assistance, establishment of pilot projects, the formulation of case studies or training programmes and increasing the accessibility to EMS information.

The use of this tool however, when combined with the NIP could serve as a powerful mechanism to reduce the impact of human especially industrial activity on Jamaica's natural environment.

#### **4.4 Relevant Existing Legislation**

The relevant legislation consists of fourteen pieces of primary legislation and one subsidiary which are listed below. Details on the content is found in the Appendix II

##### (Primary)

- **The Natural Resources Conservation Authority Act, 1991;**
- **The Caribbean Meteorological Organization Act, 1980;**
- **The Clean Air Act, 1964;**
- **The Criminal Justice (Administration) Act, 1960;**
- **The Customs Act, 1941;**
- **The Flood-Water Control Act, 1958;**
- **The Forest Act, 1996;**
- **The Pesticides Act, 1987;**
- **The Petroleum (Quality Control) Act, 1990;**
- **The Industrial Incentives Act, 1956;**
- **The Standards Act, 1949;**
- **The Town and Country Planning Act, 1958;**
- **The Road Traffic Act, 1938;**
- **The Beach Control Act, 1956; and**

##### (Subsidiary)

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<sup>36</sup> EMS Policy – pg. 8

- **The Natural Resources Conservation (Ambient Air Quality Standards) Regulations, 1996.**

Other Acts of relevance include **The Town and Country Planning Act, 1958** as regards ensuring that developments do not take place too close to the coastline, **The Beach Control Act, 1956**, in respect of the use and development of the foreshore and floor of the sea, encompassing the water column super adjacent thereto and the natural resources therein, **The Flood-Water Control Act, 1958** as regards the impact of flooding, **The Water Resources Act, 1996**, as respect of the impact on water resources, **The Public Health Act, 1985** as regards the impact on health and sanitation and other legislation with indirect bearing, particularly as concerns the extent to which climate change will have an impact on water resources, food supply, biodiversity, coastal zone, health and socioeconomic conditions.

#### **4.5 Policy and Legal Constraints**

##### **4.5.1 Policy Constraints**

###### **Energy Policy**

- The Policy framework, (if the proposed changes in the draft Energy Policy area accepted), should be sufficient to also result in the introduction of mechanisms to guide the use of more environmentally friendly and appropriate energy sources. Though not the only obligation by which Jamaica is bound under this Convention, it is a crucial one not dealt with previously
- One noticeable feature of the Policy is the fact that remarkably for a Caribbean territory insufficient mention is made of the use of solar power as a source of renewable energy especially in light of the abundant year-round supply to which the country has access.
- Though the Policy supports the three conventions, no specific mention is made to any them. This should be included especially with reference to the UNFCCC as the Policy has the potential to affect the country's implementation agenda.

###### **National Industrial Policy**

- It is somewhat telling that a document that has 169 pages allots 2 for the discussion on the Environment despite the many protestations of the importance of sustainable use of the natural resources. Industry must serve as a very important component of the environmental process as the impact that this area has on the environment can be reduced significantly if the proper mechanisms are instituted.
- The potential is there in the manner in which the document is formatted to have a more comprehensive framework to guide the process of creating a balance between the protection of the economy of Jamaica and its environment. It

therefore needs to go beyond merely identifying the areas which require special attention, and incorporate more stringent statements and plans for action as this will more unequivocally enunciate the level of priority which the government places on the protection of the environment and the obligations which it has assumed under the three Conventions.

#### **Environmental Management Systems Policy**

- The role of the Local Authorities has to be articulated clearly as these entities will serve as a means of monitoring the outcomes of the system. The development of the capacity of these entities therefore needs to be addressed.
- This is a tool that could be utilized to protect the coastal resources especially, and it should form part of the sustainable development plan for the island

#### **4.5.2 Legal Constraints**

Overall, the current legislative framework appears to be generally ample, subject to the general problems associated with enforcement of environment-related legislative provisions; the need to finalize and promulgate post-haste **The Natural Resources Conservation Authority (Air Quality) Regulations** and to have them to specifically advert to the Convention and ensure that cognizance is paid to its requirements more directly; the need for the proposed NEPA Act to be quickly implemented to rationalize NEPA's role under different legislation which it administers and to provide for greater scope for regional cooperation in meteorological and climate change issues and rationalization of resources allocation by way of having an appropriate Protocol to the Agreement establishing the Caribbean Meteorological Organization, as reflected in **The Caribbean Meteorological Organization Act, 1980**. However, relevant policies need to give due priority to the issue of climate change and the requirements of the Convention.

## 5. UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION

### 5.1 Objective

The objective of the UNCCD is to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification. Here, "mitigating the effects of drought" means activities related to the prediction of drought and intended to reduce the vulnerability of society and natural systems to drought as it relates to combating desertification;

Achieving the objective the UNCCD entails long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.

"Legal framework" is considered a priority field under the Convention and as an affected country, Jamaica is required to, *inter alia*, provide an enabling environment by strengthening, as appropriate, relevant existing legislation and, where they do not exist, enacting new laws and establishing long-term policies and action programmes.

Jamaica is required to pursue a national action programme to identify the factors contributing to desertification and practical measures necessary to combat desertification and mitigate the effects of drought with such a programme specifying the respective roles of government, local communities and land users and the resources available and needed. The programme is to, *inter alia* enhance national climatological, meteorological and hydrological capabilities and the means to provide for drought early warning.

*Here, as earlier intimated in respect of the Climate Change Convention, the Caribbean Meteorological Organization could be utilized to achieve such an end.*

The programme also needs to provide for effective participation at the local, national and regional levels of non- governmental organizations and local populations, both women and men, particularly resource users, including farmers and pastoralists and their representative organizations, in policy planning, decision-making, and implementation and review of national action programmes.

*Here, special consideration could be given to the position of the Maroons with a clear policy developed, buttressed by legislation, as to how they are to be treated, their status and that of their lands and how they are to be consulted.*

### 5.2 Jamaica's Obligations under the Convention

The UNCCD provides that national action programmes may include, *inter alia*, some or all of the following measures to prepare for and mitigate the effects of drought:-

- “(a) *establishment and/or strengthening, as appropriate, of early warning systems, including local and national facilities and joint systems at the subregional and regional levels, and mechanisms for assisting environmentally displaced persons;*
- (b) *strengthening of drought preparedness and management, including drought contingency plans at the local, national, subregional and regional levels, which take into consideration seasonal to interannual climate predictions;*
- (c) *establishment and/or strengthening, as appropriate, of food security systems, including storage and marketing facilities, particularly in rural areas;*
- (d) *establishment of alternative livelihood projects that could provide incomes in drought prone areas; and*
- (e) *development of sustainable irrigation programmes for both crops and livestock.”*

As an affected country, Jamaica may take account, inter alia, of the following thematic issues in developing their national strategies for action to combat desertification and/or mitigate the effects of drought:-

- “(a) *increasing capacities, education and public awareness, technical, scientific and technological cooperation and financial resources and mechanisms;*
- (b) *eradicating poverty and improving the quality of human life;*
- (c) *achieving food security and sustainable development and management of agricultural, livestock-rearing, forestry and multipurpose activities;*
- (d) *sustainable management of natural resources, especially the rational management of drainage basins;*
- (e) *sustainable management of natural resources in high-altitude areas;*
- (f) *rational management and conservation of soil resources and exploitation and efficient use of water resources;*



- (g) *formulation and application of emergency plans to mitigate the effects of drought;*
- (h) *strengthening and/or establishing information, evaluation and follow-up and early warning systems in areas prone to desertification and drought, taking account of climatological, meteorological, hydrological, biological, soil, economic and social factors;*
- (i) *developing, managing and efficiently using diverse sources of energy, including the promotion of alternative sources;*
- (j) *conservation and sustainable use of biodiversity in accordance with the provisions of the Convention on Biological Diversity;*
- (k) *consideration of demographic aspects related to desertification and drought; and*
- (l) *establishing or strengthening institutional and legal frameworks permitting application of the Convention and aimed, inter alia, at decentralizing administrative structures and functions relating to desertification and drought, with the participation of affected communities and society in general.”*

The Convention emphasizes an integrated approach which encompass planning supported by statistical data entailing a wide range of considerations, embracing not only the physical environment but also economic, social, cultural, demographic and physical considerations.

### **5.3 Relevant Policies**

#### **5.3.1 Draft Watershed Policy for Jamaica – 2003**

The Ministry of Land and Environment is the Ministry under whose portfolio the Watershed Policy resides. The consultation with relevant stakeholders during the NBSAP process resulted in a determination that a paradigm shift was required if the sustainability of initiatives was to be realized. This was enunciated in the Watershed Policy as it was stipulated that

*'... a project-based rather than programme-based approach has meant that the gains from previous interventions have been short-lived and have seldom been sustained by investments in long-term programmes.'*<sup>37</sup>

The Policy recognised that previously attention had been paid to the identification of soil conservation measures and the control of land erosion, without addressing the development of comprehensive strategies, geared towards improving land husbandry practices and rural development programmes, which often resulted in the failure of these initiatives.

It identifies Policies and Plans, which are relevant to the management of water resources in Jamaica<sup>38</sup>, with a recognition that the NLP is similar in some respects to the Watershed Policy as it

'... provides inter alia that:

- the use of fire to clear hillside land will not be allowed;*
- all designated watershed areas will be protected by proper management measures and legislation; and*
- the mandate of the Government agencies involved in forests and watershed areas and the co-ordination of management activities will be clarified.'*<sup>39</sup>

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A somewhat novel approach was adopted in this Policy document as it sought to include findings from consultations held with stakeholders as a result of interventions during donor funded projects –

These included

- the absence of an appropriate legal framework for incentives for participation in watershed management;
- the lack of clarity on jurisdiction of Government agencies having functions in relation to watershed management;
- inadequate stakeholder participation in governance
- the over-reliance on project funds
- absence of a strategy for funding watershed management
- no effective scheme of incentives
- lack of funding to support training programmes
- inadequate research capabilities (specifically equipment, supplies and adequately trained personnel)
- land use capability recommendations for cultivating lands not being implemented
- limited understanding of value of watersheds

<sup>37</sup> Watershed Policy – pg. 11

<sup>38</sup> The National Land Policy, the Water Sector Policy, Forest Policy, Protect Areas Policy, NFMCP, and the NBSAP.

<sup>39</sup> Watershed Policy – pg. 9

to name a few. It then sought through its articulation of the goals and objectives, and the annexed implementation plan to address these issues directly.

### 5.3.2 Water Sector Policy 2000

The Agency with the mandate to oversee the implementation of this Policy is the Water Resources Authority. The WRA is also responsible for the provision of information and public education on the status of the island's water resources.

The objectives of the Policy include

- (iv) ensuring the implementation of measures to restore and enhance the quality and quantity of usable water to protect the aquifers, watershed and other sources of water;<sup>40</sup>

It was also states that the implementation of the polluter pays principle and the protection of aquatic resources from negative impacts be these natural or manmade should be focussed on in order to prevent and / or control water pollution. In fact this policy though not directly mentioning the phenomena of climate change, makes reference to one of its effects, namely the pollution of aquifers as a result of salination from sea level rise. The WRA has in response to this source of pollution, developed pollution vulnerability maps identifying the aquifers that are susceptible to intrusion by seawater.

The Policy sought to approach the issues of demand side management, watershed management, and irrigation by encouraging the use of the following mechanisms

- recycling and reuse of water where possible;
- introduction of investment incentives to companies to invest in equipment to conserve potable water
- public education and awareness programmes to inform customers and specifically youngsters of the benefits and importance of water conservation;
- the provision of an efficient, cost effective and sustainable irrigation service for the agricultural sector.

### 5.3.3 Agriculture Policy

The implementation of the Agriculture Policy is the direct responsibility of the MOA. The three Conventions have the potential to be directly impacted on as a result of the practices taking place in the agricultural sector. This is due to the fact that there is a definite problem associated with

- the provision of adequate supplies of water to meet the needs of all the consumers;

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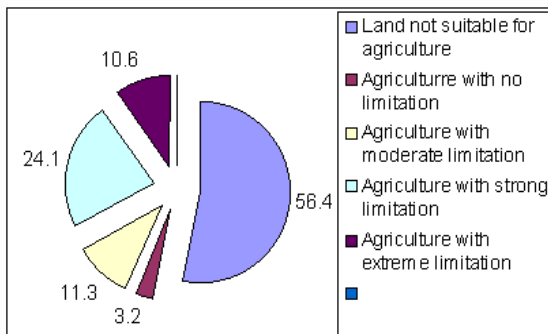
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<sup>40</sup> Water Sector Policy 2000 – pg. 11

- the environmentally unsatisfactory practices of the farmers e.g. the increased uses of fertilizers and pesticides have an impact on the surface water and general environment; and
- the unacceptable land-use practices (cultivation on steep slopes, slash and burn to clear land to name a few) that result in the continued degradation of the land thereby resulting in increased soil loss.

The main areas of focus are slowing the flow of environmental degradation, increasing avenues for investment; and improving the quality of rural life. The Policy makes constant reference to the phenomena of drought as its impact is immediate and often takes a toll on the entire sector. It is in light of this focus, and the potential impact that proper implementation could facilitate, that the Policy was seen as most relevant to the UNCCD.

As indicated in the diagram below<sup>41</sup>, only 11.3 percent of the land in Jamaica is suitable for agricultural use. Despite this fact many individuals are using land that are totally unsuitable for cultivation, for agricultural purposes.



The vast majority of this land (56.4%) is suitable for forestry, which has implications for fulfillment of a major component of the UNFCCC via the reforestation or afforestation of this identified land. Despite this the establishment of forests / trees is not deemed by this Policy as a viable agricultural venture.

The Policy recognises that

***“Major environmental problems result from agricultural activities on these steep hillsides where inappropriate farming patterns have evolved. Instead of a permanent vegetative cover to conserve the soil and restrict flooding and water loss, the land is devoted mainly to the cultivation of annual crops which, in combination with high rainfall, have resulted in considerable accelerated erosion in many watershed areas.”***

Only 10 % of land under cultivation in Jamaica is irrigated and as such farms are dependent on rain to meet their irrigation needs. In light of the two decades of drought experienced by the country, there has been a drastic drop in output. The Irrigation Sector Strategy and Action Plan is the government backed initiative geared towards providing an irrigation service that supports the agricultural sector in an efficient, cost effective and sustainable manner.

<sup>41</sup> Jamaica National Report to UNCCED - 1992

This too however is dogged by constraints -

- low crop returns;
- high energy costs;
- high canal maintenance costs;
- inefficient water use;
- lack of Capital Funds; and
- insufficient storage.
- capacity limitations - the capacity of existing systems is insufficient to meet current irrigation demands.

Agriculture is not a viable venture in many instances as it is rife with unsustainable practices which result in the degradation of the environment.

### 5.3.4 National Land Policy

The NLP is administered by the Ministry with responsibility for lands. A major objective of the Policy is the removal of inefficient, onerous and outdated legal, administrative management and other barriers that affect the planning, use, control, development, protection and conservation of Jamaica's physical resources. It recognises the direct link between the maintenance of a healthy watershed through the institution of water resource management mechanisms and effective land use policies.

The Policy<sup>42</sup> seeks to address

- Recognition of the disasters to which the country is prone, and the protection and conservation of sensitive and scarce resources, while pursuing development initiatives in an environmentally sound manner;
- Innovative and more dynamic approaches to land use planning and development. A participatory approach to planning and development with private sector, non-government and community based initiatives to deal with settlements and environmental issues and to implement solutions;
- The establishment of an effective network and land geographic information management system, the basis for all planning development, utilization and management and administration of land;

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The issues that are dealt with include

- Environment and Disaster Management
- Legislative and Institutional Framework for Land Administration
- Land resources and Land Use
- Land Information Systems
- Taxation and Incentives for property development
- Land titling, land tenure and access to land
- Acquisition, divestment and costing of crown land

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<sup>42</sup> Foreword – page ii - Agriculture Policy

It calls for a comprehensive and integrated computerized system to provide graphic textual information on all land parcels as this will provide

- assistance to all agencies responsible for land management, distribution, registration, physical and environmental planning;
- data for the effective formulation of policy and planning mechanisms and subsequent implementation of these
- information on natural resources, land usage, transport, communication and socio-economic facts.

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This in turn can be used to provide valuable data to the implementers of all three Conventions.

Specific mention is made of Agriculture with the aim being the satisfaction of local consumption needs as well as the production of sufficient items to meet the export quotas.

The Policy recognizes that this has resulted in the over intensive cultivation and misuse of the island's steep slopes (as identified in the Agriculture Policy) with a high person to land ratio existing in the most unsatisfactory places. The planting with little or no regard for environmental conditions was also highlighted which has resulted in the degradation of the land being farmed. Deforestation, accelerated erosion, unavailability of land and insecurity of tenure are some of the other issues identified in the NLP.

It also seeks to address the impact of the Mining Sector as it stipulates that rehabilitation of mined out lands are to be carried out within environmental and geological standards<sup>43</sup> and within a reasonable time-frame. It also referred to the preemption of other land uses where mineral deposits are located. It recommended that the institutional strengthening of the agencies which monitor, manage and control mining, quarrying and sand mining operations should take place. Another suggestion involved the production of data showing clearly the effects of mining being made public thereby educating the ordinary Jamaican of the deleterious effects of this sector.

The NLP made mention of the impact that water resources have on land as it recognized that the demand for water requires that there be sources available. It identified that there are several forms of pollutants which have been contributing to the decline in water quality – salination in coastal areas, pesticides as a result of incorrect farming procedures, domestic, industrial and agricultural waste as well as siltation caused by soil erosion, a direct result of the degradation of the land. Lack of forward planning was identified as a contributing factor to the decrease in water resource distribution with domestic water being channeled in many instances for use as irrigation water.

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<sup>43</sup> Mention made of the introduction of tree / cash crops. The Forestry Department is currently working with Jamalco. to rehabilitate some of its mined out pits using fast growing tree species.

In addressing Environment and Disaster Management directly, the NLP set out the following

***“Unsustainable development patterns and environmental practices together with increasing population and rapid urbanization, have placed severe stress on Jamaica’s natural resources. Concomitantly Jamaica’s geographic location and subsequent exposure to hazards, both natural and man-made further exacerbate the problem.”<sup>44</sup>”***

The Policy identified the lack of national plans to coordinate efforts to manage watersheds, forests, protected areas, coastal resources and waste as a contributing factor to the continued degradation of the environment<sup>45</sup>. It also targeted the lack of public awareness on the need to properly manage the natural resources and insufficient environmental assessments and baseline data as another matter requiring urgent attention. The solution according to the NLP is the reinforcement of public consultation and participation in environmental policy formulation which is one of the established mandates of the PSMU.

It also recommended that a five-year National Plan<sup>46</sup> should be developed addressing sustainable ecological and environmental sustainability.

The existence of competing land uses in environmentally sensitive areas e.g. coffee plantations and forestry, or mining and forestry were also highlighted as a source of concern.

The NLP is outdated in some respects as the Forest Policy and Action Plan were addressed in 2001 with the development of the NFMCP and the Forest Policy. The Polluter Pays Principle and the User Pays Principle have also been accepted as two environmental management tools in Jamaica<sup>47</sup>

The Policy goes further as it states that the natural resources should be used in a manner so as to maximize social and economic benefits to the country while minimizing the impact on the environment<sup>48</sup>. Mention was also made of the need for a National Soils Policy which would assist in the implementation of the UNCCD as this would provide valuable data on soil conservation measures in affected and particularly vulnerable areas.

Unlike the previously mentioned Policy document, the Protected Areas Policy which was also noted in the NLP is now a reality.

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<sup>44</sup> Page 51

<sup>45</sup> See below for National Plans

<sup>46</sup> The institution of a five year plan addressing ecological and environmental concerns would of necessity make direct reference to factors related to land degradation, biological diversity and climate issues.

<sup>47</sup> Draft NEPPS document

<sup>48</sup> This is in keeping with a major tenet of the National Industrial Policy

The all encompassing nature of the NLP also takes into consideration the issue of disaster management with attention being paid to the areas which are particularly vulnerable to natural and man-made disasters which have the potential to impact on national development. This is a key issue as it is closely tied to the National Industrial Policy and can be used as springboard for the acquisition of funding to tackle land-based environmental issues. The link between planning development and disaster mitigation was also recognized as well as the need to ensure the sustainability of social and economic development projects.

The Policy establishes certain capacity issues which have the potential to hamper the optimization of the use of land in a sustainable manner which are as follows –

- (i.) Comparison of existing spatial and other data between the different arms of the government vested with some form of authority or responsibility to deal with land in Jamaica is severely hampered by the different methods of collation, land recording, reference systems and mapping scales.
- (ii.) Lack of knowledge of and inaccessibility to existing data stores which in turn inhibits even basic compilation of land inventories of the assets on crown land, not to mention privately owned parcels.
- (iii.) The culture of interagency information sharing has not taken root which in some instances has resulted in the inefficient use of resources due to the duplication of effort to achieve the same or similar purposes.
- (iv.) Shortage of sufficiently skilled technical or GIS management specialists and operational staff.
- (v.) General lack of data results in uninformed decisions being made which also equates to a waste of the resources of the country;
- (vi.) Limited access due to security and confidentiality constraints.

This Policy document seeks to address these identified pitfalls as it outlines solutions to counteract these capacity gaps. These are –

- (i.) the establishment of a comprehensive computerized land information systems network which would link all state-run agencies with a mandate to deal with land;
- (ii.) the creation of standards to guide geographic data collection as well as the storage and exchange of this information between agencies;
- (iii.) the identification of a capable human resource base to operate the GDMS;
- (iv.) the establishment of a national digital geographic information database<sup>49</sup>;
- (v.) the development of a digitized cadastral map and index of Jamaica;
- (vi.) the inclusion of all government ministries and agencies to the National Geographic Information Systems Network;
- (vii.) the development of user mechanisms to assist in access to the digital mapping information;

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<sup>49</sup> Information on topography, cadastral mapping, land use, soil, environmental concerns, natural resources, infrastructure and socio-economic issues. It is worthy of note that all of these are factors which have some impact either on the mitigation of the effects of desertification, or which have the potential to have a direct impact on it.



- (viii.) the assurance that digital data derived from government projects is turned over on completion of the project to the implementing or executing agency;
- (ix.) the established standards from the Survey Department and the LICJ governing land or land related data collection and preparation are used during project or programme implementation.

These solutions seek to address the problem of information collection and dissemination which has the potential to derail or lengthen the process of the implementation of the responsibilities under the three Conventions. This is a factor to consider in light of the scarcity of national resources to effect the various obligations which have to be met.

The environmental impact of natural and man-made factors has also contributed to the depletion of the natural resources with access and affordability of land resulting in settlement in high-risk disaster prone areas. The NLP suggested the requirement for an EIA to determine vulnerability of the area, as well as the inclusion of a disaster mitigation aspect in physical development plans.

The increase in catastrophic events has resulted in a depletion of disaster recovery and rehabilitation funding which has led the Government of Jamaica with little alternative but to utilise innovative methods to carry out the necessary corrective work after these events.

#### **5.4 Relevant Legislation**

There are four main categories into which legislation of relevance to the UNCCD fall these are mainly Planning, Water Management, Agriculture and Mining Sectors. Table 4 below provides a list of the relevant legislation and **Appendix III** provides details on each of the laws.

**Table 4. List of Relevant Legislation for UNCCB**

<b>List of Relevant Legislation for UNCCB</b>
The Water Resources Act, 1996
The Watersheds Protection Act, 1963
The Irrigation Act, 1949
The National Water Commission Act, 1963
The Rural Agricultural Development Authority Act, 1990;
The Land Development and Utilization Act, 1966;
The Cocoa Industry Board Act, 1957;
The Coffee Industry Regulation Act, 1948;
The Rice Industry Board Act, 1956;
The Sugar Industry Control Act, 1937; and
The Tobacco Industry Regulation Act, 1970.
The Town and Country Planning Act, 1958
The Bauxite and Alumina Industries (Encouragement) Act, 1950
The Petroleum Act, 1979
The Quarries Control Act, 1984
The Mining Act, 1947
The Disaster Preparedness and Emergency Management Act, 1993
The Flood-Water Control Act, 1958

In this regard, it is noted that **The Planning Institute of Jamaica Act, 1984** established the Planning Institute of Jamaica, with functions including that of **“initiating and co-ordinating planning for the economic, financial, social, cultural and physical development of Jamaica”** and **The Statistic Act, 1949** established the Statistical Institute with a mandate:-

- “(a) to collect, compile, analyse, abstract and publish statistical information relating to the commercial, industrial, social, economic and general activities and condition of the people;*
- (b) to collaborate with public agencies in the collection, compilation and publication of statistical information including statistical information derived form the activities of such agencies; and*

- (d) *generally to promote and develop integrated social and economic statistics pertaining to Jamaica and to co-ordinate programmes for the integration of such statistics.*<sup>50</sup>

The legislation governing both agencies are quite ample to allow for their playing roles as regards an integrated approach supported by data. The impact of drought and / or desertification in Jamaica is now more than ever in the forefront of our consciousness because of the spate of bush fires in recent time that have placed the parched nature of the mountains in the direct limelight. The focus of the media as a result of the continued costs associated with loss of property, agricultural produce and other costs associated with the battle against the raging fires has raised the awareness of the society generally.

## **5.5 Non-regulatory mechanisms: Material Transfer Agreements**

Under material Transfer Agreements, the Jamaican Government has entered into agreement with entities (such as the University of Mississippi, U.S.A.) which screen natural product material as potential sources for the discovery of new pharmaceuticals and agrochemicals.

Pursuant to such agreements, Jamaica has agreed to assist such entities in the collection of biological materials in keeping with its exercise of sovereignty over and control of access to its genetic resources.

To the extent that this kind of agreement continues to be utilized, review and amendment would appear to be warranted as regards applicable law, in so far as it is foreign law which governs the agreement and in respect of matters such as fee arrangement, technology transfer, training of locals, intellectual property rights and benefit sharing generally this would assist Jamaica optimally utilizing its genetic resources as contemplated by the CBD.

## **Policy and Legal Capacity Constraints/Gaps**

### **5.5.1 Policy Constraints**

#### **Draft Watershed Policy**

- The draft Watershed Policy does not address saline intrusion of aquifers as a result of sea level rise
- It concentrates currently in this draft form on the land use issues in a somewhat preliminary manner in that no data is provided on the cost of the degraded watershed to the country, or the valuation of the loss which results on an annual basis because of the need to institute recovery measures after a major natural catastrophe.

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<sup>50</sup> per **Section 3(1)**.

- No direct reference is made to the impact that agriculture (especially small-scale (e.g. cash crop cultivators) and large-scale initiatives (e.g. coffee farmers) has on the degradation of the environment and more specifically the watershed areas. This it is felt is due to the vast number of persons who are currently undertaking agricultural ventures on relatively small parcels. These individuals may not personally have a massive impact on the state of the environment, but when taken in the collective sense, serve to denude the watershed areas in large part.

#### **Water Sector Policy**

- A gap that was identified in the body of this Policy was the need for the identification of the relevant institutions to undertake responsibility for the coordination and implementation of the Policy. For example WRA is tasked with the responsibility of developing drainage needs using the hydrological approach, yet the NWA and MOW are responsible for the provision of sufficient drainage to avoid flooding and if not to mitigate the effects of the event if it occurs.
- The use of potable water for agricultural purposes is another area that was addressed by the policy, especially in relation to the loss sustained from the improper transfer of this resource. This along with low incidences of cost recovery, leaking channels, lack of funding to refinance operations and inefficient irrigation techniques<sup>51</sup> all add up to increased wastage of this precious commodity.

#### **Agriculture Policy**

- The Policy does not it is felt deal sufficiently with changing the culture of the farmers in terms of their approach to land management e.g. use of fire as a clearing mechanism, over-production and use of inappropriate areas.
- The Policy also needs to deal on a more significant level with the use of potable water for agricultural purposes. A realisable solution can be crafted if a connection is made with the Water Sector Policy of 2000.
- Land degradation calls into focus the main natural resource which is being affected namely the land. This means that to alleviate or reduce the impact that manmade and natural phenomena have on this resource certain keys considerations have to be recognised. The NLP seeks to address these.

#### **National Land Policy**

A failing of the Policy is that it speaks to the effects of logging and the benefits of reforestation of these degraded lands, but at no time is the FD mentioned and the potential role which it could play in the rehabilitation and preservation of these areas. By so doing it has eliminated one of the key agencies which be involved in the implementation of the island's obligations under the Conventions.

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<sup>51</sup> Water Sector Policy – pg. 22

### **5.5.2 Legal Constraints**

Promulgation of appropriate legislation, to address fires (including bush fires) is particularly urgent and legislation pertaining to the mining of particular minerals need to be updated to set appropriate standards for land restoration

## 6.0 CROSS-CUTTING POLICY AND LEGISLATION ISSUES

### 6.1 Background

In this chapter, consideration is given to policy, legislation and related enforcement issues, which cut across all three Conventions and their implementation. Jamaica currently has one 'Policy'<sup>52</sup> that is dedicated to the CBD and by extension the assumed obligations. The other two Conventions though not identified in any Policy document do however to some extent still have a level of representation as some of the activities that serve to mitigate against the effects of land degradation and climate change are captured in other forms under other Policies e.g. reforestation programmes under the Forest Policy.

In the section of the report we focus on the Forest Policy as it is considered to be the only Policy which substantially has the potential to affect implementation of all three Conventions. (cross cutting).

The Forest Policy it is felt can serve as the binding mechanism between the Conventions in the implementation process in the future. This is due to the fact that of all the natural resources which are being protected by these Conventions, forestry is the sector which is both a common trend and which has the capacity to impact on the success of the various implementation strategies and plans for all three.

### 6.2 The Forest Policy 2001

*'Jamaica's forest resources are indispensable for our social, economic and environmental development. The value of forests to Jamaica is related to their crucial role in protecting and conserving water, soil and biological diversity. Owing to the mountainous and rugged nature of the Island, a large proportion of the forest estate has a primarily protective function, conserving water supplies and reducing erosion and flooding'<sup>53</sup>*

The Forestry Department of the Ministry of Agriculture is the agency responsible for the development and implementation of this Policy as well as the forest laws<sup>54</sup>. Forests are integral to all three Conventions as the existence of forests (through reforestation or afforestation projects or regeneration) can serve as a mechanism to –

- stave off potential land degradation'
- provide a healthy eco-system; and
- create sinks or reservoirs as is required to mitigate the effects of climate change.

An attempt is made in Part I (the goals and priorities of the Policy) to address the conservation and protection of forests and the sustainable management of forested lands and watersheds. Part II of the Policy outlines the proposed strategies for the implementation of the goals and identified priorities, namely, community participation,

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<sup>52</sup> NBSAP

<sup>53</sup> Forest Policy 2001 – pg. 1

<sup>54</sup> Forest Act 1996 and the Forest Regulations 2001

forest research, public education, provision of incentives, the identification of funding sources and the implementation of forest training programmes.

The final section of the Forest Policy identifies the roles of the various agencies<sup>55</sup> with an interest in forestland protection and conservation. Based on the suggested format of Policy outlined in the previous Chapter, this document falls short in many regards.

The key areas which need immediate attention are -

### **6.3 Gaps**

The current Forest Policy 2001 concentrates on the role of the government in the protection of the island's forest resources, (especially those over which the Department has direct management responsibility) and to a lesser extent addresses the various collaborations that the state machinery has with other organizations to facilitate this process.

In light of the significant role that this sector has in relation to the successful implementation of the three Conventions, but even more importantly the preservation and protection of Jamaica's terrestrial and marine resources as a whole, the Policy document is not sufficiently detailed to comprehensively address these needs. It is recognised that the National Forest Management and Conservation Plan (NFMCP) (which based on its acceptance by Cabinet does seem to be on par with the Forest Policy) enunciates many of the details left out of the Policy. The recommendation is not that this action plan be altered in any material way, but perhaps the contents of the Policy could be fleshed out to bring it to a level which is more representative of the various factors affecting forestry in Jamaica.

The Policy also needs to make direct reference to the three Conventions and this should not be a mere cursory mention, but should seek to integrate to some extent programmes that would assist in the realisation of some of the obligations. This would serve as a clear indication of the Government's position in relation to the implementation agenda where forest conservation, protection and like activities are involved.

### **6.4 The National Forest Management and Conservation Plan (NFMCP) 2001**

The NFMCP addresses many of the issues which were not fully dealt with by the Forest Policy and is in effect the Action Plan geared towards assisting in the implementation of the Policy. It establishes timelines, identifies proposed programmes and projects and estimates projected costs for the implementation of these. Though no direct reference is made to the obligations that currently exist under these Conventions, the general mandates of the FD are of such a nature as to directly

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<sup>55</sup> FD; NEPA; WRA; RADA; RPPU; COL; Mines and Quarries Division and NWC

- contribute to the convention obligations, that is the protection of soil, thereby decreasing the likelihood of land degradation;
- providing a habitat to encourage the viability of biological resources; and
- developing carbon sinks by the growth of young trees increases the levels of carbon dioxide removal from the atmosphere.

The NFMCP if implemented is capable of fulfilling the majority of the current obligations. There is need however for the clear establishment of the linkages and through that prioritization of the tasks / projects outlined therein. It is worthy of note that very few of the identified projects have in fact been implemented by the FD and this is as a result of the lack of funding to cover these stated activities. Investigations have been conducted however through the Trees For Tomorrow Project to identify potential sources of income to fund a few identified projects.

The identification of funding is the linchpin of this process, as mere development of Policy without the necessary implementation results in a even bigger waste of our resources. The NFMCP is currently under review as required by the Forest Act 1996 and the opportunity therefore exists for the incorporation of some of the findings contained herein.

#### **6.5 Conclusion re the Forest Policy 2001**

The general consensus is that ideally the Policy document ought to provide the framework for the operation of the sector, but in this instance this case the Action Plan appears to be the driving force. Though the Plan is also subject to review and assent by Cabinet, it should rightly be an annex of the Policy and not vice versa as is currently the case.

The NFMCP as dictated by the Forest Act is slated for review in 2005 – 2006 and by extension it is anticipated that the Policy document will be amended to keep it in line with the Plan.

Due to potential impact that the maintenance of sufficient forest cover has on the implementation of the stated obligations, it is felt the formulation of a more comprehensive and all-encompassing document needs to be facilitated. The FD does not appear at this time to have the necessary capacity to formulate two such major documents within the same time period, as was the case in 2001, it is felt unless the process is reviewed, one of the two will again suffer.

The formulation of Policy should be first and foremost as it is this document which ought to inform the actual Plan, as this latter formulation, ideally should serve as an adjunct to the overarching Policy document.



## **6.6 Legislating to comply with Conventions' requirements**

Generally, to the extent that performance of Jamaica's obligations under the three Conventions would have the effect of affecting existing rights in Jamaica, then legislation incorporating the stipulations of the Convention concerned would be necessary. On this basis, such incorporation, has, in general, not been warranted.

However, some legislative change may be desirable for a more focused and efficacious implementation of particular Convention provisions. For the most part, it is largely for this reason that some legislative action would appear to be warranted in respect of the Conventions.

Otherwise, consideration has to be given as to (capacity-related) changes needed to enhance the broader setting of legal machinery, infrastructure, enforcement capability and will which impact on the implementation of environmental law stipulations, such as those of the Conventions. This setting is first considered.

## **6.7 The broader setting for implementation – capacity constraints/gaps re legislation and related enforcement**

The broader setting for implementation is beset with capacity challenges as regards:-

- Insufficient empowerment of private citizens by knowledge as to what rights they have and by law enabling them to bring legal action where there has been environmental law breaches, where such private citizen cannot show proprietary or pecuniary loss, and concomitant standing (*locus standi*) to bring the action;
- Low non-deterrent fines for environmental law breaches;
- The Judiciary needing to view environmental law breaches with greater seriousness;
- Police force members needing to view environmental law breaches with greater seriousness;
- Time lag between passage of primary legislation and needed Regulations;
- No indication of time frame for Regulations passage although such Regulations are needed for efficacy of legislation;
- Undesirable time lag between Convention ratification and passage of requisite incorporating legislation;
- Citizens not being sufficiently empowered to get government or its agencies to act with dispatch;

- Inadequate protection for the rights of citizens as regards the environment under the Jamaican Constitution;
- Insufficient promotion of utilization of an environmental management system (EMS) or other environment-friendly measure by way of regulatory mechanisms and in law enforcement;
- Insufficient priority given to environmental protection and sustainable development concerns in legislation providing for incentives and concessions;
- The need for “Prosecution Guidelines” and “Sentencing Guidelines” to aid the environmental law enforcement process;
- The general need to make particular officers of companies (or other corporate entities) personally responsible and liable for environmental law breaches;
- The need for particular personnel at the Office of the Chief Parliamentary Counsel to be specially trained and equipped to facilitate the expeditious preparation of environmental legislation;
- The need for local government to be equipped to play a greater role in environmental law enforcement; and
- Valuing natural resource loss and having persons causing such loss pay for same.

#### **6.7.1 Jamaican Constitution**

The Jamaican Constitution generally provides for a Minister to be charged with the responsibility for any subject or department of government.<sup>56</sup> The work entailed with the responsibility is carried out through the administrative organ of the Ministry concerned and may, in general, concern any matter with the work entailed done by the Ministry, except where specifically prohibited by Jamaican law.

Accordingly, the Ministry of Land and Environment, with its portfolio responsibility for the environment, may properly assume responsibilities for carrying out and carry out Jamaica’s obligations under the three Conventions except where carrying out such obligation causes it to run afoul of some existing legal stipulation.

As far as environmental conservation is concerned, The Jamaican Constitution hardly does more than protect a scheme for natural resource exploitation, based on the principles of private ownership, (with limited qualifications).

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<sup>56</sup> See: **Section 77(1)**, *ibid*.

## 6.7.2 Legislation

### **The Natural Resources Conservation Authority Act, 1991**

This Act empowers the Natural Resources Conservation Authority (NRCA), now subsumed under the National Environment Planning Agency (NEPA),<sup>57</sup> to take such steps as are necessary for the effective management of the physical environment of Jamaica so as to ensure the conservation, protection and proper use of its natural resources.

Importantly, the Act also empowers NEPA to perform such other functions pertaining to the natural resources of Jamaica as may be assigned to it by its portfolio Minister.<sup>58</sup> This widens NEPA's potential scope of work significantly and in general, enables it to carry out any work related to Jamaica's natural resources which it is duly assigned.

Accordingly, NEPA may, in general, carry out Jamaica's obligations under the three Conventions as their obligations, though global in reach, translate locally into impact or bearing on Jamaica's natural resources.

In performing its functions, NEPA may:-

- (a) develop, implement and monitor plans and programmes relating to the management of the environment and the conservation and protection of natural resources;
- (d) formulate standards and codes of practice to be observed for the improvement and maintenance of the quality of the environment generally, including the release of substances into the environment in connection with any works, activity or undertaking;
- (e) investigate the effect on the environment of any activity that causes or might cause pollution or that involves or might involve waste management or disposal, and take such action as it thinks appropriate;

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<sup>57</sup> Strictly speaking, it is the National Resources Conservation Authority (NRCA), which is so empowered, but it appears NEPA operates *de facto*, exercising mandates under the Act and those of:-

1. **The Town and Country Planning Act, 1958;**
2. **The Land Development and Utilization Act, 1966;**
3. **The Beach Control Act, 1956;**
4. **The Wild Life Protection Act, 1945 and;**
5. **The Watersheds Protection Act, 1963.**

According to a publication of NEPA, NEPA is described as "...a merger of the Natural Resources Conservation Authority (NRCA), Town Planning Department (TPD) and the Land Development and Utilization Commission (LDUC)..."

Such *de facto* operation under the mandate of the various legislation enumerated is "...until a National Environment and Planning Act is promulgated..." Such proposed Act is now under active discussion and is the subject of ongoing consultations.

<sup>58</sup> See: **Section 4(1)**, *ibid*.

- (f) undertake studies in relation to the environment and encourage and promote research into the use of techniques for the management of pollution and the conservation of natural resources; and
- (g) conduct seminars and training programmes and gather and disseminate information relating to environmental matters.<sup>59</sup>

The Act empowers the Minister to make regulations for the purpose of giving effect to its provisions. Such regulations may contain provisions relating to:-

- (a) standards and codes of practice with respect to the protection and rehabilitation of the environment and the conservation of natural resources;
- (b) the description or category of enterprise, construction or development in respect of which an environmental impact assessment is required by the Authority;
- (c) the quantity, condition or concentration of substances that may be released into the environment;
- (d) the importation, collection, storage, recycling, recovery or disposal of substances which may be hazardous to the environment; and
- (o) the grant, refusal, revocation or suspension of any licence or permit that may be issued by the Authority and the terms, conditions or restrictions subject to which such licence or permit may be granted.<sup>60</sup>

Provisions relating to such matters may, in general, be utilized towards fulfillment of Jamaica's obligations in each and all of the three Conventions. Other kinds of Regulations specified in the Act are more of relevance to a particular Convention and will be mentioned in relation to the Convention concerned.

A permit is required under the Act to carry out in Jamaica an undertaking falling within any of several prescribed categories of enterprise, construction and development.

Such categories include power generation plants, development projects, ecotourism projects, mining, river basin development and improvement projects, irrigation or water management and improvement projects, land reclamation and drainage projects, watershed development and soil conservation projects, modification, clearance or reclamation of wetlands, introduction of species of flora, fauna and genetic material and the felling of trees, clearing of land and cutting of forested areas of a particular size.<sup>61</sup>

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<sup>59</sup> *per Section 4(2), ibid.*

<sup>60</sup> *per Section 38(1), ibid.*

<sup>61</sup> *See: The Natural Resources (Prescribed Areas) (Prohibition of Categories of Enterprise, Construction and Development) Order 1996.*

These categories fall within the focus of the Conventions and ample protection is afforded under the permit system, which benefits from utilization of an environmental impact assessment.

Under the Act, licences are required and issued by NEPA (NRCA) for discharge of trade or sewage effluent (or for any poisonous noxious or polluting matter) or for construction or modification of any works for such discharge.<sup>62</sup>

The Act is to be repealed and replaced by a new Act, properly establishing the National Environmental and Planning Agency (NEPA) and rationalizing and streamlining various responsibilities undertaken by NEPA, which arise under various legislation.

Overall the Act, with its very wide over arching reach facilitates much implementation of the Conventions. It is for policy to direct the implementation allowed for by the Act.

### **The Forest Act, 1996**

This Act established the Forestry Department, with functions, which include:-

- “(a) sustainable management of forests in Crown lands or in forest reserves and the effective conservation of those forests;
- (b) directing and controlling the exploitation, in a rational manner, of forest resources by the introduction of adequate systems for renewal of those resources;
- (c) preparing and implementing a national forest management and conservation plan;
- (d) promoting the development of forests on private lands;
- (e) promoting, establishing and maintaining a forest research programme with a view to:-
  - (i) enhancing forest management and development;
  - (ii) identifying and obtaining silvicultural data to be used in improving financial yields of species important to the national economy;
  - (iii) ensuring reforestation of suitable lands;
- (f) establishing and promoting public education programmes to improve understanding of the contribution of forests to national well-being and national development;

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<sup>62</sup> See: **Section 9.**

- (g) establishing and maintaining recreational facilities in such forest conservation areas and forest management areas as may be designated for that purpose;
- (h) promoting agroforestry and social forestry programmes for the benefit of farmers, schools and any other interested persons, or groups of persons;
- (j) preparation of forest inventories and the demarcation and maintenance of forest boundaries;
- (k) control and supervision of the cutting, harvesting, milling and sale of timber and other forest produce;
- (m) compiling information and statistics concerning the use of timber and other forest produce;
- (n) protection and preservation of watersheds in forest reserves, protected areas and forest management areas; and
- (o) developing programmes for proper soil conservation.”<sup>63</sup>

Towards proper forest management and protection provision is made in the Act for declaration of forest reserves, forest management areas (with forest management plans therefor) and protected areas.

The main purposes for which Forest reserves are declared include:-

- “(a) the conservation of forests existing naturally in the area of those forest reserves;
- (b) the provision of land for the development of forest resources, including the establishment of forest plantations;
- (d) the conservation of soil and water resources; and
- ...(f) the protection and conservation of endemic flora and fauna.”<sup>64</sup>

A particular parcel of land may be declared to be a “protected area” for the following purposes:-

- “(a) protection against storms, winds, rolling stones, floods and landslides;

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<sup>63</sup> per **Section 4.**

<sup>64</sup> per **Section 6(1).**

- (b) preservation of soil on the ridges and slopes and in the valleys of hilly tracts;
- (c) prevention of the formation of ravines and torrents;
- (d) protection against erosion or deposits of sand, stones or gravel;
- (e) maintenance of water supply in springs, rivers, canals and tanks;
- (f) protection of roads, bridges, railways and other lines of communication;
- (g) protection against forest fire;
- (h) preservation of public health; and
- (i) protection of national amenities, flora and fauna.”<sup>65</sup>

The Act prohibits various activities in any forest reserve, protected area or forest management with fines on conviction for commission of the offence concerned being up to \$200,000.00.<sup>66</sup>

Such offences include offences pertaining to damaging trees, fire, interference with land, soil removal and damage to animals.

Some of these offences overlap with others under other legislation but a prosecutor may determine under what legislation to prosecute an offender.

The Forestry Department is required to develop and maintain an inventory of forest and land suitable for the development of forests in Jamaica.

An assessment of the land is required to be made to determine its potential for:-

- “(a) *growing trees continuously;*
- (b) *the protection and enhancement of water and soil resources;*
- ...(d) *producing forage for livestock and wildlife;*
- (e) *forest conservation purposes; and*
- (f) *maintaining and enhancing the biodiversity of Jamaica’s flora and fauna.”*<sup>67</sup>

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<sup>65</sup> per **Section 23(1)**.

<sup>66</sup> per **Section 31(1)**.

<sup>67</sup> per **Section 15(2)**.

Notably, specific reference is made here to “biodiversity”, to which the Act overall, pays due cognizance. As regards land degradation (drought) and climate change, the Act is much concerned with the protection and preservation of watersheds and proper soil conservation<sup>68</sup> and having a positive effect as regards climate change considerations, from the standpoint of both prevention (albeit to a limited extent) and in preparation for such change. Overall, the Act provides a good framework for the Conventions’ implementation, to the extent that they touch and concern forestry and related matters. Policy must be used to ensure implementation of the Conventions’ provisions.

### **The Town and Country Planning Act, 1958**

The Act provides for the making of a development order for an area of land with a view to controlling the development of the land and conserving and developing the resources of the area.<sup>69</sup>

Regard needs to be had to such an order where permission is being sought to develop land.<sup>70</sup>

A “tree preservation order” may also be made where it appears that it is expedient to make provision for the preservation of trees or woodlands in a particular area. Such an order may make provision for, inter alia, prohibiting the cutting down or destruction of trees without the consent of the relevant local authority and securing the replanting of a woodland area felled in the course of forestry operations.<sup>71</sup>

The provisions of the Act as regards the making of a development order are wide enough to be used to address concerns of the Conventions.

Such an order may be used, for instance, to prevent building too close to the coastline and therefore avoid some of the potential adverse consequences of climate change or to address issues of drought and land conservation as well as biodiversity, which may also be addressed by way of a “tree preservation order”. Policy ought to direct such usage towards implementation of the Conventions’ provisions.

Notably, it appears the Act is, in essence, limited in its application to the terrestrial and not marine environment. This needs to be reviewed, although it is borne in mind that undertakings such as port and harbour developments, land reclamation and drainage projects require a permit from NEPA under **The Natural Resources Conservation Authority Act, 1991** and who also administers **The Town and Country Planning Act, 1958**.

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<sup>68</sup> See: **Section 4(a) & (o)**.

<sup>69</sup> See: **Section 5(1)**.

<sup>70</sup> See: **Section 11(1)**.

<sup>71</sup> See: **Section 25(1)**.



## **6.8 General legislation pertaining to public education, awareness, training, scientific research, data collection & dissemination**

Various pieces of environment-related legislation provide for public education, awareness, training, scientific research, data collection and dissemination which facilitate implementation of the Conventions' provisions in this regard. These include legislation such as **The Natural Resources Conservation Authority Act, 1991**,<sup>72</sup> **The Forest Act, 1996**,<sup>73</sup> **The Disaster Preparedness and Emergency Management Act, 1993**,<sup>74</sup> **The Endangered Species (Protection, Conservation and Regulation of Trade) Act, 2000**<sup>75</sup> and **The Rural Agricultural Development Authority Act, 1990**<sup>76</sup>. In addition, there is legislation, more general in scope, which also facilitate such implementation.

### **The Education Act, 1965**

The statutory system of public education is provided for under this Act and comprises primary, secondary and tertiary education.

The Act stipulates as to who can be employed as a teacher in a public educational institution and gives great latitude as to what may be taught, and the curriculum to be pursued. This provides much scope for aspects of the Conventions' provisions to be incorporated into curricula and course content.

### **The Scientific Research Council Act, 1960**

The Act requires the Scientific Research Council to undertake, foster and co-ordinate scientific research in Jamaica and to encourage the application of the results of such research to the exploitation and development of the country's resources.

Accordingly, the Council has the duty:-

- “(a) to collect, collate and review information concerning scientific research schemes or programmes relevant to the development of the resources of this Island whether such scientific research schemes or programmes are being or have been undertaken in this Island or not;
- (b) to co-ordinate scientific research schemes and programmes undertaken by departments and agencies of the Government of this Island, by statutory bodies or authorities, and, subject to their consent, by any other persons or organizations engaged in scientific research in this Island;
- (c) to foster and, where the Council thinks fit, to undertake and carry out, scientific research and investigation relating to:-
  - (i) the development and utilization of the resources of this Island;

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<sup>72</sup> See: **Section 4(1)(b) & (2)(g)**.

<sup>73</sup> See: **Section 4(f)**.

<sup>74</sup> See: **Section 5(1)(c) & (d)**.

<sup>75</sup> See: **Section 15(1)(c)**.

<sup>76</sup> See: **Section 4(2)(d)(i)**.

- (ii) the improvement of existing technical processes and methods;
- (iii) the development of new technical processes and methods for application to the expansion or creation of industries and to the utilization of waste products;
- (d) to encourage persons engaged in any industry to undertake scientific research in connection with such industry on a co-operative basis;
- (e) to establish and maintain a scientific information centre for the collection and dissemination of scientific and technical information;
- (f) to give any Minister such advice as such Minister may require in connection with any matter on which, by virtue of the provisions of this Act, the Council is competent to give advice.”<sup>77</sup>

The Act’s provisions are wide enough to address the Convention’s requirements pertaining to scientific research, data collection and dissemination.

The legislation noted in this section allow for Jamaica as required, to co-ordinate activities carried out under the three Conventions in the fields of research, training, systematic observation and information collection and exchange.

### **The Disaster Preparedness and Emergency Management Act, 1993**

This Act provides for precautionary, preparatory and remedial measures to be taken in preparation for or in the event of any disaster or emergency precipitated by climate change, causing or resulting from land degradation (drought) or biodiversity loss.

Under the Act “disaster” is defined as *“the occurrence or threat of occurrence of an event, caused by an act of God or otherwise, which results or threatens to result in loss or damage to property, damage to the environment, death or injury of persons, on a scale which requires emergency intervention by the state and includes widespread dislocation of essential services, fire, accidents, hurricane, pollution, disease, earthquake, drought and flood...”*<sup>78</sup>

The Office of Disaster Preparedness and Emergency Management, (ODPEM) is established under the Act, with functions, which include:-

- “(a) developing and implementing policies and programmes to achieve and maintain an appropriate state of national and sectoral preparedness for coping with all emergency situations which may affect Jamaica;

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<sup>77</sup> per **Section 5.**

<sup>78</sup> See: **Section 2.**

- (b) encouraging and supporting disaster preparedness and mitigation measures in all the parishes in collaboration with the local government authorities, community based organizations and the private and voluntary agencies, respectively;
- (c) providing appropriate training programmes and consulting services related to all aspects of disaster preparedness, disaster mitigation, loss reduction, and disaster management;
- (d) planning and implementing programmes to enhance public awareness and understanding of disaster related issues, emergency management, hazard prevention and other similar matters;
- (e) identifying and analyzing hazards or emergency situations and conducting related operational research into their effects; and
- (f) establishing, maintaining and managing mutual assistance and co-operation agreements.<sup>79</sup>

The duty of the Office is, inter alia, to “...*(d) identify any emergency contingencies that are within or related to the area of responsibility of each Ministry and public sector agency, and develop with that Ministry or public sector agency, a plan for mitigating or responding to that contingency.*”<sup>80</sup>

With such duty ODPEM is obliged to work with the relevant government Ministry and agencies in carrying out requirements of the Conventions, in keeping with its functions.

**The Country Fires Act, 1942**

This Act makes it an offence to set fire in rural areas to crops and in particular circumstances. Taken at initial face value, the Act could seem to afford protection to the environment against the hazards of fire which can have adverse consequences for soil resources, biodiversity and climate change. However, with a maximum fine under the Act of \$2,000.00 and limited geographical and other application, the Act is woefully inadequate and needs to be repealed and replaced by appropriate modern legislation applicable to all of Jamaica with appropriate sanctions.

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<sup>79</sup> per **Section 5(1)**.

<sup>80</sup> per **Section 5(2)**.

## 7. CHALLENGES TO POLICY DEVELOPMENT

*“The challenge for environmental policy is to capture the cost of the environment in production and consumption without dislocating the economy and / or imposing undue burdens on the population<sup>81</sup>”*

### 7.1 Policy and Policy development

An attempt will be made here to clear up some of the ambiguities that were identified during the consultations relating to “Policy” and its accepted meaning in Jamaica. Generally “Policy” can be taken in its most basic sense to mean ‘a high level overall plan embracing the general goals and acceptable principles especially of a governmental body; a definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions’.<sup>82</sup> Policy-making by extension would be ‘the high-level elaboration of policy and of governmental policy.’<sup>83</sup> Other definitions identify Policy as ‘.... a course of action taken by public authorities to address a given problem or inter-related set of problems’<sup>84</sup>.

Where the incongruity arises is in relation to the looser use of the term policy. Whether unfortunately or otherwise, there exists in Jamaica today, a plethora of ‘policy statements’, standards<sup>85</sup> and guidelines<sup>86</sup> developed by different entities vested with the authority to oversee the management of the environment. These in effect often mimic the concepts outlined in the overarching Policy statement from Cabinet but do not necessarily have this official sanction.

The Consultants wish to make clear that the discussions throughout the remainder of this document relate not to this latter usage of the term ‘Policy’, but to what might properly be called ‘Public Policy’ or that derived as a result of a Cabinet submission (and by extension this can be taken to include the Action Plans developed using this methods of acceptance) versus a mere pronouncement from an organisation without the accompanying official executive sanction.

As will be indicated below the formulation of Policy requires that certain procedures be followed in order for it to be deemed Policy (see **Appendix IV**). What has in fact taken place in recent times is the emergence of Action Plans which ought in reality to assist with the implementation of the Policy document, but which due to the mechanisms employed during the formulation of the Action Plan, meets the established criteria governing the development of Policy. Prime examples of this are the **NBSAP** and the

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<sup>81</sup> Environmental Management Systems Policy – pg. 8

<sup>82</sup> Webster New Collegiate Dictionary 1980 – pg. 882

<sup>83</sup> Ibid – pg 883

<sup>84</sup> Leslie Pal, Public Analysis, An Introduction

<sup>85</sup> something established by authority, custom or general consent as a model or example - Websters New Collegiate Dictionary

<sup>86</sup> An indication or outline (as by a government) of policy or conduct – Websters New Collegiate Dictionary

**NFMCP**, which though they do not have the title Policy attached to them, can be deemed Policy documents in their own right.

This chapter will address the issue of the formulation and promulgation of Policy and legislation with specific attention being paid to the gaps which currently exist in this process as well as the opportunities presented to offset these deficiencies. The reason that the Policy development process was targeted was based on the fact that the majority of the shortcomings identified resulted from the inadequate provision of a basic structure.

Ideally Policy should contain<sup>87</sup>

- (i.) A clear delineation of the problem(s) that need(s) to be addressed this would include the identification of triggers and justify the need for government intervention;
- (ii.) Background information
- (iii.) An analysis of the costs and benefits which would accrue to alleviate the problem(s)
- (iv.) Conclusions
- (v.) Recommendations on courses of action usually through the articulation of priority areas of action, which would of necessity require the statement of costing, timelines, resource implications, identification of responsible / accountable Ministry etc.
- (vi.) Implementation process – formulation of detailed action plans which it is anticipated would result in the translation of the Policy into action.

It is accepted that Policy once formulated is meant to inform the development of necessary legislation and to guide the operation of the sector with which it is concerned. What this equates to essentially is that for such legislation to be of any worth the overarching Policy document must of necessity be comprehensive, taking into account issues like effective use of resources, identification and harmonization of relevant issues. It should also seek to integrate the administration, operations and policy arms of each Ministry thereby fostering an interactive culture within these areas<sup>88</sup>. Integration of these critical arms of any Ministry would ensure that consistency is maintained throughout the development of operational and policy initiatives.

Based on the information derived from investigations this has not in fact been the established practice in the past with the process for the development of Policy and legislation being much less structured and by extension less effective. This deficiency could be tackled if a competent and well-trained cadre of Policy analysts existed to guide the Policy formulation process. This would ensure that a comprehensive yet realizable framework is developed which takes into account critical considerations (e.g. time-lines, budgets, corporate plans, identification of resources etc.), thereby paving the way for the smoother implementation of these prioritized areas of focus.

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<sup>87</sup> Martin Abrams, A Manual for Policy Analysts – 2002 pg. 16

<sup>88</sup> Ibid pg. 7

Public Policy should of necessity also clearly articulate the problem(s) or areas which need to be addressed. In the case of two of the three Conventions, due to the fact that no Public Policy document which focuses solely on land degradation, or climate change in Jamaica exists, there is no direct statement from the State on its responsibilities and the fulfillment of these. However, there are a number of Policies which are relevant to the Conventions although not primarily developed as a result of the need to address their implementation.

Another critical component of Policy is the identification of and acceptance by the named organisation(s) of the necessary responsibility of fulfilling the mandates of the Policy document. It is clear without need for further explanation why this should be a requirement but more so when one takes into account, the fact that the two Conventions that have not received much attention to date, would require the collaboration of several Ministries and their Departments for effective implementation to take place.

Accountability is another key issue which is discussed in the report as a shortfall (especially during the implementation process) which could be directly linked to the lack of direction from an established agency / agencies to oversee and effect the implementation of these international obligations.

Currently in Jamaica the development of Policy is governed by the Jamaica (Constitution) Order in Council, 1962<sup>89</sup>, which designates the Cabinet as

“... the principal instrument of policy ....” thereby charging it “... with the general direction and control of the Government of Jamaica”.

The Cabinet makes the final decision as to the contents of the final Policy document, though the actual formulation of the physical document is not the responsibility of this part of the Executive arm of Government. The actual work associated with the development of the Policy document is initiated and carried out by the responsible Ministry. The document on completion is then presented through the relevant Minister to the Cabinet for a decision to be taken. (See **Appendix IV**).

There is currently housed in the Cabinet Office a Unit to oversee the modernization of the Public Sector which it is envisioned could play a key role in the improvement of the Policy development process in Jamaica. The PSMU Vision and Strategy – 2002 – 2012 provides the underpinnings for this process in that it focuses on policymaking and the legal framework and articulates the view that modern policy-making should be

“ ..... evidence based. Evidence marshaled to support policy discussion should cover the impact of policies and their sustainability, both in terms of cost and relevance over time. We will improve policy making such that it will be

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<sup>89</sup> Section 3, 2<sup>nd</sup> Schedule, Chapter VI – Clause 69(2)

- **Results oriented and forward looking** – outcomes will be defined;
- **Outward looking**- Caribbean and international experience will be drawn on;
- **Innovative, flexible and creative** – established processes will be challenged;
- **Evidence based** – timely and accurate information will inform policy decisions;
- **Inclusive** – those affected will be consulted;
- **Joined up** – sectoral policies will be co-ordinated to achieve national sustainable development;
- **Reviewed** – monitoring the impact of policies will be a regular feature;
- **Evaluated** – evaluating policies with a view to making them more effective will become standard practice;
- **Instructive** – we will learn from experience about what works and what does not.<sup>90,</sup>

The Strategy advocates the use of certain devices to address identified priority areas namely -

1. **Integrated Policy making** – linkage developed between social, economic and environmental problems and solutions which will result in the production of more effective policies. This would also assist in the identification of medium to long-term impacts which would affect future generations. This would also provide better solutions for existing problems thereby providing opportunities for the incorporation of coordinated approaches into the decision making process where possible.
2. **Counting the Cost** – the need was identified for the incorporation of full cost accounting<sup>91</sup> into all government policies, programmes and projects. This would destroy the notion that natural resources are ‘free goods’ when in fact costs often accrue to the existing society or future generations when the environmental damage has to be corrected. A potential project idea could be a study which seeks to compute several price and marketing mechanisms to include the real environmental costs associated with the production of the services provided.
3. **Collaboration** – supports the idea of an integrated approach to policy making involving new collaborative efforts between government and the wider society thereby combining competencies and resources to achieve a common aim.

The PSMVS articulates the role of the public sector as being a supporter of collaborations in the decision making process, with a true value being placed on environmental services and the protection and conservation of the natural resource in

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<sup>90</sup> Public Sector Modernization Vision and Strategy 2002 – 2012 – pg. 4

<sup>91</sup> All costs associated with the generation and use of a products or service (e.g. raw material collection, production and waste disposal)

keeping with the long-term development of the country. It also prescribed that the following strategies<sup>92</sup> would be required to guide the process

- National Sustainable Development;
- Planning
- Policy Reform
- Regulatory
- Greening of Government

The Strategy addressing policy reform is geared towards reforming the policy formulation and decision making processes of government by

- ensuring that national goals and objectives are prioritised;
- creating a system that links policies, plans, actions and strategies of Ministries and agencies to ensure that the combined outcome is in keeping with national priorities;
- providing training for decision and policy makers;
- building sustainable development into all policies and decisions of government and across the society<sup>93</sup>;
- allowing local government to give input where policies will have an impact on communities;
- enable contributions from the civil society, private sector and poor where they will be impacted;
- increase general access to information on decisions and policies;

In light of the information above, it is felt that adoption of tenets of the Policy making unit by the entire Public Sector would result in the proper formulation or at least along an accepted format of Policy in the future and this by extension can only bode well for the future implementation progress of responsibilities under the three Conventions

The question is there a trickle down into the Ministries and their agencies of the directories from the PSMU? If not which agency should be responsible for driving that process and ensuring effective implementation of the strategy?

It is noted, *en passant*, that as regards policy and statutory mandate, the mandate of an agency that would appear to most closely resemble an over-arching, integrative mandate for policy is that of the Planning Institute of Jamaica, with function under **The Planning Institute of Jamaica Act, 1984** of “initiating and coordinating planning for the economic, financial, social, cultural and physical development of Jamaica.”

Based on its mandate the PIOJ should play a more integral role in the Policy formulation process than it currently does as it would then guide the representatives from the various Ministries on how to properly create the balance between the protection of natural resources and the consideration of economic, financial, social and cultural concerns.

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<sup>92</sup> PSMVS – pg. 8

<sup>93</sup> An assessment of the potential impact on the economy, society and the environment.



## **7.2 The Policy – Legislation interface**

Legislation comprises laws made by Parliament or via its delegated law making authority.

By its very nature, legislation reflects Government policy, and as a source of law, it is distinguishable from law developed through decided cases in court, which do not necessarily reflect any deliberate Government policy.

Policy ideally ought to precede and inform the development of legislation. It may and often addresses the need for particular legislation. Where the requisite legislation exists, policy can also inform how legislation is to be employed or utilized.

A basic recommendation in this report is that, policy ought to be used towards ensuring that existing legislation, facilitative of the Conventions' implementation are employed or utilized, in achieving such implementation.

## **7.3 Conclusions**

The existing policy and legislative framework in Jamaica when examined in light of the current obligations under the three UN Conventions, is sufficient in most respects in its current state, to facilitate the fulfillment of Jamaica's responsibilities. What has become clear during the examination of the various Policy documents with the potential to assist in the implementation of Jamaica's obligations under the three Conventions is that a flaw exists in the methodology of Policy formulation. This inadequacy or capacity constraint translates into inaction as the final product, which ought to provide the framework governing the implementation process is often so skeletal in nature that it does not readily facilitate this process.

This is especially true of the UNCCD and the UNFCCC as the activities relevant to both are facilitated at this time by extension and it is felt that without a clear statement on each Convention. This could be avoided if the relevant agencies would fully explore their roles in the implementation of the existing responsibilities.

An example of a Policy that needs urgent review is the Forest Policy of 2001. Though it is appreciated that the NFMCP is the means by which the terms of the Policy will be effected, it is still found wanting in many respects. It is anticipated that the Forestry Department will conduct a thorough review of this document as it seeks to carry out the revision of its five-year national forest plan in 2005.

Another fundamental factor which has the potential to derail even the most comprehensive and well written Policy document, is the nagging issue of lack of funding. The inadequacy of funding can be directly linked however to the priority which is placed by the Government on a particular issue. Evidence is available to support the view that the scarcity of financial support from the Government is directly correlated to the priority placed by the State on the protection, conservation and sustainable use of the island's natural resources. A shift in the ranking of the environment to a higher level on the

political agenda would result in the significant improvement in the capacity of many state-operated entities to fulfill their mandates.

However, this is not a straight forward issue, within the process of government there is severe competition for secure funding resources. The issue of environment has to compete with health, education and crime prevention which are seen by the general public as key issues in national development. Although environmental education programmes are in place, the absence of sustained integrated EE programmes has meant that public opinion has not been sufficiently influenced nor has the public fully recognised the importance of environment to national development. As a result when the political directorate makes decision on scarce resources, the absence of 'full' public support for the environment has often led to environment not being high on the list of priorities. The thematic report on public education and awareness more fully discusses this issue<sup>94</sup>. Therefore the matter of policy development legislative framework and funding to effect change are inextricably limited to an informed public advocating for greater importance to be given to the matters of environment and sustainable development as part of the country's development policy and strategy.

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<sup>94</sup> Public Education Awareness and Training Crosscutting Report

## 8. CONCLUDING COMMENTS

### 8.1 Policy Considerations

The existing Policy framework in Jamaica when examined in light of the current obligations under the three UN Conventions, was deemed in some respects sufficient to allow for the fulfillment of these responsibilities though in others it was found to be extremely lacking.

This divergence in the quality and relevance of the various policy documents that were reviewed resulted in the development of a priority needs matrix which sought to identify the gaps that currently obtain whilst simultaneously placing these in order of significance to the country.

The main Policy documents that were reviewed and the Conventions to which they relate can be summarised as follows –

**Table 5 List of Policy reviewed**

<b>POLICY</b>	<b>UNFCCC</b>	<b>CBD</b>	<b>UNCCD</b>
Draft Energy Policy 2003	✓		
Forest Policy 2001	✓	✓	✓
National Land Policy 1996		✓	✓
National Industrial Policy 1996	✓	✓	
Agriculture Policy			✓
Draft Watershed Policy 2003		✓	✓
Draft Beach Policy		✓	
Ocean and Coastal Zone Policy	✓	✓	
Draft Biosafety Policy		✓	
Protected Areas Policy		✓	

The priority areas determined by the Consultants to require immediate attention are as follows

**Table 6 Gaps and Proposed Solutions for Policy Capacity Constraints/Gaps**

<b>GAP</b>	<b>SOLUTION</b>
Generic strategy for Policy development needed to ensure that relevant environmentally related considerations are considered and incorporated into the development and consultation process.	These would be in the form of generic instructions to guide all Ministry papers. Could be formulated and distributed through the Cabinet Office – PSMU Project.
Lack of sufficiently qualified and dedicated human resources to craft complete and implementable Policy documents.	Identify and expose members of staff who are involved in the Policy formulation process to relevant training opportunities to hone the natural abilities they may possess.
Formulation of the Policy – this would result in the inclusion within the body of the Policy, information on the implementation strategies which are to be employed to fulfill the dictates of the Policy document. This would result in the clear delineation of the tasks, targets, cost of implementation and establishment of time-lines to effect the mandates of the Policy. More focus needed.	Policy development strategy and trained personnel would enhance the Policy formulation process.
Identification of effective implementation mechanisms to facilitate the execution of the Policy.	The Policy must address the process of implementation e.g. action plans, costings, timelines etc. this will assist in the performance of the dictates of the document. An example of such a strategy could be the incorporation of the tenets of the Policy in the actual operational or corporate plan(s) of the various Ministries.
Inadequate access to information by the agencies which could assist in meeting the targets established under the three Conventions pertaining to their potential role in the implementation process.	Identify the relevant organisations early, and include them either through co-management arrangements or other such mechanisms in the decision making process rather than seeking to impose directives on them, especially when there is a co-ordinating entity that is distinct from the implementing one..
Inadvertent if any direct reference made to the obligations accruing to Jamaica as a result of ratifying the Conventions	Relevant Policies need to be more specific in highlighting the responsibilities existing under the three Conventions and identifying coordinating and implementing agencies.
Loss of valuable data and resources once a prescribed project is completed and the foreign assistance and / or interventions are no longer available.	Institutionalizing the basic tenets of the project from the onset into the institutional structure of the Ministry / Division, Agency etc. so that the outcomes of the project over time morphs into a programme of the implementing agency e.g the Trees for Tomorrow Project – Forestry Department.
Low priority placed by the Government on the state of the environment generally, and the implementation of the responsibilities derived from International Agreements	Raise the rating placed by the Government on environmental matters by
Formulation of enabling local legislation	Develop new legislation or amend existing legislation from the point of becoming a signatory, rather than as is currently the practice, at the time that the responsibilities are coming on stream.
Financing shortfall for implementation of obligations and lack of quantifiable and / or reliable information relating to the costs associated with effective implementation.	The country has already ratified the Conventions and as such now needs to source monies to implement its obligations. By quantifying the cost of implementation within the Policy or Action Plan, the background information will be available to pursue funding opportunities

Though other Policy documents were reviewed, it was determined that the ones listed above have the potential for the greatest impact on the fulfillment of Jamaica's obligations under the three Conventions. The need to address the priority issues will result in the formulation and subsequent implementation of well-rounded and comprehensive Policy documents to guide the execution by Jamaica of her existing responsibilities.

Inadequate capacity related to the development of Policy geared towards the fulfillment of the island's obligations under the three Conventions was noted to be a major failing in the implementation process. This relates more specifically to the enunciation of

- the obligations under the Conventions – these are not directly identified as established responsibility under the main Policy documents reviewed save the NBSAP. Fortunately for the country however, some of these same obligations are being indirectly met to varied degrees under other existing Policy. In fact on many critical issues, the Policy documents are silent and as such do not address the process of implementation of these.

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### **Accountability**

The Jamaican Constitution generally provides for a Minister to be charged with the responsibility for any subject or department of government.<sup>95</sup> The work entailed with the responsibility is carried out through the administrative organ of the Ministry concerned and may, in general, concern any matter with the work entailed done by the Ministry, except where specifically prohibited by Jamaican law.

Accordingly, the Ministry of Land and Environment, with its portfolio responsibility for the environment, may properly assume responsibilities for carrying out and carry out Jamaica's obligations under the three Conventions except where carrying out such obligation causes it to run afoul of some existing legal stipulation.

In light of the options analysed previously, it is felt that the most effective means by which the various responsibilities which currently exist pursuant to the three Conventions would be the establishment of a mechanism to house all three Conventions under one umbrella Ministry namely the Ministry of Land and Environment<sup>96</sup>. This would be an official position of the Government, and could save some precious resources as will be seen below.

Where implementation is to take place there needs to be an established and coordinated effort between the implementing agency and the Focal Point Ministry. This is to ensure that there is a transfer of information between these entities.

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<sup>95</sup> See: Section 77(1), *ibid*.

<sup>96</sup> This Ministry currently hosts the three Conventions as the Focal Points for all three (Philbert Brown – UNCCD; Donna Blake – CBD; and Jeffrey Spooner – UNFCCC) are housed within the MLE.

## **8.2 Legislative Considerations**

The legislative framework has been generally found to be facilitative of implementation of the Conventions' provisions. This is reflected in the fact that Jamaica did not find it necessary to enact legislation before becoming a party to the Conventions.

Streamlining of areas of overlap among legislative provisions and jurisdiction among agencies are already being pursued in respect of the new NEPA Act, a new legal framework for protected areas and pending new water services legislation.

A major priority is to update the applicable penalties as in a number of instances, the penalties are so low that it would be virtually tantamount to wasting judicial time, to institute a prosecution.

A number of general problems as regards environmental legislation development and enforcement also need to be addressed and provide opportunities for project formulation and pursuit.

Otherwise, there are a number of areas of constraint, which have been indicated in respect of particular pieces of legislation and which need to be addressed. These areas, particularly those relating to genetic resources, intellectual property protection and the Maroons may be addressed by appropriate projects.

## **8.3 Funding accessibility**

There is a need to train personnel from agencies which currently have a stake in the protection and conservation of the environment in the art of developing project proposals and identifying sources of funding for these. This is due to the fact that though there is a recommendation for the introduction of the proposed plans into the corporate plans of these agencies, that there is no guarantee that the budget provided especially in relation to state run entities, to offset the costs associated with implementation.

## 9. RECOMMENDATIONS

The following section outlines recommendation firstly with regard to the matter of policy development and implementation and secondly on the issue of the legal framework.

### 9.1 Policy Implementation

#### Policy analysis

Though there is a plethora of Policy documents in existence which relate to the protection and sustainable use of the environment this has had limited impact on the resources which they were formulated to conserve / manage. Though some are poorly constructed, the majority requires the employment of viable implementation strategies. A thorough assessment of the shortfall needs to be carried out to quantify the impact that non-implementation of these Policies are having on the environment. This it is felt will propel sufficient attention to this matter thereby increasing the ranking of the environment

#### Policy Implementation –

NEPA though the logical agency for the coordination of activities under the three conventions, does not have the capacity to implement all of the policies it has developed. There is a need therefore in the development of the various Policy documents to include the agencies which will be involved in the actual implementation e.g Forestry Department, Water Resources Authority, Rural Physical Planning Unit, National Land Agency etc.

Policy implementation can only be carried out if the right systems are in place. The proposed mechanism for this is the ten-year Strategy<sup>97</sup> developed by the Public Sector Modernization Unit of the Cabinet Office which rather than reinventing the wheel, could facilitate the modernization of the Policy development process in Jamaica.

#### Institutionalization

“Concern over many decades about the increasing degradation of Jamaica’s watersheds led, over time, to a series of interventions aimed at mitigating and preventing the environmental and human factors which impact negatively on watershed areas. These interventions were, for the most, part project-based.” The recommendation is that the implementation of the responsibilities established by the Conventions be carried out as a result of the institutionalization of the project / programme. This will ensure its continuity long after the project has come to an end and the international influence has been removed.

#### Policy review

Though sufficient in its current state, the following policies could benefit from a revision of their text to more directly deal with the three Conventions. Fortunately many of them are currently either under review, or are being considered for review and it is proposed that an outcome from this Project be a recommendation to the relevant Ministries /

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<sup>97</sup> See reference to Strategy in Chapter 3

Departments, that they include reference to the nation's obligations under the Conventions.

- The Forest Policy
- National Industrial Policy
- National Land Policy
- Agriculture Policy
- Energy Policy
- Beach Policy

### **Data collection and reliability**

There is a need for more consistent use of technical terminology between the various Policies in that where a document is making reference to another Policy and / or sector, an attempt should be made to utilise the jargon and technical terms used by these organizations. There is also a need for the inclusion of more data in the actual Policies especially in light of the fact that little or no attention is paid to the level of environmental degradation which is taking place. This requires that studies be carried out to arrive at accurate and reliable data and it is felt that should this be done, that the priority placed by the Government on environmental issues would automatically increase. A more proactive approach has to be adopted by the agencies and organizations who have an interest in maintaining the viability of the natural environment, in seeking means of valuing the island's natural resources in a systematic and coordinated manner. However, there are opportunities for a synergistic and cross cutting approach to policy development and these are outlined in **Appendix V**.

## **9.2 The Legal Framework**

### **9.2.1 Broad / Programmatic Approaches**

It is proposed that the following be done towards ensuring a more facilitative setting for implementation of the Conventions:-

- (i.) educate citizens as to their rights re the environment and explore having private citizens and environmental non-governmental organizations (NGOs) more empowered to bring "public interest" court actions where their interest in the due conservation of the environment is breached and make the requisite legislative changes to address technical legal impediments to bringing such actions;
- (ii.) carry out a periodic review and updating of penalties for breaches of environmental laws;
- (iii.) periodically, consult with and sensitize the judiciary as to the full implications and/or gravity of particular environmental breaches;
- (iv.) have environmental law breaches and their implications feature prominently in the training of members of the police force;



- (v.) enhance capacity to develop and adhere to appropriate action time tables towards speedy implementation of Regulations needed to give efficacy to enacted primary legislation;
- (vi.) have legislation indicate timeframe for passage of particular Regulations, after primary legislation comes into force;
- (vii.) enhance capacity to enact timely legislation necessary to incorporate international treaties to which Jamaica becomes a party;
- (viii.) empower citizens to take action to have relevant government agencies act without undue delay (having regard to all relevant circumstances);
- (ix.) explore how best protection is to be provided for the rights of private citizens as regards the environment under the Jamaican Constitution (bearing in mind that discussions appear imminent to advance the proposed new Charter of Rights and Freedoms, to create “the right, compatible with sustainable development, to enjoy a healthy and productive environment”.<sup>98</sup>
- (x.) amend The Criminal Justice (Reform) Act, 1978 (which sets out sentencing options for the courts) or otherwise make provision for increasing the sentencing options as regards breaches of environmental law so that for instance:-
  - (a) the Act be amended to provide for the sentencing of an offender to implement an EMS as applicable or other environmentally-friendly measure or undertaking;
  - (b) to this end there be a Schedule of a number of environment-related legislation, breach of which would give the court the option to sentence the offender to implement an EMS (or other environment-friendly measure or undertaking);
  - (c) such amendment(s) encompass:-
    - (i) circumstances when such an order would be appropriate;
    - (ii) clarity as to what is required of the convicted offender under such an order;
    - (iii) time frame within which to implement EMS;
    - (iv) satisfying the court that such implementation can be checked, monitored and supervised;

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<sup>98</sup> See: Bill – *The Charter of Rights (Constitutional Amendment) Act, 1999, Section 13(2)(o)*.

- (v) designating and empowering NEPA (or other appropriate Government Agency) to report as to the appropriateness of having an implementation of EMS order made in respect of the particular offender;
  - (vi) sanctions where EMS not implemented as ordered; and
  - (vii) as applicable, which persons in the corporation/organization are to be deemed responsible/liable for not carrying out the Order.
- (d) provision be made in the Act for particular officers of companies (designated responsible officers) to be personally amenable to criminal prosecution in specified circumstances for breach of particular environmental laws.
- (i.) incorporate environmental conservation and sustainable development considerations in criteria of legislation providing for incentives and concessions, (e.g. **The Urban Renewal (Tax Relief) Act, 1995** and **The Industrial Incentives Act, 1956**);
  - (ii.) develop “Prosecution Guidelines” and “Sentencing Guidelines” to aid the environmental law enforcement process;
  - (iii.) legislate to ensure that for specified offences, particular members of companies (or other corporate entities) are held personally responsible for environmental law breaches;
  - (iv.) train particular persons at the Office of the Chief Parliamentary Counsel towards equipping them to better expedite the preparation of environmental legislation;
  - (v.) make legislative and other changes towards increasing the role of local government in environmental legislation enforcement in communities, and rationalize and synchronize the role of local government with that of other agencies concerned and for instance ensure that the Regulations contemplated under **Section 14(1) of The Public Health Act, 1985** relating to “air, soil and water pollution” be promulgated; and
  - (vi.) make legislative change to allow for natural resource loss to be taken into account in compensation award (as has recently become possible with new amendment to **The Beach Control Act, 1956**<sup>99</sup>) and to equip persons to carry out requisite valuation.

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<sup>99</sup> See: **Section 19.**

### 9.2.2 Specific Legislative Changes

In addition to the recommendations for enhancing the broad legal setting for the Conventions' implementation, the following are recommended:-

1. That **The Town and Country Planning Act, 1958** be amended to clearly address marine areas beyond Jamaica's land area; and
2. That **The Country Fires Act, 1942** be repealed and modern legislation put in place to address the setting of or dealing with fires throughout all of Jamaica with appropriate deterrent sanctions for offenders.
3. Comprehensive legislative measures be introduced to specifically address the issue of control of alien species and their introduction into Jamaica by ship ballast water and that Jamaica consider becoming a party to the International Convention for the Control and Management of Ship's Ballast Water and Sediments.
4. Legislation be enacted to address the preservation and utilization of traditional knowledge.
5. A clear comprehensive policy be developed as to how to treat with the Maroons, their lands, knowledge and the utilization of and development of maroon areas.
6. Legislation be put in place to protect genetic resources and to provide for intellectual property protection for breeders of and accessing new plant varieties.
7. That **The Natural Resources Conservation Authority (Air Quality) Regulations**, now in draft, specifically advert to the Convention and provide for its implementation within the scope of the proposed legislation.
8. That **The Road Traffic Act, 1938** be amended towards effectively ensuring that motorists are deterred by prosecution, from having their motor vehicles emit unreasonable emissions, verifiable by prescribed scientific criteria and equipment.
9. That the incentives for fuel conservation and renewable energy use be legislated in keeping with the Energy Policy.

### **9.3 Potential Projects**

The following activities could also be taken into account when formulating the projects to address the following of NCSA.

1. To carry out a diagnostic study to identify and propose legislative changes for addressing the legal impediments to citizens pursuing “public interest”/ class action environmental law suits and to have relevant government agencies act where they are being tardy in doing so, to the prejudice of citizens.
2. To undertake a study of sentencing options for environmental law breaches and to propose appropriate options for Jamaica, to be provided for in Jamaican legislation.
3. To develop user-friendly environmental law manual(s) to aid in the training of members of the Jamaica Constabulary Force and in the carrying out of prosecutions.
4. To train person(s) at the office of the Chief Parliamentary Counsel, to assist in the expeditions preparation of environmental legislation.
5. To equip local government to play greater role in environmental law enforcement.
6. To improve (by training, certification, equipment or otherwise) the capacity of environmental and other professionals to carry out valuation of environmental loss and furnishing expert evidence in environmental litigation generally.

## 10. REFERENCES

1. Gap analysis document
2. Beach Policy
3. Environmental Systems Policy
4. Draft Energy Policy
5. National Land Policy 1996
6. National Industrial Policy 1996
7. Draft Watershed Policy 2003
8. Water Sector Policy 2000
9. Forest Policy 2001
10. Trade Policy
11. Hazard Mitigation Policy
12. National Forest Management and Conservation Plan
13. National Bio-diversity Strategy and Action Plan
14. National Report - Barbados Programme of Action
15. Ocean and Coastal Zone Policy
16. Public Sector Modernization Vision and Strategy 2002 - 2012
17. United Nations Framework on Climate Change
18. Convention on Biological Diversity
19. United Nations Convention to Combat Desertification

## **APPENDICES**

## **APPENDIX I – Legislation relevant to the Convention on Biodiversity (CBD)**

### **The Animal (Diseases and Importation) Act, 1948**

This Act mandates the segregation of diseased animals from those not so diseased and requires the notification of the fact of diseased animals to an inspector provided for under the Act or to the police.<sup>100</sup>

Diseased or suspected animals are required to be slaughtered and quickly disposed of.<sup>101</sup>

The Act prohibits the importation of any bird, reptile or insect without a licence granted by the Director of Veterinary Services.

### **The Beach Control Act, 1918**

In similar vein, this Act prohibits the importation of bees, honey or beekeeper's stock without a permit from the Chief Plant Protection Officer, first had and obtained.<sup>102</sup>

### **The Plants (Quarantine) Act, 1994**

Under this Act, the Minister may, from time to time by order declare an area of land described to be infected with plant pests or suspected of being so infected, prohibit the importation into Jamaica of plants or things by which plant pests may be introduced into Jamaica and generally take other measures to protect plants from loss or extinction.<sup>103</sup>

**The Plants (Importation) Control Regulations, 1997**, made under the Act, stipulates that a person who wishes to import a plant, seed, cutting or slip into Jamaica needs to apply to the National Biosafety Committee for permission to do so. Where permission has been granted, the Committee submits the application to the Plant Quarantine Division of the Ministry of Agriculture for the grant of a permit.

In determining whether to grant approval of the application, the National Biosafety Committee is required to consider the applicant's ability to enforce adequate procedures and safeguards to ensure that no contamination by or release of the plant, seed, cutting or slip which is detrimental to the health or safety of any human, animal or other living organism will take place in Jamaica.

### **The Fishing Industry Act, 1976**

This Act prohibiting fishing by traps or pots, nets, spear guns or lines from a boat unless one is the holder of a valid licence issued by the Licensing Authority.<sup>104</sup> Boats used for

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<sup>100</sup> See: **Section 4, *ibid***

<sup>101</sup> See: **Section 9, *ibid***

<sup>102</sup> See: **Section 3, *ibid***

<sup>103</sup> *per Section 3.*

<sup>104</sup> See: **Section 3(1), 5(1) & *The Schedule, ibid***

fishing need to be registered and licensed under the Act. The owner of such a boat needs to have a valid licence authorizing the boat to be so used.<sup>105</sup>

Provision is made for Ministerial declaration of fish sanctuaries and closed seasons for particular species of fish (e.g. conch and lobster) with persons fishing in breach of such declaration being guilty of an offence.<sup>106</sup>

Under **The Fishing Industry Regulations, 1976**, it is an offence to catch and bring ashore, or destroy any berried or small spiny lobster. The use of certain (fry and shove) nets for fishing is also prohibited under the Regulations.<sup>107</sup>

### **The Morant and Pedro Cays Act, 1907**

As regards the Morant and Pedro Cays, it is an offence under **The Morant and Pedro Cays Act, 1907**<sup>108</sup> to on the Cays, fish, take eggs from, slay or catch birds or turtle, or shoot at birds or discharge firearms or make noise calculated to frighten birds on the Cays.<sup>109</sup>

### **The Maritime Areas Act, 1996**

Under this Act, the passage of a foreign vessel is considered to be prejudicial to the peace, good order or security of Jamaica, that is to say, the passage is not innocent if, while in the archipelagic waters or the territorial sea, such vessel engages in any fishing activities.<sup>110</sup> As regards the exclusive economic zone, it is an offence to explore for or exploit any living resources in the zone or to use any vessel to do so without the requisite licence.<sup>111</sup>

### **The Wild Life Protection Act, 1945**

Under this Act, various areas are declared to be Game Sanctuaries where it is an offence for any person to hunt any bird or other animal or to take bird nest or egg.<sup>112</sup>

An owner or occupier of land may apply to the Minister to have it declared a Game Reserve to which similar prohibitions apply.<sup>113</sup>

The Act prohibits the hunting of certain protected birds and other animals.<sup>114</sup>

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<sup>105</sup> See: **Sections 8(1) & 11(1)**, *ibid*

<sup>106</sup> See: **Sections 18 & 19**, *ibid*

<sup>107</sup> See: **Regulation 4(1)**, *ibid*

<sup>108</sup> *per Section 4*, *ibid*

<sup>109</sup> See: **Section 4**, *ibid*

<sup>110</sup> See: **Section 18(1)(h)**, *ibid*

<sup>111</sup> See: **The Exclusive Economic Zone Act, 1991, Section 6**, Here, requisite licence means licence issued under the relevant enactment specified in the **Schedule** to the Act.

<sup>112</sup> See: **Section 4**, *ibid*

<sup>113</sup> See: **Section 5**, *ibid*

<sup>114</sup> See: **Section 6**, *ibid*



It is an offence to have in one's possession the whole or any part of any protected animal or the nest or egg of any protected bird.<sup>115</sup>

Shooting seasons and closed seasons are prescribed as regards game birds and it is an offence to hunt any game bird during the closed season or to take or have in one's possession for sale or sell or store in any commercial cold storage, any game bird.<sup>116</sup>

It is an offence to take or attempt to take or sell or have in possession for sale any turtle eggs.<sup>117</sup>

Any person who hunts any bird or other animal in or takes any eggs from the exclusive economic zone without a licence issued under the Act is guilty of an offence.<sup>118</sup>

It is an offence to buy, sell, expose for sale, take, injure or kill immature fish.<sup>119</sup> So too is the use of unauthorized traps in rivers or explosive or noxious substance to take, injure or kill fish.<sup>120</sup>

Any person who knowingly buys, sells or has in his possession fish taken, injured or killed in contravention of the Act is guilty of an offence against the Act.<sup>121</sup>

There is provision for the protection of waters containing fish from trade effluents and any person who knowingly permits to be put in such waters any trade effluent industrial waste or any noxious or polluting matter is guilty of an offence under the Act.<sup>122</sup>

In its application the Act has been particularly significant for proscribing trade in immature fish, sea turtles, black corals and yellow-bill parrots and other such wild life.

### **The Aquaculture, Inland and Marine Products and By-Products (Inspection, Licensing and Export) Act, 1999**

The Act seeks to, inter alia, specify and maintain international standards of production and harvesting of aquaculture, inland and marine products and their by-products intended for human consumption and to advance public health and safety standards in the export of such products.<sup>123</sup>

Restrictions are placed on the export of such products (which importantly include conch and lobster).<sup>124</sup> It is an offence to export or operate a factory vessel, freezer vessel, carrier

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<sup>115</sup> See: **Section 6A**, *ibid*

<sup>116</sup> See: **Section 7**, *ibid*

<sup>117</sup> See: **Section 8**, *ibid*

<sup>118</sup> See: **Section 8A**, *ibid*

<sup>119</sup> See: **Section 9(1)**, *ibid*

<sup>120</sup> See: **Section 10**, *ibid*

<sup>121</sup> See: **Section 12**, *ibid*

<sup>122</sup> See: **Section 11**, *ibid*

<sup>123</sup> See: **Section 3**, *ibid*

<sup>124</sup> See: **Section 9**, *ibid*

vessel or other facility for the purpose of harvesting for export such products without a licence from the competent authority.<sup>125</sup>

The competent authority is the Fisheries Division of the Agriculture Ministry and it has responsibility, under the Act, to, inter alia, order the closure of demarcated production areas for the purposes of prohibiting the harvesting of such products.<sup>126</sup> It is an offence to harvest for export or export such products originating in an area which is not approved by the competent authority.<sup>127</sup>

### **The Endangered Species (Protection, Conservation and Regulation of Trade) Act, 1999**

This Act incorporates into Jamaican law, the provisions of **The United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973 (CITES)** and otherwise seeks to further the protection, conservation and management of endangered species of wild fauna and flora of Jamaica by regulating:-

1. the export of specimens that are or derived from indigenous Jamaican animals or plants;
2. the export and import of specimens that are or are derived from animals or plants which:-
  - (a) are threatened with extinction and are or may be affected by trade;
  - (b) may become so threatened if international trade in specimens of such species is not subject to strict regulation;
  - (c) require or are likely to require protection or the cooperation of other states in order to prevent or restrict exploitation;
3. the importation of animals or plants the introduction of which has or is likely to have adverse effect on the habitats and species of indigenous Jamaican animals or plants; and
4. the exportation or importation of specimens that are difficult to distinguish from the aforementioned specimens.<sup>128</sup>

Broadly, the Act protects categories of species having regard to their categorization under and the provisions of the Convention. There are four lists of species:-

1. species threatened with extinction, the trading in which would be authorized only in exceptional circumstances;<sup>129</sup>

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<sup>125</sup> See: **Sections 25 & 11(1), *ibid***

<sup>126</sup> See: **Section 6(1)(o), *ibid***

<sup>127</sup> See: **Section 26, *ibid***

<sup>128</sup> See: **Section 3, *ibid***

<sup>129</sup> See: **The First Schedule, *ibid***

2. species which though not threatened require trade in them to be properly regulated;<sup>130</sup>
3. species in Jamaica, which are identified as being in need of special protection or which contracting parties to the Convention regulate within their own jurisdiction to prevent or restrain over exploitation and require the cooperation of other parties for the control of trade;<sup>131</sup> and
4. species in Jamaica, the trade of which is to be controlled to prevent or to restrict exploitation and needing the cooperation of other parties in the control of trade.<sup>132</sup>

There is a Management Authority empowered to take such steps as are necessary for the protection of endangered species of wild fauna and flora against over-exploitation through international trade and with authority to grant permits and certificates subject to the advice of the Scientific Authority, provided for under the Act.

Every person who proposes to trade in any specimen of certain species is required to apply to the Management Authority for the appropriate permit or certificate, that is an export permit, import permit, re-export certificate and/or an introduction from sea certificate.<sup>133</sup>

Depending on the permit or certificate applied for and the specimen of species involved, the Management Authority may grant the permit or certificate if, inter alia, the Scientific Authority or the Management Authority of the exporting state, as the case may be, advises the Management Authority that it is satisfied that the export, import or introduction of the species as the case may be will not be or is not likely to be detrimental to or contribute to trade which is detrimental to, the survival of the species.<sup>134</sup>

### **The Patent Act, 1857**

This Act provides for the grant of a patent (that is a right granted to an inventor, to the exclusive use and benefit of his invention for a limited time).

The invention or discovery must be for “some new and useful art, machine, manufacture, or composition of matter”, not previously known, accessible or used in Jamaica, or some improvement in any such invention or discovery.<sup>135</sup>

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<sup>130</sup> See: *The Second Schedule, ibid*

<sup>131</sup> See: *The Third Schedule, ibid*

<sup>132</sup> See: *The Fourth Schedule, ibid*

<sup>133</sup> See: *Section 19(1), ibid*

<sup>134</sup> See: *Sections 20-31, ibid*

<sup>135</sup> *The critical elements of patentability are novelty and public utility as regards Jamaica.*

The Act does not provide the requisite protection for the development of new varieties of plants. This needs to be remedied and consideration needs to be given to Jamaica becoming a party to the International Convention for the Protection of new varieties of Plants (UPOV Convention).

## **APPENDIX II- Legislation Relevant to the United Nations Framework Convention on Climate Change**

The provisions of **The Natural Resources Conservation Authority Act, 1991**, and those of The Jamaican Constitution, already alluded to are wide enough to allow for Jamaica to meet the Convention's obligations through NEPA and/or the Ministry of Land and Environment carrying out their mandate and/or portfolio responsibilities. The issue of carrying out obligations under the Convention is therefore broadly more one of policy and prioritization than one of hurdling constraints and bottlenecks as they relate to the legal framework.

Apart from **The Natural Resources Conservation Authority Act, 1991**, existing legislation which provide for dealing with emissions, include **The Clean Air Act, 1964** and **The Natural Resources (Conservation Ambient Air Quality Standards) Regulations, 1996**.

### **The Clean Air Act, 1964**

This Act requires an owner of premises on which there are industrial works, the operation of which is likely to result in the discharge of smoke or fumes or gases or dust into the air, to use the best practicable means for:-

1. preventing the escape of any noxious or offensive gas;
2. preventing the discharge of any such gas into the air; and
3. rendering such gas, where discharged, harmless or inoffensive.<sup>136</sup>

Under the Act a "noxious or inoffensive gas" can be "any noxious emanation whatsoever" from an affected premises (that is one with air-pollution potential as aforementioned). An indicative list of noxious or offensive gases is given under the Act<sup>137</sup>, comprising the following:-

1. *Fumes or dust emanating from any works for the production of alumina.*
2. *Fumes or dust from any cement works.*
3. *Fumes or dust from any lime works.*
4. *Gas containing any sulphur compound emanating from any petroleum works.*
5. *Fumes, vapour, or gas from any electrical generating station.*

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<sup>136</sup> See: *Sections 2 & 6(1), ibid.*

<sup>137</sup> per *The Schedule.*

6. *Fumes or dust from any gypsum works.*
7. *Ash, dust or soot from any sugar factory.”*

The Central Board of Health is vested with responsibility for carrying into effect the provisions of the Act with inspectors empowered to enter and examine affected premises, take tests and samples and determine and submit a report to the Board as to whether the requisite “best practicable means” are being utilized.

The Board may then require the owner of the premises to adopt specified measures and limit the amount of any noxious or offensive gas which may be permitted to escape or be discharged from the premises.

The maximum fine for committing an offence under the Act is \$200.00 and for a continuing offence, a further fine not exceeding \$10.00. These fines are ridiculously low and do not serve as deterrent and it appears the Act has largely fallen into disuse, although it does hold some potential for discouraging the emission of the Convention’s greenhouse gases even though the Act does not contemplate their effect.

#### **The Natural Resources Conservation (Ambient Air Quality Standards) Regulations, 1996**

These Regulations stipulate standards for air pollutants which are not the focus of the Climate Change Convention.

#### **Orders made under The Trade Act, 1955**

There are also Orders made under **The Trade Act, 1955** which relate to The Montreal Protocol on Ozone Depleting Substances.

These include:-

**.The Trade (Prohibition of Importation) (Equipment containing Chlorofluorocarbons) Order 1998;**

**.The Trade (Prohibition of Importation) (Equipment containing Chlorofluorocarbons) Amendment Order 1998;**

**The Trade (Restriction on Importation) (Chlorofluorocarbons) (Amendment Order) 2002;**

**The Trade (Restriction on Importation) (Chlorofluorocarbons) (Amendment Order) 2002;**

**The Trade Prohibition of Importation (Equipment containing Chlorofluorocarbons) (Amendment) Order 2002 and;**

### **The Trade (Prohibition of Importation) (Halon) Order 2002.**

However the Climate Change Convention is concerned with greenhouse gases, not controlled by the Montreal Protocol, and hence these Orders are only noted en passant, as is the proposed Ozone Act to bring together those Orders towards implementing the Montreal Protocol and the Vienna Convention for the Protection of the Ozone Layer.

Of direct and much relevance however to the Climate Change Convention's implementation is the proposed Regulations: now in draft, **The Natural Resources Conservation Authority (Air Quality) Regulations.**

### **(Draft) The Natural Resources Conservation Authority (Air Quality) Regulations**

These Regulations specifically address greenhouse gases and defines a "greenhouse gas" or "GHG" to mean "... any of the following gases or families of gases:-

- (a) carbon dioxide (CO<sub>2</sub>);
- (b) methane (CH<sub>4</sub>);
- (c) nitrous oxides (N<sub>2</sub>O);
- (d) hydrofluorocarbons (HFCs);
- (e) perfluorocarbons (PFCs); and
- (f) sulphur hexafluoride (SF<sub>6</sub>)"

These gases are the focus of the Climate Change Convention.

The Regulations require owners of facilities having certain air pollutant emitting activity or potential to apply to NEPA for an air pollutant discharge licence. Such application is required to be accompanied by a compliance plan that indicates the activities and measures for bringing the facility into compliance where emissions exceed applicable emission standards or are predicted to exceed ambient air quality standards.

The licences may be made subject to requirements for periodic or continuous stack monitoring, performance or compliance testing, ambient and meteorological monitoring and other measures to maintain or improve ambient air quality.

A licensee is required to make a record of ambient measurements, stack measurements and the operation of air pollutant sources and air pollution control devices. Such record is required to be made available to NEPA and to the public (except where NEPA classifies the record as confidential). A licensee is also obliged to make air quality or stack emission reports to NEPA, as requested.

Allowances and incentives are provided for in respect of discharge fees for emissions from the combustion of renewable energy fuels (such as bagasse, landfill gas, and agricultural wastes) or municipal waste, excluding oily waste or hazardous waste. However, exemption from payment of discharge fees would not be available to licensees in respect of existing facilities that have excess emissions or whose emissions are predicted to cause ambient air quality standards to be exceeded.

The draft Regulations provides for compliance plans and fugitive emission control plans.

Provision is made for the application of administrative penalties whereby NEPA may give a person who has in its view, committed a particular offence, the opportunity to pay a fixed penalty. However, great care needs to be taken in respect of the formulation of this concept of “administrative penalty” and the translation into Provisions in the draft Regulations, to ensure their imperviousness to successful legal challenge.

Under the proposed Regulations, NEPA would have responsibility to develop a National Emissions Inventory to track air quality within identified air sheds and emissions.

Such an inventory can provide for the inventory and reporting requirements under the Climate Change Convention. However, it appears, the inventory would need to be tailored or structured to meet the specific Convention requirements.

Otherwise, the draft Regulations despite specifically adverting to greenhouse gases, makes no specific reference to the Convention and could be modified to not only make reference to the Convention but provide for its more efficacious and deliberate implementation as regards the subject-areas it shares with the Convention, such as the emission of greenhouse gases into the atmosphere, inventory, reporting and other requirements.

### **The Road Traffic Act, 1938**

This Act requires that a person having control or responsibility for a motor vehicle is not to allow any unreasonable amount of smoke to escape from the vehicle.<sup>138</sup> However, there are relatively few prosecutions and there needs to be clear criteria as to what constitutes excessive smoke. The Act needs to be amended accordingly.

### **The Caribbean Meteorological Organization Act, 1980**

This Act gave effect to the Agreement by a number of CARICOM countries establishing the Caribbean Meteorological Organization.

The Organization was established, consequent on a recognition of “the need for the establishment of an efficient meteorological service in the Region” and an awareness “that such a service can contribute to the economic development of the Region”.<sup>139</sup>

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<sup>138</sup> *per Section 43(2).*

<sup>139</sup> *Schedule.*



Its objectives are “the promotion and co-ordination of regional activities in the field of meteorology and allied science,” with functions including:-

1. collection and analysis of all relevant meteorological data available and publication of results;
2. the execution of basic scientific observations in keeping with its objectives;
3. participation in work in applied meteorology, agricultural meteorology, hydrology and associated research of direct interest to the Region; and
4. co-operation with all relevant scientific institutions.<sup>140</sup>

The Commonwealth Caribbean Regional Secretariat is recognised as the Secretariat of the Organization, with the principal office of the Secretariat in relation to the Agreement being in Trinidad and Tobago with an Institute in Barbados mandated to provide training and conduct research in meteorology and allied sciences, process and disseminate climatological data and co-operate with national, regional or international organizations or other bodies concerned with the development of meteorology and allied sciences.

The Act is facilitative of the Climate Change Convention’s requirements to promote and cooperate in scientific, technological and other research and in education and training. However, the remit of the Caribbean Meteorological Organization may need to be broadened by appropriate Protocol to bring the Convention’s focus more comfortably within it and have this reflected in the Act.

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<sup>140</sup> *Ibid.*

## **APPENDIX III- Legislation Relevant to the United Nations Convention t Combat Desertification UNCCD**

### **The Water Resources Act, 1996**

The Act established the Water Resources Authority with its basic duty being to regulate, allocate, conserve and manage Jamaica's water resources.

In so doing, the Authority may:-

- “(a) obtain, compile, store and disseminate data concerning the water resources of Jamaica;*
- (b) exercise planning functions as provided in this Act in relation to the Master Plan and Water Quality Control Plans;*
- (c) allocate water resources in conformity with the provisions of this Act;*
- (d) control the quality of water resources in accordance with the provisions of this Act;*
- (e) provide to any department or agency of Government, at its request, technical assistance in respect of any projects, programmes or activities which relate to the development, conservation and use of water resources”<sup>141</sup>*

The Authority is required to ensure that the draft Master Plan:-

- “(a) identifies objectives for the development, conservation and use of the water resources of Jamaica, taking into account all relevant considerations including the desirability of economic efficiency, the protection of the health, safety and welfare of persons, the protection or encouragement of economic activity and the protection of the environment and the enhancement of environmental values;*
- (b) identifies, describes and inventories in relation to Jamaica:-*
  - (i) the occurrence, quantity, availability and quality of water;*

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<sup>141</sup> per **Section 4(3)**.

- (ii) *the current uses of water; and*
- (iii) *the activities which are dependent on, affected by, or related to water and its uses;*
- (c) *identifies and describes in relation to Jamaica, the projected needs for water and recommends the projects, programmes and other steps which, in view of such needs, should be undertaken in respect of the development of water resources and the control, abstraction and storage of water and the supply, distribution, drainage and disposal thereof... ”*

Overall, the Act, for purposes of the Convention, is ample, in addressing the conservation and management of Jamaica’s water resources.

### **The Watersheds Protection Act, 1963**

Under the Act, it is the duty of the NEPA (NRCA) Authority with a view to promoting the conservation of water resources to institute such measures and to recommend to the Minister for implementation such programmes as it considers necessary for the protection of those areas which constitute or adjoin watersheds in Jamaica.

In an area declared to be a watershed area, fire is prohibited, except with the permission of a forest officer.

NEPA may with the approval of the Minister make regulations for ensuring the proper, efficient and economic utilization of land in watershed areas with a view to promoting the conservation of water resources, and in particular may make regulations in relation to watershed areas or any part thereof or any prescribed category of land therein:-

1. prohibiting, regulating or restricting the planting of any crop specified in the regulations;
2. prescribing the conditions to be observed in relation to the planting or cultivation of any crop specified in the regulations;
3. prohibiting, regulating or restricting the use of any land for any purpose specified in the regulations;
4. prohibiting the adoption in relation to any land of any practices specified in the regulations; and
5. prohibiting the felling, barking or destruction of any trees or the clearing of vegetation.<sup>142</sup>

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<sup>142</sup> See: **Section 8**, *ibid*

The NEPA (NRCA) is empowered to assist with improvement work of an owner of land within a watershed area on which such work is being done or proposed to be done. Here, "improvement work" is defined as work which:-

- "(a) is likely to reclaim or rehabilitate any land or to remedy, retard or prevent erosion or deterioration of land; and*
- (b) is designed to encourage, assist or secure the conservation of water resources;"*

Such an owner may be required to undertake such improvement work and be afforded assistance of NEPA (NRCA) in so doing.

### **The Irrigation Act, 1949**

The Act provides for an area of land to be declared an irrigation area or a restricted area, for the purposes of the Act<sup>143</sup> and for the establishment of the Irrigation Authority,<sup>144</sup> with general duties being to:-

1. do all such acts or things as may be necessary to be done to give effect to any confirmed irrigation scheme; and
2. manage, control and operate, subject to any directions given by the Minister, any irrigation works established in an irrigation area under any confirmed irrigation scheme and the distribution of water under such scheme.<sup>145</sup>

The Authority may:-

1. execute such reclamation, irrigation or drainage works as may be necessary for reclaiming, irrigating or drainage of an irrigation area and, for any such purposes, to alter or regulate the course of any watercourse;
2. bring upon, make, maintain on, or remove from, any part of the area, such dams, weirs, trenches, drains, outfalls, sluices, pipes, banks, appliances, plant, tools, or other things as may be required for any such works or any operations in connection with such works;
3. clean any watercourse and clear or remove from any such watercourse or from the banks thereof, any vegetation or tree (whether growing or not) and any log, refuse, soil or any obstacle whatsoever which obstructs or impedes, or which may obstruct or impede, the natural flow of water in the watercourse, and to place or deposit any matter or thing so removed on

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<sup>143</sup> per *The Irrigation Act, 1949, Section 3(1)*.

<sup>144</sup> per *Section 4(1), ibid.*

<sup>145</sup> See: *Section 5, ibid.*

any land adjacent to the watercourse, but not beyond a distance of one chain measured from the top of the banks thereof; and

4. do all such other acts as may be necessary for the proper and efficient drainage of the area or of any part thereof.<sup>146</sup>

The Authority may require the occupier of any land within an irrigation area to maintain, or to keep clean and free from obstruction, such drains as the Authority may deem necessary for the proper drainage of such land.

A person who willfully causes waste of water conserved by any irrigation works, or who not being entitled thereto wrongfully draws off or converts to his own use, water from such works or from any watercourse or channel connected therewith is guilty of an offence.<sup>147</sup>

If the owner of any land irrigated by any irrigation works suffers or permits water obtained from such works or from any watercourse or channel connected therewith to run to waste on his land, or obtains water for such land from such works, watercourse, or channel, in a manner or at a time not authorized by the Authority, such owner is guilty of an offence.<sup>148</sup>

Where the owner or occupier of any land irrigated by any irrigation works, without the approval of the Authority, sells or supplies water obtained from such works to any person, such owner or occupier is guilty of an offence.<sup>149</sup>

### **The National Water Commission Act, 1963**

The Act establishes the National Water Commission, with mandate,<sup>150</sup> inter alia to:-

1. prepare and submit to the Minister proposals for the establishment of an efficient, co-ordinated and economical water supply system capable of meeting the needs for water throughout Jamaica;
2. prepare and submit for the approval of the Minister details of schemes for the development of water resources and the supply of water in particular areas, and to carry out such schemes when they are approved;
3. keep under constant review the quality, reliability and availability of water supply services as a whole and the rates charged for such services and advise the Minister on these and any other matters relating to water

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<sup>146</sup> per *Section 6(1)*, *ibid*

<sup>147</sup> per *Section 39(1)*, *ibid*.

<sup>148</sup> See: *Section 40*, *ibid*.

<sup>149</sup> See: *Section 41*, *ibid*.

<sup>150</sup> per *Section 4(1)*.

supplies in Jamaica which may be referred to the Commission by the Minister;

4. within the limits of its resources provide and improve water supply services throughout Jamaica; and
5. maintain and operate water supply services provided by the Commission.

Overall, the Act, for the purposes of the Convention, provides an ample framework for irrigation. Under the Act, any person who, without a licence from the National Water Commission, from any source whatever supplies water to any other person in any area in which water is supplied by the Commission is guilty of an offence.<sup>151</sup>

Legislative changes are pending which would make it no longer possible for the NWC to regulate its competitors as regards water and related services. Such changes should be made quickly. The Act, overall, for the purposes of the Convention provides a basis for provision of water services in case of drought.

The most obvious indicator of drought conditions is the lack of an adequate supply of water, and as such the following policy documents were reviewed to see how they dealt with this and other issues.

#### **Legislation re agriculture**

Various pieces of legislation contemplate or provide for the efficient use and/or development of agriculture and/or agricultural land, while not specifically discouraging or prohibiting land degradation in the usage and development.

Such legislation include:-

**The Rural Agricultural Development Authority Act, 1990;**

**The Land Development and Utilization Act, 1966;**

**The Cocoa Industry Board Act, 1957;**

**The Coffee Industry Regulation Act, 1948;**

**The Rice Industry Board Act, 1956;**

**The Sugar Industry Control Act, 1937; and**

**The Tobacco Industry Regulation Act, 1970.**

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<sup>151</sup> See: *Section 27, ibid*

The language of the relevant provisions appear to be wide enough for the bodies with oversight or administrative responsibility under the respective Acts to require, as a matter of policy, that due regard be paid to avoiding or minimizing land degradation.

Some of the factors that have contributed to the continued degradation of the terrestrial environment is the lack of enforcement planning legislation and policy directives. Examples of the former type are

### **The Town and Country Planning Act, 1958**

The Act provides for the making of a development order for an area of land with a view to controlling the development of the land and conserving and developing the resources of the area.<sup>152</sup>

Regard needs to be had to such an order where permission is being sought to develop land.<sup>153</sup>

A “tree preservation order” may also be made where it appears that it is expedient to make provision for the preservation of trees or woodlands in a particular area. Such an order may make provision for, inter alia, prohibiting the cutting down or destruction of trees without the consent of the relevant local authority and securing the replanting of a woodland area felled in the course of forestry operations.<sup>154</sup>

The provisions of the Act as regards the making of a development order are wide enough to be used to address concerns of the Conventions.

Such an order may be used, for instance, to prevent building too close to the coastline and therefore avoid some of the potential adverse consequences of climate change or to address issues of drought and land conservation as well as biodiversity, which may also be addressed by way of a “tree preservation order”.

However, it appears the Act is, in essence, limited in its application to the terrestrial and not marine environment. This needs to be reviewed, although it is borne in mind that undertakings such as port and harbour developments, land reclamation and drainage projects require a permit from NEPA under **The Natural Resources Conservation Authority Act, 1991** and who also administers **The Town and Country Planning Act, 1958**.

### **The Bauxite and Alumina Industries (Encouragement) Act, 1950**

This Act requires recognized bauxite/alumina producers in Jamaica to make payment to the Government “for securing that the total area and the fertility and the productivity of land available for agriculture and pastoral purposes shall not be diminished to any greater

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<sup>152</sup> See: **Section 5(1)**.

<sup>153</sup> See: **Section 11(1)**.

<sup>154</sup> See: **Section 25(1)**.

extent or for any longer period than can in the opinion of the Commissioner of Mines economically be avoided”<sup>155</sup> due to such producers’ mining and related activities.

Thus the bauxite/alumina companies are on pain of payment of compensation to the Government, obliged to carry out mining activities with due regard to conservation of the land.

There has been in place a rehabilitation system of reclamation, restoration, certification and reutilization of lands mined. Accordingly, the Act is conducive to implementation of the Convention’s requirements for land conservation.

#### **The Petroleum Act, 1979**

Also, in the sphere of mining, **The Petroleum Act, 1979**<sup>156</sup> requires the Petroleum Corporation of Jamaica to *"ensure that operations in relation to the exploration and development of petroleum resources, and any other operations ancillary to those operations, are conducted in such a manner as to prevent and minimize accidents and to prevent adverse effects on the environment and other resources of Jamaica."*

This provision is facilitative of the Convention’s requirement to minimize land degradation.

#### **The Quarries Control Act, 1984**

This Act requires<sup>157</sup> that a licence be not issued to operate a quarry where, to do so is against the public interest, as such interest, including the preservation of the character of the environment including the fauna and flora, any possible effect on the water table or surface drainage pattern and the nature and location of other land uses that could be affected by the quarry operation. If the quarry is found to be operated in a dangerous manner detrimental to the environment, the operator may be required to remedy such operation.<sup>158</sup>

#### **The Mining Act, 1947**

Whereas the preceding three pieces of legislation are conducive to implementation of the Convention’s provisions, as regards the mining of the minerals covered by them such is not the case as regards other minerals, which are governed by **The Mining Act, 1947**.

The Act, in its stipulation of obligations under a prospecting licence or mining lease, does not require that prospecting or mining activities be carried out so as to minimize or not have adverse effects to the land or to the environment, by way of land degradation. However new Regulations seek to have the deficiencies remedied.

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<sup>155</sup> per **Section 2(2)**.

<sup>156</sup> per **Section 6(5)(f)**.

<sup>157</sup> per **Section 9(1)**.

<sup>158</sup> per **Section 29(1)**.



## **The Disaster Preparedness and Emergency Management Act, 1993**

This Act provides for precautionary, preparatory and remedial measures to be taken in preparation for or in the event of any disaster or emergency precipitated by climate change, causing or resulting from land degradation (drought) or biodiversity loss.

Under the Act “disaster” is defined as *“the occurrence or threat of occurrence of an event, caused by an act of God or otherwise, which results or threatens to result in loss or damage to property, damage to the environment, death or injury of persons, on a scale which requires emergency intervention by the state and includes widespread dislocation of essential services, fire, accidents, hurricane, pollution, disease, earthquake, drought and flood...”*<sup>159</sup>

The Office of Disaster Preparedness and Emergency Management, (ODPEM) is established under the Act, with functions, which include:-

*“(a) developing and implementing policies and programmes to achieve and maintain an appropriate state of national and sectoral preparedness for coping with all emergency situations which may affect Jamaica;*

*(b) encouraging and supporting disaster preparedness and mitigation measures in all the parishes in collaboration with the local government authorities, community based organizations and the private and voluntary agencies, respectively;*

*(c) providing appropriate training programmes and consulting services related to all aspects of disaster preparedness, disaster mitigation, loss reduction, and disaster management;*

*(d) planning and implementing programmes to enhance public awareness and understanding of disaster related issues, emergency management, hazard prevention and other similar matters;*

*(e) identifying and analyzing hazards or emergency situations and conducting related operational research into their effects; and*

*(f) establishing, maintaining and managing mutual assistance and co-operation agreements.*<sup>160</sup>

The duty of the Office is, inter alia, to *“...(d) identify any emergency contingencies that are within or related to the area of responsibility of each*

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<sup>159</sup> See: **Section 2.**

<sup>160</sup> per **Section 5(1).**

*Ministry and public sector agency, and develop with that Ministry or public sector agency, a plan for mitigating or responding to that contingency.”<sup>161</sup>*

With such duty ODPEM is obliged to work with the relevant government Ministry and agencies in carrying out requirements of the Conventions, in keeping with its functions.

### **The Flood-Water Control Act, 1958**

The Act provides for the preparation of provisional flood-water control schemes for securing proper control of, or defence against, flood-water in the relevant flood-water control area.

Here “flood-water” means water flowing after rainfall in any watercourse (that is, natural channel, drain or permanent and defined course for such water).

Such watercourses include “gullies” which are the source of much uncertainty as to which agency, (whether the National Works Agency, local government (Parish Council or KSAC Council) or the National Solid Waste Management Authority as regards solid waste) has responsibility for their cleaning.

Legislative change is needed to clarify this position. It now appears, that there is no agency responsible for the cleaning of gullies in general, although different agencies have responsibilities depending on whether for instance a gully is referable to a main road or parochial road.

For gullies referable to schemes under the Act, it is the National Works Agency, which has the responsibility.

The maximum fine for breach of the Act is an absurd fifty dollars. This also obviously warrants legislative intervention as this is the maximum fine for instance where one “*willfully or maliciously blocks up or obstructs...any watercourse*”, such as a gully.

### **APPENDIX IV- Stages in Policy Formation**

Stage / Decision threshold	Activities	Criteria to graduate
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<sup>161</sup> *per Section 5(2).*

1	Advise Cabinet Committee on policies initiatives in process and upcoming policy relevant activities	<ul style="list-style-type: none"> <li>Annual call for policies in progress</li> <li>Alternately, a letter to advise Cabinet Committee on intent if not included in call</li> </ul>	N/A
2	Initial Concept Paper	<p>Ministry / Agency develops Concept Paper to include:</p> <ul style="list-style-type: none"> <li>Background and justification</li> <li>Linkages to national priorities</li> <li>Problems, indication of need</li> <li>Research finding (if relevant)</li> <li>Issues to be resolved</li> <li>Options (and analysis)</li> <li>Evidence of stakeholder support</li> <li>Finance / budgetary implications</li> <li>Implications for other areas – current and future</li> </ul> <p>Reviewed PIOJ, CO, and accepted by Cabinet Committee as priority for action</p>	<p><b>Concept paper accepted based on criteria:</b></p> <ul style="list-style-type: none"> <li>Consistency with National development goals</li> <li>Social need</li> <li>Lead Agency <ul style="list-style-type: none"> <li>Capacity</li> <li>Mandate</li> <li>Access to resources</li> </ul> </li> <li>Stakeholder support <ul style="list-style-type: none"> <li>Partners</li> <li>Beneficiaries</li> <li>Civil society including private sector</li> </ul> </li> <li>Mechanisms for linkages / multi-sectoral collaboration and bipartisan support</li> <li>Public perceptions</li> </ul>
3	Planning for Policy Preparation	<ul style="list-style-type: none"> <li>Cabinet Committee approves and indicates conditionalities for policy and process including partnerships, academia, research, NGO's civil society, private sector, line ministries</li> <li>Ministry develops action plan for policy development, including timelines and resources</li> </ul>	<p>Elements of the policy development plan</p> <ol style="list-style-type: none"> <li>Review of other models and approaches</li> <li>Formation of steering committee</li> <li>Identification of stakeholders and methods to facilitate their participation and review</li> <li>Identification of technical resources including the development of TOR's for steering committee and technical; assistance</li> <li>Identify other research initiatives needed</li> </ol>
4	Policy Preparation and Analysis	<p>Elements of Policy process</p> <ul style="list-style-type: none"> <li>literature review</li> <li>consultations – technical and stakeholder</li> <li>technical inputs</li> <li>review of sections</li> <li>prepare draft policy</li> </ul> <p>Submit to Cabinet Committee. At this time Cabinet can</p> <ul style="list-style-type: none"> <li>approve</li> <li>approve (subject to minor changes)</li> <li>approve for public consultations</li> <li>request major revisions for resubmission to the Cabinet Committee</li> </ul>	<ul style="list-style-type: none"> <li>Agreement on key elements of policy</li> <li>Quality of technical analysis</li> <li>Quality of consultation and stakeholder review including internal stakeholders</li> <li>Commitment and ownership by key stakeholders</li> <li>Draft policy document prepared</li> </ul>

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5	Public consultation and review	<ul style="list-style-type: none"> <li>• Public consultation if needed</li> <li>• Final document prepared and ready to be submitted to Cabinet Committee with recommendations for changes that arise from consultative process</li> </ul>	<ul style="list-style-type: none"> <li>• Inclusive process</li> <li>• Views of the stakeholders reflected in document, or agreed to not include</li> <li>• Cabinet Committee accepts (or not) changes</li> </ul>
6	Point of readiness	<ul style="list-style-type: none"> <li>• Indicate readiness to submit to Cabinet Committee for approval</li> <li>• Review brief prepared by PARU</li> <li>• Formal presentation to Cabinet Committee</li> <li>• Submitted to Cabinet for ratification</li> </ul>	<ul style="list-style-type: none"> <li>• Readiness to submit to Cabinet Committee and Cabinet for approval</li> </ul>

## **APPENDIX V OPPORTUNITIES FOR SYNERGISTIC AND CROSS-CUTTING APPROACHES**

The need for identifying the links between the existing policies, regulatory mechanisms and legislation which relate to the three Conventions should not be viewed as a novel idea, but instead should be seen as an idea whose time has come. Without a clearly articulated framework, the real risk is that the already scarce resources will be further watered down as a result of unwarranted duplication of effort within the public and private sectors. The objective is the optimal utilization of these resources in the implementation of the projects, programmes and activities being carried out directly or indirectly in the country.

The following are some areas where it is felt that sufficient synergies exist as to allow for a relatively smooth joining of the particular areas of focus.

- A. A link could be made between the Energy, Environmental Management Systems and the Industrial Policies in relation to the uses of renewable sources of energy in Jamaica. The Draft Energy Policy highlights the potential use of the following sources of renewable energy which when taken in tandem with the tenets of the Industrial and EMS Policies could assist in the more effective use of the existing resources.

#### Renewable Energy Potential in Jamaica

<b>SOURCE</b>	<b>CAPACITY (MW)</b>	<b>PERCENTAGE</b>
WIND	90.0	26.0
HYDRO	85.0	25.0
SOLID WASTE	20.0	6.0
BAGASSE / COAL	100.0	50.0
FUELWOOD	20.0	6.0
OTHER TECH	29.0	7.0
TOTAL	340.0	100

It is worthy of note that no mention is made of the use of solar energy.

- B. Direct links already exist between the tenets of the NIP and the Environmental Management Systems Policy. The latter stipulates that

“Natural resources are a part of the nation’s capital and need to be managed for sustainable growth. Exploitation of the islands resources in pursuit of economic development should therefore be carried out in a sustainable manner that protects the environment and shall constitute an integral part of the development process of the nation.”<sup>162</sup>

Whilst the former stipulates that “Most of the economic activities in Jamaica depend on the use of the country’s natural resources. It is therefore important to develop

mechanisms for sustainable management of the country's industrial activities on the environment.<sup>163,</sup>

What this means is that the connection has already been made in the minds of the Policy and decision-makers and as such it merely requires the fleshing out of this position in order to facilitate the implementation of the three Conventions. The importance of the protection and conservation of the island's natural resources has been identified, (even if only on paper), and the need therefore is to ensure through the development of feasible links between the various environmental legislation, that the international obligations are met.

C. The NIP states that

“A system of environmental standards, regulations and effective mechanisms for monitoring enforcement will be established and maintained. This system will be complemented by incentives to support environmentally friendly practices, processes, technologies and products.<sup>164</sup>”

it goes further to state that ‘Throughout the process, environmental policy will also be programmed into economic decision making procedures at all levels, and especially into activities at the sectoral and firm level<sup>165</sup>. It also stipulates that “The Government recognises the essential complementarity between environmental policy and industrial policy’. This lends itself to the opportunity to get creative, and could facilitate the introduction of a mechanism to ensure the incorporation of environmental discussions in the formulation of industrial action plans and policy documents.

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<sup>163</sup> NIP – pg. 104

<sup>164</sup> NIP – pg. 105

<sup>165</sup> Page 8 – National Industrial Policy

- D. Create a link between the various public education arms of the entities whose activities have the potential to impact either directly or indirectly on the implementation process of the three Conventions.
- E. Most of the policies reviewed recognised the role that other agencies had in their effective implementation. Thus though there was an entity vested with the responsibility for the overall fulfillment of the terms of the document, the majority identified key partners in the implementation process. An example of this is the Water Sector Policy which highlights the need for the pursuit of ‘an aggressive programme’. This result can be achieved via the harmonization of the efforts of NRCA, WRA and the FD in reforesting water catchment areas, and the implementation of mechanisms to ensure the continued survival of the established trees.
- F. Increased access to data, especially spatial information. The Water Sector Policy for example proposes that the capacity of the WRA be increased to facilitate the implementation of its mandated functions. This was to include the design and construction of hydrological databases which are easier to access and analyse. This is a common thread in relation to the provision of information under all of the Conventions, the request being that it be accessible (which means user friendly) and that it be shared. The proposed mechanism for this sharing is a national database / clearing house mechanism and this will where actually possible, result in the more efficient use of the limited financial and other resources available.
- G. Another opportunity for developing a link between existing policy documents, is the reference in the National Industrial Policy and the Solid Waste Management Policy which both recognise the need for special attention to be paid to improving solid waste management disposal of solid waste and the need for the creation of a disposal site for hazardous waste. The mere identification of a need however without the necessary incorporation of follow-up action is a trend which was noticed throughout the Policy documents reviewed.

- H. The Ministry of Foreign Affairs and Foreign Trade has the overall mandate to ..... what this means is that the divide which currently exists in relation to the sharing of expertise and personnel where necessary needs to be bridged. This would result in the International representation from Jamaica having a balanced mix of experienced negotiators and technocrats thereby increasing the likelihood of Jamaica accessing the benefits which can accrue from being a Party to these Conventions.
- I. The National Land Policy supports the National Industrial Policy and as such can be used to provide further sanction for the protection of environmental resources from the government thereby moving it up on the priority action list of the state.
- J. The NLP is an integral Policy for all three Conventions, it should therefore seek to make reference to the other Government Agencies which are operating in the environment.

*Project – review of the NLP with more detail being paid to incorporating the obligations set out under the three Conventions.*

- K. Sharing of information for example – data generated concerning bauxite lands<sup>166</sup>, though this is affiliated with the UNCCD in some respects, it is also important as it has the potential to affect the CBD as well (e.g. the Cockpit Country though a declared forest reserve, is also notable for the fact that portions are the subject of a special mining lease). This is therefore an opportunity for information to be passed to other entities which may have a stake in the particular resource e.g. FD and to a lesser NEPA. This is also true in relation to the storm surge data contained in the Digital Hazard database<sup>167</sup>. This extension to include landslides, seismic data and flood lines serves to provide information which is relevant to persons assessing high risk areas, vulnerability patterns and risk assessments.

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<sup>166</sup> Bauxite Land Database – NLP (currently in the process of being compiled)

<sup>167</sup> NLP



- L. Create a link between the NLP and the Agriculture Policy to address the special issues raised from the intensive farming of the steep watershed lands. This would assist in the implementation of some major objectives under all three Conventions.
  
- M. Implementation of the suggestion under the NLP of a 5 year National Plan on environmental and ecological issues with particular attention being paid to factors contributing to combating desertification and mitigating the effects of drought, and the mitigation of effects of climate change and the adaptation to these.