

# FINAL REPORT

## NATIONAL ACTION PLAN NATIONAL CAPACITY SELF-ASSESSMENT PROJECT (NCSA)

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



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Dr. Elaine Fisher, Natural Resource Management Specialist

# **NATIONAL ACTION PLAN**

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**Prepared for**

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National Capacity Self-Assessment Project (NCSA)  
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Kingston 5**

**Prepared by**

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## LIST OF ACRONYMS

BCH	Biosafety Clearing House
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CHM	Clearing House Mechanism
CIDA	Canadian International Development Agency
CNA	Competent National Authority
ENACT	Environment Action Programme
EU	European Union
GEF	Global Environment Facility
GCM	Global Circulation Models
GOJ	Government of Jamaica
IOJ	Institute of Jamaica
MACC	Mainstreaming Adaptation for Climate Change
MFAFT	Ministry of Foreign Affairs and Foreign Trade
MLE	Ministry of Land and Environment
MPAs	Marine Protected Areas
MS	Meteorological Services
MSP	Medium Sized Project
NAP	National Action Plan
NBSAP	National Biodiversity Strategy and Action Plan
NCSA	National Capacity Self Assessment
NCST	National Commission on Science and Technology
NEPA	National Environment and Planning Agency
NISP	National Implementation Support Partnership
NOAA	National Oceanic and Atmospheric Administration
NRCA	Natural Resources Conservation Authority
PIOJ	Planning Institute of Jamaica
RADA	Rural Agricultural Development Authority
RAMSAR	Ramsar Convention on Wetlands
TNC	The Nature Conservancy

TORs	Terms of Reference
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
UWI	University of the West Indies
WRA	Water Resources Authority

## **ACKNOWLEDGEMENTS**

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We also wish to extend our appreciation to the many organisations and individuals who participated in the consultations their contributions were invaluable to the NCSA process.

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 Conventions 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.

## 1. BACKGROUND

Jamaica has ratified the UN Framework Convention on Climate Change (UNFCCC), the Convention to Combat Desertification (UNCCD), and the Convention on Biological Diversity (CBD). In June 2004, Jamaica officially launched the National Capacity Self-Assessment Project (NCSA) aimed at conducting a comprehensive examination of the country's capacity to execute actions under the conventions as well as the need for and benefits to be derived from a coordinated and cross-sectional approach to environmental activities in order to meet its national priorities and global commitments.

The project provided Jamaica with the opportunity to conduct a thorough self-assessment and analysis of national capacity needs priorities and constraints with respect to efforts at meeting global environmental management objectives. The specific objectives to be accomplished through the project implementation included:

- (i) To identify, confirm and review priority issues for action within the thematic areas of Biodiversity, Climate Change and Desertification;
- (ii) To explore related capacity needs within and across the three thematic areas;
- (iii) To elaborate a national action plan that focuses on capacity building to address the global environmental commitments;
- (iv) To provide a solid basis for the preparation of requests for future external funding and assistance;
- (v) To link country action to the broader national environmental management and sustainable development framework; and
- (vi) To monitor and evaluate the implementation of the action plan as part of a process of continuous improvement.

The project is expected to produce the following outcomes:

- Build national capacity to take issues related to the three Conventions into account in general planning and strategy formulation;
- Find ways to coordinate and harmonize overlapping activities among the three Conventions and to help to ensure effective national measures to protect the global environment;
- Prepare a comprehensive national action plan focused on capacity building that will identify overall goals, specific objectives to be achieved, follow-up projects, and courses of action;
- Support the transition from this enabling activity to the actual implementation of identified follow up measures addressing loss in biodiversity, losses in soil fertility and climate change;
- Enhance general domestic awareness and knowledge about the three Conventions and their inter-relationship; and

- Strengthen dialogue, information exchange and cooperation among all relevant stakeholders including governmental, non-governmental, academic and private sectors.

The project was conducted in two phases. Phase I involved the actual evaluation of capacity issues in consultation with the stakeholders. The process which was executed from March 2004 to September 2005 involved the following stages: (i) stocktaking; (ii) thematic assessments; (iii) evaluation of cross-cutting issues and (iv) development of a national action plan.

A number of reports were generated (**Appendix I**) in which the analysis of the country's capacity was outlined along with recommendations and priority areas of action. *The National Capacity Self-Assessment Report* encapsulates all the findings of the thematic assessments and the resulting recommendations. One important objective of the NCSA process was to facilitate the development of concrete project proposals for further consideration by GEF and other interested donors.

Throughout the NCSA process, analysis and recommendations were centered not only on evaluation of the thematic areas and cross-cutting issues, but also on the identification of actions to move the country into the next phase. The priority areas of action which were identified are as follows.

1. National Action Programmes (NAPs) developed and implemented as a matter of priority (Climate Change and Land Degradation).
2. Implementation of the NBSAP National Biodiversity Strategy and Action Plan (NBSAP) to be Jamaica's programmatic response to the CBD.
3. Effective administrative mechanisms to be established to oversee implementation of NAPs (reporting, accountability, coordination, performance targets).
4. Incorporation of NAP into corporate plans and work programmes (effective interagency project management).
5. Develop harmonised policy and legal framework to support implementation.
6. Comprehensive integrated public awareness programmes implemented.
7. Effective coordinated fund raising.

This report outlines the National Action Plan to implement the NCSA's recommendations developed drawing from the outcomes of the various stages. The Action Plan will articulate short, medium and long term objectives and priority actions.

The major focus of this report will be the short term actions which over the next twelve months will concentrate on securing funding for the project concepts/outlines<sup>1</sup> (**Annex I**) and improving the mechanisms for institutional coordination. It is important to note that the project concepts/outlines will require further development. This report also identifies medium and long terms action. It is anticipated that the action plan (which will be elaborated after the twelve month monitoring period) will further address those issues.

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<sup>1</sup> Jamaica's National Capacity Self-Assessment Report  
*Jamaica's NCSA Action Plan September 2005*

## **2. MONITORING MECHANISM**

Monitoring and evaluating the implementation of the National Action Plan is an important part of the NCSA process. It will involve the continuous review of progress in implementing activities against the projected schedules.

A Monitoring Committee which includes the National Focal Points for each convention, the executing agencies/organisations, the Ministry of Foreign Affairs and Foreign Trade (MFAFT), the Planning Institute of Jamaica, (PIOJ) and MLE will be responsible for monitoring the plan over a period of twelve months. It is expected that the National Focal Points will play an important role in the monitoring process. An independent evaluation is expected to be done after the 12 month period, and two critical outputs should be (i) an action plan for the next 12 months and (ii) a status report.

The Committee is expected to start its work at the end of October 2005. The main focus of the committee during the 12 month period should be to seek funding for project concepts and to find an effective mechanism for institutional coordination.

### 3. SHORT TERMS ACTIONS

The Action Plan addresses the areas which were identified as priority areas of action during the thematic and cross cutting assessments and covers a twelve month period following on the completion of the NCSA Report. For the purpose of this report short term is defined as up to one year; medium term 2-5 years and long term greater than five years.

The short term actions will resolve around securing funding and strengthening the institutional coordination mechanism. These two matters are considered critical success factors which must be achieved in order that medium and long term planning can be done in a meaningful manner. This however, does not mean that these activities will not continue into the medium and long term planning cycles.

The work programme in the short term is outlined in the table below. In terms of funding, the focus will be on obtaining funding for the 'pipeline' of project concepts/notes (**Annex I**) which were developed during Phase I of the project.

At the end of the twelve months the Action Plan will be reviewed and updated and will form the basis of continual planning, monitoring and evaluation of the country's performance as it related to addressing national priorities and meeting its international environmental obligations.

## A. CONVENTION ON BIOLOGICAL DIVERSITY (CBD) AND CARTAGENA PROTOCOL ON BIOSAFETY

PROJECT CONCEPT /ACTIVITY	ACTIONS	RESPONSIBILITY*	TIMEFRAME†	FUNDING REQUIRED
1. Coral Reef Rehabilitation & Sustainable Fisheries	<ul style="list-style-type: none"> <li>• Identifying and securing funding for activity through NISP</li> <li>- Project concept developed</li> <li>- Project document 1<sup>st</sup> draft developed</li> </ul>	<ol style="list-style-type: none"> <li>1. MLE –Senior Director, Environmental Management Division</li> <li>2. CBD Focal Point</li> <li>3. NISP Coordinator</li> <li>4. NISP Committee</li> </ol>	1/10/05 – 30/9/06	Target US\$ 6 M <ul style="list-style-type: none"> <li>• GEF</li> <li>• TNC</li> </ul>
2. Project Concept: Preparation towards the Declaration of the Black River Lower Morass as a Protected Area under the NRCA Act (1991) with specific reference to the Upper Morass and the attendant Management Issues as they relate to the Lower Morass	<ul style="list-style-type: none"> <li>• Assessment of the impact of upper morass on lower morass</li> <li>• Examination of options for protection (including declaration)</li> </ul>	<ol style="list-style-type: none"> <li>1. NEPA – Director Integrated Planning and Environment Division</li> <li>2. Manager Protected Areas Branch</li> <li>3. NBSAP Coordinator Biodiversity Branch</li> <li>4. NISP Committee</li> </ol>	1/10/05 – 30/9/06	Target US \$ 500,000 <ul style="list-style-type: none"> <li>• GEF</li> <li>• TNC</li> </ul>
3. Development Alien Invasive Species Strategy	Focus on executing the activity through regional project currently under development. <ul style="list-style-type: none"> <li>• Comment on and sign off on draft regional project to ensure national considerations are included</li> <li>• Planning for implementation</li> </ul>	<ol style="list-style-type: none"> <li>1. NEPA – Director Integrated Planning and Environment Division</li> <li>2. Manager Biodiversity Branch</li> <li>3. Alien Invasive Species Working Group</li> <li>4. CARDI</li> </ol>	1/10/05 – 28/2/06	Target US \$ 200,000 <ul style="list-style-type: none"> <li>• GEF</li> <li>• TNC</li> <li>• EU</li> </ul>

4. Institutional Strengthening of NEPA and other Implementing Organisations	<p>The actions will involve a number of discrete but related areas</p> <ul style="list-style-type: none"> <li>• Strengthening of legislative framework (alien species, access to genetic resources, intellectual property rights<sup>2</sup> &amp; land ownership in protected areas<sup>3</sup>)</li> <li>• Expansion of flora and fauna database with linkages to national CHM</li> <li>• Designing &amp; implement a comprehensive public education programme – target key institutions e.g. judiciary, customs, police and local government<sup>4</sup></li> </ul>	<ol style="list-style-type: none"> <li>1. NEPA – Director Strategic Planning Policy and Projects Division</li> <li>2. Director, Legal &amp; Enforcement Division</li> <li>3. Manager, Public Education and Corporate Communications Branch</li> <li>4. NCSA Project Assistant</li> <li>5. Clearing House Mechanism, IOJ</li> <li>6. Jamaica Intellectual Property Office</li> </ol>	1/10/05- 30/9/06	<p>Target US \$ 750,000</p> <ul style="list-style-type: none"> <li>• GEF</li> <li>• TNC</li> <li>• CIDA</li> <li>• Bilateral and Multi-lateral</li> </ul>
5. Institutional Strengthening for Biosafety	<p>The actions will involve a number of discrete but related areas</p> <ul style="list-style-type: none"> <li>• Completion of policy and legislative framework</li> <li>• Rationalisation of</li> </ul>	<ol style="list-style-type: none"> <li>1. MLE –Senior Director, Environmental Management Division</li> <li>2. Biosafety Focal Point</li> <li>3. NCST – National Biosafety Committee</li> </ol>	1/10/05- 30/9/06	<p>Target US \$ TBD</p> <p>UNEP Biosafety Project funds Phase II</p>

<sup>2</sup> Important to refer to the Add-On Enabling Activity Project proposal which has been submitted to UNDP for GEF funding and which includes the areas access to genetic resources and intellectual property rights

<sup>3</sup> Must take into consideration Draft Easement Act

<sup>4</sup> Important to take into consideration work of ENACT

	<p>institutional responsibilities (including decision re Focal Point and Competent</p> <ul style="list-style-type: none"> <li>• National Authority (CNA)</li> <li>• Establish BCH web page</li> <li>• Capacity building for Risk Management &amp; Risk Assessment</li> </ul>	<p>4. IOJ – Natural History Division</p>		
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**B. UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (LAND DEGRADATION/UNCCD)**

<b>ACTIVITY</b>	<b>ACTIONS</b>	<b>RESPONSIBILITY*</b>	<b>TIMEFRAME†</b>	<b>FUNDING REQUIRED</b>
1. Development of National Action Programme (NAP)	<ul style="list-style-type: none"> <li>Focus on development and completion of NAP which will guide the country's interventions re UNCCD</li> </ul>	1. MLE – UNCCD Focal Point	1/10/05 – 31/12/05	US\$ 25,000 (in place) <ul style="list-style-type: none"> <li>UNCCD Secretariat</li> </ul>
2. Establish National Coordinating Committee on Land Degradation	<ul style="list-style-type: none"> <li>Review membership on defunct Working Committee on UNCCD and Drought Committee</li> <li>Establish National Coordinating Committee (TORs, Reporting mechanisms etc)</li> </ul>	1. MLE – UNCCD Focal Point	1/10/05 – 31/12/05	GOJ recurrent expenditure
3. Prepare Sustainable Land Management Project Proposal (GEF MSP)	<ul style="list-style-type: none"> <li>Preliminary assessment of land degradation and related environmental issues.</li> </ul>	1. Conservator of Forests, Forestry Department 2. MLE– Focal Point Land Degradation 3. Project Manager	1/10/05 – 31/3/06	US \$ 25,000 (in place) <ul style="list-style-type: none"> <li>GEF OP # 15 (MSP –US \$ 500,000)</li> </ul>

### C. UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

PROJECT CONCEPT /ACTIVITY	ACTIONS	RESPONSIBILITY*	TIMEFRAME†	FUNDING REQUIRED
1. Completion of Expedited Enabling Activity Project (Phase II)	<ul style="list-style-type: none"> <li>This activity is almost completed and will have the following outputs               <ul style="list-style-type: none"> <li>- Technical Needs Assessment</li> <li>- Systematic Observation Systems (hydrology &amp; metrology gaps)</li> <li>- Public Education Strategy</li> </ul> </li> <li>Outputs to be fed into 2<sup>nd</sup> Communication</li> </ul>	<ol style="list-style-type: none"> <li>UNFCCC Focal Point</li> <li>MS – Project Coordinator</li> <li>MLE – Senior Director Environmental Management</li> </ol>	1/9/05 – 31/12/05	US\$ 125,000 (in place) <ul style="list-style-type: none"> <li>UNDP/GEF</li> </ul>
2. Execution of Stakeholder Assessment	<ul style="list-style-type: none"> <li>Focus to complete stakeholders consultations in order to access funding for preparation of 2<sup>nd</sup> National Communication</li> </ul>	<ol style="list-style-type: none"> <li>UNFCCC Focal Point</li> <li>MS – Project Coordinator</li> <li>MLE – Senior Director Environmental Management</li> </ol>	1/9/05 – 31/12/05	US \$ 15,000 (in place) <ul style="list-style-type: none"> <li>UNDP/GEF</li> </ul>
3. Establish National Climate Change Committee	<ul style="list-style-type: none"> <li>Establish National Climate Change Committee (TORs, Reporting mechanisms etc)</li> </ul>	<ol style="list-style-type: none"> <li>MLE – Senior Director Environmental Management</li> <li>UNFCCC Focal Point</li> </ol>	1/9/05 – 31/12/05	GOJ recurrent expenditure
4. Preparation 2 <sup>nd</sup> National Communication (Chapters in document will address the issue of a NAP)	<ul style="list-style-type: none"> <li>The 2<sup>nd</sup> National Communication will contain 2 chapters on steps to be taken or envisaged to implement the Convention and measures to facilitate adequate adaptation to</li> </ul>	<ol style="list-style-type: none"> <li>UNFCCC Focal Point</li> <li>MS – Project Manager</li> <li>National Climate Change Committee</li> <li>MLE – Senior Director Environmental Management</li> </ol>	1/1/06-30/9/06	Target US \$ 420,000 (available) <ul style="list-style-type: none"> <li>GEF</li> </ul>

	climate change.			
5. Development of Climate Change Impact Model	<ul style="list-style-type: none"> <li>• Focus will be on identifying and securing funding for the activity</li> <li>- Project concept developed</li> <li>- Project document 1<sup>st</sup> draft developed</li> <li>• The local model will build on the existing contribution from the regional climate change data/experience</li> <li>• The model on its completion will be a tool for policy decision makers re adapting to climate change</li> </ul>	<ol style="list-style-type: none"> <li>1. MLE Inter Convention Steering Committee</li> <li>2. UNFCCC Focal Point</li> </ol>	1/10/05 – 30/9/06	<p>Target US \$ 5,000,000</p> <ul style="list-style-type: none"> <li>• GEF</li> <li>• Bilateral and Multi-lateral</li> <li>• NOAA</li> <li>• Hadley Centre (UK)</li> </ul>

#### D. CROSS CUTTING ISSUES INTER CONVENTION COORDINATION

PROJECT CONCEPT /ACTIVITY	ACTIONS	RESPONSIBILITY*	TIMEFRAME†	FUNDING REQUIRED
1. Establishment Inter Convention Coordination Committee	<ul style="list-style-type: none"> <li>Committee to give general oversight on implementation of Conventions</li> </ul>	1. MLE –Permanent Secretary	1/10/05 – 30/11/05	GOJ recurrent expenditure
2. Monitor National Action Plan (Inter Convention Coordination Committee)	<ul style="list-style-type: none"> <li>Coordinate work on cross cutting issues of legal and public education</li> <li>Coordinate major funding efforts</li> <li>Report to PS Board to further facilitate inter ministerial involvement</li> <li>Report to Cabinet Sub Committee of the status of national priorities and environmental obligations</li> </ul>	1. MLE –Permanent Secretary 2. Secretariat Support from NCSA Monitoring Phase NEPA - Director Strategic Planning Policy and Projects Division 3. Ministry of Foreign Affairs & Foreign Trade, Director of Economic Affairs Department	1/10/05- 30/9/06	US \$ 22,000 (in place NCSA)
3. Coordination of funding (> US \$ 500,000)	<ul style="list-style-type: none"> <li>Guiding and coordinating funding efforts for ‘pipeline’ of projects which resulted from NCSA. The major project concepts are:               <ul style="list-style-type: none"> <li>- Climate Change Impact Model</li> <li>- Coral Reef Rehabilitation</li> </ul> </li> </ul>	1. MLE –Permanent Secretary 2. Inter Convention Coordinating Committee 3. Conventions Focal Points	1/10/05 – 30/9/06	Target US \$ 12,000,000 <ul style="list-style-type: none"> <li>• GEF</li> <li>• EU</li> <li>• Bilateral and Multilateral</li> </ul>

4. Monitor NCSA MSP development (Institutional Strengthening and Governance)	<ul style="list-style-type: none"> <li>Focus will be on the preparation of PDF A and the project document</li> </ul>	<ol style="list-style-type: none"> <li>MLE –Permanent Secretary</li> <li>Secretariat Support from NCSA Monitoring Phase NEPA - Director Strategic Planning Policy and Projects Division</li> </ol>	1/9/05 – 30/6/06	US \$ 50,000 (available) <ul style="list-style-type: none"> <li>GEF NCSA (MSP –US \$ 500,000)</li> </ul>
5. Development of other cross cutting project concepts	<ul style="list-style-type: none"> <li>Guiding and coordinating the development of project proposals (involving all 3 conventions).</li> </ul> <ol style="list-style-type: none"> <li>Institutional Strengthening in the area Public Awareness Education and Training</li> <li>Institutional Strengthening through Reforestation and Sustainable Land Management in Watersheds</li> </ol>	<ol style="list-style-type: none"> <li>MLE –Permanent Secretary</li> <li>Inter Convention Coordinating Committee</li> <li>Conventions Focal Points</li> </ol>	1/10/05-30/9/06	Target US \$ 2,000,000 <ul style="list-style-type: none"> <li>GEF</li> <li>EU</li> <li>Bilateral and Multilateral</li> </ul>

#### Notes

\* The organisation named as number 1 is responsible for the activity/areas. The other organisation listed will collaborate with the lead organisation.

† The timeframe represents the proposed duration within which the stated activity should be completed or project concept developed.

#### 4. MEDIUM AND LONG TERM ACTIONS

The table below outlines the activities which must form part of the medium to long term activities as it relates to the findings of the NCSA. These recommendations are made recognizing that other opportunities may emerge in the future which will also form part of the country's response to the Rio Conventions. These proposed actions are focused on the findings of the NCSA.

**Table 1 Proposed Medium Term and Long Term Actions**

<i>Medium Term</i>	<i>Long Term</i>
<i>1. Incorporation of NAPs action into the Corporate Plans and yearly work programmes of the implementing organisations</i>	<i>1. Incorporation of training needs in local and regional universities</i>
<i>2. Institutional strengthening of the main implementing organisations (NEPA, MS, Forestry Department, CPC)</i>	<i>2. Continuation of public education programmes but with a refinement of the messages based on growing awareness</i>
<i>3. Develop harmonised policy and legal framework to support implementation</i>	<i>3. Climate Change Model incorporated in decision making framework</i>
<i>4. Comprehensive integrated public awareness programmes implemented</i>	
<i>5. Effective coordinated fund raising</i>	
<i>6. NBSAP and NAPs reviewed and updated</i>	
<i>7. Decision making tools used increasingly and governance mechanisms strengthened</i>	

Note:

Medium term defined as 2-5 years

Long term greater than 5 years

## **Annex. Project Concepts/Notes**

### **A.I. Convention on Biological Diversity**

In keeping with the proposal from the focus groups and national workshop that the NBSAP would be the primary instrument to guide the implementation of the CBD, the following projects concepts, taken in the main from the NBSAP, were identified by NEPA (in consultation with stake holder agencies) as those from the NBSAP that should be included in the Action Plan:

1. Preparation for the Declaration of the Lower Black River Morass under the NRCA Act (1991) with particular Reference to management of the Upper Morass;
2. National Strategy for Alien Invasive Species;
3. Coral Reef Rehabilitation; and
4. Institutional Strengthening NEPA and other implementing organisations. Elements include:
  - a. strengthening of legislative framework (alien species, access to genetic resources, intellectual property rights & land ownership in protected areas),
  - b. expansion of endemic and endangered flora and fauna database with linkages to national CHM; and
  - c. designing & implementing a comprehensive public education programme – targeting key institutions e.g. judiciary, customs, police and local government.

# **1. Project Concept: *Preparation towards the Declaration of the Black River Lower Morass as a Protected Area under the NRCA Act (1991) with specific reference to Management Issues of the Upper Morass as they relate to the Lower Morass***

## **Introduction**

Arising from the NCSA process was that NBSAP would be the primary instrument to guide the implementation of the CBD. One of the project concepts selected for immediate attention and also listed in part, as highest priority in the Action Plan was the *Preparation for the Declaration of the Lower Black River Morass under the NRCA Act (1991) with particular Reference to management of the Upper Morass.*

## **Site Description and Project Rationale**

The Black Morass, (Upper and Lower Morass), constitutes the largest wetland in Jamaica and the Caribbean and is situated on the southwestern coast in the parish of St. Elizabeth. The Upper Morass constitutes 1762 ha, and the Lower Morass 6075 ha. The Black River enters the Lower Morass via a short valley from the Upper Morass.<sup>5</sup>

The Morass is biologically diverse and supports a large number of plants, animals and natural communities and is home to a number of endemic plants and animals. Jamaica is committed to sustainable use of its natural resources and one demonstration of its commitment is through a system of protected areas. It is home to 207 species of flora, of which 11 are endemic and 22 are rare.<sup>6</sup> Plants of economic importance include the Bull Thatch (*Sabal jamaciencis*), which is used in basket weaving. One hundred and ninety seven species of birds have been recorded from the area of which 15 are endemic to Jamaica. Detailed information on the site can be found in: Massa & Haynes-Sutton, "*Black River Managed Resource Area, Management Plan 1999*" (Draft). The site is therefore biologically of national and global significance. It is also of significant economic and social importance to the local communities. It supports a number of industries such as, fishing industry, mining, agriculture and tourism. The ecological integrity of the Morass is therefore of importance to the local communities.

## **Features of the Upper Morass**

The Upper Morass has been significantly altered from its original state and supports little tourism.<sup>7</sup> Massa & Sutton (1999) report that from preliminary surveys, the Upper Morass includes the best habitat for the West Indian Whistling Duck in Jamaica. Also the Upper Morass protects the Lower Morass from siltation and pollution, thereby acting as a settling basin, and a pollution and nutrient sink.

## **The Lower Morass**

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<sup>5</sup> Dale Webber et al: *Towards the Management of the Black River Morass (RAMSAR Site)* 2001

<sup>6</sup> Massa & Haynes-Sutton, *Black River Managed Resource Area Management Plan* 1999 (Draft)

<sup>7</sup> Massa & Haynes-Sutton, *Black River Managed Resource Area Management Plan* 1999 (Draft)

The Black River Lower Morass is the largest herbaceous wetland in Jamaica and reportedly contains the best example of Amazonian type swamp forest and is considered to be most important of Jamaica's wetlands. The Lower Morass contains 92 species of flowering plants of which 9% are endemic to Jamaica. Agricultural activities include the cultivation of fruit trees, sugar cane, rice, dasheen and other food crops. Fishing and harvesting of shrimp takes place and in many cases this is the only means of livelihood for the local people. The site is owned by the Government of Jamaica and the Petroleum Corporation of Jamaica.<sup>8</sup> In 1997, the Lower Morass, (along with the Upper Morass and the Greater Morass Parottee) was declared a Game Reserve under the Wild Life Protection Act 1945, and in 1997 was designated a Ramsar Site under the Convention on Wetlands International Importance especially as Waterfowl Habitat (Ramsar Convention). The Lower Morass is therefore of significant ecological and economic significance. However, designation as a Ramsar site does not offer it national protection, also, declaration as a Game Reserve only offers protection to birds, and other protected animals. It is therefore important that this wetland be declared a protected area under the NRCA Act 1991 to facilitate adequate protection.

Factors adversely affecting the Lower Morass include loss of flora due to fires, removal of trees for timber and fuel, harvesting of palm fronds, thatch and *Phragmites sp.* for construction material and basket weaving. The most obvious negative impacts occur in the swamp forest and mangrove forest. 1997<sup>9</sup>. The Management Plan for the Lower Morass needs to be finalized followed by the delegation of a Management Authority.

## **Background**

A significant amount of research has been conducted on the Black River Morass and more specifically on the Lower Morass. Also a number of measures have been taken to protect not only the Lower Morass, but the Entire Black River Morass. As far back as 1992 the Black River area was included in the Draft Plan for a System of Parks and Protected Areas in Jamaica. In 1995 the PARC II project proposed the declaration of a national park to include the Upper and Lower Morass and adjacent areas. The 1997 Policy *for Jamaica's System of Protected Areas* cites the Black River Morass as a protected area candidate. In 1997 the Lower Morass was designated a Ramsar Site. In March 1999, a draft Management Plan was completed for the Black River Managed Resource Area which included the Upper Morass.<sup>10</sup> In 2001, Webber et al completed a report titled *Towards the Management of the Black River Morass (RAMSAR site) gathering biological, social and economic data*. This was supported under the Ramsar Convention's Small Grants Fund. The data and findings are to "inform the Management Plan for the Black River Lower Morass".

With the Lower Morass being designated a Ramsar Site, the decision is now to declare the Lower Morass as a Protected Area. The site has also been designated a Conservation Area in the St. Elizabeth Development Order.

## **Activities**

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<sup>8</sup> Source: [http://www.wetlands.org/RDB/Ramsar\\_Dir/Jamaica/JM001D02.htm](http://www.wetlands.org/RDB/Ramsar_Dir/Jamaica/JM001D02.htm)

<sup>9</sup> Source: [http://www.wetlands.org/RDB/Ramsar\\_Dir/Jamaica/JM001D02.htm](http://www.wetlands.org/RDB/Ramsar_Dir/Jamaica/JM001D02.htm)

<sup>10</sup> Massa & Haynes-Sutton.

- Determine activities in the Upper Morass that negatively impact on the Lower Morass, such as pollution by dunder from the Appleton Sugar Estate which enters not only by way of a sink hole which emerges into the Elim River, but also from the Black River;<sup>11</sup>
- implement the provisions of the Draft Easement Act (prepared with the supported of TNC), which would offer some solutions to the issue of Privately Owned Lands in the Upper Morass;<sup>12, 13</sup>
- explore the issue of financial sustainability of the proposed protected area, taking into consideration work currently being done by TNC;
- review management issues currently being raised as they related to the 1997 policy on protected areas;
- investigate ways and means to convey some degree of protection the Upper Morass outside of Declaration;
- work with local communities to ensure sustainable utilization of the economic resources from which they benefit;
- develop a public awareness programme for the schools in the community and users ; and
- develop a Management Plan for the Lower Morass.

### Expected Outputs

- financial plan for the proposed protected area;
- issue of protection measures for privately owned lands resolved;
- public education programme developed;
- issues related to the impact of the Upper Morass on the Lower Morass determined;
- the issue of pollution from the sugar estate resolved;
- measures for protection of the Upper and Lower Morass developed; and
- Management Plan for the Lower Morass developed.

Responsible Agency: NEPA

Partners: MLE, Forestry Department, Fisheries Division, UWI, TNC, also private companies e.g. Appleton Sugar Estate.

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<sup>11</sup> Source: Mr. Dillard Knight, NEPA Laboratories.

<sup>12</sup> This is contingent on the finalization of this Act

<sup>13</sup> The completion of the Revised Systems Plan currently being funded by the EFJ, the Canadian Jamaica Green Fund, with support from TNC is critical to this process;

## **2. Project Note: *National Strategy and Action Plan for Alien Invasive Species***

The preparation of an alien invasive species management strategy was identified in the NBSAP as a highest priority project. During the life of the Secretariat, established in NEPA to assist in the implementation of the NBSAP, a project proposal was developed for this project. Details of this proposal can be found in Appendix II. Overlapping with this exercise was the development of a regional project<sup>14</sup> on invasive species including countries such as Cuba, Trinidad and Jamaica. The project is still in draft form and NEPA has been participating in its development. Taking into consideration the role of NEPA in both projects it would be difficult at this stage for NEPA to abandon its participation in the regional process.

Expected outcomes of the regional project include the development of national, sub-regional and regional strategies and policies. This is an obvious overlap with the national project proposal. Also, the issue of invasive species in Protected Areas is one of the projects identified in the National Implementation Support Partnership (NISP). **The role of the monitoring committee during the twelve month period should therefore be to ensure that the concerns/activities enunciated in the national proposal are taken on board fully in the final draft of the regional policy and that the potential contribution of the NISP is taken into consideration.**

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<sup>14</sup> Preparation by CARDI

### **3. Project Note: *Coral Reef Rehabilitation***

Rehabilitation of Coral Reef Ecosystems is classified as a highest priority project in the NBSAP. Also the establishment of marine protected areas has been emphasized in the protected areas work programme of the CBD. While the NBSAP secretariat also developed a project proposal for this project concept, (see Appendix III), in discussions with stake holder agencies and an important partner, The Nature Conservancy, it was agreed that a larger project proposal, involving the entire island, should be prepared by the NISP Coordinator during her period of tenure at the MLE. This post is being supported by The Nature Conservancy. Also, TNC's eco-regional assessment project should be taken into account when developing a project proposal. It is anticipated that the project will cost approximately US\$ six million. It is important that this project proposal development be monitored during the twelve month monitoring and evaluation period of the NCSA.

#### 4. Project Note: *Institutional Strengthening of NEPA and Stakeholder Agencies*

Elements identified for inclusion in this project are:

- Strengthening of legislative framework (alien species, access to genetic resources, intellectual property rights and land ownership in protected areas)
- Expansion of flora and fauna database with linkages to national CHM
- Designing and implementing a comprehensive public education programme, targeting key institutions e.g. judiciary, customs, police and local government

##### a. **Strengthening of the Environmental Legislative Framework**

This includes a number of cross cutting issues identified in the CBD's work programmes and in the NBSAP.

##### i. **Alien Invasive species:**

Activities include:

- Review of draft amendments to the Wild Life Protection Act 1945 on invasive species. Draft amendments to this Act were put on hold in anticipation of the promulgation of the Environment and Planning legislation.

*This aspect of the project must take into consideration the development of an Alien Invasive Species Strategy and Action Plan. (See Project Note 2 above)*

##### ii. **Access to genetic resources:**

*It is important that before designing/developing this project that reference is made to the CBD Add-On Enabling Activity Project which has been submitted to UNDP for funding for the GEF. In this project is an activity on Access to Genetic Resources, Benefit-Sharing Formulation of Mechanisms for these purposes*

Work identified to be done include:

- an assessment of current legislative, administration and policy measures, formulation of access and benefit sharing mechanisms and an evaluation of the institutional and human resource capacity; and
- assessments of existing legal and administrative measures that should identify potential problems related to intellectual property right regimes and ownership issues.

The stated expected output of this activity will be *“an assessment report that will identify the institutional and human resources needed to sustainably utilize Jamaica's genetic resources and to identify possible pathways in developing benefit-sharing mechanisms”*.

In further developing this activity specific actions could include:

- review the CBD Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization
- review and keep abreast of the work of the CBD Ad Hoc Open-Ended Working Group on Access and Benefit-Sharing whose work includes:
  - (i) *To elaborate and negotiate the nature, scope and elements of an international regime on access and benefit-sharing within the framework of the Convention on Biological Diversity, as contained in paragraphs (b), (c) and (d) below, drawing on inter alia an analysis of existing legal and other instruments at national, regional and international*

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*levels relating to access and benefit-sharing, including: access contracts; experiences with their implementation; compliance and enforcement mechanisms; and any other options.*

- review of draft amendments to the Wild Life Protection Act 1945 on access to genetic resources. Draft amendments to this Act were put on hold in anticipation of the promulgation of the NEPA Act. The NEPA Act is still in draft form;
- review the current Material Transfer Agreement being used by NEPA: and
- legislate Material Transfer Agreement to ensure that any disputes which may arise can be dealt with in a Jamaican court of law.

### **iii. Intellectual Property Rights:**

This is a very complex area, and limited work has been done in the area of biodiversity. However, this is an important cross-cutting area under the CBD which recognizes "the importance for biological diversity of indigenous and local communities embodying traditional life styles relevant for the conservation and sustainable use of biological diversity. The CBD has been working closely with the World Intellectual Property Organisation (WIPO) in this area. It is important to note that Intellectual Property Rights (IPRs) has implications for the WTO TRIPS (World Trade Organisation Trade-related aspects of intellectual property rights) Agreement. **The Add-On Enabling Activity Project previously referred to above includes activities related to IPRs and this must be taken into account before developing any project on IPRs.** It is also important that the Jamaica Intellectual Property Office be involved with any such project.

The activities of the Add-On Enabling Activity Project include:

- assessment of existing policy, legislative and administrative measures in the area of IPRs to determine gaps and how they affect local communities;
- assessment of gaps in documentation and capacity needs in this area; and
- review of relevant institutions and organizations, identifying potential synergies and or tensions.
- participation of local communities in order to determine their priority needs.

The expected output will include:

- an assessment report on the status of the recording of traditional knowledge;
- potential ways and means to protect this knowledge; and
- the institutional and administrative capacity required to protect this knowledge.

### **iv. Land Ownership in Protected Areas:**

A Draft Easement Act has already been prepared through the assistance of TNC. This deals with the issue of Land Ownership and possible ways of compensating private land owners to encourage conservation and sustainable use of their lands which may fall in protected areas. During the monitoring phase, there could be some follow up on the draft Act, to ensure that it is finalised.

#### **b. Expansion of flora and fauna database with linkages to national CHM**

A finding of the biodiversity thematic assessment was that there was a need by NEPA for adequate information on endemic and endangered species to be able to take appropriate decisions for example in the area of issuing permits. The focus here would be to:

- collate existing relevant information from the various sites and agencies, such as the IOJ and the UWI;
  - populate the relevant NEPA database with the information gathered and link to the national CHM; and
  - determine the immediate needs of NEPA for specific species or ecosystems.
- c. **Designing & implement a comprehensive public education programme for key institutions e.g. judiciary, customs, police and local government.**

Work has already started in this area through the Environmental Action (ENACT) programme<sup>15</sup> and by NEPA, through its Public Education and Corporate Communications Branch. *It is important that NEPA collaborates with the other executing agencies related to the other Conventions in design and delivery of such a programme as it is indeed a cross-cutting area.*

**The entire project: “ Institutional Strengthening of NEPA and stakeholder Agencies” covers such a wide array of topics that the author suggests that it be broken down into discrete elements each of which could be considered separately and be implemented over a longer time period.**

The focus during the period should be on the development of the project concepts, proposals, or the monitoring of projects already developed or being developed.

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<sup>15</sup> The ENACT programme is building Jamaica’s capabilities to manage and preserve the environment within the context of sustainable development. It is implemented by the Government of Jamaica through the National Environment and Planning Agency (formerly the Natural Resources Conservation Authority, NRCA) and a Canadian joint venture Dessau-Soprin & Marbek. ENACT was initiated in 1994 when preliminary work began laying down the foundations for the programme. The programme is funded by the Canadian International Development Agency (CIDA) and the GOJ. (Taken from the ENACT Website).

## **A. II. The Cartagena Protocol on Biosafety**

While projects were not identified in the Focus Group discussions or the National Work Shop, in the Focus Group discussions a number of areas were identified as requiring action. These included:

- Completion of policy and legislative framework which was started with the UNEP/GEF/GOJ project which ended last year;
- rationalisation of institutional responsibilities (including decision re Focal Point and the Competent National Authority);
- establishment of the Biosafety Clearing House web site, the IOJ NHD has this responsibility and has agreed to start work in October; and
- **capacity building in the areas of risk assessment and risk management.**

## B. United Nations Convention to Combat Desertification

Areas for priority action identified in the Focus Groups and the National Workshop were:

- develop a National Action Plan – *funds are already in place*;
- constitute a National Coordinating Committee; and
- develop a project on Land Degradation. **A project proposal, PDF A, was prepared and submitted through UNDP to the GEF for the development of a medium sized project. This has been approved. The Forestry Department has been designated the executing agency and is expected to begin as early as October, 2005.**

## C. United Nations Framework Convention on Climate Change

A number of project concepts identified in the Focus Groups and the National Workshop. Top priority concepts are:

- the development of a national action plan for mitigation and adaptation; and
- the development of regional climate models at the small scale of small islands to allow for better analysis and understanding of the climatic processes. The CSGM has started to address this issue through the MACC initiative. Below is Project Concept Note for the development of an impact model for Jamaica.

### **Concept Note: *Climate Change: Development of an Impact Model for Jamaica.***

Jamaica became a Party to the United Nations Framework Convention on Climate Change, UNFCCC in 1995 and the Kyoto Protocol in 1999. The National Capacity Self-Assessment Project, (NCSA) has assessed Jamaica's implementation of the three so-called "Rio Conventions on the Environment" and this project concept note has been prepared to fulfill one of the project's requirements.

Jamaica is a small island developing state and the adverse effects of climate change poses the greatest environment threat and challenge to her two and a half million people. These adverse effects will have their greatest impact on the coastal zone, the water resources sector, the agricultural sector and the human health sector.

The Intergovernmental Panel on Climate Change has produced the global predictions for the expected changes in the Third Assessment Report. However, as stated in this report the effects will differ for each region of the world and in some cases may exceed the predicted values. An additional factor that is of concern to all small islands is the use of the Global Circulation Models (GCM) with grid size resolution of 50 kilometres. This resolution is much too large to give a true representation of the meteorological parameters with respect to small islands hence the need for statistical downscaling to finer resolutions.

Therefore, of critical importance to the decision makers is the information pertaining to how changes in sea level, surface temperature and rainfall resulting from climate change will impact on these four sectors. The development of a climate change impact model for Jamaica would provide much of this information.

The Climate Studies Group affiliated to Physics Department of the University of the West Indies at Mona has successfully refined the outputs of the GCM to a workable resolution for the Caribbean region and is willing to lead the development of an impact model for Jamaica.

The desired outputs would include vulnerability assessments, adaptation options, social and economic impacts indicators for the water, agriculture, human health and coastal sectors using various climatic and emissions scenarios

## ***D. Cross–Cutting Project Concept Notes***

The following Project Concept Notes are considered to be cross cutting issues, arising from both the thematic and cross-cutting assessments.

### ***1. Institutional Strengthening in the Area of Public Awareness Education and Training***

Jamaica's National Capacity Self Assessment identified the following as key areas of capacity constraints across all three Conventions:

- lack of adequate funding for education and awareness;
- lack of understanding by decision makers of the importance of sound environmental practices into the economic and development decision-making process;
- lack of coordination, (which does not make the best use of the relatively limited available resources);
- the need for a central collection of resource materials, (print and electronic) for environmental education materials which is easily accessible, e.g. through the CHM;
- the need for creative, environmentally sound awareness programmes across the three conventions. These programmes need to move beyond awareness to behavioural change;
- need for technical skills in some areas, e.g. economic evaluation of biological resources, hydro-geologists, climatologists and meteorologists;
- need for training of teacher educators in the area of environment and sustainable use of natural resources; and
- insufficient resource materials to implement the teaching of environmental education at the primary school.

The project will seek to develop a clear policy on environmental education, strengthen the capacity of key agencies and institutions to deliver environmental programmes, develop resource materials, establish central resource center, sensitize and provide relevant information for decision-makers, and support the training in areas of scarce technical skills.

### ***2. Institutional Strengthening and Governance***

Jamaica's National Capacity Self Assessment identified the issue of governance as a key area to be addressed in strengthening the institutional framework for effective implementation of the three Conventions. Some important findings were:

- lack of understanding by decision makers of the importance of sound environmental practices into the economic and development decision-making process;
- the need for economic valuation of environmental resources as a tool for decision making;
- problems in the area of environmental legislation development and enforcement (including the area of environmental impact assessment);
- lack of coordinated policy development and weak implementation; and

- the need for a thorough assessment of the impact of the implementation and non-implementation of the various environmental policies the environment.

The Environmental Impact Assessment process is one of the cross-cutting tools under the CBD and the UNCCD. Effective use of this tool is a strong indicator of good governance in the area of environmental protection and sustainable use of natural resources. Additionally, economic evaluation is a valuable tool for decision makers. Jamaica's natural forests are an extremely valuable resource and no economic evaluations of this resource have been done. The will project will use these two tools in the strengthening of the framework for good governance.

- This will be done through a pilot project, using a particular geographic area such as the Cockpit country (protected area slated for bauxite mining) whereby the economic valuation tool will be used to provide information to the decision makers and a conceptual EIA will be conducted, including a social impact assessment. The project will involve the various stakeholders, the development of procedures, training and lessons learnt which will be used as the basis of mainstreaming the findings at the end of the pilot. **A project proposal, PDF A, has been developed for submission through UNDP to the GEF for the development of a medium sized project. Details of the project can be seen in Appendix IV.**

### ***3. Institutional Strengthening through Reforestation and Sustainable Land Management in Watersheds.***

Jamaica NCSA found that while the country has the ability to identify many of its problems related to the loss and degradation of the country's biodiversity, its weakness lies in implementing sustainable programmes to address these problems. While this weakness is in part due to the lack of financial resources there is also the need to strengthen the capacity of the relevant technical support agencies and communities to implement these programmes.

Conservation of forests and sustainable use of the forest biological resources are essential to achieving the objectives of the CBD. Jamaica was once covered with forests, but they are now restricted to areas least suitable for agriculture and human settlements, such as at high altitudes on steep rocky slopes and in rugged limestone areas. The major causes of deforestation are agricultural expansion from both large and small scale farming operations and unsustainable harvesting of trees for charcoal production. The loss of forest cover through these unsustainable practices has resulted in land degradation. There are also implications for climate change.

The project will:

- strengthen the capacity of the relevant agencies such as the WRA, RADA to provide the technical support to farmers and communities in appropriate farming practices;
- to reforest thousands of hectares of public and private lands;
- to contribute to the building of a portfolio of CDM projects within the portfolio ministry; and
- to utilize the earnings from the CDM project to support the community and similar projects.



## **APPENDICES**



## **Appendix I. List of Reports**

1. Inception Report
2. Stocktaking Report
3. Biodiversity Thematic Report
4. Climate Change Thematic Report
5. Land Degradation Thematic Report
6. Public Education and Awareness and Training - Cross Cutting Report
7. Policy and Legal - Cross Cutting. Report
8. Institutional and Funding Cross Cutting Report
9. National Action Plan
10. NCSA Report

## Appendix 1I. Alien Invasive Species Management Strategy for Jamaica

### PROJECT CONCEPT PAPER

<b>1. Project name:</b> Preparation of Alien Invasive Species Management Strategy for Jamaica	<b>2. Proposed GEF Implementing Agency:</b> UNDP
<b>3. Country or countries in which the project is being implemented:</b>  Jamaica	<b>4. Country eligibility:</b> CBD Ratification: 1995
<b>5. GEF focal area(s):</b> Biodiversity (Enabling Activity)	<b>6. Operational program/Short-term measure:</b> Multifocal/Integrated Ecosystem Management/Forest Ecosystem
<p>7. Project linkage to national priorities, action plans, and programs:</p> <p>The Caribbean archipelago has been recognized as one of the world's most significant repository of biological diversity. As the third largest island of the region, Jamaica is a vital component of this system. Its fauna and flora are unique, with many species occurring nowhere else. Investigations have shown that there are 923 endemic plants, 505 endemic and land snails and 91 endemic terrestrial vertebrates on the island. As the sole habitat for these species, Jamaica has a global responsibility to conserve them.</p> <p><b>This rich repository of biological diversity is being threatened however and is steadily on the decline. Data from the Jamaica's Conservation Data Centre (although no longer operational) shows that 221 of the endemic flora and fauna species are now classified as 'critically imperilled' and 'especially vulnerable to extinction'. The World Conservation Union (IUCN) conducted studies in 2002 and the results have showed that 345 flora and fauna species in Jamaica have been categorised as either being vulnerable, threatened or endangered. Jamaica has recognized its obligation to conserve its biodiversity and has embarked on several conservation efforts.</b></p> <p>As a party to the CBD, Jamaica is obligated to implement the Article 6 under the convention and such has developed a National Biodiversity Strategy and Action Plan (NBSAP). One of the priority areas for implementation that has been identified in the NBSAP is to investigate the effect of alien invasive species which is in accordance with Article 8 (h) of the CBD. This project aims to develop a management strategy for the invasive alien species in Jamaica.</p> <p>The Government of Jamaica has also prepared a Jamaica Environmental Action Plan (JANEAP) which was developed to highlight the major environmental problems facing Jamaica, as well as to emphasise and establish the necessary corrective measures for environmental management to be undertaken by the various government parties. The investigation of the effects of alien invasive on biodiversity is listed as a priority area and such the project aims to address this obligation as well.</p>	
<p>8. Status of national operational focal point review date(s):</p> <p>Submitted:                      Acknowledged:                      Endorsing:</p>	

#### 9. Project rationale and objectives:

**For decades conservationist have identified habitat destruction and habitat degradation as having the greatest negative effects on biodiversity. Recent investigations have shown however that alien invasive species is now one of the leading threats to biodiversity and the effect of these species is rapidly increasing. According to the World Conservation Union (IUCN) the effect of alien invasive species on native biodiversity has been reported as the second most important threat to biodiversity behind habitat loss. The effects that these species have on flora and fauna have proved to be very difficult to reverse. In addition the cost related to the effect of these species is not only related to the environment but they may also have economic implications to sectors such as agriculture, forestry, fisheries and human health. Although most of the evidence of economic damage has been seen in the developed world, it has been indicated that developing countries are beginning to experience similar, if not greater losses.**

The isolation of the Jamaica from the mainland has encouraged species to evolve without selective pressures, limited predators, competitors or diseases. This unfortunately has proven to be detrimental when these alien invasive species are introduced. Alien invasive species tend to decimate the endemic taxa which have not evolved any defenses against these alien species. The problem is exacerbated by the ability of these invasives to become quickly established and hence their numbers multiply rapidly. They also have the capability to become so widely dispersed and integrated into an area, making efforts to eradicate them extremely difficult and expensive. Their influence on Jamaica's fauna and flora has remained largely unknown except for a few cases.

Many of these species were brought to Jamaica by man dating back as far as the 1600s. Most were introduced intentionally for domestic use, while others were released in the wild as game species, pest control agents and exotic reminders of colonial origin. Other species were introduced inadvertently, particularly pests, parasites and commensals of both humans and non-human exotics. Some of these species arrived on their own however. Preliminary documentation of known alien invasive species in Jamaica has shown that seven of these species have been ranked by the IUCN as the World's 100 worst invasive alien species (See Appendix 1 for list of known alien invasive in Jamaica). New species continue to be introduced to Jamaica.

A Permit and License system was established by the Natural Resources Conservation Authority (NRCA) in 1997 to provide a regulatory framework to monitor activities and development. The importation of alien species is addressed by this Permit and License System whereby applicants are required to apply for a permit to introduce alien species into the country. In addition, the Plant Quarantine and Veterinary Services Divisions of the Ministry of Agriculture have specific regulations which importers have to adhere to when introducing alien species. These regulations however do not require an assessment of the potential of these alien species to become invasive. Also, there are no regulations that address the risk of captive organisms becoming established in the wild.

Although a preliminary list of present known alien invasive species has been prepared (See Appendix 1), management options for these established species have rarely been investigated, and very few projects have ever attempted to control alien invasives for the benefit of the island's threatened species and ecosystems.

**An assessment therefore needs to be undertaken to investigate the status of Jamaica's alien invasive species, the methods of their introduction and the review of the legislation pertaining to alien invasive species. This assessment will provide the information for the development of a**

comprehensive management strategy.

As the project will affect several stakeholders (government and non-government) it is anticipated that all involved will participate in a collaborative effort for the successful implementation of the project.

#### 11. Objectives and Activities

**Objective 1: Conduct an assessment of established alien invasive species.**

*Activities:*

- Determine modus/time of introduction of alien invasive species
- Identify population status and distribution
- Assess the threats and or benefits alien invasive species pose to native species and ecosystems
- Determine the species in need of urgent control
- Prepare a list of all alien invasive species indicating the top ten most invasives and indicating those that have the potential to become invasive
- Determine the known control methods

**Objective 2: To undertake the evaluation of the process of importation of alien invasive species**

*Activities:*

- Prepare a list of species imported in the last ten years
- Identify method of importation for each species
- Identify stakeholders in species importation and identify how their role in the prevention of introduction of invasive species can be enhanced
- Review legislation relevant to importation, identifying weaknesses, gaps and inconsistencies
- Review existing import and quarantine procedures and where necessary improved

**Objective 3: To investigate the procedures involved in monitoring and controlling captive species.**

*Activities:*

- Identify captive alien species in need of monitoring and control;
- Review legislation relevant to captive species identifying gaps, weaknesses and inconsistencies;
- Review existing monitoring and control procedures; and
- Recommend methods to improve monitoring and control procedures where necessary.

<b>Objective 4: Prepare Alien Invasive Specie Management Strategy</b>
<b>Activities:</b> <ul style="list-style-type: none"> <li>▪ <b>Information from objectives 1-3 will be used to develop management strategy</b></li> </ul>
<b>Expected Outputs:</b> <ul style="list-style-type: none"> <li>• <b>Drafting instructions for alien invasive species prepared</b></li> <li>• <b>Alien Invasive species management strategy prepared</b></li> <li>• <b>Inventory of all alien invasive including the top ten invasive and potentially invasive species undertaken</b></li> </ul>

ACTIVITY SCHEDULE												
ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12
Identify relevant stakeholders (government and non-government) involved in areas related to alien invasive species												
Identify and hire three consultants												
Identify the modus/time of introduction of alien species and prepare a list of alien species imported in the last ten years												
Determine the status of the population of alien species identifying which has become invasive or has the potential to become invasive.												
Identify the threats or benefits of established alien invasive species on native species and ecosystems												
Identify the alien invasive species in need of urgent control												
Identify the known control methods of the alien invasive species identified												



12. Stakeholders involved in project:  
Forestry Department, Fisheries Division, University of West Indies, Institute of Jamaica, National Commission on Science & Technology, Plant Quarantine Division, Veterinary Division, Customs and Immigration Division, Hope Zoo, Institute of Jamaica, Jamaica Horticultural Society, BirdLife Jamaica, Blue and John Crow Mountains National Park, Portland Bight Protected Area, Department of Life Sciences, the University of the West Indies, Mona.

13. Information on project proposer:  
National Environmental & Planning Agency (NEPA) is an Executive Agency that became operational on April 1, 2001. NEPA represents a merger between the Natural Resources Conservation Authority (NRCA), Land Development Utilisation Commission (LDUC) and The Town Planning Division (TPD).

14. Information on proposed executing agency (if different from above):

15. Estimated budget (in US\$ or local currency)  
GEF Financing: \$15,000.00  
Co-financing: \$1500.00  
**Estimated Total Budget:** US \$ 16,500.00  
Estimated Starting Date:  
Duration: 12 months

**APPENDIX 1**  
**List of known Alien Invasive Species in Jamaica**

<b>Sub-category</b>	<b>Scientific Name</b>	<b>Common Name</b>
Insect	<i>Diatraea sp.</i>	Small Moth Borer
Insect	<i>Heliothrips rubrocinctus</i>	Cacao Thrips
Insect	<i>Cosmopolites sordidus</i>	Banana Borer
Insect	<i>Coccus viridis</i>	Green Scale
Insect	<i>Dysdercus spp.</i>	Cotton Stainers
Insect	<i>Aleurocanthus woglumi</i>	Citrus Blackfly
Insect	<i>Eretmocercus serius</i>	Eddy Wasp
Insect	<i>Aphelinus diaspidis</i>	Golden Chaclid
Insect	<i>Placsius avanus</i>	Java Beetle
Insect	<i>Dactylosternum hydrophiloides</i>	
Insect	<i>Dactylosternum abdominale</i>	
<b>Mammal</b>	<b><i>Capra hircus</i></b>	<b>Goat</b>
<b>Mammal</b>	<b><i>Rattus rattus</i></b>	<b>Black/Roof Rat</b>
Mammal	<i>Rattus norvegicus</i>	Brown/Norway Rat
<b>Mammal</b>	<b><i>Herpestes javanicus (auropunctatus)</i></b>	<b>Small Indian Mongoose</b>
Mammal	<i>Odocoileus virginianus</i>	White-tailed Deer
<b>Mammal</b>	<b><i>Sus scrofa</i></b>	<b>Pig (feral)</b>
<b>Mammal</b>	<b><i>Felis catus</i></b>	<b>Cat</b>
Amphibian	<i>Eleutherodactylus johnstonei</i>	Frog
<b>Amphibian</b>	<b><i>Bufo marinus</i></b>	<b>Bull Frog</b>
Reptile		Sudamist Turtle
Crustacean	<i>Macrobrachium rosenbergii</i>	Freshwater Prawn
Crustacean	<i>Cherax quadricarinatus</i>	Red-claw lobster

Mollusc	<i>Perna viridis</i>	Green-lipped Mussel
Mollusc	<i>Dreissena polymorpha</i>	Zebra Mussel
Bird	<i>Molothrus bonariensis</i>	Shiny Cowbird
Plant	<i>Pittosporum undulatum</i>	Mock Orange
Plant	<i>Melinis minutiflora</i>	Wynne Grass
Plant	<i>Gleichenia sp.</i>	Bracken fern
Plant	<i>Dichramopteris sp</i>	Fern
Plant	<i>Nephrolepis multiflora</i>	Sword/Boston Fern
Plant	<i>Thelypteris opulanta</i>	Sword Fern
Plant	<i>Adenanthera pavonia</i>	Red Bead Tree
Plant	<i>Bambusa vulgaris</i>	Bamboo
Plant	<i>Syzygium jambos</i>	Rose Apple
Plant	<i>Hedychium coronarium</i>	White Ginger Lily
<b>Plant</b>	<b><i>Eichornia crassipes</i></b>	<b>Water Hyacinth</b>
Plant	<i>Eucalyptus</i>	Eucalyptus
<b>Plant</b>	<b><i>Psidium cattleianum</i></b>	<b>Strawberry Guava</b>
Plant	<i>Panicum maximum</i>	Guinea Grass
Plant	<i>Brachiaria decumbens</i>	
Plant	<i>Alpinia allughas</i>	
Plant	<i>Hedycium cocineum</i>	
<b>Plant</b>	<b><i>Hedychium gardnerianum</i></b>	<b>Kahili ginger</b>
Plant	<i>Grevillea robusta</i>	Silky Oak
Plant	<i>Casuarina equisetifolia</i>	Casuarina/Willo
Plant	<i>Malaleuca spp.</i>	Bottle Brush
Plant	<i>Maemotoxylum campechianum</i>	Logwood
Plant	<i>Polygonum chinense</i>	
Plant	<i>Moghania strobilifera</i>	Wild Hops

\*\*\* Species in bold type are listed in the World Conservation Union (IUCN) Top One Hundred Most Invasive Species in the World.

## Appendix III. Coral Reef Rehabilitation

### PROJECT CONCEPT PAPER:

<b>1. Project name:</b> Rehabilitation of Coral Reef Ecosystems	<b>2. Proposed GEF Implementing Agency:</b> UNDP
<b>3. Country or countries in which the project is being implemented:</b>  Jamaica	<b>4. Country eligibility:</b> CBD Ratification: 1995
<b>5. GEF focal area(s):</b> Biodiversity	<b>6. Operational program/Short-term measure:</b> Coastal, Marine and Freshwater Ecosystems
<p><b>7. Project linkage to national priorities, action plans, and programs:</b></p> <p>The coral reefs in Jamaica have been severely degraded and in the past 40 – 50 years have declined from 95% hard coral cover to, in some places, 5% hard coral cover. Coral reefs are integral parts of several of our prime industries, namely tourism and fisheries, and also provide several important ecological benefits. However, due to increases in pollution, destructive fishing practices, and increases in reef-related tourism activities coral reefs in Jamaica are under threat. This project aims to implement pilot projects in three Marine Protected Areas around the island in an effort to try to stem the damage being caused to the reef. The methodologies will then be used to implement projects island-wide.</p> <p>Anthropogenic causes of coral reef degradation vary from direct sources such as dynamite and cyanide fishing to indirect sources such as terrestrial run-off leading to sedimentation and eutrophication. Because the coral reefs in Jamaica have been affected by many far-reaching activities a comprehensive, long-term project will have to be implemented in order to minimize these impacts. The three pilot projects are therefore slated to each be implemented over a 10 year period addressing both indirect and direct causes of reef degradation will be addressed as well as reviewing the institutional and legislative concerns.</p> <p>The projects will be implemented in Marine Protected Areas (MPAs) because both manpower as well as technical expertise should already be present in these areas. Also, MPAs are often in high traffic areas both for tourism related activities as well as fishing. Monitoring as well as enforcement should also already be ongoing activities within these areas so that changes to the coral reef ecosystems can be observed. It is hoped that the project will enhance the capacity of MPAs to protect the marine resources and ecosystems found within their boundaries. Three MPAs will be chosen based on the level of activity occurring within the Park boundaries. Two projects will be implemented in areas heavily impacted by tourism while the third will be in an area that is not heavily impacted by tourism.</p> <p>The project will include changes in legislative and institutional views as well as onsite activities such as the implementation of mooring buoys, coral reef mapping and monitoring to check the progress of the project, determining point and non-point sources of pollution, limiting the amount of effluent entering the marine environment, monitoring and implementation of new dive sites, implementation of sustainable fishing practices, hotel and fisher education and sensitization, establishment of diver/snorkeler user fees, the identification of alternatives for fishermen and determining carrying capacities for the dive sites within the MPAs.</p> <p>As a signatory to the CBD, Jamaica is obligated to implement the Articles under the convention and such has developed a National Strategy and Action Plan to identify the gaps and challenges that need to be</p>	

addressed with respect to the conservation and management of the island's biodiversity. This project aims to deal with the rehabilitation of coral reef ecosystems in order to improve the biodiversity found in these ecosystems.

Jamaica has also prepared an Environmental Action Plan (JANEAP) designed to highlight the major environmental problems facing the country as well as emphasise and establish the necessary corrective measures to be undertaken by the various government parties. The rehabilitation of coral reefs is listed as a priority area and as such the project aims to address this obligation as well.

8. Status of national operational focal point review date(s):

Submitted:                      Acknowledged:                      Endorsing:

9. Project rationale and objectives:

Coral reefs help to protect coastal and low-lying areas from tropical storms and hurricanes helping to prevent coastal erosion and storm damage. They may also be storehouses for chemical compounds that could prove to be effective pharmaceutical drugs for a wide variety of diseases. Coastal industries also heavily rely on coral reefs, particularly fishing and tourism industries. Artisanal and recreational fisheries rely on reefs to provide them with fish while the tourism industry, often depends on coral reefs for reef-related activities such as SCUBA diving and snorkeling. However, because Jamaica depends so heavily on the resources found in coral reefs they have been heavily impacted and degraded. Degraded coral reefs will have negative effects on all of these industries.

Increased fishing pressure combined with destructive fishing practices such as spearfishing, dynamite and cyanide fishing, gill and seine nets, and pot fishing on top of the reef have resulted in a decrease in the diversity of fish found on the reef as well as a decrease in fish size. However, fishing pressure not only decreases the amount and sizes of fish found on the reef but can also be damaging to the reef itself as destructive fishing practices can cause the death of coral species, damaging the reef structure and may lead to coral bleaching due to increased stress. Sensitization and education of fisher folk on sustainable fishing practices will also have to be implemented. It would therefore be the aim of this project to eliminate destructive fishing practices and try to implement and maintain in their stead sustainable fishing practices.

Dependence on reef-related tourism activities can also have disastrous effects on reef structure and reef composition. Large numbers of SCUBA divers and snorkelers can have negative effects on the reef due to finning, breaking of coral for souvenirs, anchor damage from boats, among others. The construction of hotels and other tourism venues can also lead to increases in sedimentation and nutrient-rich waters leading to eutrophication. It is therefore necessary to reduce the effects of tourism activities on the reef by determining carrying capacities, finding alternate venues as dive and snorkel sites and trying to limit the amount of nutrients entering the water. The installation and maintenance of mooring buoys will also be implemented as well as sensitization of both hotel staff and other members of the tourism industry.

This project is of national significance because progress and insights derived from this project will be used to implement these methods on a wider-scale. Returning the coral reefs in Jamaica into viable, healthy ecosystems will have significant returns to industries in Jamaica as well as to the Jamaican environment.

10. Expected outcomes:

**The primary objective of the project is to rehabilitate the coral reefs found within the borders of three Marine Parks**

**Specific objectives to be attained from the project include the following:**

- 1) To determine the present state of the coral reefs**
- 2) Determine and reduce the level of pollution entering the environment**
- 3) Limit and monitor tourism-related activities at coral reef sites.**
- 4) Limit and monitor fisher activities at reef sites**

11. Planned activities to achieve outcomes:

*Objective 1: To determine the present state of the coral reefs*

*Activities:*

- **Mapping and assessment of the coral reefs present**

*Success Indicators:*

- **Determine the present state of the coral reefs**
- **Changes in reef structure recorded as project progresses**

*Objective 2: Determine and reduce the level of pollution entering the environment*

*Activities:*

- **Determine both point and non-point sources of water pollution**
- **Place stricter measures/fines on those emitting effluent into the water**
- **Implement measures to reduce sedimentation**

*Success Indicators:*

- **Increase water quality in surrounding areas**
- **Decreases in levels of macroalgae and other pollution indicators at reef sites**

**Objective 3: Limit and monitor tourism-related activities at coral reef sites.**

**Activities:**

- **Install and maintain mooring buoys at reef sites**
- **Determine carrying capacity for divers/snorkellers**
- **Find/implement alternative dive/snorkel sites for inexperienced divers**
- **Tourist and tourism operator education and sensitization on reef issues**
- **Implement user fees to maintain upkeep of mooring buoys**
- **Enforcement of MPA rules**

**Success Indicator:**

- **Decrease in amount of tourist and tourism related activities that negatively impact reef should result in improvement in reef structure**

**Objective 4: Limit and monitor fisher activities at reef sites**

**Activities:**

- **Implement sustainable fisheries legislation**
- **Implement sustainable fishing practices on reef**
- **Enforcement of MPA rules**
- **Education/sensitization of fishers**
- **Find alternative sources of income for fishers**

**Success Indicator:**

- **Restoration of fish populations**
- **Increase in coral cover**
- **Decrease in macroalgal cover**

**INPUTS**

Consultants will not be needed but the project will rely heavily on the expertise found within the National Environment and Planning Agency, the Center for Marine Sciences and the Marine Protected Area Management found in Jamaica

**12. Stakeholders involved in project:**

National Environment and Planning Agency, Fisheries Division, University of West Indies, Maritime Authority, Maritime Police and Coast Guard, Council on Oceans and Coastal Zone, Negril Coral Reef Preservation Society, Montego Bay Marine Park Trust, Caribbean Area Coastal Management Foundation, Friends of the Sea, Portland Environmental Protection Agency, University of the West Indies (Center for Marine Sciences, Discovery Bay Marine Laboratory, Port Royal marine Laboratory), Jamaica Hotel and Tourist Association, Tourism Products Development Company

13. Information on project proposer:

National Environmental & Planning Agency (NEPA) is a new Executive Agency that became operational on April 1, 2001. NEPA represents a merger between the Natural Resources Conservation Authority (NRCA), Land Development utilisation Commission (LDUC) and The Town Planning Division (TPD).

14. Information on proposed executing agency (if different from above):

15. Estimated budget (in US\$ or local currency):

GEF Financing:

Co-financing:

Estimated Total Budget:

Estimated Starting Date:

Duration: 10 years

United Nations Development Programme  
Global Environment Facility

**Appendix IV. Strengthening and Developing of Environmental Management Tools for Effective Governance and to Address Institutional Strengthening in Jamaica in Response to Priority Areas of Action in the NCSA**

National Environment and Planning Agency, United Nations Development Programme

**Strengthening and Developing of Environmental Management Tools for Effective Governance and to Address Institutional Strengthening in Jamaica in Response to Priority Areas of Action in the NCSA**

In June 2004, Jamaica officially launched the National Capacity Self-Assessment Project (NCSA) aimed at conducting a comprehensive examination of the country's capacity to execute actions under the three Rio conventions, as well as the need for, and benefits to be derived from a coordinated and cross-sectional approach to environmental activities in order to meet its national priorities and global commitments. Jamaica's National Capacity Self Assessment identified the issue of governance as a key area to be addressed in strengthening the institutional framework for effective implementation of the three Rio Conventions

The Environmental Impact Assessment process is one of the cross-cutting tools under the Convention on Biological Diversity (CBD) and the United Nations Convention to Combat Desertification (UNCCD). Effective use of this tool is a strong indicator of good governance in the area of environmental protection and sustainable use of natural resources. In recent times the Environmental Impact Assessment (EIA) framework and process, have been questioned with the view of having greater transparency and participation of stakeholders in the decision-making process.

It has also been recognized that environmental issues are normally not incorporated in policy-making processes of the Government of Jamaica (GOJ). As a result, in 2001, the Cabinet Office commissioned a review of the integration of environmental considerations into the GOJ decision-making machinery as a first step in developing guidelines for Strategic Environmental Assessment (SEA) of proposed government policies, plans and programmes (PPPs). Additionally, economic evaluation is a valuable tool for decision makers. Jamaica's natural forests are an extremely valuable resource and no economic evaluations of this resource have been done. The will project will use these two tools in the strengthening of the framework for good governance.

The project will involve using a particular geographic area such as the Cockpit country (protected area slated for bauxite mining) as a pilot to further develop these environmental management tools and to strengthen the organisations which need the tools enhance their organisation's effectiveness and the decision making process.

**Starting Date:** October 2005

**Expected End Date:** February 2006

**Total Budget:** US\$50,000

**Executing Agency:** National Environment and Planning Agency (NEPA)

## Strengthening and Developing of Environmental Management Tools for Effective Governance

<b>Country name:</b>	Jamaica
<b>Project Title:</b>	National Capacity Self Assessment: MSP
<b>GEF Implementing Agency:</b>	UNDP
<b>GEF Operational Focal Point:</b>	Miss Leonie Barnaby, Senior Director, Ministry of Land and Environment
<b>National Executing Agency:</b>	National Environment and Planning Agency
<b>GEF Financing (Already granted via PIMS 2763):</b>	US \$50,000
<b>Government Cost Sharing:</b>	US \$5000
<b>Estimated Total Budget:</b>	US \$55,000
<b>Estimated Starting Date:</b>	October 2005
<b>Expected end date:</b>	February 2006

## LIST OF ACRONYMS

CBD	Convention on Biological Diversity
EIA	Environmental Impact Assessment
GEF	Global Environment Facility
GOJ	Government of Jamaica
IA	The Implementing Agency
JaNEAP	Jamaica National Environmental Action Plan
MLE	Ministry of Land and Environment
MSP	Medium Size Project
NCSA	National Capacity Self Assessment
NEPA	National Environment and Planning Agency
NGO	Non-Governmental Organisation
NLP	National Land Policy
NSDS	National Strategies for Sustainable Development
PC	Project Coordinator
PIOJ	Planning Institute of Jamaica
PMU	Project Management Unit
PPPs	Policies, plans and programmes
PSC	Project Steering Committee
SD	Sustainable Development
SEA	Strategic Environmental Assessment
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme

## SECTION I

### 1. Rationale for GEF Involvement

1. The Government of Jamaica (GOJ) is requesting US\$50,000 from the Global Environment Facility (GEF) to assist in the preparation of a medium-sized project that promotes the strengthening of institutional capacity for effective governance in order to inform the decision making process and develop an integrated approach to natural resource management.
2. In June 2004, Jamaica officially launched the National Capacity Self-Assessment Project (NCSA) aimed at conducting a comprehensive examination of the country's capacity to execute actions under the three Rio Conventions as well as the need for and benefits to be derived from a coordinated and cross-sectional approach to environmental activities in order to meet its national priorities and global commitments.
3. The project provided Jamaica with the opportunity to conduct a thorough self-assessment and analysis of national capacity needs priorities and constraints with respect to efforts at meeting global environmental management objectives.
4. Phase I of the comes to an end in September 2005 and one of the clear areas of action which was identified in the thematic and cross cutting reports was the need to coordinate and harmonize overlapping activities among the three Conventions and to help to ensure effective national measures to protect the global environment.
5. The outcome of the self-assessment acknowledged the synergies between the three Rio Conventions and the need for more integrated approaches in programming.
6. The Government of Jamaica also acknowledges the crucial link between global environmental protection, sustainable development and human welfare, and the negative impacts, particularly on the poor, of not addressing global environmental challenges.

### 2. Expected Goal, Objective and Outcomes of MSP and Relevance to Outcomes for the UNCBD, UNCCD and UNFCCC

7. The NCSA served to promote a national dialogue which brought together conventional focal points, multiple stakeholder groups and inter-ministerial organizations, and has served to foster collaboration across sectors and to collectively identify opportunities for integrated approaches to natural resources management.
8. The national dialogue has led to recognition that in order to more effectively achieve the country's environmental obligations institutions must be strengthened and mechanisms found which would lead to coordinated action. These new approaches would be facilitated by the following: (i) tools which inform the use and management of the country's natural resource base; (ii) wider participation of communities and key stakeholders in the decision making process; (iii) a clear and cohesive policy which is transparent and demands accountability; and (iv) an informed citizenry who can effectively participate in the decision making process.
9. The MSP project will contribute to the overall goal of maintaining and enhancing ecosystem health and integrity. The project will increase the focus on sustainable use of biodiversity, sustainable land

management and adaptation, all of which are linked to productive activities and local communities, leading to greater emphasis on development concerns.

10. The immediate objectives of the project are to:

- (i) Review the current EIA process and identify gaps particularly as it relates to a framework for effective governance.
- (ii) Review the GOJ's draft Strategic Environmental Assessment Policy with the view of identifying steps for its effective implementation.
- (iii) Review the use of valuation tools locally and internationally and assess their strengths and weaknesses.
- (iv) Using the information from the review process to develop a project proposal which will result in appropriate use of these tools, resulting in strengthening of the governance framework and relevant institutions.

### **3. Situation Analysis**

#### **A. Global Context**

11. The synergies among or between the three Rio Conventions are many. The GEF will support cross cutting projects that aim at increasing the resilience of ecosystems to climate change impacts, thereby improving natural resource management, increasing the long-term sustainability of project activities, and improving overall cost-effectiveness.

12. Adaptation to climate change offers a concrete opportunity to test the operational linkages between the regimes created by the Convention on Biodiversity (CBD), the UN Convention on Climate Change (UNFCCC) and the UN Convention on Desertification (UNCCD).

13. Climate change is among the key stress factors accelerating land degradation trends, especially in sub-Saharan Africa. There is a strong link between land degradation and poverty. There are also strong links with drought and water availability and watershed management.

14. The systematic mainstreaming of adaptation into sustainable land management initiatives will contribute to addressing in a comprehensive way the challenges associated with land degradation, including sustainable forest management, which touches upon the conservation and sustainable use of forest biodiversity, the production of timber and non-timber forest-products and biomass energy.

15. In summary, the GEF is seeking to increase the cost effectiveness and sustainability of its efforts by seeking more coherence within focal areas, greater synergies across its focal areas, and moving to integrated approaches to natural resource management as opportunities arise.

16. GEF is working with its Implementing Agencies to develop incentives, modalities and performance measures necessary for better integrating global environmental concerns in national policy making, coordination and sector planning.

## **B. The National Capacity Self-Assessment Project**

17. Jamaica's National Capacity Self Assessment identified the issue of governance as a key area to be addressed in strengthening the institutional framework for effective implementation of the three Conventions. Some important findings were:

- lack of understanding by decision makers of the incorporation of sound environmental practices into the economic and development decision-making process;
- the need for economic evaluation of environmental resources as a tool for decision making;
- problems in the area of environmental legislation development and enforcement (including the area of environmental impact assessment);
- lack of coordinated policy development and weak implementation; and
- the need for a thorough assessment of the impact of the implementation and non-implementation of the various environmental policies..

18. The Government of Jamaica has a well-defined Environmental Impact Assessment (EIA) framework and process, in which the EIA methodology is applied primarily to specific actions or projects focusing on how the proposed action or project should take place, in order to minimize adverse environmental impacts. It is perhaps timely that the EIA process and procedures be examined for improvements in line with the principles of good governance.

19. In 2001, the Cabinet Office commissioned a review of the integration of environmental considerations into the GOJ decision-making machinery as a first step in developing guidelines for Strategic Environmental Assessment (SEA) of proposed government policies, plans and programmes (PPPs).

20. The implementation of this SEA policy is expected to fulfill the following goals:

- mainstreaming environmental considerations into the policy decision-making process of the government;
- assessment of the environmental impacts of all government PPPs; and
- more informed decisions in support of development that is environmentally sustainable.

21. SEA should be part of an open and accountable decision-making process within the GOJ. The draft SEA policy has just been completed. The challenge now is to develop the procedures to make it functional.

22. A few resource valuations have been conducted previously, for example, of the Montego Bay Marine Park. However, the tool still needs further refinement to meet the needs of the environmental management agencies and decision makers in Jamaica.

### **4. Strategy**

23. The Environmental Impact Assessment process and SEAs are two of the cross-cutting tools of relevance to the CBD, UNFCCC and the UNCCD. Effective use of these tools is a strong indicator of good governance in the area of environmental protection and sustainable use of natural resources.

Additionally, economic evaluation is a valuable tool for decision makers. Jamaica's natural forests are an extremely valuable resource and no economic evaluations of this resource have been done. The will project will use these tools in the strengthening of the framework for good governance.

24. The Cockpit country is being proposed as the geographic area (protected area slated for bauxite mining) to be used in a pilot to develop these tools. The Cockpit country is a large area in western Jamaica known for its natural and cultural importance. Within Jamaica endemism is particularly high in the Cockpit Country. Its vegetation is the largest and most intact limestone forest in Jamaica. The watershed is an important source of water to the growing towns and communities on the north western coast of the island. It is also an area increasingly under threat by poor agricultural practices.

25. The project will offer a unique opportunity through the development these tools to address issues of importance to all three conventions as well as proving solutions to strengthen institutions and the governance framework; issues which were identified for priority areas for action in the NCSA.

26. The project will involve the various stakeholders, the development of procedures, training and lessons learnt which will be used as the basis of mainstreaming the findings at the end of the pilot.

## **5. Management Arrangements**

### **A. Institutional**

27. The PDF A project will be managed during the monitoring phase of the NCSA project and will be implemented by the NEPA using the existing project management framework. The Ministry of Land and Environment and the Planning Institute of Jamaica has endorsed the project . Political oversight for the project will be provided through the Natural Resources Sub-Committee of the Cabinet of Jamaica. The Minister will report to Cabinet on the progress of the project and will guide the approval of the Action Plan through that body.

28. The National Environment and Planning Agency, an arm of the Ministry of Land and the Environment, will execute the project in consultation with the NSCA Project Monitoring Committee (**Annex 1**) of the NCSA project and the UNDP. UNDP will serve as the Implementing Agency. The Monitoring Committee will comprise all the Rio Conventions Focal Points, the GEF Focal Point and representatives from the relevant supporting organizations to create a balanced representation from key government ministries.

### **B. Project Management Unit**

29. The project will be conducted over 5 months. The NCSA PMU is situated in the Policy, Programs, and Projects Division of NEPA and will provide the necessary management oversight, office space, secretarial and administrative support as part of the GOJ's contribution to the NCSA Project.

30. The PMU will be staffed by a Project Assistant (**Annex 2**) who is already in place. A specialist team of consultant(s) will be contracted (**Annex 3**) to carry out the project activities. The Director of Policy, Programs, and Projects Division of NEPA will supervise the work of the consultants on the project and

be responsible for the preparation of the project proposal. Approval of the outputs will rest finally with the NCSA Monitoring Committee.

## **6. Monitoring and Evaluation**

31. The Implementing Agency (IA): UNDP, (through its offices in Jamaica), will provide information on UNDP and GEF procedures, disburse funds, monitor and support project implementation, and provide other administrative and advisory services where necessary. The Regional Coordination Unit in Panama will provide technical backstopping and advice on GEF matters. The global Coordination Unit of the Portfolio project will facilitate the preparatory process and technically clear the MSP. UNDP-GEF HQ will provide technical clearance of the funding requests.

## **7. Total Cost of preparation**

32. The cost of preparation is \$55,000, of which \$50,000 is requested from GEF and \$5,000 will be provided by the Government of Jamaica.

## **SECTION II—The Work plan and Budget**

### **I. Objectives**

The immediate objectives of the project are to:

- (i) Review the current EIA process and identify gaps particularly as it relates to a framework for effective governance.
- (ii) Review the GOJ's draft Strategic Environmental Assessment Policy with the view of identifying steps to its effective implementation.
- (iii) Review the use of resource valuation tools locally and internationally and make an assessment of strengths and weaknesses.
- (iv) Using the information from the review process develop a project proposal which will result in appropriate use of these tools resulting in strengthening of the governance framework and relevant institutions.

The project is expected to:

- Develop a project proposal for NSCA MSP Expedited funding to address Strengthening and Developing of Environmental Management Tools for Effective Governance and Institutional Strengthening in Jamaica in Response to Priority Areas of Action in the NCSA

## **II. Tasks/Scope of Work**

The following outlines the tasks to be undertaken during the project.

### *1. Review current EIA process*

The Consultant will conduct the review in order to determine where the country is now and to better define the activities required in the MSP.

### *2. Review the GOJ's draft Strategic Environmental Assessment Policy*

The Consultant will review the policy in an effort to understand the requirements for its implementation and include in the project proposal steps which will help to operationalise the policy and prepare technocrats for its effective utilisation

### *3. Review the use of resource valuation tools*

In an effort to learn from the experience of Jamaica to date, as well as other countries who have used valuation instruments in the decision making process, the consultant will review the work in this area. The review should include a range of countries including developed, countries in transition, and developing countries. The review should examine the institutional policy and legislation framework, the consultative process and decision-making mechanisms.

### *4. Develop Project Proposal*

Drafting of a proposal for the a medium sized project for Jamaica that address Strengthening and

Developing of Environmental Management Tools for Effective Governance and Institutional

Strengthening in Jamaica in Response to Priority Areas of Action in the NCSA. The proposal

development should be informed by the work done in 1 through 3.

## **III. Timeframe**

The timeframe is outline in Table1.

**Table 1. Project Schedule**

ACTIVITY	1	2	3	4	5
<b>1. Project &amp; Initiation of the Planning Process</b>					
Assemble Monitoring Committee					
Hire Consultant(s)					
<b>2. Tasks</b>					
Review EIA process					
Review SEA Policy requirements					
Review resource valuation instruments					
<b>3. Develop Project Proposal</b>					

## IV. Budget

**Table 2. Activity Budget (US \$)**

ACTIVITY	Funding (US\$)	GOV'T in-kind (US \$)	TOTAL (US \$)
1. Consultancy Tasks - Review EIA process -Review SEA requirements - Review resource valuation tools -Development of project proposal	35,000.00		35,000.00
2. Report Preparation and Office Costs	3,000.00	3,000.00	
3. Meetings, and consultations	4,000.00		4,000.00
4. Communication	2,000.00	2,000.00	
5. Recruitment	1,000.00		1,000.00
6. PR/Public Education	5,000.00		5,000.00
7. Project Assistant	3,000.00		3,000.00
8. Sundries	2,000.00		2,000.00
TOTAL	55,000.00	5,000.00	50,000.00

**SIGNATURE PAGE**

Country: Jamaica

UNDAF Outcome(s)/Indicator(s):  
*(Link to UNDAF outcome., If no UNDAF, leave blank)*

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Expected Outcome(s)/Indicator (s):  
*(Those that are linked to the project, are extracted from the CP and are linked to the SRF/MYFF goal and service line)*

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Expected Output(s)/Indicator(s):  
*(Those that are linked to the project, are extracted from the CP and are linked to the SRF/MYFF goal and service line)*

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Implementing partner:  
*(designated institution)*

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Other Partners:  
*(formerly implementing agencies )*

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Programme Period: 2002-2006  
Programme Component: Environment & Energy \_\_\_\_\_  
Project Title: NCSA: Sustainable Development addendum  
Project Code: 00013166  
Project Duration: October 2005 to February 2006

Total budget: \_\_\_\_\_  
Allocated resources: \_\_\_\_\_  
• Government \_\_\_\_\_  
• \_\_\_\_\_ Regular  
• \_\_\_\_\_ Other: *(including in-kind contributions)*  
○ Donor \_\_\_\_\_  
○ Donor \_\_\_\_\_  
○ Donor \_\_\_\_\_

**Agreed by (Government):** \_\_\_\_\_  
**Agreed by (Implementing partner):** \_\_\_\_\_  
**Agreed by (UNDP):** \_\_\_\_\_

## ANNEXES

Annex 1: Terms of Reference Monitoring Committee

Annex 2: Terms of Reference Project Assistant

Annex 3: Terms of Reference Consultant

## ANNEX 1.

### TERMS OF REFERENCE PROJECT MONITORING COMMITTEE

#### BACKGROUND

The National Capacity Self-Assessment (NCSA) process will provide Jamaica the opportunity to articulate a thorough self-assessment and analysis of national capacity needs, priorities and constraints facing national efforts to meet global environmental management objectives as set forth in the Rio conventions and the related international instruments.

The NCSA process will take into consideration and will evaluate the relevant activities and outputs of the National Strategy and Action Plan for Biological Diversity (NSAPBD), the National Communication on Climate Change (NCCC), and National Reports to the United Nations Convention to Combat Desertification (UNCCD).

It is intended that the NCSA Project facilitate a cross-sectoral process of consultations, stocktaking, sequencing, and prioritization of capacity needs, especially for identifying obstacles that impede the country from fully meeting its objectives under the relevant conventions. It will be based on and linked with already existing programs and information exchange mechanisms relevant to capacity issues. The project output will strive to integrate the results and outputs of past and ongoing capacity assessment and building activities, by ensuring the involvement of a wide range of stakeholders in the NCSA implementation.

The NCSA will provide valuable strategic directions for the consolidation of environmental planning and management activities within the newly formed National Environment and Planning Agency. Specific objectives to be accomplished through the project implementation include:

- a) To identify, confirm and review priority issues for action within the thematic areas of Biodiversity, Climate Change and Desertification;
- b) To explore related capacity needs within and across the three thematic areas;
- c) To elaborate a national action plan that focuses on capacity building to address the global environmental commitments;
- d) To provide a solid basis for the preparation of requests for future external funding and assistance;
- e) To link country action to the broader national environmental management and sustainable development framework; and
- f) To monitor and evaluate the implementation of the action plan as part of a process of continuous improvement.

The project is expected to produce the following outputs:

- Build national capacity to take issues related to the three Conventions into account in general planning and strategy formulation;
- Find ways to coordinate and harmonize overlapping activities among the three Conventions and to help to ensure effective national measures to protect the global environment;
- Prepare a comprehensive national action plan focused on capacity building that will identify overall goals, specific objectives to be achieved, follow-up projects, and courses of action;
- Support the transition from this enabling activity to the actual implementation of identified follow up measures addressing loss in biodiversity, losses in soil fertility and climate change;
- Enhance general domestic awareness and knowledge about the three Conventions and their inter-relationship; and
- Strengthen dialogue, information exchange and cooperation among all relevant stakeholders including governmental, non-governmental, academic and private sectors.

#### 1.0 ROLE

The Project Monitoring Committee will in general provide technical guidance to the execution of the NCSA Action Plan over a twelve month period.

Specifically the Committee will:

- (i) Guide the work of the Project Assistant and Consultant(s) throughout the PDF A Project.
- (ii) Review and approve the work plan developed by the Consultant(s).
- (iii) Participate in the selection process and approve the appointment of the Consultant(s).
- (iv) Review, comment on and approve the reports generated from the project as required.
- (v) Monitor milestones and the timeliness of project deliverables.
- (vi) Ensure that extensive consultation with all relevant stakeholders (government and non-government) takes place during the development of the project proposal.
- (vii) Recommend persons/organizations to be involved in the consultative process.
- (viii) Act as resource persons to the Consultant(s).
- (ix) Review in a timely manner and approve the Project Proposal.
- (x) Ensure that priority actions identified in the NCSA Report and Action Plan are brought to the attention of local and national authorities for follow up.
- (xi) Monitor the implementation of the Action Plan.

## **ANNEX 2.**

### **TERMS OF REFERENCE PROJECT ASSISTANT**

#### **1.0 PURPOSE**

The purpose of the Terms of Reference is to set out the responsibilities of the Administrative Assistant over the twelve month period of the consultancy for Phase II of the National Capacity Self Assessment Project.

#### **2.0 BACKGROUND**

Jamaica has ratified the UN Conventions on Climate Change, Combating Desertification, and on Biological Diversity. The purpose of the National Capacity Self-Assessment Project (NCSA) is to provide Jamaica the opportunity to conduct a thorough self-assessment and analysis of national capacity needs, priorities and constraints with respect to its efforts at meeting global environmental management objectives. It will facilitate stakeholder consultation in a process of stocktaking, sequencing, identifying and prioritizing capacity needs.

The project is expected to produce the following outputs:

- Build national capacity to mainstream issues related to the three Conventions into general planning and strategy formulation;
- Find ways to coordinate and harmonize overlapping activities among the three Conventions and to help to ensure effective national measures to protect the global environment;
- Prepare a comprehensive national action plan focused on capacity building that will identify follow-up projects, overall goals, specific objectives to be achieved, and courses of action;
- Support the transition from this enabling activity to the implementation of identified follow up measures addressing loss in biodiversity, losses in soil fertility and the effects of climate change;
- Enhance general national awareness and knowledge about the three Conventions and their inter-relationship; and
- Strengthen dialogue, information exchange and cooperation among all relevant stakeholders including governmental, non-governmental, academic and private sectors.

#### **2.0 OBJECTIVES OF THE CONSULTING WORK**

The Project Management Unit (PMU) will be housed within the National Environment and Planning Agency, which will provide overall guidance to the execution of the project. The PMU will be staffed by a Project Manager (who will also serve as the Lead Consultant), an Environmental Specialist (Natural Resource Management Specialist), and an Administrative Assistant. The two technical members of the PMU will also

provide consulting expertise to the various activities and will be responsible for compiling the various consultants' reports and preparing the NCSA Report and Action Plan.

The Administrative Assistant will report to the Project Manager and support the work of the PMU.

#### **4.0 CHARACTERISTICS**

**Duration: Fifteen months full time**

**Qualifications:**

The candidate should be highly motivated and capable for working independently. Ability to work with a wide variety of people from governments, agencies and NGOs is highly desirable.

In addition the candidate should have:

- Administrative and typing (word processing) skills;
- Computer skills, especially pertaining to Power Point, Word, Excel and Microsoft Projects;
- Ability in liaising with relevant international institutions and organization;
- Good knowledge of English – both oral and written;
- Accounting and presentation skills would be an asset; and
- At least three years of experience in a similar position.

#### **5.0 TASKS**

The Project Assistant will support the efficient running of the PMU. Specifically, the Administrative Assistant will under the direction of the Director of Policy, Programs, and Projects Division of NEPA :

- (i) Organize the office work, and the scheduling of meetings and workshops and the contacting of all institutions/experts.
- (ii) Assist in the preparation for and follow-up to meetings and workshops.
- (iii) Assist the Director of Policy, Programs, and Projects Division of NEPA in the preparation of contract documents, reports and materials for workshops and meetings.
- (iv) Assist the Project Manager in liaising with the relevant international institutions and organizations, like UNDP/GEF, USAID, Climate Change Convention Secretariat, Biodiversity Convention Secretariat and Convention to Combat the Desertification Secretariat.
- (v) Assist in the management and preparation of the project accounts.
- (vi) Maintain records of all administrative UN/UNDP regulations, policies and procedures relevant to the project.
- (vii) Maintain files and accounting/financial reporting to the NEPA and the UNDP office.
- (viii) Record, prepare and distribute the minutes of the Monitoring Committee meetings.
- (ix) Perform any other duty, which may be assigned from time to time.

#### **ANNEX 3.**

##### **TERMS OF REFERENCE PROJECT CONSULTANT**

#### **1.0 PURPOSE**

The purpose of the Terms of Reference is to set out the responsibilities of the Consultant over the five month period of the consultancy for project.

## 2.0 BACKGROUND

Jamaica is currently completing the National Capacity Self-Assessment Project (NCSA) which has provided Jamaica with the opportunity to conduct a thorough self-assessment and analysis of national capacity needs, priorities and constraints with respect to its efforts at meeting global environmental management objectives.

Jamaica's National Capacity Self Assessment identified the issue of governance as a key area to be addressed in strengthening the institutional framework for effective implementation of the three Conventions. Some important findings were:

- lack of understanding by decision makers of the incorporation of sound environmental practices into the economic and development decision-making process;
- the need for economic evaluation of environmental resources as a tool for decision making;
- problems in the area of environmental legislation development and enforcement (including the area of environmental impact assessment);
- lack of coordinated policy development and weak implementation; and
- the need for a thorough assessment of the impact of the implementation and non-implementation of the various environmental policies..

The Government of Jamaica has a well-defined Environmental Impact Assessment (EIA) framework and process, in which the EIA methodology is applied primarily to specific actions or projects focusing on how the proposed action or project should take place, in order to minimize adverse environmental impacts. It is perhaps timely that the EIA process and procedures be examined for improvements in line with the principles of good governance.

In 2001, the Cabinet Office commissioned a review of the integration of environmental considerations into the GOJ decision-making machinery as a first step in developing guidelines for Strategic Environmental Assessment (SEA) of proposed government policies, plans and programmes (PPPs).

The implementation of this SEA policy is expected to fulfill the following goals:

- mainstreaming environmental considerations into the policy decision-making process of the government;
- assessment of the environmental impacts of all government PPPs; and
- more informed decisions in support of development that is environmentally sustainable.

SEA should be part of an open and accountable decision-making process within the GOJ. The draft SEA policy has just been completed. The challenge now is to develop the procedures to make it functional.

A few resource valuations have been conducted previously, for example, of the Montego Bay Marine Park. However, the tool still needs further refinement to meet the needs of the environmental management agencies and decision makers in Jamaica.

The Environmental Impact Assessment process and SEAs are two of the cross-cutting tools of relevance to the CBD, UNFCCC and the UNCCD. Effective use of these tools is a strong indicator of good governance in the area of environmental protection and sustainable use of natural resources. Additionally, economic evaluation is a valuable tool for decision makers. Jamaica's natural forests are an extremely valuable resource and no economic evaluations of this resource have been done. The will project will use these tools in the strengthening of the framework for good governance.

The Cockpit country is being proposed as the geographic area (protected area slated for bauxite mining) to be used in a pilot to develop these tools. The Cockpit country is a large area in western Jamaica known for its natural and cultural importance. Within Jamaica endemism is particularly high in the Cockpit Country. Its vegetation is the largest and most intact limestone forest in Jamaica. The watershed is an important source of water to the growing towns and communities on the north western coast of the island. It is also an area increasingly under threat by poor agricultural practices.

The project will offer a unique opportunity through the development these tools to address issues of importance to all three conventions as well as proving solutions to strengthen institutions and the governance framework; issues which were identified for priority areas for action in the NCSA.

The project will involve the various stakeholders, the development of procedures, training and lessons learnt which will be used as the basis of mainstreaming the findings at the end of the pilot.

The PDF A project will be managed during the monitoring phase of the NCSA project and will be implemented by the NEPA using the existing project management framework. The Ministry of Land and Environment and the Planning Institute of Jamaica has endorsed the project . Political oversight for the project will be provided through the Natural Resources Sub-Committee of the Cabinet of Jamaica. The Minister will report to Cabinet on the progress of the project and will guide the approval of the Action Plan through that body.

### **3.0 OBJECTIVES OF THE CONSULTING WORK**

- (v) Review the current EIA process and identify gaps particularly as it relates to a framework for effective governance.
- (vi) Review the GOJ's draft Strategic Environmental Assessment Policy with the view of identifying steps to its effective implementation.
- (vii) Review the use of resource valuation tools locally and internationally and make an assessment of strengths and weaknesses.
- (viii) Using the information from the review process develop a project proposal which will result in appropriate use of these tools resulting in strengthening of the governance framework and relevant institutions.

### **4.0 CHARACTERISTICS**

**Type of Consultancy:** Individual Consultant

**Duration:** five months

**Level of effort:** 20 days

#### **Qualifications:**

The candidate should be highly motivated and capable for working independently. Ability to work with a wide variety of people from governments, agencies, NGOs, and research institutions is essential. A good grasp of issues related to land degradation is essential.

In addition the consultant should possess:

- University degree in the environmental sciences at least to the Masters level;
- Experience in facilitation and stakeholder consultation;
- Experience in the preparation and technical review of national reports and relevant international and national documentation;
- Familiarity with relevant global conventions and agreements;
- Knowledge of the experts and institutions involved in capacity development in the relevant areas;

- Good working relations with both government and non-government entities;
- Strong communication skills (verbal and written); and
- Computer skills

## **5.0 TASKS**

The Consultant will, in consultation with the Project Steering Committee and the Director of Policy, Programs, and Projects Division of NEPA:

- 1.** Review current EIA process in order to determine where the country is now and to better define the activities required in the MSP.
- 2.** Review the GOJ's draft Strategic Environmental Assessment Policy in an effort to understand the requirements for its implementation and include in the project proposal steps which will help to operationalise the policy and prepare technocrats for its effective utilisation
- 3.** Review the use of resource valuation tools in an effort to learn from the experience of Jamaica to date, as well as other countries who have used valuation instruments in the decision making process. This should include a range of countries including developed, countries in transition, and developing countries. The review should examine the institutional policy and legislation framework, the consultative process and decision-making mechanisms.
- 4.** Develop Project proposal for a medium sized project for Jamaica that address Strengthening and Developing of Environmental Management Tools for Effective Governance and Institutional Strengthening in Jamaica in Response to Priority Areas of Action in the NCSA. The proposal development should be informed by the work done in 1 through 3.

## **6.0 EXPECTED OUTPUTS**

The consultant will be expected to:

- (i) Assist in facilitating any relevant workshops
- (ii) A list and copies of materials reviewed supplied to the PMU library.
- (iii) Develop a project proposal for NSCA MSP Expedited funding to address Strengthening and Developing of Environmental Management Tools for Effective Governance and Institutional Strengthening in Jamaica in Response to Priority Areas of Action in the NCSA.

