

TERMS OF REFERENCE
Consultancy for Preparation of Ecosystem Services Valuation within the
North East Coast Iyanola Region (NEC-IR)

1.0 BACKGROUND INFORMATION

1.1 Geographic area to be covered

The North-East Coast extending from Point du Cap in the North of the island to Mandele Point in Dennery, also referred to as the North- East Coast Iyanola Region (NEC-IR) of Saint Lucia is the project area and the focus of this Terms of Reference. The NEC-IR falls within the registration quarters of Gros Islet, Dennery and Castries and comprises twenty five (25) communities.

1.2 Contracting Authority

The Government of Saint Lucia acting herein and represented by the Department of Sustainable Development in the Ministry of Education, Innovation, Gender Relations and Sustainable Development (hereinafter referred to as the “Contracting Authority”), Norman Francis Building, Balata, Castries, Saint Lucia, West Indies.

1.3 Current State of Affairs along the North East Coast

Component 1 of the Iyanola Natural Resources Management of the North East Coast Project, seeks to facilitate deeper integration of an ecosystems approach into the national policy and legislative framework for development planning, with a primary focus on land use both (terrestrial and marine resources), using the NEC-IR as a platform. Under this Component, the project will facilitate capacity building for land use planning through enhancements to the policy and regulatory frameworks to consider and value ecosystem services and important biodiversity in future development planning processes. The primary tasks under this Component involve development of a framework to promote the integration of ecological considerations into planning policies, and regulations and guidelines for development categories, delivering through 3 output areas:

1. Review of the National Planning and Development Policies related to physical development
2. Development of a Land Use Plan for the NEC-IR, based on the valuation of ecosystem goods and services.
3. Through a process of “learning by doing”, enhanced capacity of national and local leaders to incorporate ecosystem services value considerations in planning and in decision making.

2.0 OBJECTIVES

2.1 Overall Objectives

The overall objective of this consultancy is to deliver an Ecosystems Services Valuation (ESV) of the natural resources within the NEC-IR. This ESV will establish biodiversity and ecosystem services information on the economic value of marine and terrestrial ecosystems. These should include mechanisms for assessing and valuing ecosystem performance, as well as documenting results to build on work at the national level. The Consultancy will also identify

mechanisms and measures to integrate the values of biodiversity into relevant national and local policies, programmes, planning processes and reporting systems, in a manner suited to national circumstances.

2.2 Specific Objectives

The specific objectives of this consultancy are to:

- i. Conduct an Ecosystem Services Valuation of the NEC-IR and develop scenarios for selected ecosystems in the marine and terrestrial regions.
- ii. Develop a Drivers, Pressure, State, Impact and Response (DPSIR) Monitoring Plan.

4.0 SCOPE OF SERVICES

4.1 General Services

This consultancy is expected to deliver an Ecosystem Services Valuation (ESV) for selected resources within the NEC-IR, using sound, science-based analysis as a pre-requisite for an effective economic valuation leading to the achievement of the project output C1.1.2. This ESV is expected to attribute a dollar value to the provisioning, regulating, supporting and cultural benefits to humans derived from communities of plants, animals and micro-organisms and their abiotic environment interacting as a functional unit within the NEC-IR. It is also expected to include traditional knowledge and other information necessary to inform policy, investment, and other practicable decisions.

The consultant is expected to focus on a range of tasks which involves, but is not limited to, the development of methodologies for the prioritisation and conduct of an ESV in the NEC-IR, as well as the proposal of policy options. This Consultant also requires engagement and collaboration with all relevant stakeholders (marine and terrestrial) and liaising with other Project Consultants to ensure that necessary outputs feed into and are informed by one another. Other Iyanola Project Consultants include those conducting the following assignments:

- a. Land Use Planning
- b. Planning and Development Policies with Options for Economic and Fiscal Instruments
- c. Biodiversity Livelihoods Market Research and Needs Assessments
- d. Public Awareness Strategy and means of Fostering Collaborations and Relationships, and
- e. Training Plan.

This Consultancy is expected to foster national capacity development and knowledge transfer through learning by doing and training. It will utilize internationally accepted, culturally appropriate, gender sensitive methods and approaches compatible with the national financial and economic analysis framework along with traditional knowledge.

Tools including InVEST (Integrated Evaluation of Ecosystem Services and Tradeoffs) and SWAT (Soil Water Assessment Tool) will be assessed for relevance and best practices outlined in the GEF funded Project for Ecosystem Services (ProEcoServ)

<http://www.proecoserv.org/> and GEF funded Land Use planning project in Mexico: <http://www.proyectomixteca.org.mx/> should be considered. All spatial data collected during this assignment must be guided by Attachment 1.

4.2 Scope of Services

Key Activities:

Task 1: Prepare Work Plan and Inception Meeting Report

- i. Conduct inception meetings with the Contracting Authority and partners upon commencement of the project to (i) review the process for conducting all activities within the project, (ii) determine roles and responsibilities, (iii) discuss the basis on which this work will be implemented, and (iv) finalize the work plan and timetable. A draft work plan and report on the outcome of the inception meeting will be prepared by the Consultant, and submitted to the client no later than two weeks from commencement of the consultancy
- ii. Comments in response by the the Contracting Authority and partners should reach the Consultant no later than ten days after receipt of the *Draft Inception Report and Work Plan*.
- iii. Submit Final Inception Report with comments included within 1 week of receipt of comments.

Task 2: Conduct an Ecosystem Services Valuation of the NEC/IR and develop scenarios for the relevant critical ecosystems.

Key activities:

1. Conduct a desk top review of inventories, assessments and other studies of ecosystem valuation for Saint Lucia and the Caribbean Region, in particular The Economics of Ecosystem Benefits (TEEB) studies for financial quantification of social, economic, cultural values of ecosystems goods and services of natural resources, ecosystems, and other biophysical attributes of the NEC-IR.
2. Develop national guidelines to more firmly establish the process for ESV.
3. Based on guidelines prepared in 2 above, conduct an ESV which should include, but not be limited to the following:
 - a. Conduct stakeholder consultations to map the resources of interest and sites of importance to them. These resources should include both fauna and flora within marine and terrestrial ecosystems.
 - b. Select appropriate assessment and economic valuation methods, using TEEB Studies or any other agreed initiative where possible, for financial quantification of social, economic, cultural value of ecosystems products/goods and services. Methods should be repeatable and replicable, so that follow-up valuations can be conducted to monitor social and economic changes in ecosystem values over time. Submit assessment and economic valuation report inclusive of detailed agreed upon methodology. Present scenarios for 4 ecosystems within the NEC-IR.
 - c. Assess the overall economic impact of different categories of biodiversity goods and services distributed among different stakeholders, giving consideration to wildlife of global significance,

- including but not limited to leatherback turtle, White Breasted Thrasher, Saint Lucia Nightjar and the Saint Lucia Iguana.
- d. Analyse the overall economic efficiency of various competing uses of the selected species and ecosystem services; including considerations for (i) bee keeping / apiculture, (ii) non-timber forest products, (iii) eco-agro tourism ventures; to provide an economic rationale for rehabilitation, management and conservation in the NEC-IR.
 - e. Prepare electronic database to store all data generated from this consultancy
 - f. Identify policy options and outline the pros and cons of each option, including distributional impacts at the national level. Based on pros and cons provide recommendations on the best policy options.
 - ii. Use spatial mapping where necessary to present data generated and to inform a land use plan.
 - iii. Collaborate with Public Awareness Consultant in the development and / or customisation of Ecosystem valuation awareness and education/training modules with particular focus on project partners and local community leaders.
 - iv. Prepare and submit draft and final reports on all findings and recommendations relating to the ecosystem services valuation exercise.

Task 3: Develop, or where necessary enhance the capacity of national and local leaders to undertake ecosystem services valuation as part of development planning and in decision making.

The outputs of this task will guide practical policy responses to the growing evidence of the impacts of ongoing losses of biodiversity and ecosystem services from critical ecosystems by providing a Total Economic Valuation (TEV) of critical ecosystems and important biodiversity in the NEC-IR. Key activities:

- i. Determine roles and functions of stakeholders; identify their capabilities and make recommendations, which should include programme and schedule for training to implement the policy proposals in ESV.
- ii. Develop guidelines that can be used as a tool for incorporating ecosystem services values as part of development planning and in decision making.
- iii. Conduct training workshop on ecosystem services valuation for relevant private and government agencies.
- iv. Submit corresponding report on activities undertaken in Task 3.

Task 4: Develop a Driver, Pressure, State and Response Monitoring Plan

Design a comprehensive Pressure State Response Monitoring Plan for the North East Dry Forests and selected wildlife indicator species, including, but not limited to leatherback turtle, White Breasted Thrasher, Saint Lucia Nightjar and the Saint Lucia Iguana. Key Activities:

- i. Compile baseline information for key indicator/critical species, as well as invasive alien species, carbon stocks and biodiversity friendly goods and services for use in the following 3 designated bio-livelihoods

- sectors: (1) agro-food (agricultural and agro-based), (2) nature-based tourism, and (3) non-timber forest products and apiculture.
- ii. Develop protocols for monitoring and assessing the economic value of species and ecosystems.
 - iii. Propose environmental and socio-economic indicators that can be used to measure the response of degraded ecosystems to management interventions. These indicators should show linkages to proposed future ecosystem services that will be available for targeted communities. They should be aligned with indicators established by regional and international agencies and institutions, including universities, non-governmental and community based organizations, and have relevance for local communities.
 - iv. Collaborate with relevant agencies to develop options for best management practices to reduce degradation and fragmentation of valued landscapes and ecosystems in the NEC/IR (forests, riparian zones, wetlands and agricultural lands).
 - v. Validate pressures on ecosystems particularly threats and conflicts, especially with respect to land use trends and patterns; including proposals for the North South Link Road and other proposed developments.
 - vi. Quantify financial resources required and develop funding plan for implementing a DPSIR Monitoring System.
 - vii. Submit the Pressure DPSIR Monitoring Plan

Task 5: Develop NEC-IR Research Agenda

Develop a prioritised research agenda for the NEC–IR based on data gaps and recommendations observed by Consultants along with technical information from project partners This agenda should, among other things, identify key areas for public awareness and sensitisation that will ensure communication of research objectives and outputs to a wider audience, facilitate setting of agreements with research partners, and engender local participation in research projects. Submit corresponding report.

Task 6: Closeout Report

The Consultant is required to submit to the contracting authority a Closeout Report. This report will be prepared to highlight the full gamut of work undertaken, noting the level of success and constraints in the methodologies used, the nature and quality of stakeholder participation, limitations in the scope of the consultations and meetings, any potential constraints which are anticipated in the deliverables effective application and any other lessons learnt during the process.

5.0 DELIVERABLES

The deliverables would be developed, presented and adopted based on the following:

Deliverables	Due Date after Contract Signing
<i>Task 1: Inception Report and Work Plan:</i>	
Draft Inception Report and a detailed Work Plan	2 weeks Comments in response, by Contracting Authority and partners, should reach the Consultant no later than ten (10) days after receipt of Report
Final Inception Report which will incorporate comments from Contracting Authority and relevant partners.	5 weeks
<i>TASK 2: Ecosystem Services Valuation and Scenarios</i>	
Submit report on national guidelines/standards for establishing the process for ESV	7 weeks
Submit assessment and valuation report including Sustainable Financing Options based on TEEB	14 weeks
Submit Scenarios for 4 Ecosystems	20 weeks
Submit electronic database	22 week
Submit draft and final reports for the ecosystem services valuation exercise	30 weeks
<i>Task 3: Develop / Enhance National Capacity</i>	
Prepare and submit guidelines for undertaking ecosystem services values considerations in development planning and in decision making.	33 weeks
Prepare and submit draft and final reports for training activities	39 weeks
<i>TASK 4: Develop a Draft Pressure State Response Monitoring Plan</i>	
Submit a pressure state response monitoring plan	47 weeks
Submit a funding plan for the monitoring plan	49 weeks
Submit Research Agenda	51 weeks
Task 6: Closeout Report	52 weeks

5.1 SUBMISSION

In submitting their proposal, the consultant must:

- Carefully review and comment on the Terms of Reference, recommending potential refinements where necessary, including making such recommendations as deemed appropriate to enhance the quality of the assignment and outputs/deliverables.
- Review all other documentation that may be relevant to this assignment paying close attention to UNEP-GEF guidelines on programming, in particular GEF tracking tools and standards for UNEP-GEF cooperation monitoring and evaluation.
- Submit a detailed methodology and work-plan including a time schedule, the name, professional status and biographic data of the professional key experts to be employed in this assignment.
- Proposals should be submitted in a sealed envelope marked **CONFIDENTIAL**. This outer envelope should contain two separate sealed envelopes; one containing the technical proposal and marked '**Technical Proposal**', the other containing the financial proposal and marked '**Financial Proposal**'. Both the Technical and

Financial Proposals must be signed. Submissions should be received by **12:00 noon on 15th March 2017**. Proposals should be clearly marked “Consultancy for Preparation of Ecosystem Services Valuation within the North East Coast Iyanola Region (NEC-IR)” and addressed to:

The Secretary
Central Tenders Board
Office of Director of Finance
Ministry of Finance, Economic Growth, Job Creation External Affairs and Public Service
2nd Floor, Finance Administrative Centre
Point Seraphine
CASTRIES, Saint Lucia.

- Further information required to assist in the submission of proposal, please contact Ms. Francillia Solomon at email francillia.solomon@govt.lc or cell phone (1 758) 520-0565.

6.0 TARGET GROUPS

Consultations shall be with, but not limited to:

- i. Land Owners
- ii. Developers
- iii. Development Control Authority (DCA), Saint Lucia
- iv. Actors in value chain for identified biodiversity livelihoods/business: Producers and Producer Associations; processors, suppliers, marketers, financial intermediaries
- v. Agri and Eco Tourism Ventures
- vi. Environmental resource users (Fishermen, agri-producers, tourists)
- vii. Local communities & groups (e.g. Grand Anse Sea Turtle and Nature Defenders, Babonneau Youth Synergy)
- viii. Collaborating Project Partners: Department of Agriculture, Fisheries; Department of Tourism, Economic Planning
- ix. Private Sector
- x. CBO's and NGO's
- xi. Policy makers

7.0 PROJECT MANAGEMENT

7.1 Responsible Body

The Contracting Authority is the Department of Sustainable Development in the Ministry of Education, Innovation, Gender Relations and Sustainable Development. The Research and Policy Division of the Ministry of Ministry of Finance, Economic Growth, Job Creation, External Affairs and the Public Service, will be hosting the Consultant and Key Experts. The Departments with responsibility for Forestry, Physical Planning and Tourism will provide other requisite technical support.

7.2 Management Structure

The contract will be between the Ministry of Education, Innovation, Gender Relations and Sustainable Development (Department of Sustainable Development) and the Consultant. The Consultant shall be supervised by and report to the Director of Economic Research and Planning in the Ministry of Finance. The National Iyanola Project Coordinator through the Iyanola Project Steering Committee will be responsible for endorsing all deliverables under this contract. Payments will be facilitated by the National Iyanola Project Coordinator.

Changes in the TORs may be made only in accordance with needs and subject to mutual written agreement between the Consultant and the Department of Sustainable Development through the National Iyanola Project Coordinator.

8.0 LOGISTICS AND TIMING

8.1 Commencement date & Period of implementation

The commencement date will be the day of the signing of the contract and implementation will be over a twelve (12) month period, to facilitate the integration of outputs from other inter-linked consultancies for Land Use Plan, Development of Planning and Policies and Sustainable Bio-Livelihoods.

9.0 REQUIREMENTS

9.1 Personnel

All personnel should have:

- i. Excellent command of written and spoken English.
- ii. Familiarity with the local language, Kweyol.
- iii. Sound knowledge and wide experience in the development and use of participatory approaches in natural resources management.
- iv. Knowledge of and experience in the Caribbean region and at least five (5) years work experience in the Caribbean Region.
- v. Knowledge and experience of the UNEP-GEF guidelines and standards, and/or its associated Conventions would be an asset.
- vi. Experience in developing strategies and initiatives utilizing field work and research work to respond to environmental and natural resources management challenges
- vii. Working knowledge of Microsoft Office including Word, Excel, PowerPoint and relevant software.

9.2 Key experts

9.2.1 Key Expert 1: Economist/Team Leader

The ideal candidate(s) should possess the following qualifications and experience:

- i. A Master's degree or higher in Economics, Finance, or Financial Management.
- ii. At least eight (8) years relevant work experience in development economics and/or finance with proven ability to design projects in

- environmental economics, ecosystems valuation and cooperation for development at the international level.
- iii. Experience in ecosystem services valuation in small island states.
- iv. Strong analytical skills, initiative, and demonstrated problem – solving skills.
- v. Sound time-management and prioritization skills.
- vi. Familiarity with sources of funding for projects related to biodiversity and the environment in the Caribbean is desirable.
- vii. Particular experience in land management and development planning issues in SIDS.
- viii. Experienced in team leadership and coordination.

9.2.2 Environmental Accounting/Ecosystems Valuation Services Specialist

- i. Master's Degree level in Environmental Management, Natural Resources Management or other relevant field.
- ii. At least 5 years work experience in data and statistical analysis in the design and implement environmental and natural resource accounting systems for small island developing states.
- iii. Demonstrated experience in ecosystem services valuation in small island states with in-depth knowledge of UNEP's TEEB for business approach.
- iv. Familiarity with monitoring and evaluation for projects related to biodiversity and the environment in the Caribbean.
- v. Knowledge and experience in undertaking cost benefit/damage and loss for restoration analysis.
- vi. Experience or knowledge of IUCN Red List Assessment.
- vii. Solid knowledge on land management and development planning issues.

9.2.3 Other Required Skills:

- i. Statistical Analysis
- ii. Marine Biologist
- iii. Botanist
- iv. Mapping and GIS Skills
- v. Training and Capacity Development

The Consultant shall be required to provide the curriculum vitae for all experts referred to in the consultancy as part of their tender.

9.3 Working Arrangement and Logistics

The Contracting authority will:

- i. Ensure timely review of reports submitted by the consultant and facilitate the provision of feedback within two weeks of receipt of reports.
- ii. Initiate the consultation and co-operation of other agencies and consultants required to provide support to the consultant for realization of the relevant aspects of the assignment.
- iii. Provide office accommodation for the consultant.
- iv. Provide access to relevant existing information

The Consultant will:

- i. Execute the duties and tasks outlined in Section 4 above with due diligence and efficiency and in accordance with the highest standards of professional competence, ethics and integrity.
- ii. Be responsible for the collection and analysis of all data and information to assist in the timely completion of the assignment.
- iii. Submit reports and plans within the stipulated timeframes stated in the Terms of Reference for review by the Client.
- iv. Be responsible for the provision of software, equipment, materials and transportation required to undertake the consultancy.
- v. Execute the services in accordance with the laws, customs and practices in Saint Lucia and use the appropriate international/regional standards for preparation of technical information.

9.4 Equipment Purchase

No equipment is to be purchased by the Consultant on behalf of, or transferred to the Contracting Authority as part of this consultancy. Any equipment acquired by the Consultant for use in this consultancy shall not be charged to the Contracting Authority.

9.5 Provision of Facilities

The Research and Policy Division of the, the Ministry of Finance, Economic Growth, Job Creation, External Affairs and the Public Service–will facilitate accommodation for the Consultant/key experts and shall ensure that the key experts are adequately supported for the execution of the consultancy.

Additionally, the Consultant shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to fulfil all of their responsibilities under this assignment.

Attachment 1 – Terms of Geospatial Data Delivery and Sharing

Attachment 1

Terms of Geospatial Data Delivery and Sharing

Freely accessible data and analysis is a core component of this project. Therefore, all geospatial data collected and created by project activities must be preserved, consolidated and transferred to the Government of Saint Lucia upon project completion, in a well-known or standard electronic format. Specifically the following terms apply:

Licensing: All data procured and developed for this project is done on behalf of the Government of Saint and therefore all licensing agreements must be made similarly. In keeping with the World Bank commitment to open data, it is recommended that this

license be under Creative Commons CC-BY-SA where possible and appropriate. See: <http://creativecommons.org/licenses/by-sa/2.0/> for more detail.

Vector data: Geospatial vector data must be converted into a standard OGC format or well-known format and must be compatible to Saint Lucia's existing data format, geo-referenced with each theme on a different layer. This list includes, but is not limited to, shape file format. Additional formats may be delivered with prior approval and in consultation with the Ministry of Physical Development, Housing and Urban Renewal (MPDHU). All files must include projection parameters and must be done to Saint Lucia 1955 British West Indies Grid and WGS84 in consultation with the Survey and Mapping Unit, MPDHU. Vector data must adhere to topological standards.

All CAD files should be in AutoCAD DWG format, the version of the file format shall be discussed and decided with the MPDHU

Raster data: Geospatial raster data must be converted into a standard OGC or well-known format and must be geo-referenced and compatible to Saint Lucia's existing data format. Data formats include, but is not limited to, GeoTiff format. Additional formats may be delivered with prior approval. All files must include projection parameters and must be done to Saint Lucia 1955 British West Indies Grid and WGS84 in consultation with the Survey and Mapping Unit, MPDHU.

Tabular data: Tabular data must be converted into a readily accessible or well-known format. This list includes, but is not limited to, CSV, tab delimited text file, or spreadsheet. Additional formats may be delivered with prior approval.

Media/method of transfer: All data sets must be transferred on media such as a CD/DVD, hard drive or solid-state drive, as agreed by the Government of Saint Lucia.

Metadata: Detailed documentation needs to be provided for each data set. This metadata must include description, source, and contact, spatial and attribute keywords, date, accuracy, restrictions. A description of attributes should be provided for vector and tabular data sets. Spatial data must include details of projection. Metadata should conform to ISO Metadata standards and consistent with standards used with ESRI software such as ARCGIS. Ministry of Physical Development, Housing and Urban Renewal must be consulted to maintain consistency in map scales, resolution and projection in Saint Lucia's context.

Derived data: All derived data generated for this project belongs to the Government of Saint Lucia and must be transferred under these terms.

Periodic updates: Ongoing updates of this data during the project made by the selected consultant must be provided as they are created.

Disposal of data: The selected firm is free to maintain copies of data collected and developed in this project, without conflicting the terms of any license agreements. Ownership remains with, and must be stated as, the Government of Saint Lucia. Further data sharing is only permissible with approval of the Government of Saint Lucia and only if the data is made available free of cost.