TERMS OF REFERENCE

Project Title: Supporting Sustainable Ecosystem by Strengthening the Effectiveness of Dominica's Protected Area System

Duration:	12 months
Organization:	Ministry of Environment, Climate Resilience, Disaster Management and Urban Renewal

Background

Dominica has a relatively high concentration of endemism and is vulnerable to biodiversity loss due to catastrophic events and long term human induced habitat changes or climate change. The high plant diversity consists of approximately 155 families, 672 genera and 1226 species of vascular plants. The number of indigenous species include *Pteridophytes* (194), *Gymnosperms* (1), *Monocotyledons* (518) and *Dicotyledons* (1,445). Eighty-one (81) plant species are IUCN listed with one (1) Critically Endangered (Small-leaved Mahogany *Phycolepidozia exigua*), four (4) Endangered (Bois Doux Avocat, Commoner Lignumvitae, Small-leaved Mahogany, Pouteria pallid), six (6) Vulnerable (Contrevent *Pouteria semecarpifolia*, Large-leaved Mahogany *Swietenia macrophylla*, Spanish Cedar *Cedrela odorata, Freziera cordata, Inga dominicensis, Magnolia dodecapetala*) and one (1) near-threatened (Big Pine Key Prickly-pear *Opuntia triacantha*) (IUCN 2013).

IUCN lists eleven (11) bats species from six (6) families native to Dominica. A total of 208 species of birds have been recorded for Dominica, of which about 66% are neotropical migrants and 34% are resident species.

Current knowledge of Dominica's biodiversity lacks accuracy given the fact that documented inventories are dated and that over the last decade there has been several catastrophic weather events that negatively impacted the island's biodiversity in a significant way. This consultancy service under the captioned project will address these issues according to Activity 1.1 of the project document.

Activity Description[1]

Biodiversity assessment, monitoring and conservation. Carry out biodiversity assessment, develop and implement priority conservation and monitoring programmes for the Morne Trois Pitons National Park (MTPNP) and immediate surroundings. Create baseline from which to assess and monitor threats and manage biodiversity and ecosystem services within the MTPNP and its buffer zone. Biodiversity assessment will extend to other terrestrial PA sites so as inform PA system planning, including connectivity and priority sites for management intervention. Conservation and management programmes will be developed and implemented for key biodiversity and ecosystems identified and known, including for endangered species and key ecosystem services (i.e. threatened watershed). Database and terrestrial habitat maps will be developed, along with ongoing monitoring programmes. Management and control programmes will be initiated or supported for invasive species and pathogens. Outputs of assessment will

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[1] As per project document

help with zonation within the core zone (resource management zones) to be included in the management plan. Training of existing staff at the Forestry, Wildlife and Parks Division to carry out assessments and monitoring will be an integral part of this activity. Specific biodiversity conservation programmes will also be supported. The biodiversity assessment, monitoring and conservation activities include;

- Biodiversity assessment of vegetation, birds, invertebrates (incl. butterflies), herpetofauna, and threatened species.

- Support to conservation efforts for the following species, noting that additional specific programmes may be identified through outputs of the biodiversity assessment:

  1. *Amazona arausiaca* (dispersal/habitat connectivity issues, population census, foraging and phonological data);

  2. *Amazona imperialis* (breeding biology, population status, foraging and phonological data);

  3. Mountain Chicken *Leptodactylus fallax*;

  4. Forest Thrush *Turdus lherminieri* (population census)*,*

  5. Laurier de rose species *Phoebe elongata* Lòwyé di-wòz (status),

  6. Black capped Petrel *Pterodroma hasitata* (population status/verify possible accounts), and Puerto Rican Crested Anole (population census).

- Identification of threats, including current and potential climate change impacts on biodiversity and ecosystem functioning, (including rainfall, watershed, forest structure and composition) hunting impacts and monitoring plan. Assessment, monitoring and management plans for introduced and invasive species (lemongrass, tilapia in freshwater lakes), and pathogens (chytridiomycosis).

The project will coordinate with the World Bank Regional Disaster Vulnerability Reduction Project (RDVRP) which is carrying out a forest inventory, soil and hydrometeorological studies and monitoring.

Scope of Work

The consulting firm will:
- Become familiar with the project document and other relevant documents such as Dominica NBSAP 2014-2020, the 6th National Report to the Convention on Biological Diversity, PA Forestry Training manual, the draft MTNP Plan and Buffer Zone Report

- Conduct a literature review to determine what data exist, where the data gaps are, and what monitoring structures exist.

- Develop training curriculum to engage and train 20 relevant staff (Forestry, Wildlife and National Parks Division) in applying the monitoring assessment plan and train these staff to actively undertake silviculture, fauna and ecological assessments.

- Conduct a biodiversity assessment (surveys) of flora and fauna (biological) within the MTPNP, to include indigenous, invasive and threatened species using the IUCN scale ; the assessment should also identify existing conservation efforts, and environmental and social threats (such as

climate change and hunting); and physical assessment (topography of soils) and socio-cultural assessment (land use, demographics). Engage the 20 trained persons in the Forestry Division in conducting the biodiversity assessment (silviculture, fauna and flora assessments)

- Establish a baseline from which to conduct long-term assessment and monitoring; include METT baseline score. The team should also liaise with the Disaster Vulnerability Reduction Project (DVRP) on their work on forestry inventory, soil and hydrometeorological studies.

- Identify threats to biodiversity (species listed above) and determine appropriate mitigation responses. Develop guidelines and restrictions on productive activities within PA boundaries.

- Design a national terrestrial biodiversity assessment strategy and a monitoring plan for the MTNP. This strategy and monitoring plan should provide guidance at the national level for future planning and monitoring of the MTNP as well as a strategy for reducing threats to biodiversity within and outside the PA

- Based on findings of the terrestrial biodiversity assessment, develop a conservation and management plan for the MTPNP that will support key ecosystem services.

- Work with the project's GIS consultant to develop a geospatial database for terrestrial habitat maps and mark zones of interest – biodiversity hotspots. Jointly develop metadata standards to guide future mapping and data collection.

- Deliver a comprehensive final report of the assignment: final terrestrial biodiversity assessment and monitoring plan incorporating feedback from relevant stakeholders, electronic copies of all plans, reports, strategies, maps, database and metadata.

Delivery and Payment Schedule:

Outputs	Percentage	Due date
Inception meetings, report and work plan	10%	2 weeks after contract signature
Literature review	10%	4 weeks after contract signature
Stakeholder/client training report	10%	12 weeks after contract signature
Terrestrial Habitat maps of the MTPNP and a database	25%	32 weeks after contract signature
Draft Terrestrial Biodiversity Assessment and Monitoring Plan	15%	40 weeks after contract signature
Comprehensive surveys of the physical, biological and socio-cultural environment	20%	46 weeks after contract signature
Final Terrestrial Biodiversity and monitoring plan incorporating feedback from stakeholders	10%	50 weeks after contract signature

Payment will be remitted within thirty (30) days from the date of meeting the following conditions:

1. UNDP's written acceptance (i.e. not mere receipt) of the quality of the outputs; and
2. Receipt of invoice from the Service Provider.

<u>Qualifications & Experience</u>

Key Experts:

Team Leader and Conservation Specialist

Academic Qualification

- Advanced university degree (MSc or equivalent or higher) in biodiversity conservation, ecology, environmental management or related discipline.

Experience:
- At least 10 years of work experience in natural resource management, environmental management or forest management
- Experience in biodiversity and habitat conservation
- Experience in conducting population census for biodiversity *in situ*
- Demonstrated technical ability to communicate complex ideas verbally and in writing, such as published papers, reports or studies
- Knowledge of Dominica's biodiversity and the physical landscape
- Demonstrated experience leading field research teams

Skills:
- Proven ability to provide technical guidance to a wide range of stakeholders to achieve stated project objectives
- Strong data management, reporting and analytical skills
- Excellent interpersonal skills
- Ability to meet deadlines and prioritize multiple tasks
- Proficiency in computer software applications such as Microsoft Word, Excel, Microsoft Access

Language Requirements:
- Excellent command of English, both written and oral is required. Knowledge of French creole would be an asset.

Other Experts:

	Biodiversity Assessment Expert – Flora	**Biodiversity Assessment Expert – Fauna**
Academic qualifications	• Advanced university degree (MSc or equivalent) in plant ecology, botany or related field	• Advanced university degree (MSc or equivalent) in conservation biology, animal ecology, zoology or related field
Experience	• 5 years of professional experience • Demonstrated experience in undertaking similar assignments with	• 5 years of professional experience • Demonstrated experience in undertaking similar assignments with

	description of specific role • Experience in the Caribbean is highly desirable	description of specific role • Experience in the Caribbean is highly desirable
Skills	• Strong technical report writing, data acquisition and analysis skills; • High proficiency with Microsoft Office, word processing, database management, and spreadsheet software programmes; • Excellent interpersonal and communication skills; • Excellent command of written and oral English is required; and • Ability to meet deadlines and prioritise multiple tasks. Language: Excellent command of English, both written and oral is required. Knowledge of French Creole would be an asset.	