



Rationalization Exercise of the Belize National Protected Areas System

End of Project Report

Wildtracks, March, 2013

PREFACE

Belize should be proud of its National Protected Areas System (NPAS) – it provides the critical ecosystem services of water catchment, is representative of the majority of the ecosystems present in the country, and actively support livelihoods in both the marine and terrestrial environments. There is, however, only a limited awareness at all levels of society of the importance of the NPAS and the role it plays in maintaining health and social well being, in protecting life and property and providing economic opportunities.

This report summarizes the major recommendations towards strengthening the national protected areas system, the successes and barriers to the effective implementation of the consultancy, and lessons learned and recommendations for improving future similar consultancies.

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1.0 The Work Plan

The consultancy was guided by a work plan, approved by the Project Management Unit, and detailed the specific objectives and outputs.

1.1 Overview

In line with the Terms of Reference, the objective of this consultancy will be to develop recommendations for ensuring a well-designed and comprehensively validated Protected Areas System in Belize, for the **Ministry of Natural Resource and Environment**. This is to be achieved within the framework of the Project Strengthening National Capacities for the Operationalization, Consolidation, and Sustainability of Belize’s Protected Areas System Project” (PIMS4207) as per the Project Document 00074617 and the Standard Basic Agreement (SBAA) between Belize and the United Nations Development Programme (UNDP) and **Paul Walker/Wildtracks**.

1.2 Specific Objectives

In line with the Terms of Reference, the objectives of this consultancy are to conduct a rationalizing exercise of the National Protected Areas System within the scope of a larger project focused on strengthening national capacities for the operationalization, consolidation, and sustainability of Belize’s Protected Areas System. This is one component of several that, together, aim to ensure that Belize effectively develops legal, financial, and institutional capacities to help ensure the sustainability of the existing National Protected Areas System.

The objectives of this consultancy are to achieve the following:

- a. Verify the elements of the existing protected areas network with the main focus being on ecosystem representation and interconnectivity of the various protected areas that comprise the NPAS with a view to consolidating the overall system, simplifying and ensuring that the overall system is comprehensive

Ecosystem Representation

- Review of gap analysis
- Identification of critical gaps / redundancies
- Implications of climate change
- Identification of socio-political implications of any recommended alteration to the pa system
- Potential for area trade-offs
- Identification of critical ppas in maintaining / creating ecosystem representation

Connectivity

- Identification of critical corridors / gaps in connectivity
 - Land tenure within corridors
 - Identification of socio-political implications of maintaining/creating critical connectivity
 - Potential area trade-offs
 - Identification of critical ppas in maintaining/creating critical connectivity
- b. Verify the recommendations of the National Protected Areas System Plan as it pertains to the establishment of an effective administrative structure for the NPAS.

Administrative Structure

- Review of current administrative strengths and weaknesses
- Review of NPAPSP recommendations for an effective administrative structure
- Review of outputs of system level planning and recommendations for administration
- Identification of requirements for an effective administrative structure
- Consult with current administrative bodies and parallel planning consultants
- Develop recommendations for meeting requirements for an effective administrative structure

1.3 Guiding Principles

The implementation of the Work Plan will be guided by the following principles:

Integrity: To value and conserve the biodiversity and environmental services of the protected areas system in Belize and the commitment Belize has to the Convention on Biological Diversity

Benefit: To recognize the need for local stakeholder benefit (socio-economic opportunities and environmental services) and integrate this into the planning exercise

Participation: To ensure full participation from key stakeholders at local and national level in the development of the outputs

Science: The rationalization process will be based on the best scientific information available and integrate the most reliable climate change models

Long Term Vision: The process will be based on the commitment to effectively conserve the natural resource values of Belize in perpetuity, facilitating national socio-economic development, and taking into account the predicted impacts of climate change

Realistic: The recommended strategies developed during the planning process will be based on the present situation in Belize, and be viable within the next ten years

1.4 Outputs

1.4.1 Specific Outputs

The final delivery of this exercise will be a main report outlining specific recommendations for ensuring that:

- the various ecosystems in Belize are adequately represented in the NPAS and under the most appropriate category of Protected Area,
- the NPAS is consolidated, simplified and comprehensive,
- the NPAS benefits from an appropriate administrative structure.

Other deliverables shall include:

- a. An Inception Report, inclusive of this Work Plan and guiding principles at the start of the contract period.
- b. A report outlining the main findings from the analysis and feedback from consultations with relevant stakeholders.
- c. A PowerPoint presentation with the most relevant results generated by the rationalization process.

1.4.2 Anticipated Outcomes

- The outputs will provide recommendations to guide the consolidation of the National Protected Areas Network into an effective unit, with adequate representation of ecosystems and biodiversity, protection of key biodiversity areas, and maintenance of connectivity

- The outputs will provide recommendations to guide the establishment of an effective administrative structure for the National Protected Areas System

1.5 Implementation and Timeframe

1.5.1 Methods

The consulting team will be working closely with the Project Management Unit, personnel from government lines ministries, protected areas management organizations, the consultant preparing the National Protected Areas System Act, as well as other stakeholders.

The following tasks will be executed to achieve the objectives of this consultancy:

Task 1: Initial Meeting

- Attend an initial meeting with the PMU and representatives from the Forest Department and Fisheries Department and based on the discussion prepare the final Work Plan for the delivery of the contracted work.

Task 2: Literature Review

- Review existing studies, reports and other documents, including but not limited to the National Protected Areas System Plan (along with relevant appendices), State of Belize's Protected Areas 2010, the Technical Report on Belize's Aquatic Ecosystems and the 4th National Report on the United Nations Convention on Biodiversity.
- Review relevant legislations governing the management of protected areas in Belize, in particular the National Parks System Act (NPSA); the Forests Act, Forest Rules and associated regulations, the Fisheries Act, associated regulations and draft revision, the National Lands Act and the Land Utilization Act, the Private Forests (Conservation) Act, the Ancient Monuments and Antiquities Act, the draft National Protected Areas Co-management Framework, and draft proposed amendments to the National Parks System Act developed by the Association of Protected Areas Management Organization (APAMO) and the Belize Association of Private Protected Areas (BAPPA).

Task 3: Analysis

- Undertake an analysis of the existing ecosystems in Belize (with a review of past reports on biodiversity values, key biodiversity areas, baseline assessments and management effectiveness, impacts and interconnectivity using maps, satellite imagery, and ground truthing where necessary, with validation of results from previous studies to assess current applicability) to determine:

- i. Gaps in the present National Protected Areas System that must be filled for an adequate percentage of the various ecosystems to be under protection and to ensure connectivity (this should include critical Private Protected Areas).
- ii. If the existing protected areas are of the appropriate category to ensure protection of the ecosystems.
- iii. Specific areas where protected areas could be amalgamated for the system to be consolidated and simplified and potential socio-political conflicts arising from recommended consolidation.
- iv. The most appropriate administrative structure for the management of the National Protected Areas System to ensure its sustainability.

Task 4: Conduct Consultations

- Consult with relevant stakeholders on the important findings and conclusions towards the strengthening of the NPAS.
- Liaise with other relevant ongoing consultancies, including the consultancy for the preparation of the National Land Use Policy and the consultancy for the preparation of Protected Areas Legislation for Belize.

Task 5: Recommendation for making the NPAS more comprehensive

Based on Tasks 3 and 4 above the consulting team will provide recommendations on modifications, in terms of representation, categorization, designation/re-designation, and administrative structure that are required for the system to be sustainable (these recommendations will take into consideration factors such as climate change mitigation, and will focus on management of areas for the use that they are best suited for). These recommendations will contain concrete design of the actual makeup of the full system.

Task 6: Prepare and submit to the Project Manager a final report

- The consulting team will prepare and submit to the project manager a final report, including a final version of the document produced in Task 5, to include a section outlining any lessons learned and recommendations for improving future similar consultancies.

2.0 Project Implementation

2.1 Consultation

Stakeholder consultations were considered critical to the success of the consultancy and a series of preliminary consultations were held with protected area agencies and key stakeholders:

- NPAS PMU
- Fisheries Department
- Forest Department
- Minister Alamilla, Chief Forest Officer (Forest Department) and Fisheries Administrator (Fisheries Department)
- PACT
- APAMO
- Dr. Parham, CEO, Ministry of Forestry, Fisheries and Sustainable Development
- Belize Audubon Society
- Osmany Salas

..to guide the consultancy. Input was also sought from the Institute of Archaeology and Ministry of Tourism, through their representatives on the NPAS PMU.

Many stakeholders expressed significant meeting fatigue, with a number of NPASP consultancies on-going at the same time. A series of workbooks were therefore developed on the three primary topics (Protected Area Prioritization (Marine and Terrestrial), Administration Structure and Connectivity) to provide stakeholders with the opportunity to provide their input, without them being required to travel to and participate in more workshops.

2.1.1 Protected Area Prioritization

Two workbooks were produced, one for the marine environment, and one for the terrestrial. Each was developed with input from relevant stakeholders. Where feasible, indicators were aligned with NPAPSP outputs (NPAPSP, 2005), and the biodiversity component of the management effectiveness assessment (Walker and Walker, 2011). The gap analysis components were based on the revised Belize Ecosystem mapping (Meerman, 2011). The Terrestrial Prioritization was based on a series of fifteen criteria, allocated to four categories:

1.0 Environmental Values

- 1.1 Watershed Catchment and Protection
- 1.2 Wetland Flood Sink Function
- 1.3 Coastal / River Bank Protection
- 1.4 Steep Slope Erosion Control

1.5 Tourism / Recreational / Cultural Values

2.0 Biodiversity Status

2.1 Global Recognition for Biodiversity Values

2.2 Value for Threatened Species of Ecosystems of Limited Extent

3.0 Extraction Use

3.1 Value for Commercial Extractive Use (timber / non-timber forest products)

3.2 Value for Non-Renewable Resource Extraction - minerals

3.3 Value for Non-Renewable Resource Extraction – petroleum

3.4 Importance for Water Security

3.5 Value for Hydro-electricity Generation

3.6 Traditional Resource Use Dependence

4.0 Key Resilience Features

4.1 Forest Connectivity

4.2 Altitudinal / Lateral Connectivity

The workbooks were ‘test-driven’ by two protected area managers, and reviewed by the Forest Department, before being distributed to managers of 18 protected areas from all management categories (including private protected areas) for review of the designated prioritization scores per criteria. This allowed a rigorous assessment of the prioritization process, with protected area managers showing over 90% agreement with the scores allocated. This was considered adequate for validation of the prioritization scores being allocated. The final scores were then reviewed and revised where necessary by four members of the Forest Department Protected Areas Management Programme, providing validation to the prioritization criteria of terrestrial protected areas.

A similar process was used for the Marine Protected Areas. Significant assistance was provided by the marine specialist of the Nature Conservancy in the development of the indicators, which were then reviewed and approved by the Ecosystems Management Unit of the Fisheries Department.

The validation workbook covers the marine protected areas of Belize, their relative values in terms of extractive use, ecosystem services and resilience to climate change. Where feasible, indicators were aligned with) the biodiversity component of the management effectiveness assessment (Walker and Walker, 2011) and the Healthy Reefs Initiative.

Fifteen criteria were used to guide prioritization of the marine protected areas system, allocated to five categories:

1.0 Fisheries Management

- 1.1 Commercial Value
- 1.2 Artisanal / Subsistence Value
- 1.3 Presence of Protected Spawning Aggregation Site(s)
- 1.4 Nursery Value for Conch and Lobster

2.0 Connectivity

- 2.1 Ecosystem Connectivity
- 2.2 Watershed to Reef Connectivity
- 2.3 Protected Area to Protected Area Connectivity

3.0 Key Resilience Features

- 3.1 Reef Diversity
- 3.2 Reef Health – SIRHI / IRHI Average
- 3.3 Reef Health - SIRHI / IRHI Highest

4.0 Biodiversity Status

- 4.1 Ecosystem Status
- 4.2 International Species of Concern
- 4.3 National Species of Concern

5.0 Other Ecosystem Values

- 5.1 Storm Surge Protection
- 5.2 Recreational / Tourism Values

Barriers / Opportunities / Lessons Learnt

- Meeting fatigue during the consultancy period was a major barrier to buy-in and attendance at meetings
- It was considered important that the gap analysis outputs feeding into the ecosystem and connectivity criteria were based on the revised Belize ecosystem map, as this would have increased accuracy. There were some delays in waiting for these outputs, but the outputs are considerably stronger for the delay.
- Several parallel processes also fed into the prioritization exercise – the Integrated Coastal Zone Planning, the Sustainable Tourism Planning, the Land Use Planning initiative, the prioritization of protected areas by the Petroleum Department, and Belize Association of Private Protected Areas scoring system.

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- The workbooks worked very effectively as a mechanism for stakeholder input. The design – having an annex to each that explained in depth the reasons behind each indicator, and the criteria used to score each – was very successful in ensuring protected area managers could navigate through the workbook and understand the prioritization scores.
- Of the eighteen protected areas reviewed through the stakeholder workbooks, only one was not completed. The majority were returned, completed, during the two week window requested. The remaining outstanding workbooks were completed before the finalization of the prioritization scores.
- The workbooks included a preliminary prioritization score per protected area, reducing the time each protected area manager had to put into the process.
- The score books also requested a written reason for any alterations protected area managers may want to make to scores, to enable assessment of whether the reasons were valid.
- The final review meetings with the Forest Department and Fisheries Department protected areas staff ensured an in-depth review, assessment and validation of all prioritization scores, with only a limited number of alterations requested.
- The outputs are considered valid, in terms of biodiversity protection, socio-economic benefits, and environmental services.
- The scale of the consultancy was such that an individual report on the individual results of each criteria was not produced, as it was not requested. However, the results do enable protected areas to be ranked on their values per criteria – whether these may be watershed protection, nursery functionality. We would hope that the Forest and Fisheries Departments do use these results in the future to inform decisions by the Department of the Environment, Petroleum Department, in land use and coastal zone planning etc.

Workbooks were used equally successfully to provide stakeholder input for issues of connectivity and administrative structure

Ten stakeholder presentations were given during the process, including an initial introduction to the Rationalization process at the Forest Department Co-management Annual Meeting, and a final stakeholder workshop for review and validation of the outputs. All meetings / presentations were well attended, and provided a forum for constructive inputs.

3.0 Key Outputs

3.1 Ecosystem and Species Representation

For each of the following key outputs:

- Identification of critical gaps / redundancies
- Implications of climate change
- Identification of socio-political implications of any recommended alteration to the protected areas system
- Potential for area trade-offs
- Identification of critical private protected areas in maintaining / creating ecosystem representation

The report identified priority recommendations, with justifications, and identified barriers and opportunities for achieving the desired outcomes.

Barriers / Opportunities / Lessons Learnt

- Whilst the national ecosystem mapping (Meerman et al, 2004) is becoming increasingly accurate, and has provided an excellent baseline for re-evaluation of the gap analysis and connectivity, information on species specific distributions is less easy to obtain.
- Despite this, initiatives such as the Key Biodiversity Area outputs (Meerman, 2008) and assessment of Upper Elevation Amphibians project (Walker), and the species specific information provided by protected area managers for the 2011 Management Effectiveness Assessment (Walker and Walker, 2011) provided some details on critically endangered and endangered species on which to base species representation recommendations. Protected area management plans were also reviewed for species information
- One of the barriers identified is the limited species recognition and information, even by protected area managers. This is being addressed to some extent by the management plans currently being produced, which require species-specific information on the protected areas.
- A definite barrier to buy-in for implementation of the recommendations is the limited recognition of the value and importance of the National Protected Areas System at the national level.

3.2 Rationalizations of the National Protected Areas System

For each of the following key outputs:

- Merging of Protected Areas
- Re-designation within the NPAS categories
- Boundary realignments
- Dereservations
- Designation of Community Green Areas
- New Protected Area Designations / Extensions
- Private Protected Areas
- Consolidation of the National Protected Areas System
- IUCN categories

The report identified priority recommendations, with justifications, and identified barriers and opportunities for achieving the desired outcomes.

Building on the recommendations of the National Protected Areas System Plan, and subsequent in-depth analyses of the strengths and weaknesses of the options potentially available for a strengthened administrative structure for the NPAS, three options have been identified as meeting some or most of the identified needs. Each has its own strengths and weaknesses in terms of both functionality and palatability among those most closely impacted by the changes brought about by their adoption and implementation – and therefore in terms of feasibility.

- **Option Three**

- **Re-establishment of the National Protected Areas Commission, with strengthened coordination, communication and collaboration.**

- Whilst very palatable amongst the current administrative authorities because of the minimized restructuring of departmental roles, responsibilities and mandates, and because of the cost effective use of investments made to date, a Commission would fall short of adequately addressing several key issues – primarily because it cannot have the legal mandate to direct the actions of government departments.

- **Option Two**

- **Creation of the National Parks Service as a Statutory Body, bringing all protected areas under a single statutory body (with the exception of the Archaeological Reserves)**

- In terms of bringing greatest long-term security to the NPAS, overcoming the issues identified in the National Protected Areas System Plan and in subsequent analyses, the establishment of a National Parks Service as a Statutory Body would be the strongest model to follow. It would however have significant impacts on the mandates, structure and operations of the current authorities for the protected areas of the System. Bringing the large scale benefits to the NPAS through this route would come at significant financial and political cost.

- **Option One**

Creation of the National Parks Service as an upper-level tier within the Ministry of Forestry, Fisheries and Sustainable Development, with legal mandate for the National Protected Areas System.

Recognizing the significant financial and political cost of transferring the mandate for the direction and management of the NPAS to a Statutory Body, and in consideration of the timescale to effect long-term strengthening of the System whilst there is the political will to do so, establishing the National Parks Service within the Ministry and with authority (for protected area management) over the Forest and Fisheries Departments, as well as the Department of the Environment, is the preferred option for the new Authority. Introducing this new upper-level tier within the ministerial structure, to develop and direct the implementation of policies governing the management of the NPAS, and yet at the same time buffered from changes in political leadership will in itself present a novel restructuring challenge – but one which is palatable to all concerned and a pragmatic solution to avoiding the predictable opposition to the implementation of Option Two.

Barriers / Opportunities / Lessons Learnt

- Any recommendations on restructuring were seen as a shifting of the status quo, with understandable and predictable reluctance from those affected. The realignment of Departments, whilst assisting in increasing communication and collaboration between administrative bodies, affected the timeframe of the consultancy, requiring a significant re-evaluation of the possible paths forward, and new opportunities arising.
- The preferred option for strengthening the National Protected Area System through the establishment of a Statutory Body may not be politically feasible within the window of opportunity available.
- Semantics proved to be an issue in discussions on the potential for a restructured administrative body for the NPAS. One of the many challenges to be faced by the Administrative Body responsible for the National Protected Areas System, is that of significantly increasing both public and political understanding, appreciation, respect and support for Belize's protected areas. Historically protected areas are often perceived (by both of these stakeholder interests) as being areas that are set aside for animals, and which bring little or no benefit to the people of Belize. Whilst this level of lack of awareness of the critical role of the NPAS in the national economy, economic development, and preservation of human life (protection against life-threatening storm events and resulting flooding & landslides) must be addressed through an extended and targeted public awareness and education campaign, the perceived barriers can also be tackled through a 'rebranding' of the image of the protected areas following business marketing strategies.

A name is just a name, but it carries with it many associations – and in the case of protected areas, many of these associations carry negative connotations amongst the public at large. In the absence of a better understanding of why and how the NPAS is so important to Belize, and to the lives and wellbeing of its human inhabitants, the terms protected area and reserve often carry the burden of guilt. Similarly, authoritative and technical and legal terms and names can establish a barrier ‘against’ the public. With the establishment of a new administrative structure for the NPAS there is the opportunity to undertake a rebranding, helping bury past misperceptions and remove some of the barriers against public support in the mindset of the people of Belize. Such rebranding has proven time and time again to be effective for both businesses and governments. An analysis of non-threatening, people-friendly names that might best suit such a rebranding of the NPAS, and the Authority responsible for it, favours the ‘National Parks Service’ as a preferred name for the Authority – it avoids inclusion of words with unpopular connotations, and follows the terminology used in several more developed countries towards which many Belizeans aspire. Whilst the name would not change the direction or management of the NPAS, its adoption would assist popular acceptance.