

The Caribbean Protected Areas Gateway – Supporting Better MPA Management

The Caribbean Protected Areas Gateway - Apoyando una Mejor Gestión de AMP

Passerelle des Zones Protégées des Caraïbes - Soutenir une Meilleure Gestion des AMP

JULIAN WALCOTT¹, ANTON SHEPHERD¹, HYACINTH ARMSTRONG-VAUGHN², and JOSE COURRAU²

¹*Centre for Resource Management and Environmental Studies,
The University of the West Indies, Cave Hill Campus, Bridgetown, St. Michael, Barbados.*
walcott.julian@gmail.com anton.shepherd@7scorp.com

²*IUCN
Regional Office for Mexico, Central America and the Caribbean,
Los Yoses, San Jose, Costa Rica.*
jose.courrau@iucn.org hyacinth.armstrongvaughn@iucn.org

EXTENDED ABSTRACT

Introduction

Marine and coastal ecosystems, and the resources (biodiversity) within, are extremely important for sustaining livelihoods, maintaining food security, providing crucial ecosystem services and contributing to overall human wellbeing. The connectivity of the marine environment links countries together via shared resources and pathways and therefore underscores the need for effective management of marine and coastal ecosystems and resources. A marine protected area (MPA) is a tool utilized for the management, in addition to conservation and protection, of marine and coastal resources (e.g. fish stocks, coral reefs, seagrass beds *inter alia*). Hitt et al. (2011) defined management as ‘the process of assembling and using sets of resources in a goal-directed manner to accomplish tasks’. Key to note is the fact that management is a process (involving planning, organizing, implementing and evaluating) which should move in a set direction to achieve a set outcome (i.e. goal-directed) and is dependent on various resources such as people and their competencies and skills, accurate data and information and money to name a few. Regarding MPAs, key components of management include: identification of boundaries; rationale for establishment and objectives set; knowledge of the status of crucial ecosystems/habitats/species in addition to the various pressures/threats impacting them; means to track progress (targets, indicators and data); continual assessment/evaluation of management initiatives; an understanding of the social component (i.e. who accesses, benefits and is involved in the decision making process); enhancement of capacities; development of robust networks for networking and collaboration; and sustainable financing mechanisms. The key elements of MPA management can thus be grouped as follows:

- i) Accurate & up-to-date data and information (ecological, geospatial, socioeconomic, governance & management),
- ii) Data/content management system,
- iii) Monitoring framework (state/pressure/response),
- iv) Networking & collaboration (communications framework), and
- v) Sustainable financing.

To support better management of protected areas (both marine and terrestrial) within the Caribbean, the Caribbean Protected Areas Gateway (Caribbean PA Gateway) was established in 2015. Borne out of the Biodiversity and Protected Areas Management (BIOPAMA) programme which is an initiative of the African, Caribbean and Pacific (ACP) group of states and financed by the European Union’s 11th European Development Fund, the Caribbean PA Gateway is hosted by the University of the West Indies (UWI) and housed at the Centre for Resource Management and Environmental Studies (CERMES) at the Cave Hill Campus in Barbados. Along with the UWI, the International Union for the Conservation of Nature (IUCN) and the European Commission-Joint Research Centre (EC-JRC) serve as implementing partners where the overall aim of the Caribbean PA Gateway is to improve the long-term conservation and sustainable use of natural resources in Caribbean ACP countries, via improved decision making. Specific objectives of the Caribbean PA Gateway include: functioning as a resource hub; promoting viable decisions and policies; and supporting effective and sustainable management of protected areas & biodiversity.

Methodology

In an effort to address the previously identified key components of management and ultimately support better management of MPAs, the Caribbean PA Gateway was designed to include a user interface, a data/content management system (Geonode), a communications framework (Yammer) and provide support to the BIOPAMA programme’s a grant making facility (Action Component). The data being utilized and displayed for the region, individual countries and protected areas are derived from three distinct levels: global (e.g. from the World Database on Protected Areas [WDPA] and the IUCN Red List of species); regional (e.g. The Nature Conservancy [TNC]); and national (e.g. governments, NGOs, academic institutions etc.). The Caribbean Gateway engages primarily with national and regional level agencies, protected area practitioners and key stakeholders to provide key tools, analyses and services to the 15 Caribbean ACP countries (Figure 1). To facilitate

the flow of data and information at the national level, country CREWs (comprised of key persons from key entities within the country) have been established for each of the 15 countries and utilize the Yammer platform interactions, exchange, sharing, networking and collaborations. Engagement at the national level has facilitated the development of a robust network throughout the region which has afforded numerous collaborations and allowed for capacity enhancement in various areas via trainings and workshops.

Results and Discussion

The Caribbean PA Gateway, evidenced by its tag line 'linking data to better decisions' is focused on improving the decisions being made regarding biodiversity and protected areas by identifying and making available relevant data and information which are accurate and up-to-date. Key services provided include:

- i) Data hub/repository for biodiversity & protected area data,
- ii) Provision of tools and analyses,
- iii) Capacity building,
- iv) Funding (Action Component), and
- v) Data storage/backup/publish

The Caribbean PA Gateway is based on open-source, free and secure technologies which bring together the best available science and knowledge (both local and indigenous) and function to collect and analyse protected areas data (ecological, geospatial, socioeconomic and management & governance), information and trends. The user interface (<http://caribbean-rris.biopama.org/>) is web based and designed for interoperability with existing databases and platforms. It provides data and information at regional, national and site levels (for both terrestrial and marine protected areas) using dashboard type visuals which are highly informative and easily digestible. The interface also incorporates a state-pressure-response framework (monitoring framework) to allow users to track and monitor various crucial elements associated with protected areas. The Caribbean PA Gateway functions as a tool which is informed, guided and utilized by practitioners, stakeholders and decision makers to support decision making for planning, designating and managing biodiversity and protected areas.

The Caribbean PA Gateway is intended to benefit a wide cross section of persons, including decision and policy makers, protected area managers and practitioners, government and non-governmental agencies, academic &

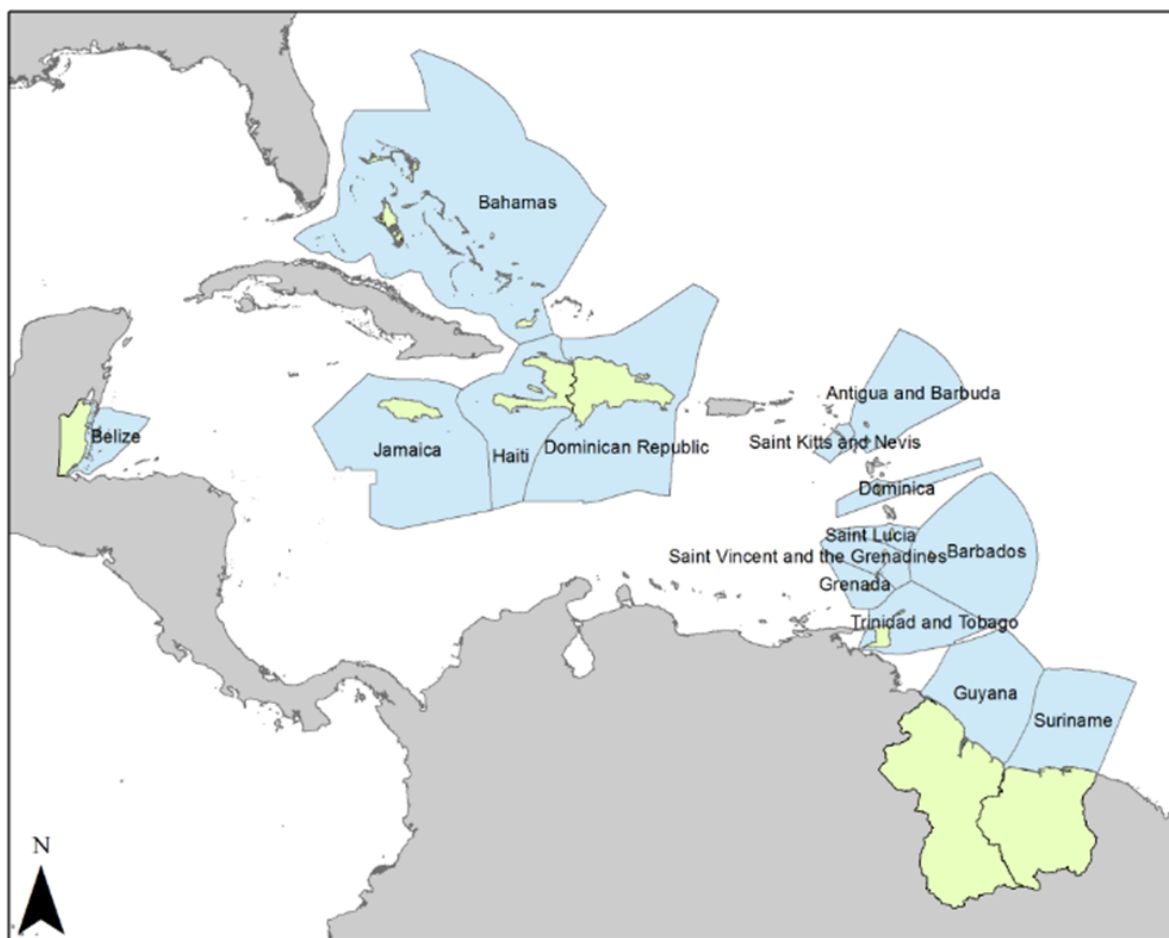


Figure 1. The 15 Caribbean ACP countries which the Caribbean PA Gateway currently caters to (blue polygons indicate the Exclusive Economic Zones)

research institutions, funding agencies, communities, citizens and the general public. Through the actions of the Caribbean PA Gateway key benefits include:

- i) Increased data mobilization,
- ii) Better networking and communications,
- iii) Capacity enhancement — The Caribbean PA Gateway, throughout the last year, has embarked on an initiative to enhance capacities regarding implementation of protected area management effectiveness (PAME) assessments. Via a regional workshop, followed by five national workshops across four countries (Antigua & Barbuda, Belize, St. Lucia, and St. Vincent and the Grenadines), 80+ persons have been exposed to the various tools and methodologies associated with PAME assessments,
- iv) Better reporting at regional and national levels — As an example of better reporting, the Caribbean PA Gateway is currently working on a State of Protected Areas report for the Caribbean region to elucidate trends, threats, data/information gaps, challenges, recommendations and the way forward *inter alia*. The report is intended to be published in 2020, with a subsequent report to follow in 2023, and
- v) Increased funding opportunities.

LITERATURE CITED

Hitt, M.A., S. Black, and L.W. Porter. 2011. *Management, 3rd Edition*, Pearson Education, Upper Saddle River, New Jersey USA.

USEFUL RESOURCES

African, Caribbean, and Pacific (ACP) Group of States -

<http://www.acp.int/>

BIOPAMA programme - <https://biopama.org/>

BIOPAMA GeoNode - <http://geonode-rris.biopama.org/>

Caribbean Protected Areas Gateway - <http://caribbean-rris.biopama.org/>

Central Reference Information System - <https://rris.biopama.org/>

IUCN-ORMACC -

<https://www.iucn.org/regions/mexico-central-america-and-caribbean>

European Commission-Joint Research Centre -

https://ec.europa.eu/info/departments/joint-research-centre_en

University of the West Indies (UWI) - <http://www.uwi.edu/index.asp>

UWI-CERMES - <https://www.cavehill.uwi.edu/cermes/home.aspx>

Yammer - <https://www.yammer.com/biopama/>