CANARI POLICY BRIEF No.18

Data and information for effective protected area management in the Caribbean: tools and approaches

2014

Civil Society and Governance

Introduction

Protected areas (PAs) planners and managers in the Caribbean are faced with a number of challenges. Lack of capacity and insufficient financial resources are among the more frequently cited ones. However, at the decision making level, there is a gap between natural resources users and policy makers, who are often said to not have all the information required to make robust decisions on key issues. But access to information and data management are key components of any effective PA management initiative, whether at the site, system, or policy level. In order to design the most suitable strategies and arrangements, accurate and up to date information on the sites (or system) to be managed must be available. The range of data and information needed is vast. It includes physical, biological and social inventories, information about environmental conditions and the various types of current and historical uses and users. Financial data are also needed, as well as information about socio-economic costs and benefits.

Key messages

- **Access to and use of information and data management are key components of any effective protected area management initiative.**
- **Global and regional databases with detailed information across sites can help provide standardised data to help design effective protected area management strategies and policy interventions.**
- **There is a need for increased collaboration with and among government agencies and NGOs to make data more accessible and to inform better decision-making.**

Data and information collection and management for protected area management is not without associated challenges. In some national contexts, data and information are held by stakeholders and not made available through an easily accessed platform (like a website) or a clearing house. Data are sometimes not standardised or collected in compatible formats. One response to the lack of standardisation in data collection has been the creation of global and regional databases that aim to provide detailed standardised information across sites.

Global databases can be used for example for ecological gap analysis to help identify new priority areas for protection and flag sensitive conservation areas that should be avoided in physical development. They provide information for environmental impact analyses. They are also used to track progress towards international biodiversity and development targets, such as the Millennium Development Goals (Goal 7), the Convention on Biological Diversity's Aichi Targets

This brief was produced by the Caribbean Natural Resources Institute (CANARI) with financial support from the John D. and Catherine T. MacArthur Foundation, through the project "*Consolidating the role of civil society in biodiversity conservation in the Caribbean islands*".

and Global Biodiversity Outlook reports. They are also used to inform other online systems such the Marine Protected Areas Atlas[1] and the Digital Observatory for Protected Areas (DOPA).

A number of data and information management tools are available to stakeholders involved in the management of protected areas in the Caribbean region, and some have proven to be quite useful and have contributed to projects designed to enhance the value for conservation of key areas.

This paper presents basic information on three global tools available to access and manage the data needed for effective protected area management, as well as on ongoing initiatives that are being developed.

Data and information management tools for protected area managers and policy-makers

- **The World Database on Protected Areas (WDPA)**

With more than 200,000 records, the World Database on Protected Areas (WDPA) is the world's most comprehensive database on terrestrial and marine protected areas. It uses the International Union for the Conservation of Nature (IUCN) categories system for marine and terrestrial protected areas. Spatial data from governments and collaborating non-governmental organizations are regularly updated and made available via the online interface, Protected Planet (http://www.protectedplanet.net). The WDPA is a joint project of the United Nations Environment Programme (UNEP) and the IUCN, produced by the United Nations Environment Programme and the World Conservation Monitoring Centre (UNEP-WCMC).

The WDPA provides a wealth of information on protected areas, including spatial data on each designated area, as well as other attributes such as the designation type, the status year, the sub-national location, the governance type and the management authority, among others. A practical example of how the data has been used to support regional networking by the Auckland Uniservices Ltd is presented in Box 1.

Box 1: Using the WDPA for information on Caribbean invasive species

In 2013, Auckland Uniservices Ltd., out of the University of Auckland in New Zealand, was awarded a Critical Ecosystem Partnership Fund (CEPF) large grant to upgrade the Caribbean Invasive Alien Species Network (CIASNET) website in order to facilitate access to information on invasive alien species in the Caribbean Islands biodiversity hotspot. Available in three languages, the CIASNET website is a hub for information exchange and networking and now includes a registry of invasive species practitioners and a repository for documents.

Members of the project team at Auckland Uniservices used the WDPA to obtain country lists of protected areas and complimentary information pertaining to these such as the size and the IUCN categorisation etc. The database was useful in accessing key information on protected areas and allowed for the downloading of listings. However, the limited number of records of native species found in these designated areas was identified as a gap, and some errors were noted.

As part of its work with the Invasive Species Specialist Group (ISSG), Auckland Uniservices is working to build inventories of introduced and invasive species on protected areas with the hope of providing this to the WDPA for inclusion in the database.

For more information, see http://www.ciasnet.org/

More data and information from PA managers needed

Unfortunately, a lot of country and site-specific information is still not available in the WDPA. This is an area where there is tremendous potential for better collaboration with and among government agencies and NGOs to make the data accessible. See Box 2 for an example of how you can contribute to building global databases.

1 This brief was produced by the Caribbean Natural Resources Institute (CANARI) with financial support from the John D. and Catherine T. MacArthur Foundation, through the project "Consolidating the role of civil society in biodiversity conservation in the Caribbean islands".

Box 2: How you can contribute to building global databases

Registered users can download data and information from www.protectedplanet.net and can become a community source and contribute to editing and improving the quality of the data and information. According to the Protected Planet website, community editing:

- Improves information quality where capacity to capture or disseminate digital protected areas information is low.
- Increases the quality of information by capturing data at the local level.
- Generates a database of people associated with every protected area in the world.
- Fosters communication between protected area stewards.
- Raises the profile of protected areas work to a broader community.
- Allows any one person to contribute and share their knowledge of protected areas.

- **The Global Socioeconomic Monitoring Initiative for Coastal Management (SocMon) – for more information see: www.socmon.org**

Local communities have a key role to play in the collection of data required to design appropriate management strategies for protected areas. With a focus on coastal resources and marine protected areas, the Global Socioeconomic Monitoring Initiative for Coastal Management (SocMon) compiles a series of assessments that have been completed in various regions. The Caribbean is one of the six regions for which socio-monitoring is conducted. With the help of local and regional partners, information is collected on coral reefs resources, perceptions of marine and coastal resources conditions and threats to these.

Data on the SocMon website is searchable by region, and reports on specific monitoring sites can be downloaded. Advanced search allows to search by region, country, report language, or monitoring purpose.

- **Biodiversity and Protected Area Management Programme (BIOPAMA) – for more information see: www.biopama.org**

The Biodiversity and Protected Area Management Programme (BIOPAMA) aims to address threats to

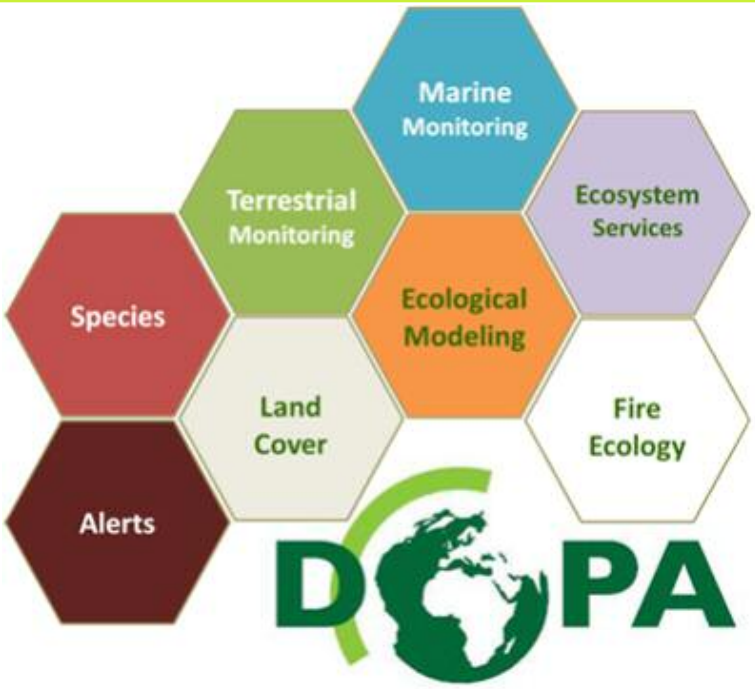

Figure 1. Thematic organisation of the web services supporting the DOPA - See more at: http://dopa.jrc.ec.europa.eu/node/4

biodiversity in African, Caribbean and Pacific (ACP) countries, while reducing poverty in communities in and around protected areas. Specifically, the programme was designed to enhance existing institutions and networks by making the best science and knowledge available for building capacity to improve policies and better decision-making on biodiversity conservation, protected areas management and access and benefit sharing.

The Digital Observatory for Protected Areas (DOPA) is an online tool currently being developed under BIOPAMA, allowing the generation of simple indicators for 9,000 of the world's protected areas. A range of stakeholders involved in the management of protected areas can have access to data to better assess, monitor and possibly forecast the state and pressure of protected areas at the global scale.

DOPA is conceived as a set of distributed web based data and modelling services organized around 8 themes, each expected to provide its own set of web services (see figure 1 below). The data made available through the DOPA can be useful for various purposes: research and reporting, decision-making, capacity-building activity for conservation.

Conclusion

A range of data and information is required to design the best strategies for protected area management. As the Caribbean is moving towards innovative arrangements for managing protected areas, such the recent establishment of the first private protected area in the Dominican Republic and a municipal reserve in the south of Haiti, it is becoming even more critical that protected area managers use data and contribute to making data available and easily accessible. Global and regional databases also have the potential to assist policy-makers in developing information-based policies, plans and programmes. There needs to be a strong commitment from all stakeholders to take an active part in contributing information so that databases reflect up to date information on key sites and using information to guide their work.

Caribbean Natural Resources Institute

The Caribbean Natural Resources Institute (CANARI) is a regional technical non-profit organisation which has been working in the islands of the Caribbean for over 20 years.
Our mission is to promote and facilitate equitable participation and effective collaboration in the management of natural resources critical to development in the Caribbean islands, so that people will have a better quality of life and natural resources will be conserved, through action learning and research, capacity building and fostering partnerships.

For more information please contact:

Caribbean Natural Resources Institute (CANARI)
Fernandes Business Centre
Building 7, Eastern Main Road,
Laventille, Trinidad. W.I.

Tel: (868) 626-6062 • Fax: (868) 626-1788
E-mail: info@canari.org • Website: www.canari.org