Perspectives on Coastal and Marine Management in Dominican Republic

Perspectivas sobre la Gestión Costera y Marina en República Dominicana

Perspectives sur la Gestion des Zones Côtières et Marines en République Dominicaine

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ABSTRACT

Connectivity conservation initiatives are increasing in prevalence as a diverse array of benefits are continually being demonstrated through these models, such as establishing and strengthening marine protected area (MPA) networks. Such benefits include: preserving biodiversity and ecosystem services; adapting to climate change impacts; allowing for long term protection of natural resources and threatened species; and supporting the transition into resilient coastal communities. This poster reviews the preliminary findings from recent research in Dominican Republic; there are several intentions of this study. Firstly, to examine the governance frameworks in place and determine the degree to which they consider local resource users in the decision making process for natural resource management. Secondly, to identify alternative opportunities within social-ecological systems. Finally, to assess the perceptions on biodiversity conservation via connectivity initiatives that speak to the DR's commitment to increasing ecosystem protection and acknowledging the large scale marine conservation initiatives. Data was acquired via key informant interviews were achieved via snowball sampling with coastal and marine stakeholders from a variety of sectors and positions ranging from the community-level to high levels of government. These findings contribute to further understanding coastal ecosystems, assisting in developing coastal areas responsibly while considering management implications on local communities in the Dominican Republic, and other areas in the wider Caribbean.

KEY WORDS: Marine protected areas, connectivity, sustainable livelihood, effective management, stakeholder collaboration

INTRODUCTION

Connectivity conservation initiatives are increasing in prevalence as a diverse array of benefits are continually being demonstrated through these models, such as establishing and strengthening marine protected area (MPA) networks (IUCN, 2007). The inclusion of coastal and marine based initiatives are important as these sectors are extremely valuable to the socio-economic and biological functions of many Caribbean islands, such as the Dominican Republic (DR).

This research looks at the DR, a biodiversity hotspot whose social, economic, and political structure allows for great opportunity to succeed with conservation goals, such as the effective management of PAs, and participating in large scale connectivity initiatives (e.g. Caribbean Challenge Initiative, Caribbean Biological Corridor). These environments contribute to the foundation of the tourism industry, national GDP, livelihoods of the country's inhabitants as well as the biodiversity of the region (Reynoso, 2011). Through presidential agreements the DR has created an extensive network of protected areas of approximately 21.5% of its total territory (marine Pas shown in Figure 1) (Ministerio de Medio Ambiente y Recursos Naturales, 2014). Additionally, the benefits of these initiatives include, preserving biodiversity and ecosystem services, adapting to climate change impacts, allowing for long term protection of natural resources and threatened species, and supporting the transition into more resilient coastal communities.

In order to efficiently secure marine natural resources for the future, the knowledge and concerns of coastal community members must be considered to ensure effective protection, regulation compliance and ultimately successful long term management (South to South Cooperation, 2011). From these diverse perspectives we can gain insight into how natural resource users interact, and identify limitations/opportunities for achieving effective protection and protected area (PA) management within these social-ecological systems.

There are several intentions of this study. Firstly, to examine the governance frameworks in place and determine the degree to which they consider local resource users in the decision making process for natural resource management. Secondly, to identify potential opportunities within social- ecological systems to reduce livelihood impacts from conservation efforts, such as the establishment of marine parks or protected areas. Lastly, to assess the perceptions on biodiversity conservation via connectivity initiatives that speak to the DR's commitment to increasing ecosystem protection and acknowledging the large scale marine conservation initiatives.

METHODS

Data was acquired via key informant interviews (n = 35) were achieved via snowball sampling with coastal and marine stakeholders from a variety of sectors and positions ranging from the community level to high levels of government in the DR. Key informants were identified with the snowball effect across sectors and levels (not representative). Semi-structured interviews were then conducted, analyzed, and coded to identify emergent themes, limitations, and opportunities in coastal and marine management in the DR.

RESULTS

Solely the establishment of PAs is not adequate and before large scale conservation initiatives can be fully successful, effective protected area management must be achieved before establishing connections. Trans-boundary initiatives are necessary, but very difficult to unite stakeholders to work together towards common conservation goals. The idea to not only increase MPA numbers and sizes, but to include comprehensive and holistic management strategies that connect

marine systems is a main idea which is supported by many statements made by participants in various sectors. A full list of emerging themes and initial results can be found in Figure 2. Additionally, Figure 3 shows the overall general governance structure of stakeholders in the DR.

Opportunities:
- Expanding and upscaling collaborative management models
  - Co-management agreements
  - Enhancing connectivity
- Long term presence in select regions
- Private sector involvement
- Knowledge sharing platforms
- Participation in large scale initiatives
- Balancing focus on Forestry & Marine
- Government leadership
  - Multi-national sharing of expertise

Limitations:
- Management
  - Planning and implementation
- Centralized governance structure
  - Government funding
  - Lack of government motivation
  - Insufficient staff, Minister turnover
  - Unproductive resource allocation
- Sustainable/long term financing
  - Trust Fund Structures (CBF & NTF)
  - NGO projects
  - MPA infrastructure and maintenance

Figure 2. Emergent themes identified as opportunities and limitations from interview analysis.

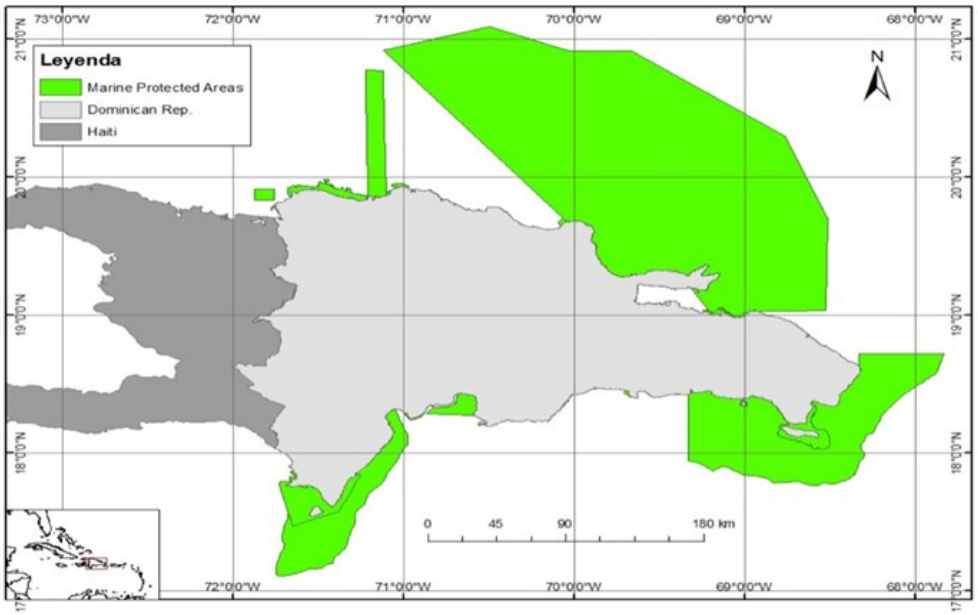

Figure 1. Map of Marine Protected Areas in the Dominican Republic (Reynoso 2011).

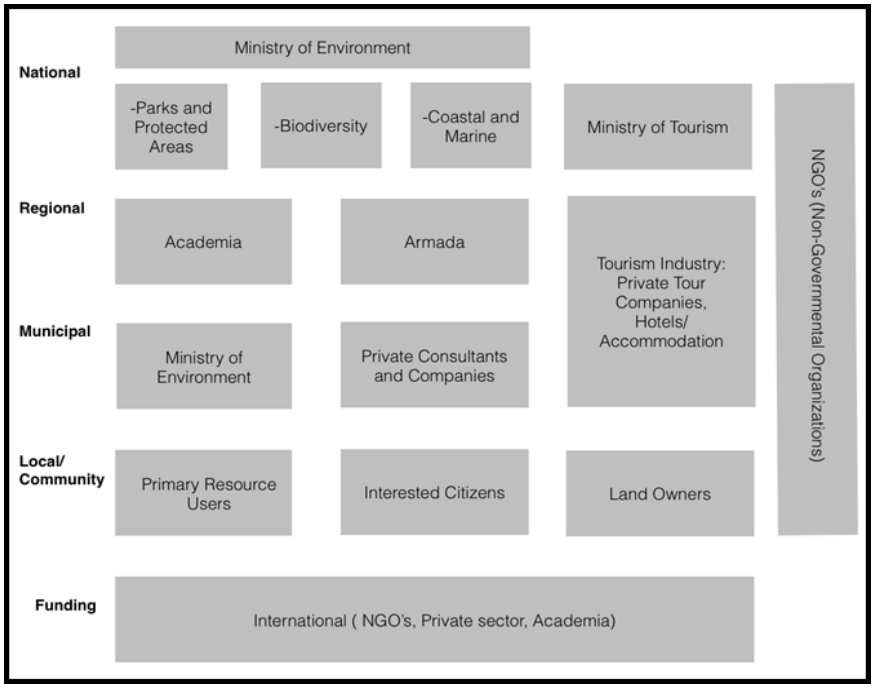

Figure 3. General observed governance structure of stakeholders for the marine realm in Dominican Republic.

CONCLUSION

Despite the impressive environmental laws and extensive network of protected areas on paper, the political will of Dominican Republic seems to lack the capacity or motivation to ensure substantial efforts are taking place and being followed through with on the ground (local/regional level). The governance structure is inclusive, however it seems that non-centralized institutions have the potential to play a more meaningful and productive role in coastal and marine management in the future.

Through the diverse interviews, a common vision emerged - that in order for conservation initiatives and marine resource management to be successful, a working relationship or collaborative effort which considers the diverse stakeholder perspectives is necessary, as well as appropriate stakeholder incentives and long term partnerships. This includes coastal community resource users being engaged in the decision making process for managing natural resources. This is an emerging governance type for social ecological systems of which the DR has a few examples, but this model needs to be expanded to other regions of the island and implemented at larger scales.

The Dominican Republic has an immense potential to be a leader in marine conservation and protected area management through multi-stakeholder processes and by enhancing connectivity nationally and internationally. Additionally, these findings contribute to further understanding coastal ecosystems, assisting in developing coastal areas responsibly while considering management implications on local communities in the Dominican Republic, and other areas in the wider Caribbean. Further research may include a social network analysis or in-depth study on the governance structure and how decisions are made within the current framework. Social learning and power dynamics may play a key role to explain current limitations of coastal and marine management.

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