

Community-based Natural Resource Management in Roatan

Gestión Comunitaria de los Recursos Naturales en Roatán

Gestion Communautaire des Ressources Naturelles à Roatan

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EXTENDED ABSTRACT

Community-Based Natural Resource Management (CBNRM) has been heralded as an effective governance approach to escape the Tragedy of the commons (Brosius et al., 1998; Gruber, 2010). Nonetheless, establishing CBNRM in Latin America and the Caribbean poses a series of challenges, which are rarely overcome (del Mar Delgado-Serrano et al., 2017; Luttinger, 1997). The governance process in the Bay Island National Marine Park (Honduras), particularly in the island of Roatan, provides an opportunity to evaluate a successful applied example of CBNRM within a Marine Protected Area in the Caribbean. Roatan is the largest and most populated island in Honduras, it is part of the Mesoamerican Barrier Reef and most of its revenue comes from reef-related tourism. The western side of the island was initially declared a protected area in 1989 and was expanded in 1997 to include all of the Honduran Bay Islands. As many protected areas in the Region, the Bay Island National Marine Park was initially governed through a conventional top-down approach. Nonetheless, in the early 2000s the system began to transition towards CBNRM. Currently, the Bay Islands National Marine Park is co-managed by 14 organizations. Thus, through this study we want to assess the basic lessons that the Roatan case study can provide for other MPAs in the Caribbean struggling with the transition to CBNRM.

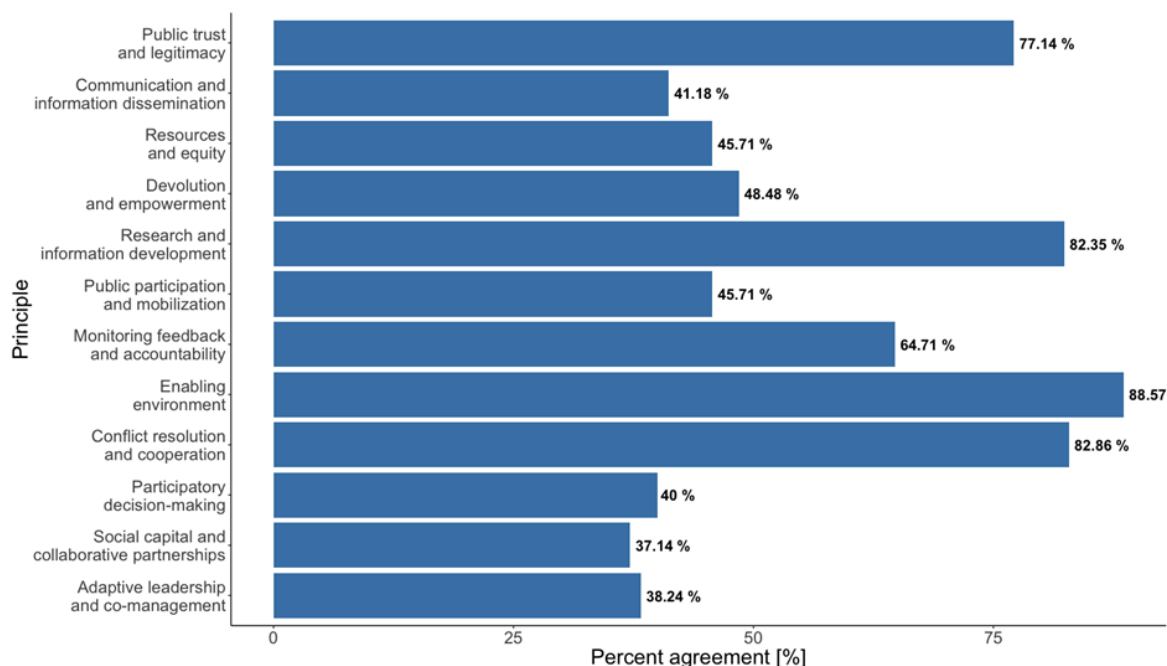


Figure 1. Perceived presence of Gruber (2010) key organizational principles for community-based natural resource management in West End, Roatan. Level of agreement was estimated through Likert type close-ended questionnaires with anchor points strongly disagree and strongly agree.

To assess the enabling conditions that led to an established CBNRM in Roatan we analyzed stakeholders' perceptions under the lens of Gruber's 12 Key Organizational Principles for CBNRM (Gruber, 2010). Data was collected through one on one open-ended interviews with key stakeholder and structured closed-ended questionnaires (n = 35) from January to June 2020. A pre-test of the interview was carried out with 2 local stakeholders. Additionally, we used Cronbach's coefficient to test the internal consistency reliability of the data. All statistical analyses were done using the psych (Revelle, 2018) and tidyverse (Wickham, 2017) libraries in R computing software (R Core Team, 2018).

The implementation of CBNRM in Roatan began nearly 2 decades ago and continues to date. Perceptions on effectiveness of patrols and satisfaction with the management of natural resources have increased steadily in the past decade and appear to have stabilized around a 70% satisfaction rate in the past 3 years. According to stakeholders, local NGOs have been key in driving this transition. Additionally, our results show that CBNRM in Roatan has excelled in 5 out of 12 governance principles, which are: 1. Public trust and legitimacy; 2. Research and information development; 3. Monitoring, feedback and accountability; 4. Enabling environment and; 5. Conflict resolution and cooperation, while still maintaining positive perceptions of the other 7 principles (37 – 49% level of agreement). The Roatan case study highlights the importance of strengthening local organizations and developing trust among stakeholders to achieve CBNRM, which can often be a long-term process. CBNRM is a dynamic process, therefore place-based research on CBNRM systems in the Caribbean, such as the Roatan case study, must continue to be developed to gather basic lessons that can lead to the successful implementation of CBNRM in the region.

KEYWORDS: Community-based management; Governance; Marine Protected Area; Honduras

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