

Multi-level Factors Influence Community Perceptions of Caribbean Coral Reef Governance

Factores Multi-nivel Influyen en las Percepciones de la Comunidad de Gobernanza de Arrecifes de Coral del Caribe

Facteurs Multi-niveaux Influent sur les Perceptions de la Communauté de Corail des Caraïbes Récif Gouvernance

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EXTENDED ABSTRACT

Good governance is widely seen as a prerequisite for effective natural resources management. Many symptoms of environmental decline have been ultimately attributed to poor governance. This has failed to limit anthropogenic impacts and constrained effective management (Cash et al. 2006, Hughes et al. 2010). *Good governance* for natural resource management is thought to be underpinned by a number of procedural principles encompassing the rules, norms and values that guide decision-making processes (Biermann et al. 2010, Graham et al. 2003, Jentoft 2007, Kooiman et al. 2005, Lockwood 2010, Lockwood et al. 2012). Perceptions of governance, and the degree to which governance arrangements are endorsed by those governed, can have implications for management effectiveness (DeCaro and Stokes 2013). However, few studies explore community members' heterogeneous perceptions of governance that shapes their behaviour. We analysed socio-economic and awareness-related factors influencing community perceptions of two aspects of coral reef governance – institutional acceptance and engagement (Turner et al. 2014) – in 12 Caribbean communities.

Mixed effects models examined the relative importance of individual-level factors, while accounting for variation among socio-economic, environmental, and governance attributes of communities. Preliminary findings identified that individuals who had higher institutional acceptance:

- i) Perceived that community members worked together to solve problems,
- ii) Felt that they were accepted as part of the community,
- iii) Used reefs (for fishing, tourism or both),
- iv) Had not perceived a decline in reef fish resources,
- v) Had lower education levels, or
- vi) Were aware of rules in place to manage reef use.

Perceptions of institutional acceptance were also explained by community level factors: fewer commercial fishers, more dive shops, greater infrastructure, higher coral cover, NGO presence, and connections to information networks led to higher baseline perceptions. Perceived engagement was explained predominantly by individual level factors, and was higher among respondents who:

- i) Were involved in reef-related tourism to some extent,
- ii) Perceived a more diffuse locus of responsibility for reef management including a wide array of actors from government and NGOs to communities, and
- iii) Had higher levels of education.

Heterogeneity in perceptions was explained predominantly by individual or community level characteristics rather than country level differences, emphasising the importance of local governance processes. This is consistent with the contemporary view of governance as comprising interactions among a range of actors in society, including government, civil society and the private sector (Kooiman et al. 2005). Identification of the range of demographic, socio-economic, awareness-related and contextual factors that influence perceptions can contribute to the identification of more effective governance mechanisms in support of coral reef conservation.

KEY WORDS: Coral reef; governance; perceptions; institutional acceptance; engagement

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