Understanding characteristics that define the feasibility of conservation actions in a common pool marine resource governance system

Morena Mills∗1, Robert L. Pressey2, Natalie Ban3, Simon Foale2, Shankar Aswani4, and Andrew Knight5

1University of Queensland – Australia
2James Cook University – Australia
3University of Victoria – Canada
4Rhodes University – South Africa
5Imperial College London – United Kingdom

Abstract

Effective conservation requires people to make choices about how they interact with the environment. Social characteristics influence the likelihood of establishing conservation actions with strong compliance (hereafter “feasibility”), but are rarely considered in conservation planning. Our study makes two contributions to understand feasibility. First, we explicitly test the associations between social characteristics and the presence and form of resource management. Second, we compare the ability of different types of data to elucidate feasibility. We use Ostrom’s (2007) thinking on social–ecological systems and literature on resource management in Melanesia to create a context-specific framework to identify social characteristics that influence feasibility for conservation management. We then apply this framework and test for associations between the presence and form of management on one hand and social characteristics on the other, using data collected at different resolutions. We found that conservation feasibility was associated with characteristics of the governance system, users, and the social, economic, and political setting. Villages with different forms of management were more similar to each other socially than to villages without management. Social data collected at the resolution of households accounted for over double the variation in the form and presence of management compared to data at the resolution of villages. We discuss our methods and results given the dynamic nature of complex social ecological systems. We also highlight future research needs for understanding the value of information on feasibility for conservation planning. Our methods can be adapted to conservation planning initiatives in other socioeconomic settings. Please note: this presentation is to be given at the resilience and conservation session organised by Dr. Duan Biggs

Keywords: conservation, social, ecological systems, planning, natural resource management, coral triangle

∗Speaker