

Appendix 5:

The social, economic, and institutional perspectives in the co-management of MPAs

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University of Murcia, Spain

Module 1: Community-based management and Socio-Ecological Systems: CPR theory and beyond

Instructor: Sergio Villamayor-Tomas

Location: Department of Economics (TBA)

Hours: Session1: 09/22/2013 (11:00-13:30)
Session2: 09/22/2013 (15:30-17:30)

Mandatory readings

Basurto, Xavier, and Elinor Ostrom. 2009. Beyond the Tragedy of the Commons. *Economia delle Fonti di Energia e dell'Ambiente* LII (1):35-60.

Berkes, Fikret. 2005. Commons theory for marine resource management in a complex world. *Senri Ethnological Studies* 67:13-31.

Evans, Louisa, Ban C. Natalie, Schoon, Michael, Nenadovic Mateja. Keeping the 'Great' in the Great Barrier Reef: Large-scale governance of the Great Barrier Reef Marine Park, (excerpt), under review in the *International Journal of the Commons*.

Module description

This Module introduces common pool resource (CPR) theory and recent extensions for the study of socio-ecological systems (SES).

Traditional economic analyses of common pool resources such as forests, irrigation systems and fisheries prescribed the collapse of those resources unless they are managed through private or government-controlled property right systems. As evidence began to question that diagnosis, attention turned to exploring the resource, social and institutional conditions under which groups of users can manage shared resources collectively through common property regimes (i.e., community-based management).

In the last decade CPR theory has evolved to integrate political ecology as well as ecology themes such as the role of political elites and dynamics, resource distribution inequities, socio-ecological resilience and adaptive management.

The Module consists of two sessions, each of which includes a lecture and a hands-on learning activity (an economic experiment to be played among students and a case study analysis based on content analysis)

Module objectives

Students will:

- get acquainted with mainstream institutional economics theory of community-based natural resource management (CPR theory) and extensions.
- get familiarity with two of the methods most frequently used by scholars contributing to CPR theory: Economic experiments and content analysis-based meta-analysis.

- develop a critical understanding of the different institutional options (government control, private property rights and markets, and common property systems) for natural resource management at local levels

Program

Session 1: concepts and early CPR theory

- 1.1 Concepts : community & management
 - 1.1.1 Community vs. management
 - 1.1.2 Approaches to community-based management: common property/institutional economics, traditional ecological knowledge, political ecology, ecological economics
- 1.2 Early theory
 - 1.2.1 Three powerful images: prisoner's dilemma/ tragedy of the commons, rent dissipation, free riding behavior
 - 1.2.1.1 *In-class experiment: social dilemmas* (see appendix 1)
 - 1.2.1.2 Traditional prescriptions: government and private ownership

Session 2: Conventional CPR theory and beyond

- 2.1 Common Pool Resource (CPR): tenets and critiques
 - 2.1.1 Conceptual clarifications: common property vs. common pool resources vs. open access vs. collective action problems
 - 2.1.2 Evidence questioning traditional CPR theory: private and government property systems can fail; common property can work.
- 2.2 Critics to conventional CPR theory: the political and ecological gaps
- 2.3 Moving forward
 - 2.3.1 The role of power: decentralization, institutional politics, social movements
 - 2.3.2 Ecological thinking: resilience, robustness and adaptability.
 - 2.3.3 Scalability of CPR theory
 - 2.3.3.1 *In-class exercise: Mobilizing qualitative evidence to test SES-related theory* (see appendix 2).

Module 1: Community-based management and Socio-Ecological Systems: CPR theory and beyond

Session 2: Conventional CPR theory and beyond

In-class activity: *Mobilizing qualitative evidence to test SES-related theory*

This activity is based on Evans et al.'s and Basurto and Ostrom (2009), which are mandatory readings for this module.

Thinking about cooperation and sustainable management of natural resources...

Much of the community-based management theory understands sustainability as fundamentally mediated by cooperation processes. As we will discuss in class, cooperation to develop resource management rules and comply with them should not be taken for granted and needs to be explained. As pointed in the introductory articles, an important set of explanations are related to the role of institutions (i.e., rules and norms that constraint individual behavior). Some of those explanations can be translated into management principles (see readings). Although those principles seem pretty obvious, the causal mechanisms behind

their relevance are not that easy to formulate. Why clear boundaries, participation and environmental and social monitoring contribute to cooperation and thus sustainable management? Which assumptions do we need to make?

Preparing for in class-activity:

The Great Barrier Reef Marine Park (GBRMP) can be characterized as a relatively successful case of large scale management, particularly after some reforms in 2004. Assessing the “success” of a management system in such a complex context is not easy task though. Boundaries on SES are difficult to draw, and so are the boundaries and interactions between its SES components. Based on Evans et al.’s text and building on the SES framework, please answer the following questions in groups of two:

- Which **Governance system** (from pieces of regulation to specific measures) can we identify in the GBRMP case?
- How many different **types of marine resources** are relevant (fishes, corals...)?
 - o Have they characteristics that may facilitate or hinder management?
- How about **actors or groups of them** and their characteristics (from resource users like commercial and recreational fishers to officials and public organizations)?
- Can we identify **relevant CPR properties contributing to successful governance** of the GBRMP?

Please, use the table provided to record quotes from the text (“quotes” column) and assign them codes of governance system, types of resources, actor groups and properties of them (“SES components and properties” column).

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Marine resources related references

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