

Caribbean Coastal Resources Co-management — Part 1

PATRICK McCONNAY, ROBERT POMEROY and ROBIN MAHON
Coastal and Marine Management Program (CaMMP)
Caribbean Conservation Association (CCA)
Bush Hill, Garrison, St. Michael, Barbados

ABSTRACT

Coastal resources co-management is a relatively recent development in the systems of natural resources governance in the English-speaking Caribbean. There is much interest in co-management among government agencies and non-governmental organisations, ranging from consulting with stakeholders to delegated and community-based management. Resource users are less familiar with the concept. The Coastal and Marine Management Program (CaMMP) of the Caribbean Conservation Association (CCA) is implementing a project on developing guidelines for successful coastal resources co-management in the Caribbean. It is part of the United Kingdom Department for International Development (DFID) Natural Resources Systems Programme (NRSP) for the Land-Water Interface. Cases of co-management initiatives in Barbados (sea urchins and Fisheries Advisory Committee), Belize (marine protected area and Fisheries Advisory Board), and Grenada (lobster and seine net fisheries) are being documented. Less detailed investigations are being done in other locations. The ecological and institutional analysis research framework, some preliminary findings and a few tentative conclusions are provided here as 'Part 1' in sharing project outputs. The project is expected to conclude in mid-2003, with further outputs to be reported at subsequent GCFI meetings.

KEY WORDS: Caribbean, coastal, co-management

Recursos Costeros del Caribe Co-gerencia de los Recursos: Parte 1

La co-gerencia costera de los recursos es un desarrollo relativamente reciente en los sistemas del gobierno de los recursos naturales en el Caribe de habla inglesa. Hay interés mucho en la co-gerencia entre las agencias de estatal, extendiéndose simplemente de consultar con los tenedores de apuestas al desarrollo completo de la gerencia comunidad-basada. El interés también está creciendo entre organizaciones no gubernamentales, pero los usuarios del recurso tienden para ser menos familiares con el concepto. El programa costero y marina de la gerencia (CaMMP) de la asociación del Caribe de la conservación (CCA) está poniendo un proyecto en ejecución sobre las pautas que se convierten para la co-gerencia costera acertada de los recursos en el Caribe. Es parte del departamento BRITÁNICO para el programa de los sistemas internacional de los recursos naturales del desarrollo (DFID) (NRSP) para el interfaz del Tierra-Agua. Los casos de las iniciativas de la co-gerencia en Barbados (los pilluelos de mar y comité consultivo de las industrias

pesqueras), Belice (área protegida marina y tablero consultivo de las industrias pesqueras) y Grenada (las industrias pesqueras netas de la langosta y de la jábega) se están documentando. Menos investigaciones detalladas se están haciendo en otras localizaciones. El marco ecológico e institucional de la investigación del análisis, algunos resultados preliminares y algunas conclusiones tentativas se proporcionan aquí como > la parte 1 = en compartir salidas del proyecto. Se espera que el proyecto concluya en mid-2003, con > la parte 2 = ser divulgado en la reunión de GCFI de ese año.

PALABRAS CLAVES: Del Caribe, costero, co-gerencia

INTRODUCTION

The "Wider Caribbean" includes the northeast coast of South America, the Caribbean Sea, the Gulf of Mexico, and the south-eastern Atlantic coast of North America. The region is geographically complex with the highest density of separate states per unit area in the world (Chakalall et al. 1998). Across these states, as part of a global trend, recognition that resource users can play several valuable roles in coastal resource management has prompted increased efforts at their inclusion in governance (James and Fourniller 1993, Smith and Berkes 1993, Finlay 1996, McConney and Mahon 1998). Such initiatives are termed participatory, collaborative or cooperative management (usually shortened to co-management) and include community-based management. Definitions of co-management centre on the theme of sharing management responsibility and authority between government agents and stakeholders (McConney 1998, Brown and Pomeroy 1999, Pomeroy et al. 2001, Berkes et al. 2001).

DRIVING FORCES

Stakeholder involvement in marine protected area (MPA) management is now a standard guideline (Kelleher and Kenchington 1992, Salm et al. 2000). But there are many "paper parks", with little active or effective management, in the Caribbean (Geohagen et al. 2001, Roberts et al. 2001). Because of this, much attention has turned to measuring management effectiveness (McField 2000). Governance and socio-economic indicators concern co-management.

The Code of Conduct for Responsible Fisheries seeks to ensure that fishers are integrated into coastal management. MPAs and other managed areas are locations for such integration and partnerships in governance. Coastal management in some places incorporates co-management at levels from research and monitoring (Smith 1994) to community decision-making in management (Berkes et al 2001, McField 2000).

Coastal resources are important to tourism, especially in small Caribbean islands with few other significant natural resources (CANARI 1999a, Clauzel 2001). Coastal conflicts include interactions between fisheries and tourism. Yet workers in

each labour force frequently find part-time employment in the other industry (Heyman and Graham 2000). Tourism has many impacts on reefs, mangroves, seagrass and beaches. Coastal settlements engaged in community-based tourism and eco-tourism may seek to co-manage these critical habitats that are threatened in many parts of the Caribbean (CCA 2001, Renard 1991).

The Coastal and Marine Management Program (CaMMP) of the Caribbean Conservation Association (CCA) is implementing a project on developing guidelines for successful coastal resources co-management in the Caribbean. The University of the West Indies and Marine Resources Assessment Group are partners. It is part of the UK Department for International Development (DFID) Natural Resources Systems Programme (NRSP) for the Land-Water Interface. Cases of co-management initiatives in Barbados (sea urchins and Fisheries Advisory Committee), Belize (marine protected area and Fisheries Advisory Board) and Grenada (lobster and seine net fisheries) are being researched. This paper, Part 1, introduces some interim findings from the project and refers to previous and continuing work by other researchers. Final results and conclusions will be presented at a future meeting of the Gulf and Caribbean Fisheries Institute.

CO-MANAGEMENT CONCEPTS AND METHODS

What co-management could or should be in theory or potential, and actually is in practice, has been extensively researched (e.g. Jentoft 1989, Kuperan and Abdullah 1994, Pomeroy and Berkes 1997). Co-management encompasses a range of institutional arrangements often depicted as a scale based on the relative balance of responsibility and authority between state and stakeholders. Studies of co-management in Africa (Normann et al 1998) and Asia (Pomeroy et al. 2001) have used the institutional analysis methodology developed by the International Centre for Living Aquatic Resources Management (ICLARM) and Institute for Fisheries Management and Coastal Community Development (IFM) (ICLARM and IFM 1998). The ICLARM/IFM conceptual framework and methodology was adopted for this research. It emphasises three main categories of co-management (Figure 1).

“Consultative co-management” is common in the Caribbean literature (Brown and Pomeroy 1999). Next is a level of joint action and decision-making. This is where several countries seem to be headed. The term “collaborative co-management” is preferred to “cooperative co-management” because it connotes stronger relationships of partnership, and “cooperative” may be confused with the formal organisations of the same name. “Delegated co-management” includes, but is not limited to, community-based management. Few countries in the Caribbean appear to be at the latter level, but it is not uncommon in other developing countries (Baird 2000). National co-management structures based on multi-stakeholder boards or committees are common in fisheries management in the English-speaking Caribbean (Jacobs 1998, McConney and Mahon 1998).

<i>Government has the most control</i>	<i>Consultative comanagement</i>	<i>Collaborative comanagement</i>	<i>Delegated comanagement</i>	<i>People have most control</i>
	Government interacts often but makes all the decisions	Government and the stakeholders work closely and share decisions	Government lets formally organised users/stakeholders make decisions	

Figure 1. Categories of co-management

While these three categories illustrate a gradation from less to more civil society empowerment, they are not necessarily phases along a path towards community-based management. Each category is a suitable goal in its own right. Aiming at community-based management may not be appropriate. However, establishing successful co-management is seldom immediate, and progression through several categories of co-management is often apparent as institutional relationships are developed and mature. Like most participatory processes, this takes time and careful tending. Pomeroy (1998) recognises three phases of co-management and describes the sequence of steps within these in detail. A much-simplified version is in Figure 2.

<i>Pre-implementation</i>	<i>Implementation</i>	<i>Post-implementation</i>
Realise need for change Meet and discuss change Develop new management	Try out new management Educate people in new ways Adjust and decide what is best	Maintain best arrangements Resolve conflicts and enforce Accept as standard practice

Figure 2. Phases of co-management

Questions for research include asking: (1) What phases of co-management are cases in the Caribbean at? (2) To which category of co-management do they seem to be headed? (3) What can make progress and achievement sustainable?

This project should provide some answers to these questions by mid-2003, especially for the six detailed case studies. It will provide guidelines for successful coastal resource co-management in the Caribbean that take into account coastal

zone management and pro-poor issues. The sections below combine the results of a survey of CARICOM countries undertaken by CaMMP of the CCA in 2001, under its Coastal Resources Co-management Project (CORECOMP), with results from the present DFID-NRSP funded project.

CO-MANAGEMENT IN THE WIDER CARIBBEAN

Language contributes to complexity in the Wider Caribbean. English, Spanish, Dutch and French are spoken in addition to several creole languages. Language differences reflect and accompany a variety of economic, cultural, social and governance systems. The six case studies of the co-management guidelines project are confined to the English-speaking Caribbean, but the project also considers co-management in non-English speaking territories.

Recently there has been considerable networking and collaboration in co-management studies across the region and languages. The IUCN Working Group on Collaborative Management (CMWG) promotes such exchanges. Over 100 possible cases of coastal co-management (74) or indigenous managed areas (26) have been compiled based on published literature for Central America and the Caribbean (Hugh Govan pers. com.).

The Caribbean Natural Resources Institute (CANARI) prefers the term "participatory management" (CANARI 1999c). Coastal co-management is being tried at the Samana Bay Biosphere Reserve in the Dominican Republic and at La Parguera Fisheries Reserve in Puerto Rico (CANARI 1999b).

The Community Based Coastal Resources Management (CBCRM) Program of IDRC has published outcomes of its first phase of projects with case studies from Columbia, Costa Rica, Cuba, Honduras, Mexico and Nicaragua as non-English speaking countries (IDRC 2002). The project is in its second phase.

These are only a few of the several co-management research and pilot project initiatives in the Wider Caribbean. Communication amongst them continues to be a challenge, but this is slowly being overcome.

CO-MANAGEMENT IN SOME CARICOM COUNTRIES

Brown and Pomeroy (1999) examined fisheries co-management in several Caribbean Community (CARICOM) countries. Cases surveyed or studied to date under CORECOMP and the co-management guidelines project include:

Barbados

Sea Urchin Management — The fishery for the white sea urchin (*Tripneustes ventricosus* locally called "sea egg") has collapsed on several occasions. After multi-year closures to facilitate recovery, followed by declines mainly due to renewed overfishing, the government initiated co-management.

Fisheries Advisory Committee — Under its 1993 Fisheries Act the government of Barbados formed a multi-stakeholder Fisheries Advisory Committee in 1995. The FAC has struggled to define and meet its co-management mandate. Challenges include its lack of power and recognition.

Belize

MPAs — There are several examples of community-based MPA co-management and a national example of fisheries co-management. The guidelines project includes the Laughing Bird Caye National Park and Gladden Spit Marine Reserve. These two MPAs fall, respectively, under co-management agreements between the Forestry and Fisheries Departments and a community-based NGO. Other MPA co-management initiatives include Port of Honduras Marine Reserve, Sapodilla Cayes Marine Reserve; Caye Caulker; etc.

Fisheries Advisory Board — Belize has a Fisheries Advisory Board (FAB) that has been a powerful force in fisheries for over 30 years. It has not been well documented as an example of co-management, but is closely linked to strong government support for fishing cooperatives.

Dominica

Soufriere/Scotts Head Marine Reserve — A multi-stakeholder local area management authority (LAMA) set up under the fisheries legislation attempts to manage this scenic area on the south coast of the island that is heavily used by locals and visitors. Progress has been hampered by the impacts of hurricanes.

Guyana

Fisheries Advisory Committee — This multi-stakeholder consultative body is in its early stages, constrained by the low institutional capacity of the fisheries authority in a country beset by social and economic problems.

Grenada

Lobster fishery — At the rural town of Sauteurs government recently started a co-management project to encourage use of more responsible fishing gear for lobster harvest. The local fishing co-operative is also presently being revived.

Formalising beach seine traditional rules — The seine net fishery in Grenada is a case of an attempt by government to systematically document traditional fishing rules and customs in order to consider incorporating them into formal fisheries management plans and legislation. Traditional beach seine rules have also been documented in neighbouring countries.

Jamaica

Tourism Product Development Company (TPDCO) — This is an initiative to organise the fisheries aspects of tourism on the north coast especially. Emphasis has been on charter boat operations, particularly on registration and standards. The board includes fishermen's groups, hoteliers and government agencies.

Portland Bight Protected Area — Described as “a bold experiment”, a local NGO, the Caribbean Coastal Area Management Foundation (C-CAM), has undertaken to introduce co-management to an area of land and sea totalling almost 19,000 hectares. The process has taken about seven years of preparation to get to the stage at which the State is apparently willing to share responsibility.

Negril Marine Park — The Negril Coral Reef Preservation Society (NCRPS) recently (October 2002) signed an instrument with the Natural Resources Conservation Authority (NRCA) delegating responsibility under the NRCA Act to the NCRPS for the conservation and management of the Negril Marine Park. The delegation is for a five-year term, renewable at the end if both parties agree. The National Environment and Planning Agency (NEPA) will monitor and review implementation of the delegation instrument on behalf of the NRCA.

St. Lucia

Soufriere Marine Management Area — The SMMA is the most thoroughly documented case of co-management in the eastern Caribbean. Early in 2001 it changed its legal character to become a, more autonomous, not-for-profit local company. Although seen widely as a model of success in terms of process, the people involved still see it as an experiment in progress with many challenges.

Canaries/Anse la Raye Marine Management Area — CAMMA was recently established, modelled upon the SMMA. It is at a very early stage of co-management.

Sea Urchin Management — Unlike Barbados, the management of sea urchins in St. Lucia follows the more classic community-based model. The fisheries authority has engaged the fishing industry in specific locations in monitoring and management of adjacent areas due to fisheries collapses and closures.

St. Vincent and the Grenadines

Tobago Cays Marine Park — Situated in the Grenadines islands off St. Vincent, this MPA under government control is seldom regarded as a co-management case, but is gradually moving towards greater stakeholder participation.

Surinam

Biggi Pan — This is an emerging case where fishers have set up a slipway in their fishing location and the fisheries authority is considering enlarging their authority to manage operations in the area by providing inputs to keep the waterways navigable. This may or may not fully evolve into co-management.

Trinidad and Tobago

Fisheries Monitoring and Advisory Committee — This is based on a 1997 agreement between government and stakeholders to promote sustainable management and optimal utilisation of the coastal fisheries of Trinidad and Tobago. The MAC provides a forum for stakeholders to meet, resolve conflict, and take action such as direct input into fisheries policy and decision-making.

Matura Bay sea turtle conservation — The northeast coast of Trinidad is an important leatherback turtle nesting area. The community-based Nature Seekers group has engaged in turtle conservation with the Wildlife Section of the Forestry Division that includes guided tours and other facets of ecotourism. Turtles are tagged and nests safeguarded. This is cited as a model for replication.

The above eighteen cases are only a few of the co-management exercises in CARICOM countries. Several are not documented, even in grey literature. In the above 18 cases, most (55%) were categorised as collaborative (Figure 3).

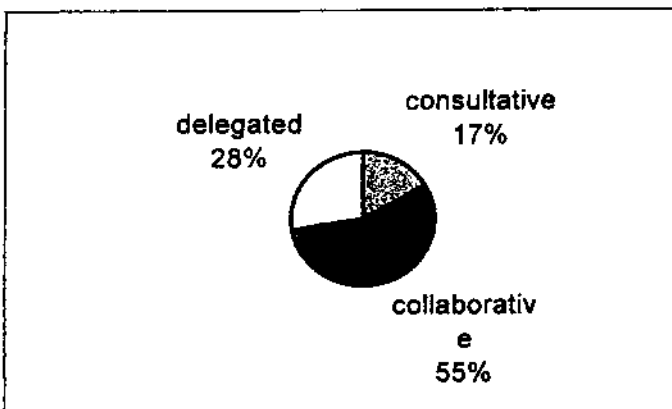


Figure 3. Categories of co-management in cases examined

In applying the framework of analysis to some of these cases the pattern shown in Table 1 emerges regarding the types and phases of these initiatives.

Most initiatives were multi-faceted, engaging in several activities as shown in

Figure 4. All concerned information exchange. All but pre-implementation cases reported engagement in management. Planning and enforcement were the next most common activities, followed closely by policy. However, there is a steady decline from research to interpretation that mimics the typical practise of less stakeholder involvement in the activities perceived as being technical/scientific.

Table 1. Analysis of co-management by phase and type

Phase	Type	Consultative co-management	Collaborative co-management	Delegated co-management
Pre-implementation		1	5	0
Implementation		1	3	2
Post-implementation		1	2	3

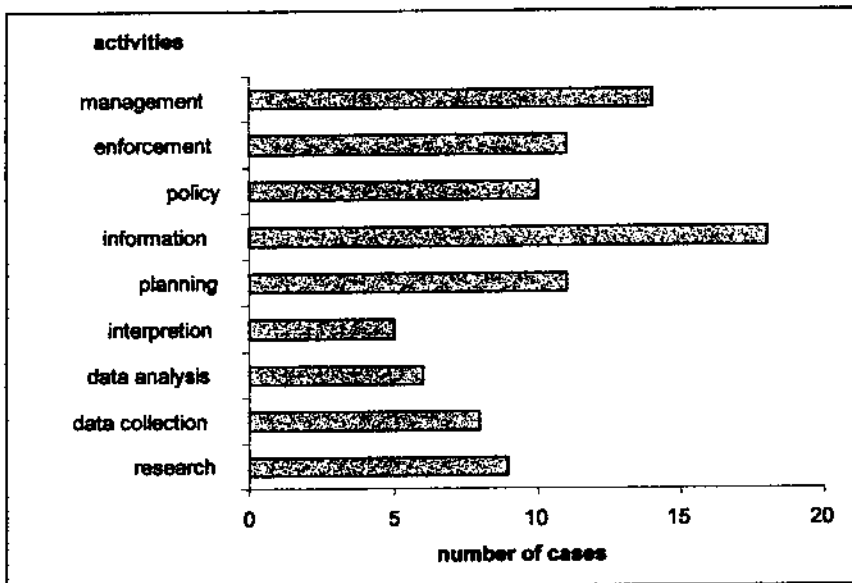


Figure 4. Activities undertaken in co-management in cases examined

Government agency satisfaction with the initiatives is illustrated in Figure 5. No respondent was either completely or not at all satisfied, leaving this almost even mid-range distribution. However, the proportion of less than satisfied officials is cause for concern, since high proportions need to be achieved for sustainability.

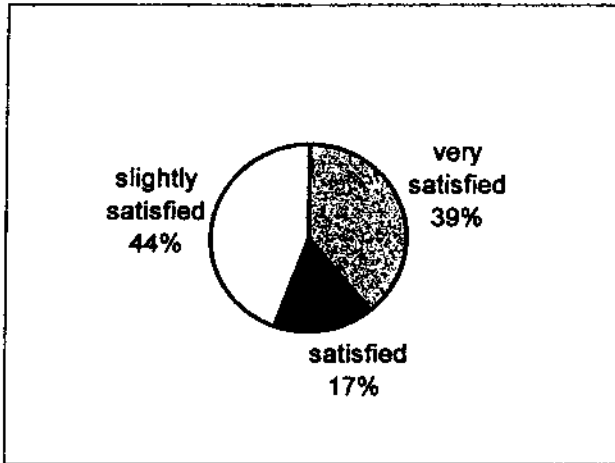


Figure 5. Government official satisfaction with co-management in cases

DISCUSSION

Much like African cases (Normann 1998), the Caribbean cases are mostly in pre-implementation or early implementation phases of co-management. A few such as the Soufriere Marine Management Area (Renard 2000) may be mature enough to be labelled post-implementation. A significant consequence of this is that comparing “before” and “after” conditions due to co-management interventions is less feasible in the Caribbean than other locations such as in Asia where much more work has been done (Pomeroy et al. 2001).

Although the term is used frequently, and is rapidly gaining popularity in government and NGO circles, the concepts of co-management are often not well known or defined, especially among resource users. In many of these initiatives, building the capacity of stakeholders to participate is a prerequisite for further progress and sustainability. Associated aspects of governance such as gender, poverty, alternative or complementary livelihoods and opportunities for the youth have only recently appeared on the agendas of governments in the region.

Integrated coastal management and fisheries management have transformed in recent times to give emphasis to the need for government and stakeholder involvement. Co-management is one facet of this trend towards inclusion. We can therefore expect to see additional co-management initiatives and chances to systematically document the factors that seem to facilitate sustainable success.

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