

Comparative Analysis of Co-management Arrangements in the Caribbean

ROBERT POMEROY¹, PATRICK McCONNERY², and ROBIN MAHON²

*¹University of Connecticut-Avery Point
1080 Shennecossett Ave.*

Groton, Connecticut 06340 USA

*²University of the West Indies
Cave Hill Campus
St. Michael, Barbados*

ABSTRACT

Co-management is a relatively new concept in the Caribbean region. Over the last decade, the use of co-management arrangements in fisheries and coastal resource management has increased as new approaches to management have been sought. There is now more documentation available on the various experiences with co-management that have increased our knowledge of conditions leading to success and failure and the unique characteristics of co-management in the region. A recent project, Caribbean Coastal Co-management Project implemented by the Caribbean Conservation Association, adds to this growing knowledge base through several new case studies from Barbados, Belize and Grenada. This paper presents a comparative analysis of lessons learned and conditions for success from both the literature and from the six case studies conducted in the project.

KEY WORDS: Caribbean, coastal, co-management, resource

Análisis Comparativo del Plan de Co-manejo en el Caribe

El co-manejo es un concepto relativamente nuevo en la región del Caribe. En las últimas décadas, el uso de acuerdos de co-manejo en la pesquería y manejo de recursos costeros ha incrementado como un nuevo aporte. Actualmente hay mas documentación disponible basadas en experiencias existentes que han incrementado nuestros conocimientos de correcciones que dirigen hacia el éxito así mismo en decepciones y a la características únicas del co-manejo en la Región. Un proyecto reciente Co-manejo del Caribe Costeño es implementado por la Asociación de Conservación del caribe, en consideración de este conocimiento en proceso de desarrollo está basada en varios casos de estudio de Barbados Belice y Granada. Este documento presenta un análisis de lecturas aprendidas y condiciones para el éxito de ambas partes ya sea de la lectura y por otra parte de casos de estudios que fueron conducidos por el proyecto.

PALABRAS CLAVES: Co-manejo, análisis comparativo

INTRODUCTION

Co-management is a relatively new concept in the Caribbean region. Over the last decade, the use of co-management arrangements in fisheries and coastal resource management has increased as new approaches to management have been sought. There is now more documentation of the various experiences with co-management that have increased our knowledge of conditions leading to success and failure and the unique characteristics of co-management in the region. This report presents a comparative analysis of lessons learned and conditions for success from both the literature and from the six case studies conducted as part of the Caribbean Coastal Co-management Guidelines Project.

A REVIEW OF CARIBBEAN STUDIES ON CO-MANAGEMENT

Throughout the project, secondary literature on co-management in the wider Caribbean region was collected and reviewed. This section presents summaries of lessons learned and conditions for success of co-management from the reports, journal articles, and other materials reviewed.

Geoghegan and Renard (2002) in summarizing the insular Caribbean's experience in participatory planning and management of protected areas noted:

- i) The need to recognize the diversity of stakeholders and take into account the full complexity of their interests and relationships;
- ii) The importance of suitable institutional arrangements for the long term success of participatory management;
- iii) The need for transparent, negotiated processes for determining priorities in the face of inadequate resources;
- iv) There should be a relationship between successful participatory management and the provision of appreciable benefits for local communities.

Geoghegan, Renard, Brown and Krishnarayan (1999) reviewed experiences in participatory planning and management. They found that the level and effectiveness of participation varied considerably among the case studies. However, they reveal some general trends and characteristics:

- i) Use of participatory approaches is increasing in the region;
- ii) Widespread acceptance of and support for these approaches;
- iii) More inclusive planning and policy processes at all levels;
- iv) Little progress in developing enabling policies for participatory approaches;
- v) Coordination of initiatives by NGOs with a sustainable development orientation and led at the local level by recognized community leaders;
- vi) The initiatives are often stimulated by coastal degradation and conflict;
- vii) Participatory approaches are seen by planners as an effective way to integrate community development into natural resource management;
- viii) Design of initiatives suffers from limited social science technical input;

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- ix) Limited success in moving participation from planning to implementation.

Renard (2001) reported the following lessons learnt from the Soufriere Marine Management Area in St. Lucia

- i) Threat to the success and effectiveness of participatory management and institutions is the accidental or deliberate exclusion of stakeholders.
- ii) There is need for rigorous methods of stakeholder identification.
- iii) Stakeholder groups and communities are less homogeneous than assumed.
- iv) Many forces mitigate against the fair and equitable distribution of rights, responsibilities and benefits.
- v) Representation and representativeness are two different concepts, and effective representation is difficult.
- vi) The legitimacy and competence of facilitation are essential requirements for the success of participatory planning and negotiation processes.
- vii) When carried out in a consensual participatory fashion, stakeholder analysis is an instrument for dispute resolution.
- viii) Conflict management and participatory planning activities often incorrectly assume that conditions are more static than they are in reality.
- ix) Conflicts cannot be resolved; they can only be managed.
- x) Conflict management institutions must be capable of responding equitably, effectively and efficiently to emerging changes, evolving issues and needs.

Cumberbatch (2001) reports from the Folkstone Marine Park and Reserve:

- i) The participatory approach to stakeholder analysis takes considerable time and financial resources but can provide valuable insights.
- ii) Stakeholders have justifiable concerns that must be aired and addressed even if they appear to bear little relation to the project's focus.
- iii) Participatory processes are very human-intensive.
- iv) Non-organized groups are difficult to engage in these processes.
- v) Time lags are inevitable and problematic.
- vi) It is not feasible to have all stakeholders represented in management.
- vii) Access to, and perceptions of, power and influence directly affect stakeholders' interest and willingness to come to the negotiating table.

Mahon and Mascia (2003) report on Folkstone Marine Park and Reserve:

- i) Stakeholders need adequate technical information on constraints in order to avoid developing unrealistic proposals;
- ii) There is the need to pay attention to imbalances in stakeholder capacity to participate in multistakeholder processes, e.g. fishers versus tourism.

Brown and Pomeroy (1999) note that the design and implementation of co-management in the region will be hindered by several factors. These factors include: no formal traditions of community-based coastal resources management, relative newness of the concept of co-management among government and fishers, limited government-fisher cooperation, lack of strong political support, and the limited number and weakness of fisher organizations. Two general models of co-management seem to operate in the region. The first involves intensive and extensive use of consultation with the resource stakeholders, the use of a participatory approach to the decision-making process, and the establishment of a local resource management body representing all stakeholder groups. The second involves establishing or strengthening fisher organizations and community awareness and education programs to build the capacities of fishers to effectively participate in management and the establishment of co-management arrangements among stakeholders. Government support for decentralization, development of partnerships, legislation, and the provision of financial and technical resources is invariably required.

McConney, Pomeroy and Mahon (2002) in a review of 18 co-management case studies in the Caribbean, concluded that most (55%) were categorised as collaborative. Most initiatives were multi-faceted, engaging in several activities. 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. There was a steady decline from research to interpretation that mimics the typical practise of less stakeholder involvement in the activities perceived as being technical/scientific.

Ravndal (2002) studied the community co-managed park system in Belize. She concluded that critical barriers preventing effective co-management of protected areas in Belize appear to be:

- i) Lack of capacity of the key government entities;
- ii) Lack of capacity of community-based organizations;
- iii) Inadequate policy and legislative framework for biodiversity conservation;
- iv) Inappropriate financial demands placed on community based organizations;
- v) Lack of a clearly communicated model of co-management describing.

McConney (1999) evaluated the Fisherfolk Organization Development Project in Barbados in light of conditions that facilitate successful co-management in Asia. The results reveal policy implications if Barbados is to proceed with co-management. One of the most fundamental concerns is scale. The sharing of fishery resources with neighbouring islands makes national scale, community-based co-management virtually impossible for many fisheries. Other major considerations concern the rate of progress of establishing co-management, particularly in the wider context of development. Government must provide a more favourable climate for co-management through policies, procedures and legislation. Finally there are the perspectives and capacity of the fishing industry stakeholders, particularly the fisherfolk organisations. The latter need to recognise and exercise their true potential for self-management

and reduce dependence upon government. Self-reliance must be demonstrated if they are to avoid co-optation by government. Access to resources and expertise through NGO networking must be more fully explored.

McConney, Atapattu and Leslie (1998) reported on organizing fisherfolk in Barbados. An incremental approach to fisherfolk organization development has been employed to place more decision-making responsibility in the hands of the fisherfolk, but the influence of government is strong. If social partnership is the new way of doing business, then there should be collaborative roles for the private sector and facilitating NGOs in fisherfolk organization development. These linkages are not as well developed in Barbados as in other CARICOM countries such as Jamaica. Organizing fisherfolk in Barbados is at the stage where the bodies formed could benefit considerably from mechanisms for forging linkages with non-governmental partners in development.

Jentoft and Sandersen (1993) reported on co-management in St. Vincent and the Grenadines. They stated that Caribbean communities in general do not have deep historical roots. There is a low degree of social integration at the community level. The absence of community cohesion and cooperative institutions at the community level reduces the capacity for collective action and self-sufficiency. Government is often regarded with skepticism. To be effective as co-managers, fishermen's cooperatives need external support for organizational consolidation. Co-management may be more effectively exercised if cooperatives have property rights or use rights. Cooperatives must have power, but their power must be coupled with duties and responsibilities to ensure that they work for the common good.

Brown (1998a) concludes that significant strides have been made towards the creation of institutions that favour the establishment and sustainability of co-management in the region. Brown believes that the implementation of fisheries management plans and the formation of fisheries advisory committees will go a long way to enhance sustainable resource management in the region. However, the structural and operational weaknesses of the existing resource user organizations render their capacity to assume the obligations and responsibilities involved in effectively participating in co-managing the resources highly uncertain. There are also uncertainties concerning the genuineness of the political will to affect the devolution of central authority to peripheral entities and for the creation of institutional structures that will further promote the decentralization of the decision-making process.

Govan (2003) prepared a study on co-management of coastal and marine resources and indigenous people's communities in Central America and the Caribbean drawing lessons, and identifying issues, needs, challenges and options for regional empowerment from a review of community managed resources. Govan identified three priority areas for realizing the potential of co-management for sustainable development and conservation of the region:

- i) Promote co-management in socioeconomic and policy contexts.
- ii) Recognize and work with indigenous peoples and their territories.
- iii) Make co-management a cornerstone of the emerging regional efforts towards integrated coastal management.

Brown (1998b) identified steps in co-management to address overfishing, resource decline and habitat degradation in the CARICOM region, including:

- i) To consult and promote dialogue with, the multiple resource user groups in order to find ways of accommodating all, while reducing conflict.
- ii) Promote the consultation process with fishing communities, in order to enhance their involvement and participation in decision-making and planning processes in fisheries management.
- iii) Traditional management systems need to be revived, invigorated and accommodated, especially territorial use rights.
- iv) Fishers need to be organized into viable organizations and exiting organizations strengthened and sustained.

Chakalall (1991) concluded that community-based management can be applied to the small-scale fisheries in the region through existing legal and institutional structures and with certain changes in policies. The experience which is lacking can only be gained through trial and error and by building on the existing traditional practices being observed by fishermen. Community-based management would form the backbone for fisheries management, to be supported by modern management measures.

CARICOM-CFRAMP (1995) assessed the capabilities of the fisheries authorities and fishers' organizations and communities to implement co-management. The study found:

- i) Almost all fisheries departments/divisions do not have the resources to mobilize and provide extension services for fisher organization formation and collective activities.
- ii) The majority of fisher organizations and cooperatives are structurally and financially weak and would require technical assistance to engage in co-management.
- iii) Government policies will need to be changed to support co-management and to strengthen extension units to provide assistance for co-management.

Almerigi et al. (1999) reported upon a review of participatory coastal zone management demonstration projects in Barbados:

- i) There is a need to be aware of the difference between the type of project being attempted and the traditional type of community development project.
- ii) Projects external to the community require stakeholders to 'buy-in'.
- iii) When the conservation objective is combined with small-scale economic opportunities or ways to address the immediate concerns of the community, the project is more likely to capture interest and commitment.
- iv) It is important to look at stakeholder composition recognizing that different types of 'communities' exist.
- v) Stakeholder involvement and support requires substantial effort and needs to be sustained with input from government; iterative planning is important.

White, Hale, Renard and Cortesi (1994) discussed lessons learned for developing successful co-management arrangements from case studies of collaborative and community-based management of coral reefs:

- i) Ask the community what it thinks about co-management.
- ii) It is important to start correctly; it is difficult to recover from a bad start.
- iii) Clear, salient objectives and issues are required for stakeholders to understand and support the co-management.
- iv) Start simple and show results early.
- v) Management is not possible in the absence of community organizations (core management groups) and models of cooperative behavior.
- vi) Feedback is required to sustain and increase community participation.
- vii) Community-based initiatives need outside linkages and support.
- viii) Obstacles and limits to community-based management must be recognized so that realistic objectives can be set.
- ix) Expansion into the larger context of coastal management is easier once initial projects succeed and are sustained.

McConney (1998) reported on the implications for implementation of fisheries co-management in Barbados. Given its scarce supply of human, technical and financial resources, the Fisheries Division is likely to remain constrained in planning and management capability. Both fishers and the state are deficient in fishery resource information, and their deficiencies differ in ways that could make information exchange mutually beneficial. Trust and cooperation within the fishing industry, and between it and the state, could be improved through information exchange. The uncertainty surrounding the fishery, and the weakness of the state, provide a strong incentive for the harvest sector and government to introduce co-management starting with the relatively simple and straightforward exercise of joint data collection and analysis.

Begossi and Brown (2003) identified three types of co-management arrangements in Latin America and the Caribbean, and report lessons learned from Latin American and Caribbean co-management experiences, including:

- i) Co-management seems to be successful when fishers have responsibility for distributing catch quota and determining rules of access to fishing grounds.
- ii) The context in which co-management takes place is not static and arrangements need to be flexible.
- iii) The exclusion of potential users by using property rights has been difficult.
- iv) Changes in political regimes have not allowed for continuity in support for co-management efforts.
- v) Use conflicts are increasing and need to be a focus of co-management.
- vi) Fisheries administrations have enormous power and must be willing to share that power with resource users and stakeholders.
- vii) Fisheries administrations lack the resources to efficiently and effectively manage the fisheries and want co-management to address this issue.

- viii) NGOs have not been as active as they could in taking a leading role in institutionalizing co-management.
- ix) Governments will need to provide support for co-management through legislation and funding.

Krishnarayan, Geoghegan and Renard (2002) analyze experience in participatory natural resource management in the region. From the analysis of experience, a number of observations were made:

- i) Capacity building is not a panacea, but the policy climate, the availability of facilitating agencies, and the presence of political support are also important;
- ii) Existing capacities should be built on;
- iii) Capacity building can take time. Capacity building is not an end in itself, but is one consideration to be factored into the design and implementation of natural resource management approaches that are participatory and sustainable, and that provide economic benefits.

Charles (2001) reviews experiences and options in the region for the participation of civil society in environmental management and sustainable development. While civil society continues to utilize its strengths in advocacy and mobilization, some groups have been involved in the management of resources for the support of livelihoods. The success of these experiences has in turn led to the increasing use of economic justification arguments as the basis for meaningful participation. It is becoming difficult to place environmental factors as primary considerations in decision-making on the use of natural resources. There is no clearly defined formula, but rather a path towards participation within the wider context of the desire for good governance in the region. The main recommendation therefore is a phased approach to increasing participation of civil society in environmental management and sustainable development.

COMPARISON OF PROJECT CASE STUDIES

Six case studies, two each from Barbados, Belize and Grenada, were selected for inclusion in this study: *The Caribbean Coastal Co-management Guidelines Project*. They were:

- i) Barbados sea egg fishery.
- ii) Barbados Fisheries Advisory Committee.
- iii) Belize Friends of Nature: Co-management of Laughing Bird Caye
- iv) National Park and Gladden Spit Marine Reserve MPAs.
- v) Belize Fisheries Advisory Board.
- vi) Grenada lobster fishery (focus on Sauteurs location).
- vii) Grenada seine net fishery (focus on Gouyave location).

The purpose of this project was to suggest mechanisms for the implementation of integrated pro-poor natural resource (and pollution prevention) management in coastal zones that could be developed and promoted through understanding the requirements for establishing successful co-management institutions for coastal resources under various conditions in the Caribbean. In this

from the six case studies is presented.

Type of Co-management

Based on international and Caribbean literature, it was determined that it is appropriate to view co-management in the Caribbean region in three types. The research framework summarizes these main types of co-management as consultative, collaborative and delegated. The type of co-management identified in each of the six case studies is presented in Table 1.

Table 1. Types of co-management in the six case studies

Case study	Type of Co-management	Notes
Barbados sea egg	Consultative	Elements of collaboration in projects
Barbados FAC	Consultative	Movement towards collaborative
Belize FON	Delegated	Limited NGO capacity
Belize FAB	Consultative	Exhibits characteristics of collaborative
Grenada Sauteurs lobster	Consultative	Plan for collaborative not attained
Grenada seine net fishery	Consultative	Little interest from fishers for collaborative

Phase of Co-management

The implementation of co-management can be viewed as having three phases: pre-implementation, implementation, and post-implementation. The pre-implementation phase includes problem recognition, discussion, consensus building, seeking assistance, and project planning. The implementation phase including a variety of activities such as community entry, research, organizing, education, plan and strategy, and plan implementation. Post-implementation includes evaluation, phase-out, and operation of interventions (Berkes et al 2001). The phase of co-management of each of the six case studies is presented in Table 2.

Conditions for Co-management

This section is based on findings that have been presented in the individual case studies and on the proceedings of a special workshop of stakeholders in each country. Participants in the workshops were asked to discuss and evaluate a list of variables presented to them by the researchers based on previous research on co-management in Asia (Pomeroy, Katon and Harkes 2001) and on the secondary literature review on co-management in the Caribbean presented above. During this process the workshop participants had the opportunity to respectively add or delete variables that they found to be critical or irrelevant for the success of co-management in their country. Note that in Barbados and Grenada the results of the two case studies in each country were discussed in the same workshop. Separate results for each case study were not reported. Note that in Belize separate results were obtained for

the Belize FON and Belize FAB case studies. (But separate case study results were also obtained for Grenada and Barbados). The reason for this is that no workshop was held on the Belize FON case study. Instead the ranking was based on the results of the case study alone, whereas a workshop was held for the Belize FAB. Each variable was ranked according to its presence or absence as a condition for establishing and/or sustaining successful co-management in each country based on the following scale (Table 3).

Table 2. Phase of co-management in the six case studies

Case study	Phase of Co-management	Notes
Barbados sea egg	Pre-implementation	Government and fishers still discussing how to proceed
Barbados FAC	Implementation	Adjusting/adapting
Belize FON	Implementation	Adjusting/adapting
Belize FAB	Post-implementation	Mature/strategies to address conflict in place
Grenada Sauteurs lobster	Pre-implementation	Will not advanced beyond current state in near future
Grenada seine net fishery	Pre-implementation	Will not advanced beyond current state in near future

CONDITIONS FOR SUCCESS

From the special workshop of stakeholders held in each country, six of the conditions discussed above were perceived to exist for the success of co-management in the Caribbean region. These are:

- i) Membership is clearly defined as to who really has a stake in the fishery,
- ii) There is a shared recognition of resource use problems,
- iii) Objectives for management can be defined based on problems and interests,
- iv) External agents support management but do not encourage dependency
- v) Management rules are enforceable by resource users and managers, and
- vi) Defined boundaries of the resource, management area, and "community"

As co-management is still a relatively new concept in the Caribbean region, these conditions may change or expand over time as more experience is gained in the region. However, these conditions serve as an important foundation for preparing the guidelines for the successful co-management in the Caribbean. These conditions allow for a number of questions concerning co-management, addressed in the guidelines, such as:

- i) When do we usually introduce co-management?
- ii) Where do we do co-management?
- iii) Who do we co-manage with?

Table 3. Stakeholders perceptions of the existence of critical conditions for successful co-management. 0 = absent; 1 = present but weak; 2 = present to a fair extent; 3 = strong feature of the fishery

CO-MANAGEMENT CONDITION	BDS	BZE FON	BZE FAB	GRN
Clearly defined boundaries: of the resource; of the management area; of the "community"	2	3	1-2	1
Membership is clearly defined as to who really has a stake in the fishery (is a stakeholder)	3	2	2	3
There is shared recognition of a resource use problem that needs to be addressed	3	3	3	2
Clear objectives for management can be defined based on the problems and interests	3	3	3	3
Good fit between the scale of the resource and feasible management arrangements	2	2	2	1-2
Management approaches and measures are flexible to suit changing circumstances	1	2	2	2
Cooperation exists, and is adequate, at the resource user level and in government etc.	1	1	1	2
Leadership exists, and is adequate, at the resource user level and in government etc	1-2	1	2	2
Group cohesion where fishers, managers and others can act collectively within their groups	2	1	2	1
There are mechanisms for managing conflicts within and among stakeholder groups	1	2	2	1
Communication amongst the stakeholders is effective, and there is adequate networking	2	1	3	2
Coordination between government, local community and other stakeholders is effective	1	2	2	2
Trust and mutual respect characterise the relationships among the key stakeholders	0-1	1	1	2
Organisational capacity exists for all stakeholders to participate effectively in management	2	1	1	1
Adequate financial, and hence physical, resources are available for management tasks	2	1	1	1
External agents provide support for management but do not encourage dependency	3	3	3	2
Benefits of participation must exceed costs from the levels of individuals up to larger groups	2	2	2	1
Individuals, groups affected by management arrangements are included in decision-making	2	1	1-2	2
Management rules are enforceable by resource users and the management authority	3	2	2	2
Legislation gives users some meaningful level of ownership or control over resource use	0	1	1	0
Legislation gives users authority to make management decisions, perhaps shared	1	2	1	2
Decentralisation and delegation of authority is part of the policy of resource management	1	2	2	0
Co-management has a good social and cultural fit to the circumstances of the situation	1	2	2	1

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