

Towards Co-Management of Caribbean FAD Fisheries: The CARIFICO Experience

Hacia la Gestión de la Pesca M Caribe: La Experiencia CARIFICO

Direction de Gestion des Pêcheries des Caraïbes FAD : l'Expérience CARIFICO

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EXTENDED ABSTRACT

Introduction

Fisheries co-management can be broadly defined as the sharing of management responsibility and authority between government and stakeholders (principally fishers). Co-management arrangements may fall anywhere on a continuum from near-total government control to near-total stakeholder control (Figure 1).



Figure 1. Co-management responsibility-sharing arrangements.

The following co-management arrangements are described by Sen and Nielsen (1996):

- i) **Instructive:** Government instructs fishers on management decisions it makes.
- ii) **Consultative:** Fishers are consulted but final decisions are made by government.
- iii) **Cooperative:** Fishers and government cooperate as equal partners in decision-making.
- iv) **Advisory:** Fishers make decisions but government plays an advisory role.
- v) **Informative:** Fishers inform the government of management decisions they make.

In the Caribbean, active government management of fisheries is relatively recent and generally based on a premise of strong government control of rules and procedures, with limited awareness of the current or potential role of fishers in management. At the same time, the capacity of Caribbean governments to make and enforce rules that effectively improve fisheries outcomes is often weak. Fisheries co-management, in principle, has the potential to improve processes outcomes by strengthening the role of fishers' knowledge and their capacity of individual and collective action in the management system (Brown and Pomeroy 1999, Pomeroy et al. 2004).

Various co-management initiatives have been pursued in the Caribbean region since the 1990s. A 2004 review concluded that many initiatives were at early stages of implementation and typically aimed for the consultative or collaborative level of the co-management continuum (Pomeroy et al. 2004). The review identified several conditions constraining the implementation of fisheries co-management in the Caribbean region:

- i) Inflexible approaches of government for coastal resources management,
- ii) Lack of effective leadership, group cohesion and organizational capacity among fishers,
- iii) Low levels of trust between government and fishers. and
- iv) Lack of legislation empowering fishers to make decisions.

The CARIFICO Project

The Japanese government has long supported fisheries development initiatives in the Caribbean region. Most recently, the Japanese government, under the auspices of the Japan International Cooperation Agency (JICA) partnered with six Caribbean island nations (Saint Kitts and Nevis, Antigua and Barbuda, Dominica, Saint Lucia, Saint Vincent and the Grenadines, and Grenada) to implement a project called Caribbean Fisheries Co-Management (CARIFICO). The goal of CARIFICO is to facilitate collaborative approaches among fisher and government stakeholders as a means to achieve and sustain productivity enhancements, reduce user conflicts and improve the livelihoods of artisanal fishers. Two primary

objectives support this goal (1) to strengthen institutional and organizational mechanisms to develop, manage and sustain offshore fisheries that rely on the use of fish aggregation devices (FADs), and (2) to strengthen the management and productivity of fisheries facilities. The focus of the co-management initiative on FADs and fisheries facilities was chosen because in both areas, individual and collective action by fishers can be expected to result in relatively immediate benefits. By contrast, many management activities aimed at reducing unsustainable practices involve restraint with deferred benefits.

During the course of the five-year CARIFICO project eight actions have underpinned these objectives:

- i) Consultations,
- ii) Fisher trainings,
- iii) Introduction of FAD technologies,
- iv) Organizing fishers,
- v) Establishing and codifying user rules,
- vi) Implementing data collection programs, and
- vii) Marketing catch (Figure 2).

The CARIFICO activities were designed to develop and expand FAD fisheries while facilitating an increasing adoption of co-management approaches. Many of the CARIFICO activities relate to factors previously identified as constraining co-management (Pomeroy et al. 2001, Pomeroy et al. 2004, Evans et al. 2011).

This paper describes perspectives on co-management from the viewpoint of CARIFICO participants, based on the results of a regional workshop, which took place in July 2017. The aims of the workshop were to

- i) Define co-management in the Caribbean context,
- ii) Characterize its implementation relative to the eight CARIFICO activities, and
- iii) Identify challenges and opportunities for promoting a co-managed FAD fishery.

The workshop was oriented towards the government perspective but follow-up interviews with fishers were conducted and their responses are included in the results. A series of exercises helped facilitate participant discussion and quantify their input.

CARIFICO Regional Workshop

The first exercise helped to identify common benefits from a co-managed FAD fishery. Participants were asked to write down key words or phrases that best reflected their interest in a co-managed fishery. Three broad themes emerged from participant input and discussion. First, there was a desire to improve collaboration and cooperation among fishers and between fishers and government. Second, a need was identified for greater accountability and transparency in decision-making, and third there was an interest in motivating fisher organization and participation in the management process.

The second exercise helped to characterize the development of co-management arrangements over time. The objective was to determine (1) if a general shift in responsibility-sharing had occurred from prior to to commensurate with implementation of the CARIFICO project, and (2) what the desired future co-management end-state might be. For this exercise, participants identified the co-management arrangement described by Sen and Nielsen that best reflected responsibility sharing during four time periods: before CARIFICO, during the first year of CARIFICO, the present and the future (Figure 3).

The results show that there has been a perceived shift in government providing fishers with greater responsibility in decision-making. In the Caribbean, prior to the CARIFICO project, responsibility sharing was primarily instructive to consultative in nature (i.e., more government controlled). With the advent and progress of CARIFICO, stakeholders perceive that responsibility sharing has transitioned to more consultative to cooperative arrangements (i.e., government is still assuming primary responsibility for management, but is soliciting greater fisher input in the governance process). Representatives of governments participating in CARIFICO believe that the trend to delegate greater responsibility to fisher organizations will continue to a point, with future governance being more cooperative to advisory in nature (i.e., emphasizing a more equitable sharing in management decisions and responsibilities). The complete transfer of management authority to fisher stakeholders characterized by informative decision-making is not presently desired.



Figure 2. CARIFICO Activities and purpose.

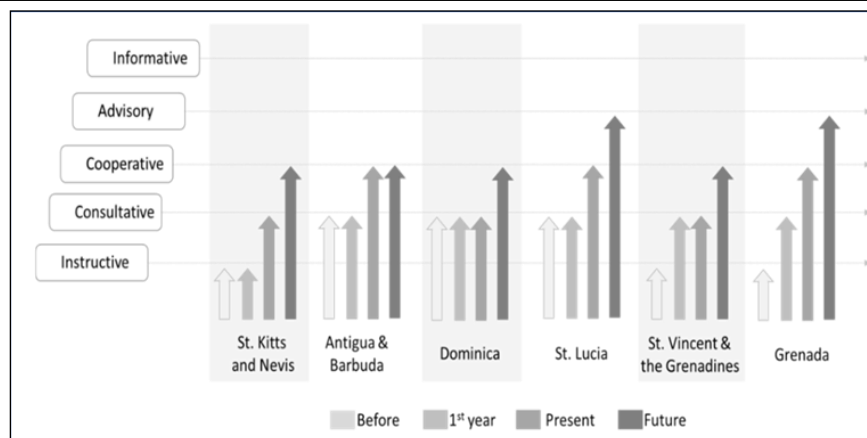


Figure 3. Trends in co-management arrangements over time.

The third exercise helped characterize the changing role of government and fishers in assuming responsibility for actions that support the implementation of each CARIFICO activity. A number of actions that support the implementation of each CARIFICO activity were identified and evaluated by workshop participants (Table 1). Fisheries officers and fishers were asked to assign perceived responsibility for each action to either government, fishers or both. Scores were averaged by activity and then across activities for each country (Figure 4).

The fourth exercise centered on identifying opportunities to address four broad issues specified by fishers who participated in a CARIFICO sponsored socio-economic survey, conducted during 2016 (Montes et al. 2017). The issues include:

- i) Improving knowledge of and adherence to formal and information rules related to the use of FADs,

- ii) Maintaining high quality landing site facilities and services,
- iii) Increasing fisher participation and benefits from co-management, and
- iv) Maintaining the stability of public FAD programs.

Five opportunities were identified to address these issues (Figure 5).

Results and Conclusions

The CARIFICO workshop provided a venue for project managers and liaison staff affiliated with six Caribbean countries to share good practices for addressing challenges faced in implementing a set of activities intended to facilitate co-management. A set of exercises provided structure to discussions and a method for quantifying participant input during the three-day work-

Table 1. List of actions evaluated for implementing CARIFICO activities.

Consultations	Fisher Organization	Trainings	User Rules	Catch & Effort Data	User Fees	Marketing Catch	Maintain FAD Program
Organize	Identify Leaders	Fund	Identify Informal Rules	Determine Data to Collect	Determine Fees	Monitor Fish Quality	Provide Materials
Fund	Establish Operational Plan	Organize	Advocate User Rights	Develop Forms	Collect Fees	Develop Value-Added Products	Support Licensing
Attend	Fund Organization	Participate	Mediate Conflicts	Collect Data	Monitor License Status	Maintain Fish Quality at Sea	Encourage Compliance with Rules
Participate	Provide Technical Assistance	Conduct Trainings	Develop Rules	Input Data	Enforce Compliance	Increase Local Demand	Maintain Landing Site Facilities
Set Agenda	Register Organization	Transfer Knowledge	Establish Policy	Analyze Data	Promote Participation	Facilitate Processing	Maintain Landing Site Facilities
Identify Stakeholders	Provide Venue for Organization to Operate	Promote Participation	Follow Rules	Interpret Data	Facilitate Export	Establish Market Prices	Maintain Landing Site Facilities
Take Minutes	Financial Management	Monitor Effectiveness	Provide Feedback to Users	Report Data	Facilitate Export	Encourage Fisher Participation	Encourage Sustainable Fishing Practices
Report Results	Leadership Development						
Make Decisions	Promote Participation						

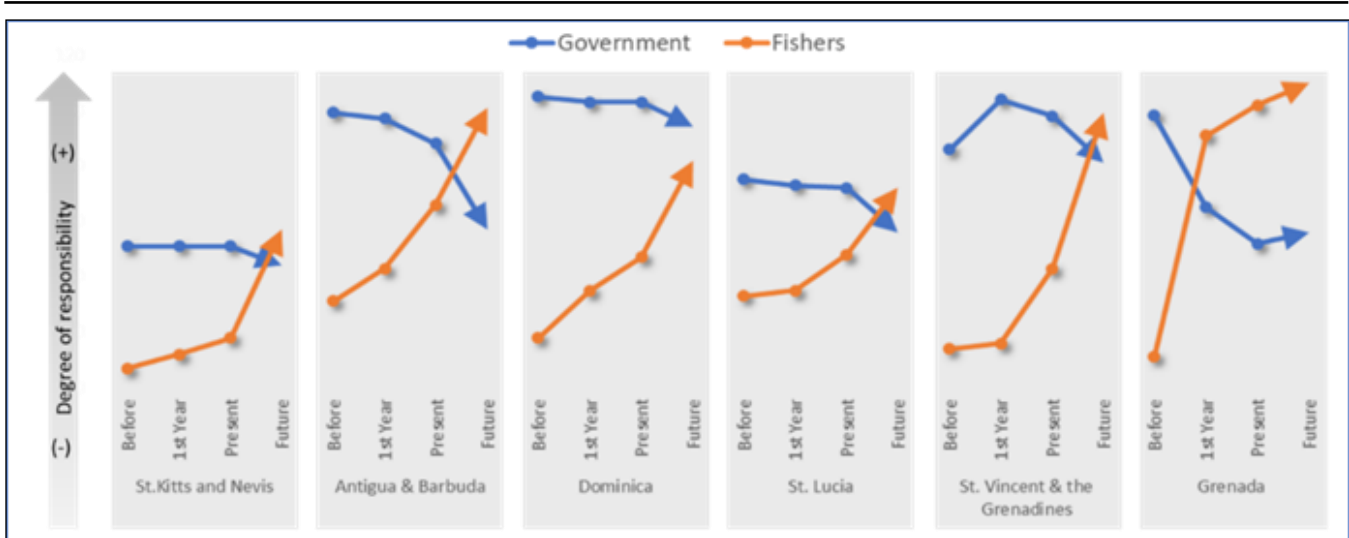


Figure 4. The role of government and fishers in implementing activities to promote co-management.

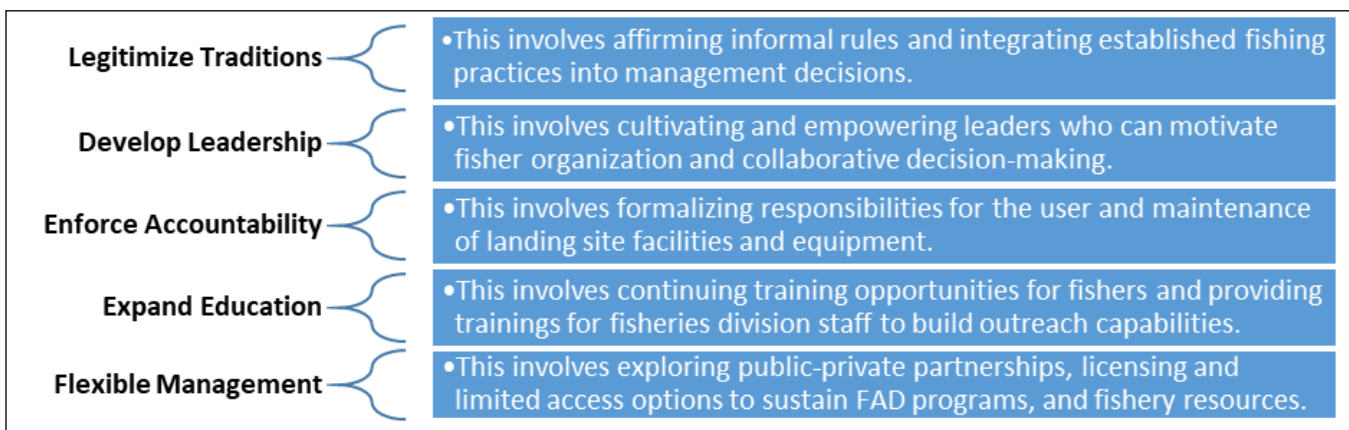


Figure 5. Opportunities for addressing co-management issues identified by fishers.

shop. The workshop results show that participants from target countries perceived that, since the inception of CARIFICO, fishers have gradually assumed greater responsibility for project activities while the role of government has declined. There are, however, differences in the rate of this shift in responsibility. Representatives of some countries such as Antigua and Barbuda and St. Vincent and the Grenadines perceived a greater role for government in implementing CARIFICO actions and activities at the initiation of the project with a decreasing role through time. Grenada presents the most dramatic example of this trend. In general, representatives of most islands implementing CARIFICO activities envision greater authority and responsibility for fisheries co-management to be transferred to fishers, which is consistent with their governments' desire to move towards a more advisory co-management arrangement in the future—one in which government desires greater responsibility from fishers without relinquishing complete decision-making authority to them.

KEYWORDS: Co-management, FAD, governance

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