

Top Down Co-Management? The Role of Policy Entrepreneurs and Distributive Conflict

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In recent decades, failures of top down approaches to fisheries management have come under scrutiny and the concept of co-management has gained increasing purchase (Jentoft 1989; Pinkerton 1989; Acheson 2003, emphasis in original). Co-management—where “fishermen’s organizations take an active part in designing, implementing and enforcing fisheries regulations” (Jentoft 1989) is practiced in advanced democracies in the Maine lobster fishery (Acheson 2003), Norway’s Lofoten fishery (Jentoft and Kristofferson 1989), and the Atlantic surf clam fishery (McCay and Creed 1989) as well as a number of others (Sen and Nielsen 1996).

Proponents of co-management argue that increased stakeholder input can lead to better management. They posit that a process that engages fishermen leads to greater procedural legitimacy and enhances the quality of regulations due to better information about the resource and distributional consequences of regulations (Jentoft 1989; Pinkerton 1989). Wilson (2003: 202) argues that governments will be motivated to adopt co-management due to “its need for the communities’ help in dealing with aspects of fisheries management that require richer, more sensitive and subtle tools than authority.” However, researchers warn against seeing co-management as a panacea as problems with legitimacy and regulatory capture have emerged in some arenas (Jentoft 2000; Singleton 2000; Jentoft, Mikalsen et al. 2003; Yandle 2003).

In the past decades, there has been increasing scholarship examining the efficacy of co-management regimes (Pinkerton 1989; Yandle 2003) and how the characteristics of the community or the resource contribute to the likelihood of successful cooperation in overcoming collective action problems (Wade 1988; Ostrom 1990; Schlager, Blomquist et al. 1994; Baland and Platteau 1995). Implicit in this research is that, given certain

resource and community attributes, fishermen will *want* to participate in co-management and hence the potential roadblocks in getting user groups to the table to discuss various options are under-examined. Indeed, researchers have found that certain communities have initiated the move to co-management by asking for, or in some cases demanding, an active role in policy decision-making (Boyd and Dewees 1992; Kearney 2002). In other cases, governments or the courts have initiated moves towards various forms of co-management which have been accepted, if not embraced, by the fishing community (Karlsen 2001; Ebbin 2002). However, as much of the research examines the efficacy of these institutions *after* they have been established, there is scant attention to the processes through which affected groups have considered alternative approaches to fisheries management and changes in the structure of decision making. Little is said about how the idea of co-management germinates within the fishing communities.¹ Where did they learn which kind of institutions to ask for or develop? What role did the government play in presenting different options and how were they received or revised? To what degree did they independently seek information in order to affect institutional change? Was there an individual or group that posited ideas for change that were persuasive? By focusing on the processes in developing co-management institutions, this paper examines the factors that facilitate or frustrate user groups' support of co-management.

The study examines two fisheries, the Chesapeake Bay blue crab (*Callinectes sapidus*) fishery and the Maine lobster (*Homarus americanus*) fishery. Both fisheries exhibit a number of characteristics that are theoretically conducive to overcoming

¹ A notable exception is Acheson (2003). In describing how the idea of co management percolated through the policy community, he attributes it to the growing body of literature, and a session on co-management at the Maine Fishermen's Forum. The forum is a unique institution established in 1972 that meets annually in Rockport for four days

collective action problems associated with the management of common pool resources and both fisheries had support from government agencies and legislators to actively examine co-management options. However, motivation to attend to co-management options varied considerably between the user groups. What is puzzling is that discussions of co-management were eventually shelved in the Chesapeake Bay but implemented in Maine, despite a number of similarities in user group composition and resource attributes as well as support from key decision makers.

This research highlights that the process of developing institutions for co-management is lengthy and time consuming and that user groups do not necessarily embrace changes to the status quo (Acheson 2003). While the attributes of user groups and resources as well as government support are important in facilitating the development of co-management, they are not sufficient. Following Knight (Knight 1992), I examine the roles of distributional conflict in motivating change and policy entrepreneurs in negotiating it.² I find that the *nature* of distributional conflict and the *affiliation* of policy entrepreneurs account for variation in the development of co-management regimes in these cases.

This study is important and timely. With increasing interest in the development of co-management policies, particularly on the part of resource management agencies, it is important to recognize that affected stakeholder groups may not always embrace institutional change and may, in fact, be quite resistant to it. In addition to the need to

of sessions on various topics of interest. It is attended by fishermen, bureaucrats, representatives of companies, and a few academics and politicians. (p 99, n 1)

² A policy entrepreneur is an individual who invests time and resources to advance a position or policy (Kingdon 1984) Taylor (xxx) notes that one of the most important functions a policy entrepreneur can serve is to change people's beliefs and attitudes about a particular issue.

overcome collective action problems identified by a number of quality studies, user groups must also be willing to invest time and energy into developing new institutions and rules for decision making.

I begin with a brief review of the literature and background of the literature pertaining to co-management and community management of fisheries then turn to a discussion of the Maine lobster and Chesapeake Bay blue crab fisheries. I follow with a discussion of the outcomes and conclude with directions for future research.

Co-management

As noted above, co-management involves the sharing of fisheries management decisions between centralized government agencies and user groups. One can consider that there can be a range of relationships that confer varying degrees of power sharing and decision making authority among the affected groups, as shown in Figure 1. These relationships range from a high degree of government control with a limited role for user groups to participate by providing information to government representatives (A), to exclusive community control over the resource (B). Co-management is usually discussed as lying in somewhere in the middle of the scheme with the fishers exercising more than simply providing information that is more typical in government/stakeholder relations.³

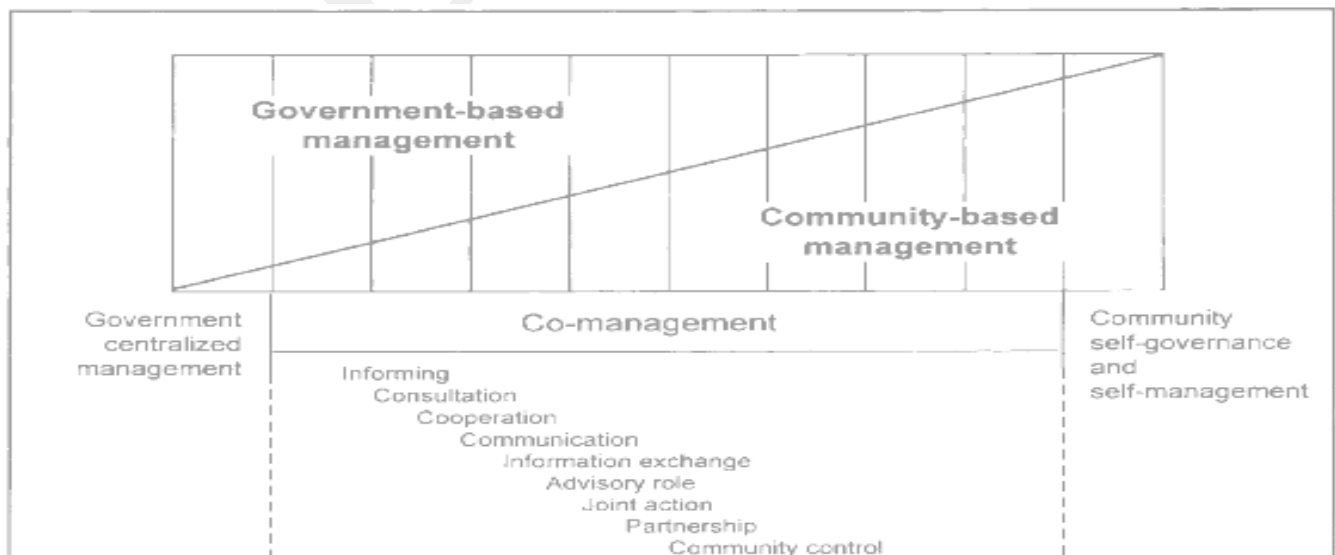


Figure 1: Co-Management (Source: XXX)

Scholars studying common pool resource issues usually point to the attributes of the community and/or the resource in explaining the success of cooperative management of common pool resources (Ostrom 1990; Baland and Platteau 1995). Community attributes include: appropriators must recognize that there is a problem that can be ameliorated by rule change; they are a relatively homogenous bunch; rule changes will affect them evenly; the costs of enforcement, information, and transformation are relatively low; and appropriators have low discount rates (Ostrom 1990: 211). Resource attributes include difficulty of exclusion, subtractability, mobile flows and storage in the resource (Schlager, Blomquist et al. 1994).

I use these attributes to form the basis for a comparative study of the Maine lobster fishery and the Chesapeake Bay fishery.⁴ The ways in which they are similar suggest that the participants in both fisheries would be amenable to co-management regimes. However, as Acheson (2003: 208) contends, the “problem with this approach to rules is that it does not make clear how these rules come about.” Instead, he suggests that in order to understand the evolution of these rules, scholars need to examine allocative conflicts and the role of policy entrepreneurs. This more process oriented approach allows researchers to examine variation in outcomes despite many similarities in user group and resource attributes.

⁴ However, Agrawal (2002) notes that there is an embarrassment of factors that researchers have posited as conditions for successful common property management, citing up to 36 factors identified by the leading scholars in the field. However, as he notes they can be clumped into primary categories of 1,2,3, and 4.

Crustaceans, Communities, and Conflicts

Both the Maine lobster and Chesapeake Bay blue crab fisheries are important biologic, economic, and social resources. They both represent the most important commercial fisheries in their regions with annual landings valued at \$205 million and \$55 million for the lobster and blue crab fisheries in 2003, respectively (Fisheries 2005). Both fisheries issue thousands of licenses per year, with a relatively high percentage of those license holders deriving a substantial portion of their income from fishing activities.⁵ There are also important non-fishing support industries that depend on the viability of these fisheries that include picking houses,⁶ restaurants, boat builders, and engine mechanics, to name a few. Additionally, in both regions, the animals and the fishermen who catch them are cultural icons. As such, concern over the resource potentially involves a broader group than those only involved in the seafood trade.

Both the lobster and blue crab fisheries are made up of participants that are relatively ethnically homogenous, with long time participation within the respective fisheries that is often intergenerational. A 2001 study of the Chesapeake Bay fishery found that 94 percent of the commercial crab license holders being male and predominantly Caucasian (93%). The watermen had been engaged in the fishery for a fairly long time across almost all gear types; the average length of time that watermen had participated in the fishery exceeded twenty years (Rhodes, et al 2001).

Anthropological accounts of the fisheries reveal the social embeddedness and deep social

⁵ In 2000 over 4,500 licences were issued in the BC fishery (Rhodes, et al. 2001), and over 6,500 licenses were issued in the Main lobster fishery (Acheson 2003).

⁶ This term refers to processors that “pick” the meat from the shell and package it for distribution.

ties of participants in the lobster fishery (Acheson 1987, 2003) and blue crab fishery (Paolisso 2002).⁷

Both fisheries are inshore fisheries, with only a few exceptions of offshore fishing vessels in the Maine lobster fishery (Acheson 2003). As such, they are day fisheries, where participants leave in the morning and return the same evening. For the most part, they utilize relatively small boats with minimal crew. The lobster fishery is overwhelmingly a trap fishery, targeting mature males that are 3 10/32” – 5” along the carapace. The blue crab fishery is more complex with different groups targeting the crab at different life stages and gender, and using a range of gear including traps, trotlines, and dredges. There is a small, but very lucrative and growing fishery that targets immature females to supply the soft-crab market (Miller 2002). Despite these differences, on the whole the industry in both arenas is composed of small scale, family owned operations.

Unlike other commercially valuable species of fish such as salmon and tuna that travel over long distances, both the blue crab and lobster are relatively sedentary. Tagging studies in the 1950s found that lobsters move as little as 2 miles, though more recent studies demonstrate that under some conditions they will migrate longer distances (Cooper and Uzmann 1971; Acheson 2003). Except for the larval stages, blue crabs spend the majority of their lives in the brackish waters of the Chesapeake Bay. Mature males prefer the lower salinities such as found in the northern Bay or up rivers and tributaries, and mature females are found in the higher salinities of the lower Bay. Juveniles are found throughout the Bay in areas that provide sufficient protection from predators such as grass beds. (CITE – Lipcius 19xx, von Montfrans 19xx). With this

⁷ Note that in both fisheries there is variation in the social networks in different communities of

rather limited range, theorists predict that cooperative management institutions would be easier to create in that the fishery takes place within a more limited suite of jurisdictions than longer-range animals (Schlager, Blomquist et al. 1994).

Science in both arenas is quite contentious and politicized, the “facts” presented in management decision making are rarely neutral. Additionally, policy agendas both influence and are influenced by the science of fisheries management (Acheson 2003; Beem 2005). With increasing emphasis on “getting the science right,” fisheries scientists have tried to develop more formal models to explain fluctuations in populations. In both arenas, the models proposed by scientists have come under fire. This is particularly because of the model parameters, namely natural mortality and growth (Acheson 2003; Beem 2005).

Both fisheries have undergone wide fluctuations in the resource. The booms and busts of each have not been adequately explained by either the scientific community or the user groups (Acheson 2003; Beem 2005). The inability to account for or predict fluctuations in population size exacerbates conflict over harvest rates with some suggesting that a lack of a stock-recruitment relationship renders the fishery unmanageable (CITE BC).

Presently, the lobster fishery has been on an upswing since 1990 with record landings towards the turn of the century. On the other hand the crab fishery has experienced a precipitous decline in landings following a decade of historically high landings in the 1980s. Despite the differences in the states of the resources, there have

fishermen. Find very strong on Eastern shore and Maine islands (verify) but likely less in other areas.

been distributional conflicts in both fisheries. I examine the import and implications of these conflicts in the following section.

One remarkable difference between the two organisms is their longevity. Lobsters can take up to 7 years to reach harvestable size and once they grow to over 5” long on the carapace, they know no natural enemies and can live up to 100 years (Cooper and Uzmann 1971; Acheson 2003). On the other hand, the blue crab is a much shorter lived animal. Many researchers and resource users believe that the crab lives on average about 3-5 years.⁸ Because of its relatively short lifespan, the blue crab is considered and “annual crop”. This may also have implications for conservation. If harvesters believe that the animal is apt to die soon, they will argue that harvesting will have no affect on the population as the animal will die without their help in the very near future. On the other hand, longer –lived animals will continue to produce offspring, replenishing the fishery.

Finally, in both arenas there was support for co-management in a number of sectors. In both Maine and the Chesapeake, there was support by legislators, resource managers, academics, and other actors in the policy community. There were active policy entrepreneurs in both of the cases. Acheson (2003) identified the support of Robin Alden, Marine Fisheries Commissioner in the mid-1990s and former editor of *Commercial Fisheries News* for 20 years, as well as officers of the Maine Lobstermen’s Association. In the Chesapeake, Eric Schwaab, Director of the Fisheries service for Maryland’s Department of Natural Resources (MDNR) from 1999-2003, was a strong advocate for co-management as was Ann Perisi Swanson, Executive Director of the

Chesapeake Bay Commission. However, the Chesapeake lacked a policy entrepreneur in the fishing community. There was no strong leadership within that community to take the ideas to the watermen and convince them or change their ideas about how co-management might enhance their power.

In Maine, the fishery falls under one jurisdiction, while the Chesapeake blue crab is managed by three entities: the Maryland Department of Natural Resources, Virginia Marine Resources Commission, and Potomac River Fisheries Commission. (this section will be expanded to examine the roles of these interjurisdictional issues.)

Another important variable is the experience that communities may have had with managing the resource themselves. This *de facto* power to regulate and create rules has been examined in a number of settings (CITES). James Acheson's (CITES) study of the Maine lobster fishery provides detailed accounts of the ways that fishers have developed, monitored, and enforced various rules in the fishery over time. In certain areas/islands some communities had already established trap limits for participants prior to the zone management law. There is a paucity of such information about the Chesapeake Bay as no systematic studies of existing informal institutions have been done to date. Nevertheless, there is evidence that the watermen do monitor each other, but the ways through which they may sanction each other or call on external enforcers is unclear. These factors may also play into the development of co-management institutions.

In sum, both of these fisheries appeared to be ripe for developing co-management institutions (see Table 1 for a synopsis of the above discussion). Robin Alden, Maine Marine Resource Commissioner, commented on the similarities and potential for

⁸ However, recent modeling of the crab population in the Chesapeake Bay suggests that the crabs

institutional change in the Bay, “Put in the Chesapeake Bay context, the similarities would be that there is a strong sense of place, a sense of community and permanence, these are small-scale fisheries, there exists multidisciplinary science in the region, and there is complex governance.” (Scientific and Technical Advisory Committee Chesapeake Bay Program (STAC) 2001) Similarly, others in the Bay were hopeful that the model of devolving decision making to stakeholders would improve resource management (CITE Schwaab, Swanson, BBCAC documents, MDNR minutes). However, these institutions failed to evolve. Below I examine the two key variables that Acheson found were instrumental in getting Maine’s legislation passed—distributional conflicts and political entrepreneurship.

Table 1: Attributes of Resources and User Groups

Attributes	Maine	Chesapeake Bay
Homogeneity: Ethno/Cultural	High	High (94% male, 93% Caucasian)
Homogeneity: Industry Size (operations) Gear Types <i>Insert info regarding trap #s--</i>	High Small scale 90%+ Traps <i>Variable- source of conflict</i>	Moderately High Small scale Traps/trotlines/Dredges
Life Stages	Single life stage	80%+ hard crab
Monitoring/Information	Relatively Easy	Relatively Easy
Discount Rates	Low	Low
Flow of Resource	Low	Low
Legislative Support	Apparent	Apparent
Bureaucratic Support	Apparent	Apparent
Policy Entrepreneurs	Commissioner * Robin Alden Industry Maine Lobstermen’s Association	Work Group Chair *Ann Perisi Swanson Agency Eric Schwaab: MDNR Fisheries Directory

can live up to 8 years of age (Rugolo, Knotts et al. 1997; Miller 2001).

		1999-2003
Distributive Conflicts	Trap limits	Resource

Distributional Conflict

Jack Knight (1992) argues that it is distributional conflicts that give rise to changes in rules. Indeed, writing about fisheries management writ large, J.A. Gulland (1974) notes that the bulk of the work of fisheries managers involves mitigating social conflict either within or between fishing groups or between fishing groups and other users of the marine environment. These conflicts are primarily concerned with the distribution of resources or access. Scholars who have examined the historical evolution of rules in both the Maine lobster fishery (Acheson 2003) and the Chesapeake Bay blue crab fishery (Cronin 1998) find that many of them developed due to distributional conflicts. These conflicts provided the impetus for new rules to emerge as stakeholders, recognizing benefits of rule change, were willing to invest time and resources into the process to develop these new rules. Despite the differences in the state of the stock—one at historically high levels and the other alarmingly low, both fisheries experienced contentious distributional conflicts in the mid 1990s that were resolved in different ways. One led to the creation of a “true co-management law” in Maine (Acheson 2003: 97), and the other to a relatively short-lived ad hoc group that was able to reach a historic bay-wide consensus on decision-making *criteria*, but ultimately maintained the status quo in decision making *processes* for regulating how, when, who, and where fishermen were allowed to participate in the fishery.

Maine: Conflict in times of plenty

In Maine, the issue was number of traps fishermen can use at any one time. This was not a new issue. Since trap numbers began escalating in the 1950s with the advent of hydraulic technology, the issue has come under consideration by seventeen legislatures between 1956 and 1995 (Acheson, Stockwell et al. 2000). The points of concern regarding the number of traps in the water centered around increased probability of gear conflict or entanglement (Acheson 2003), b) reducing costs of capitalization that often occurs with gear escalation (Acheson 2003), and c) (potential for catching too many lobster (Cite). However, as Acheson (2003) observes, the distributional effects of trap limits impose relatively higher costs on large scale fishermen as compared to those a fishing smaller numbers of pots. This plays out in two ways. Fishermen that are over the limit will be forced to reduce the number of pots that they fish, while those fishing a smaller number will not be affected. Similarly, trap limits will increase the proportion of the traps that small fishermen have and arguably increase their share of the catch (Acheson 2003: 99).

More importantly, there was variation in the average number of traps fished in different geographic regions as well as between full- and part- time fishers. James Acheson and Jack Knight (2000) observe that fishers in eastern Maine will tolerate lower trap limits as working six hundred traps is considered a large number. They contrast that to other areas such as Casco Bay, in the southwest, where fishers regularly have in excess of eighteen hundred traps. Additionally, full-timers tend to fish more traps than part-timers, or those who have other jobs. The lack of consensus in the industry, driven by

distributional conflicts and geographical differences repeatedly hindered political support for these bills that often posited a “one-size-fits-all” approach to limits.

In 1995, with the passage of the Zone Management Law, the legislature effectively grappled with the “one size” problem. It passed a maximum limit of 1200 traps, but further provided that seven fishing zones be established along the coast. License holders within these zones could decrease the maximum allowable number of traps through management councils made up of fishers.⁹ Establishing the zones and councils with clear membership and decision procedures devolved distributional fights and decision making for trap limits to the more local level.¹⁰ No longer were fishers from eastern Maine battling with those from the west over what the limits should be, rather the law provided an innovative solution to a distributional issue that had vexed the fishery for decades. It did this, not by making substantive rules that allocated resources, rather, it reallocated power in the decision process and made new rules about how and by whom decisions would be made. By the year 2000, six of the seven zones had restricted self-imposed more stringent trap limits of 800 and one zone limited the number of traps to 600 (Department of Marine Resources n.d.).

Chesapeake: Conflict in times of paucity

The distributional conflicts that surfaced in the Chesapeake Bay were tied to the falling crab populations in the late 1990s and early 2000s. They developed in two

⁹ For a full description of the law, see James Acheson’s (2003) comprehensive book on the subject

¹⁰ The Legislature stipulated that a two thirds vote was needed to set limits below the twelve hundred as established by the Zone Management Law.

distinct, successive stages and were concerned with 1) setting a maximum harvest target, and 2) developing input controls to achieve those harvest limits.¹¹

The first stage of the process, setting limits, involved a Bay-wide approach that brought together actors representing a broad spectrum of interests and institutions.¹² The catalysts for change in the Bay were falling harvests, historically low population estimates, and recognition that there were no guidelines as to how many crabs could be taken from the bay without causing the stock to crash (Bi-State Blue Crab Advisory Committee 1999). Formally institutionalized as the Bi-State Blue Crab Advisory Committee (BBCAC), this group was successful in developing new rules to limit over-all harvest of the resource- something that had been attempted a number of times since the 1920s.¹³ Over a period of 5 years, scientists, legislators, watermen, environmentalists, and fisheries department representatives discussed, argued, and fought over understandings and management of the blue crab resource. They eventually developed a population target—to maintain 20 percent of the spawning potential— that would serve as a trigger for tighter fishing restrictions. In this respect the BBCAC achieved a measure of success in blue crab policy making that was unprecedented (Beem 2006).

In setting limits, however, the distributional conflicts were not among the various fishing groups, per se. Rather, it was a question of how many crabs could be taken from

¹¹ In fisheries management, input controls are those that regulate the factors that constrain how, when, or where fishing occurs. They include setting seasons or number of hours/day that can be fished, what types or quantity of gear can be used, as well as designating no-take zones. These are also referred to as parametric rules (see Acheson and Wilson 1996). On the other hand, output controls are those that constrain the numbers of fish taken. They can be set as total allowable catch (TAC), divvied up amongst individual users in the form of individual quotas, allocated to whole communities (CITES).

¹² Members included representatives from both houses of the states' legislatures, Secretaries of Natural Resources, directors of the respective fisheries services, fishermen, processors, and environmentalists.

the Bay irrespective of size, gender, life stage, or geographic area. In these discussions, the watermen were part of a process that was determining how big the pie was going to be. During this stage of the process, the watermen exhibited a high degree of cooperation amongst themselves (Beem 2005). After harvest targets were established, the BBCAC reached consensus that throughout the bay fishing effort need to be reigned in by 15 percent (Bi-State Blue Crab Advisory Committee 2001). It was at this point that fractures within the industry became even more apparent.

As discussions moved from how many crabs the industry could catch to which instruments would be implemented, the dynamics of the group changed. The terms of the debate shifted from broad-stroke, industry-wide allocation, to specific distribution among various groups--- i.e. from “how much will the entire industry be burdened?” to “which sectors of the industry will be hit hardest?” It was time to cut up the pie, and each faction wanted the biggest piece they could get. There were a number of possibilities which include temporal, spatial, size, or gear restrictions, each of which had varying distributional effects. Similar to the conflicts in Maine, various rule changes would benefit or burden groups differently.

Discussions around rule change took place within the context of BBCAC and began after the publication of its 2001 report, “Taking Action for the Blue Crab” in which the group argued that the fishery was in crisis, a fishing threshold was established, and that a 15% reduction in harvest was required to maintain the population. By that time, the BBCAC had been actively engaged in supporting movements towards co-management in the region. As early as 1997, BBCAC member, Dr. Leonard Shabman,

¹³ Cronin (1998) provides a concise history of blue crab management in which the multiple

reportedly stressed “that any effort to develop a policy of enhancing watermen’s incomes must only be undertaken if there is consensus building with watermen and that they are instrumental in designing a system.” He emphasized that “there must be community buy-in” (BBCAC minutes, September 1997, 6). Additionally, the group organized a stakeholder workshop in February 2000 with the express purpose of examining alternative co-management arrangements (Institute for Environmental Negotiation (IEN) and Maryland Sea Grant 2000).

However, instead of creating a new decision making framework for fishers to resolve these allocation battles amongst themselves as had been done in Maine, the Chesapeake Bay jurisdictions passed regulations to curtail fishing effort, assigning burdens and benefits to various fishing groups in the Bay. Arguments for immediate action by the states instead of by the fishing community centered around the crisis in the fishery, that the continuing decline of the stocks needed to be arrested, and that once the population stabilized, a management regime could be designed that would maintain 20% of the spawning potential and be more inclusive of stakeholders in the decision making process (Bi-State Blue Crab Advisory Committee 2000). It was not unusual for the states to develop regulations, as this had been the status quo rule formulating mechanism to date. However, it was done during a time period in which discussions about establishing co-management were underway with the context of the BBCAC. This shifted the debate from being among fishermen trying to work out horizontally who gets what amongst the group, to a vertical debate where fishers petitioned the state for change. Hence, the state

attempts to set bay wide limits were discussed.

undermined the development of more localized decision making processes and perhaps belied the commitment of the state actors in facilitating institutional change.¹⁴

Political Entrepreneurs

The role of political entrepreneurs in policy change has been examined by a number of scholars (Kingdon 1984; Baumgartner and Jones 1993; Jones 1995; Mintron 1997). Simply, they are “advocates who are willing to invest their resources—time, energy, reputation, money—to promote a position in return for anticipated future gain in the form of material purposive, or solidary benefits.” (Kingdon 1984, 179) They are critical in defining ideas and shaping the terms of debate (Jones 1995) and changing people’s beliefs (Barber and Taylor 1990). While some have narrowly focused on legislators as entrepreneurs (Schiller 1995), others recognize that political actors advocating certain positions can come from a number of arenas including think-tanks, interest groups, agencies, as well as elected officials (Kingdon 1984; Mintron 1997).

What are the attributes of political entrepreneurs? Kingdon notes that they must have some expertise, be in a position of authoritative decision making, or be representative of a powerful group. Through networking within policy communities, they gain credibility, not only by “softening up” acceptance of their ideas (Kingdon) but also by learning “the ‘world views’ of various members of the policy making community” so that they can craft more persuasive arguments (Mintron 1997, 739). Kingdon (1984) argues that being inside or outside the formal structure of government may be nearly irrelevant to understanding their activities or successes. However, I argue that the efficacy of a political entrepreneur advocating for co-management will rest on the

¹⁴ See Michael Taylor (1982, sections 1.4 and 2.2) for a relevant discussion as to how the state

strength of the ties he or she has to the fishing community. Below, I examine the roles and positions of policy entrepreneurs in the two systems demonstrating that policy advocates within the fishing communities in Maine were more effective than those in the Chesapeake Bay..

Maine: Voices from the inside

In examining the evolution of co-management in Maine, James Acheson notes that there had been growing attention to the concept within the academic and management communities. The idea gained a foothold in the industry and among the marine resource commissioners after a session on co-management was held as part of the Maine Fishermen's Forum in 1993.¹⁵ Acheson convincingly argues that Marine Resources Commissioner Robin Alden played a crucial role in advocating for co-management in the Maine lobster fishery. As editor of the Commercial Fisheries News for 20 years, she was a known entity within the fishing community.

Also, able to tie co-management as a solution to a problem that had vexed the industry for decades-- how to set trap limits. The ability of policy entrepreneurs to tie solutions to problems is key in getting them on the decision agenda (Kingdon 1984).

(this section will be further developed)

Chesapeake: Voices from above

The BBCAC articulated the short term goal for the fishery as reducing effort in order to arrest the continuing decline of the crab population. Once stabilized, the group sought to develop a management regime that would be able to maintain 20 percent of the

undermines community resolution of collective action problems.

¹⁵ The session was organized by Jim Wilson of the University of Maine. The Fisherman's Forum is a four day meeting held annually in Rockport. It is a unique and regular meeting of fishers, managers,

spawning potential and be more inclusive of stakeholders in the decision making process (BBCAC 2001b). The goal was to improve communication among the actors, give watermen a stake in the resource, and enhance understandings of the biology of the crab and fishery (Swanson 2003, personal communication, BBCAC 2001).

The commitment to achieving this goal was evinced by BBCAC actions and rhetoric, Bay-wide workshops involving watermen and regulators, and MDNR program development. Including industry representatives in BBCAC membership was a first step towards this goal and meeting minutes indicate that economists on the TWG presented information to the committee about alternative management regimes that were discussed and commented upon by members.

Initially, the primary focus was on the applicability of individual transferable quotas (ITQs) for the fishery or other solutions to enhance economic efficiency or watermen's incomes. Dr. Leonard Shabman, resource and environmental economist with the Department of Agriculture and Applied Economics, Virginia Polytechnic Institute and State University, reportedly stressed "that any effort to develop a policy of enhancing watermen's incomes must only be undertaken if there is consensus building with watermen and that they are instrumental in designing a system. He emphasized that "there must be community buy-in" (BBCAC September 1997 meeting minutes: 6)

BBCAC put their talk into action when they convened a stakeholder workshop in February, 2000. Participants included legislators, resource managers, watermen, seafood processors, researchers, and environmental groups from Maryland and Virginia. Reports of discussions that took place at the workshop indicate that "it is crucial to have more

academics, industry representatives and politicians that examines issues of interest to the fishing industry

industry participation from the very beginning for the success of any management effort” (IEN 2000: 14). However, some questioned the objectivity of crabbers in deciding upon regulations that may adversely affect their incomes (IEN 2000: 15).

The primary focus of the workshop centered on the development of an individual transferable quota system. The idea was met with “considerable skepticism and opposition from attendees” primarily based on three points. The first was that scientific studies of blue crab populations have been so inconclusive and have foundered in their ability to predict abundance. This is a critical component of ITQ systems as they are predicated on the ability to set total allowable catch (TAC) and divide that among participants through quota shares. There was also concern about how to implement a quota system because of the diversity of the fishery in targeting crabs during different life stages. Finally, industry representatives were concerned that an ITQ system would lead to market concentration with a few wealthy crabbers buying all the shares from smaller operators (IEN 2000, pp 21-22).

While they dismissed the ITQ system of management, they also briefly entertained discussions of Florida’s individual transferable effort (ITE) certificate program for spiny lobster fishery. The workshop report notes that “enough interest exists in the [ITE] program...to justify further exploration to that approach” (IEN 2000: 3). There is no indication that any participants followed through with that suggestion.

In April, 2001, managers and resource and social scientists with the Science and Technical Advisory Committee of the Chesapeake Bay Program (STAC) convened a workshop, “Exploring Alternative for Fisheries Management in the Chesapeake Bay.”

(Acheson 2003: 239)

The recommendations coming out of the workshop included that there be a “shift in thinking regarding management of fishermen, away from command and control input regulation and towards community-based management and market based management instruments” (STAC 2001: 17). The group specifically recommended that the blue crab fishery be used as a vehicle for instituting “local input and greater stewardship and responsibility for fisheries management.” Participants recognized that “there was a strong need to obtain stakeholder involvement beyond the listening sessions that were held as part of the current process” (STAC 2002, 17-19).

Towards the end of 2002, Maryland’s Secretary of Natural Resources Charles Fox convened a Blue Crab Task Force. Its stated goals were to “develop a long-term vision for Maryland’s blue crab fishery and related industries, and recommend management strategies to support that vision” and described its role as looking at a “broader scale than just new regulations.” Secretary Fox described “a stakeholder driven process through which the group would explore alternative approaches for fishery managers, watermen and industry representatives to work together to maximize benefits from Maryland’s blue crab resource” (Blue Crab Task Force 2002a: 1). The promise of the task force was to “move to the next level,” beyond the traditional way of managing fisheries in the Bay (Schwaab 2004, personal communication).

In addition to the Blue Crab Task Force, MDNR also instituted the Cooperative Blue Crab Data Collection Program in 2002. The program was to provide an “opportunity for watermen to become directly involved in the management of the fishery” by recording harvest data that would be used to assess the impact of regulatory changes (MDNR n.d.). The primary developer of the program, Lynn Fegley, remarked

that the department appeared to be embracing the ideas of co-management and noted that the decision to hire her was in part due to her research on this topic as a graduate student (2003, personal communication).

There was clearly quite a bit of work that the social scientists and managers put into understanding alternative management regimes and creating various fora within which to discuss various options with watermen. However, the ideas did not resonate within the fishing sector. The Task Force met nine times—October - December, 2002 and then reconvened under the new administration, meeting monthly June - November, 2003. While the Task Force was intended to provide a forum for watermen, policymakers, and other members of the policy community to examine management reform, quite often the meetings reverted back to discussions about current regulations and their distributional effects on the various groups engaged in the fishery as well as data and reporting issues.

Observers note that the meetings were often highly contentious and there was little opportunity for dispassionate discussions about the resource, regulations, or alternative management tools. Instead, most discussions focused on the current regulations with the watermen fighting with state officials and with each other for relief, change, or alternative consideration over who should get what. Meeting summaries reveal that on at least three occasions MDNR or environmental group representatives reminded the group that the mission was to come up with a longer-term vision and management reform rather than concentrating on the immediate issues at hand (Blue Crab Task Force Meeting summaries and minutes: October 2002, December 2002, June 2003).

Only two of the nine meetings discussed alternative approaches to management that would include increase stakeholder participation. Concepts of zone management were initially discussed in June 2003, with a presentation by Phil Jones of MDNR, who participated in the 2001 STAC workshop. Following that they invited Terry Stockwell, a former Maine lobsterman and liaison for Maine's Department of Fisheries, to give a presentation about their experience with zone management for the lobster fishery in Maine. However, the presentation took place during the final Task Force meeting and there was little follow through examining the insights and experiences of the Maine lobstermen.

In the last meeting of the Blue Crab Task Force, held in November, 2003, it was clear that the process had taken its toll, the players were battle fatigued. Task Force Chair Mike Slattery, Assistant Secretary of Forest, Parks, Fish and Wildlife, closed the meeting noting that they were all weary of the conflict and confrontations. He said, "We all just need a break from this for a while. Let's let the current regulations stand as they are and see how they work" (2003, personal communication). MDNR committed to not making any changes until after the 2006 crabbing season (Blue Crab Task Force Final Report 2003).

The Blue Crab Task Force highlights two factors that came into play to frustrate the development of co-management. First, the fights were not focused within the community of watermen trying to resolve their disputes. Rather, the attention of the watermen was on the state or regulatory agencies as the antagonists with which these issues needed to be resolved. This indirect conflict to resolve distributional issues may have served to undermine the ability of the watermen to develop mechanisms through

which to resolve their grievances at the community level.¹⁶ Additionally, there was no advocate for co-management either within the industry or closely related to it. The Chesapeake watermen had not developed ongoing lines of communication with academics as had been the case with the Maine Fishermen's Forum since 1972. As such, there was not a driving force to advocate for this changed position.

Conclusion

As Arun Argawal (2000) notes, scholars studying institutions for the management of common pools resources find a number of factors that may inhibit the development of such institutions. With such an array of variables, it would probably be easy enough to find a handful that were absent in the Chesapeake, but present in Maine, that could further explain the failure of co-management to evolve. Given the number of variables and the small number of cases, I have not controlled for all of these variables. However, that does not detract from the primary purpose of this paper which is to argue for more systematic evaluation of the processes through which co-management has been developed or failed to develop in various resource arenas. With increasing attention to co-management and calls for the devolution of decision making in some circumstances, it is important to recognize that buy-in from the top does not necessarily guarantee that these institutions will develop. Despite having a number of community and resource attributes that appear to be conducive to co-management and support from the top, co-management did not evolve in the Chesapeake Bay.

¹⁶ See Taylor and Singleton 199x for a discussion of the need for direct interaction to resolve disputes vs. third party intervention. Also, Ellickson.

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