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The Role of Participatory Governance and Community-Based Management in Integrated Coastal and Ocean Management in Canada

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There is compelling evidence that participatory governance is crucial for contending with complex problems of managing for multiple values and outcomes to achieve ecological sustainability and economic development. Canada's Oceans Act*, and federal oceans policy provide a strong basis for the participatory governance and community-based management of coastal and large ocean resources. The implementation of the* Oceans Act *and oceans policy has resulted in some steps toward participatory governance but has not adequately provided the mechanisms for a strong role for communities in integrated coastal and ocean management (ICOM). In order*

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to strengthen and develop community participation in ICOM, nine initiatives are recommended: (1) shifting paradigms, (2) overcoming 'turf protection,' (3) ensuring compatibility of goals, (4) ensuring sufficiency of information, (5) dealing with internal community stratification, (6) creating cross-scale linkages, (7) creating a participatory policy environment, (8) building community capacity, and (9) monitoring and assessment of local-level initiatives.

Keywords capacity-building, community-based management, cross-scale linkages, integrated management, oceans policy, participatory governance

Introduction

This article examines the state of community-based management and participatory governance in Canada as it applies to integrated coastal and ocean management (ICOM). The article will analyze the barriers confronting participatory governance, the success stories and the lessons learned, as well as presenting recommendations for moving forward.

Participatory governance is the effort to achieve change through actions that are more effective and equitable than normally possible through representative government and bureaucratic administration by inviting citizens to a deep and sustained participation in decision making. Participatory governance focuses on tangible problems, involves all the people affected by those problems, and comes up with practical solutions (Schneider, 1999; Fung & Wright, 2001). Community-based management (CBM) is the most widespread form of participatory governance applied to natural resource management problems (Agrawal & Gibson, 1999). CBM involves the people living closest to the resource in the design, implementation, and monitoring of management measures. Thus we begin by exploring the relevance of coastal communities and of participatory governance to the development and implementation of ICOM.

The Importance of Coastal Communities to ICOM

Across the country, coastal communities and coastal resource users face immediate challenges to their livelihoods, from environmental causes (such as declining resources and land-based sources of marine pollution) through to economic and social ones (such as limitations on access to marine resources, and changes in governance arrangements). Underlying many of the challenges facing coastal communities lies the unique realities of the land–sea interface, where terrestrial and marine issues intersect. On land, coastal communities face issues of land use conflict, watershed management, and environmental change. At sea, the fluidity of the ocean itself combined with jurisdictional complexities and the relative lack of property delineation produce their own difficulties. Finally, coastal communities must deal with issues arising where the land meets the sea—such as erosion, flooding, and pollution from agricultural run-off, and access issues including control over wharves that serve as key transportation links between land and sea.

A fundamental aspect of the challenge to coastal communities lies in the fact that the resources on which such communities rely for their social, cultural, and economic well-being, from fish and minerals to coastal lands and beaches, are subject to a mix of jurisdictions—municipal, provincial, and federal governments as well as First Nations. Communities must deal with all these in the utilization of local resources—with municipalities on terrestrial land use issues, with provincial governments for coastal activities based on land, such as aquaculture, and with the federal government on ocean uses from fishing to mining to shipping. All communities face this multiplicity of jurisdictions,

and in addition, First Nations must deal in another manner again with the various governments, based on Treaty realities or lack thereof.

This is a critical time not only for coastal communities but also for the various levels of government that face the immense challenge of managing the diverse range of human uses in coastal areas for a "triple bottom line," balancing economic, social, and environmental needs. To move toward increased participatory governance, community must be understood not as just a part of the "social" component of sustainable development but as a reality that integrates all social, economic, and other attributes, at a particular organizational level.

Communities are valuable human systems in their own right. Emphasis should thus lie in maintaining or enhancing the economic and sociocultural well-being, overall cohesiveness, and long-term health of the relevant human systems in coastal communities. Just as importantly, the sustainability and resilience of a coastal zone goes hand in hand with that of its component human communities. There is an increasing body of literature demonstrating the importance of understanding how social and ecological systems are linked in order to build both social and ecological resilience (Berkes et al., 2003).

Thus, communities can be viewed as crucial "nodes of governance" within ICOM. Although the term community refers to the geographically bounded villages, towns, and cities of our coastal areas, the term also carries with it, implicitly or explicitly, a reference to the norms and social institutions that characterize these geographic entities. In this sense, living in a community is a fundamental aspect of being human. Various fields of social science point to the interdependency of people living in a community in developing their identity, sense of meaning, values, and economic well-being (Kerans & Kearney, 2006).

If there is to be progress toward participatory governance, it is likely to be more robust if it is rooted in this fundamental human reality; it must begin at the community level. As we will show later, it does not end there, but it does best to begin there. However, it would be fallacious to understand communities as homogenous entities sharing common values and acting as a unified group (Agrawal & Gibson, 1999). Instead, communities are highly complex and differentiated, and especially in our globalized era, are, on a daily basis, affected by and can affect the events occurring throughout the world.

To move beyond a sectoral approach, to address the power imbalances and elitist distortions in the distribution of resource benefits, the formation of regional and large-area management bodies must be counterbalanced, and indeed, sustained, by encouraging the formation of self-organizing, local governance nodes at the local level where people interact on a frequent enough basis to create and sustain norms and institutions.

The Importance of Participatory Governance to ICOM

The international importance accorded to participatory approaches was exemplified in the outcomes of the Earth Summit in Rio de Janerio in 1992 when 178 states, including Canada, signed Agenda 21, a document stating that "broad public participation in decision making was a fundamental prerequisite for the achievement of sustainable development" (UNCED, 1992, chapter 23.2). This was predicated upon compelling evidence that both ecological sustainability and economic development reflect complex problems of managing for multiple values and outcomes, and that this in turn required systematic input from those who are directly dependent on the environment for their livelihoods. It was seen that the commitment to broad public participation required a transformation of governance structures and more meaningful processes of engagement among and between different sectors of civil society.

Four years later, the words and spirit of Agenda 21 were echoed in the passing of Canada's *Oceans Act*, which committed the Government of Canada "to foster the sustainable development of the oceans and their resources" through "encouraging the development of a national strategy for the management of estuarine, coastal and marine ecosystems" in collaboration with other government agencies and "affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies under land claims agreements" (Government of Canada, 1996, Preamble).

Canada explicitly confirmed its commitment to Agenda 21 in 2002 when it declared that its *Oceans Strategy* (Government of Canada, 2002, 17) was a concerted effort to implement the principles of Agenda 21 and to meet its international commitments for sustainable development. The government noted that an important principle of integrated management is inclusive and collaborative ocean governance structures and processes (p. 11). In a key section on governance (p. 19), the *Oceans Strategy* states:

> The governance model proposed for Integrated Management is one of collaboration. It involves ocean management decisions based on shared information, on consultation with stakeholders, and on their advisory or management participation in the planning process. It is also based on institutional arrangements that bring together all stakeholders. Participants take an active part in designing, implementing and monitoring the effectiveness of coastal and ocean management plans, and partners enter into agreements on ocean management plans with specific responsibilities, powers and obligations. It is also recognized that in specific cases, Integrated Management and planning may be achieved through co-management.

One can note from this statement above that the kinds of collaboration envisioned in this governance model range from a relatively narrow advisory function to the actual delegation of powers that might possibly be embodied through a co-management arrangement.

Research on governance points to the need to distinguish between *governance* itself—the mechanisms and processes by which power and decision making are allocated among different actors—and *management*, involving decisions about use patterns as well as about transforming the resource by making improvements (Schlager & Ostrom, 1992; Ostrom et al., 1994; Béné & Neiland, 2005). Within this framework, participatory *governance* would involve a much wider sharing of powers than those shared in the *management* of coastal resources. Moreover, recent debates on democracy emphasize that the concept of collaboration only makes sense if it is accompanied by increasing decision-making powers for a country's citizens (Fung et al., 2003; Dryzek, 2000; Rhodes, 1997; Pomeroy & Berkes, 1997; Kerans & Kearney, 2006).

True collaboration is intrinsically linked to decision making and increasing collaboration necessarily involves increased decision-making powers on the part of all the collaborators. To demonstrate this relationship graphically, we show in Figure 1 (Models of Democracy) that higher levels of community and citizen participation in collaborative processes with government should result in greater decision-making powers for those communities, moving them from an advisory capacity to inclusive governance in a participatory and citizen empowered democracy. At the same time, as government increases its collaboration with the community and citizenry, its share of decision-making powers decreases through delegation of authority to the local level, moving from a prescriptive function in a representative and technocratic democracy to a facilitator and supporter of participatory democracy. As also shown in Figure 1, co-management is a sharing of

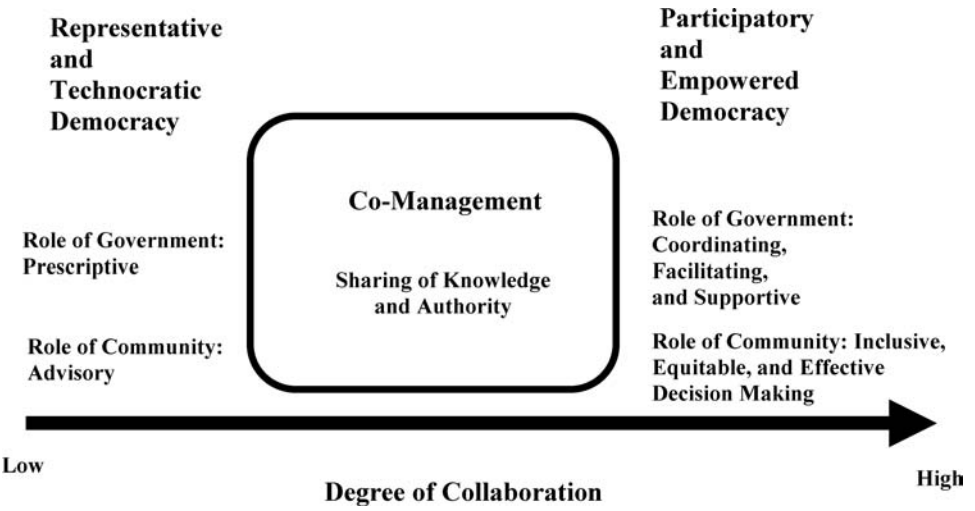

Figure 1. Models of democracy.

decision-making powers on the road to participatory democracy. Note that co-management arrangements can fall on a broad spectrum between advisory and participatory governance (e.g., see Charles (2001) for a review of some key works on co-management).

Case Study: The Eastern Scotian Shelf Integrated Management (ESSIM) Initiative

To what extent has ICOM in Canada achieved participatory governance and effectively involved coastal communities in ocean and coastal governance and management? We explore this question beginning with a brief examination of the Eastern Scotian Shelf Integrated Management (ESSIM) Initiative (see Figure 2 for location), considered by the federal government as the most mature example of integrated management among the five priority ocean areas identified in its *Oceans Action Plan* (Government of Canada, 2005).

Led by the federal Department of Fisheries and Oceans, the goal of the ESSIM Initiative is to create an effective, collaborative process that provides integrated and adaptive management plans, strategies and actions for ecosystem, social, economic, and institutional sustainability (Fisheries and Oceans Canada, 2001). The ESSIM Initiative incorporates all the principles of collaborative governance as laid out in the *Oceans Strategy* and more. These "principles" are: maintaining existing jurisdictional responsibilities, inclusion, consensus, accountability, dispute resolution, networking, evolution, and learning by doing (BL Smith Workgroup Inc., 2004; Fisheries and Oceans Canada, 2001).

The two principal collaborative structures are the *ESSIM Forum* (an annual or semi-annual meeting of all stakeholders) and the *ESSIM Stakeholders Roundtable*—the lead planning agency comprised of government and stakeholders. The Roundtable consists of the following membership categories (with numbers of participants in parentheses): Government and First Nations (10–13), Oceans Industries (8), Academic and Research (2), Conservation NGOs (2), Community NGOs (1), and Citizens at Large (1–2). Also part of the ESSIM structure is an *ESSIM Planning Office* (a coordinating and support organization of Fisheries and Oceans Canada), a *Federal-Provincial ESSIM Working Group* (with representatives of all levels of government in the ESSIM area), and a *Regional Committee on Ocean Management* (a senior executive forum for federal and provincial

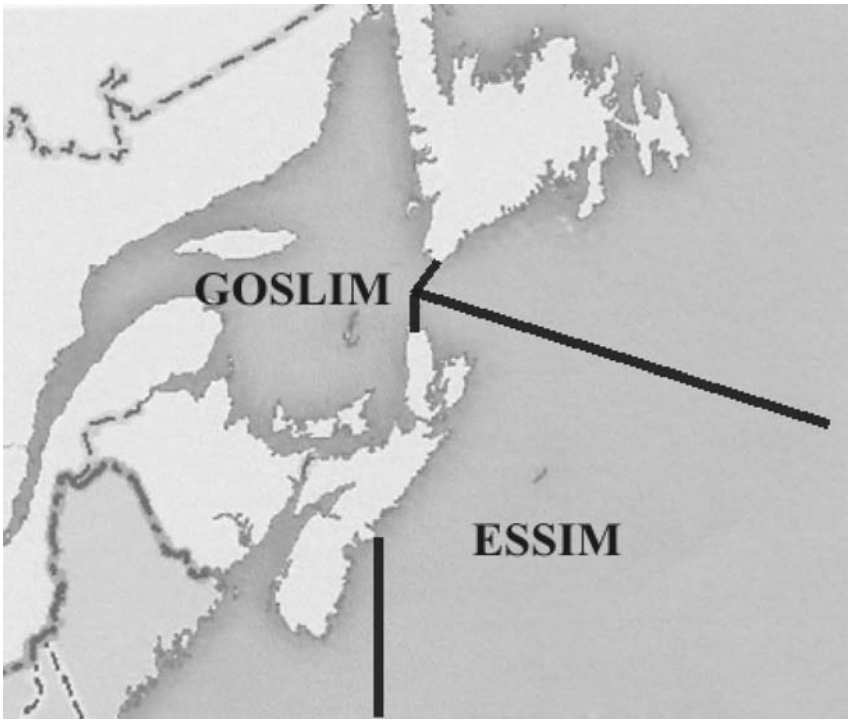

Figure 2. Integrated Management Initiatives in Atlantic Canada—the ESSIM (Eastern Scotian Shelf Integrated Management and GOSLIM (Gulf of St. Lawrence Integrated Management) Areas.

agencies with ocean-related programs). One important uncertainty within these ESSIM collaborative structures is with regard to the role of First Nations—this is apparently due to on-going negotiations with the federal government concerning the broad role of First Nations in Canadian governance.

The collaborative process, in brief, consists of the development of a draft management plan by the Stakeholders Roundtable and the Planning Office, which then goes through a series of reviews at community meetings, the ESSIM Forum, and the general public. The Stakeholders Roundtable must reach a consensus agreement on the final management plan and that plan must be endorsed by each of the provincial and federal government agencies involved before going to the Minister of Fisheries and Oceans for final approval under the *Oceans Act* (Government of Canada, 1996).

The ESSIM collaborative process is improving coordination between government agencies and has the potential to move beyond a strictly advisory form of collaboration if eventually participants can achieve a meeting of the minds with government officials in the Stakeholders Roundtable, and thus have greater *influence* on decision making. However, at this point, ESSIM has a number of deficiencies from the perspective of participatory governance theory. First, there is no devolution of decision-making powers to any nongovernmental agents. Second, its process of inclusion is limited. In particular, as indicated earlier, there is only one place explicitly for coastal communities on the key collaborative body, the Stakeholders Roundtable. In seeking to justify this lack of representation, Fisheries and Oceans has noted that it sees ESSIM as oriented toward the offshore or large ocean management area, rather than coastal areas. However, community

residents, especially those adjacent to the ESSIM management area, are concerned that if ESSIM is eventually tied together with more coastal initiatives, a precedent may have been set for minimal community involvement (Millar et al., 2005).

Beyond the Stakeholders Roundtable, community inclusion is limited to an annual or semi-annual forum and to a reactive role in the consideration of draft management plans during the community consultation process. There is also an issue of a lack of mechanisms to build community capacity to participate in the ESSIM collaborative process. This point was highlighted by community members during one round of community consultations (Millar et al., 2005). In summary, then, while ESSIM demonstrates movement in a positive direction relative to past ocean and coastal management approaches, there is considerable room for improvement in terms of coastal community participation.

Moving toward Participatory Governance and CBM

The ESSIM Initiative is not alone among Canadian governmental programs in demonstrating a relatively weak role for communities. However, at least one other of the five priority ICOM areas identified in the Oceans Actions Plan (Government of Canada, 2005) appears to be taking a modified approach, which may more effectively facilitate community participation. In the Gulf of St. Lawrence Integrated Management (GOSLIM) Initiative (see Figure 2 for location), federal managers are giving attention to developing coastal management areas as well as the large ocean management area in the first phase of implementation (Fisheries and Oceans Canada, 2005a). This approach by necessity brings coastal residents into the process at an early stage. In conjunction with the coastal emphasis, the managers have recently launched an "engagement" process that targets equally the participation of provincial and municipal governments, First Nations, nongovernmental and community organizations, and industry.

In some other ocean programs of the federal government, in particular, the establishment of marine protected areas, there can be not only strong community participation but even community leadership. Two examples are Eastport, Newfoundland (discussed in section 4) and the Musquash Estuary in New Brunswick. Musquash was originally proposed as a marine protected area in 1998 by the Conservation Council of New Brunswick, a nongovernmental organization, and the Fundy North Fishermen's Association. It is now progressing along the path toward formal designation as a marine protected area (Fisheries and Oceans, 2005b).

The variable position of communities in coastal and ocean governance and management, leads us to focus in the remainder of the article on a set of nine required avenues to develop and strengthen community participation in ICOM. These are:

1. Shifting paradigms
2. Overcoming "turf protection"
3. Ensuring compatibility of goals
4. Ensuring sufficiency of information
5. Dealing with internal community stratification
6. Creating cross-scale linkages
7. Creating a participatory policy environment
8. Building community capacity for governance
9. Monitoring and assessment of local-level ICOM initiatives.

Much of our discussion draws on the literature on community-based management (CBM), which has been a key form of participatory resource management over the last

two decades. Through this analysis, we may more readily conceptualize the difficulties in moving to participatory governance and also how they have been overcome where some form of CBM has been achieved.

1. Making a Paradigm Shift

CBM is based on a governance paradigm that differs in three important ways from the dominant paradigm or mode of thinking of government agencies.

First, when CBM involves multiple stakeholders, it can be an important tool for achieving integrated management, moving beyond the limitations of particular sectoral interests and the focus on single species and their habitats. By sharing power with stakeholders and by stakeholders sharing power among themselves, formerly warring sectors can often achieve more together than they could in competition with one another (Pinkerton, 1996).

Second, the CBM paradigm requires a high level of accountability and frequent and transparent accounting of senior regulators to local self-regulatory bodies, which are themselves accountable to their communities. This aspect of the paradigm could be considered simply a democratization and opening of government.

The third aspect of the CBM paradigm, which makes it profoundly different, is that it reflects a partnership in which communities may play the lead role in aspects of governance in which they can be more effective than senior governments. This is directly comparable to the "subsidiarity" principle (McCay & Jentoft, 1996) applied on a larger scale across the nations of the European Community. For example, coastal communities may be more successful than senior governments at designing effective harvest regulations for local fisheries, because they understand what will work in a local situation.

The early successes of CBM resulted in it being mainstreamed by governments and donor agencies in developing countries during the 1990s. However, the mainstreaming of CBM tended to occur within a framework based on the continuing dominance of neo-liberal economic solutions to a wide variety of societal problems (and a corresponding lack of diversity in economic paradigms): it constituted one barrier to implementation of CBM. Senior governments have tended to see various forms of privatization as more compatible than CBM with bureaucratic rationality, a form of public administration closely adhering to set routines and directions (Scott, 1998; Saul, 1992). Thus, even when government cannot afford to pay for services, it may be less willing to share power with and receive services from communities than to give away power to private parties that are perceived to fit more easily into the bureaucratic paradigm. In such situations, the government–community partnership in CBM has been sidelined in favor of a partnership of government and industry. The dominance of industry as "stakeholder" in the ESSIM Initiative seems to be following this trend.

How do governments make the paradigm shift, coming to see power-sharing as delivering a net benefit, and coming to see themselves as the beneficiaries of effective co-management? Poncelet (2001) documents the power of multiparty watershed management planning bodies to pull governments into an "ecological modernisation paradigm," in which government plays both a power-sharing and a mediating role among opposing stakeholders, thereby enhancing its own authority and prestige. The key assumptions in the ecological modernization paradigm, held by all parties in this case, are that: (1) actions can be defined economically in terms of costs and benefits and that change is calculable; (2) economic development and environmental preservation can be successfully integrated; (3) anticipatory and preventive approaches are preferable to reactive and curative

management; (4) failures in the current system can be blamed on the prevailing structures of modern industrial society, but the same society can also provide solutions; (5) science and technology can provide solutions; and (6) cooperative solutions are possible.

In some cases, successful CBM occurs where the ecological modernisation paradigm supplants the bureaucratic rationality paradigm. For example, the Skeena Watershed Committee in British Columbia was successful when warring sport, commercial, and aboriginal sectors, working with federal and provincial governments, were able to model and implement different harvesting and conservation scenarios (Pinkerton, 1996). Stakeholders found this design far more acceptable than the simple and rigid government regulation that conserved one low-abundance species at the expense of harvesting opportunities on a high-abundance species. In a standard mixed-stock fishery scenario, government completely closes a fishery if one important co-migrating stock is weak and cannot sustain a harvest. However, this scenario involves a significant loss of opportunity to harvest the abundant stocks, which are difficult to separate from the weak stocks. Government gains prestige by becoming a problem solver, settling conflict among place-based stakeholders by working with them around the same table and calling on their mutual interest in the sustainable management of stocks in a specific area. We conclude that there can be an incentive for government to move to a new more collaborative and power-sharing paradigm if it can reap the advantages of the ecological modernization paradigm. A second example illustrates this point.

The West Coast Vancouver Island Aquatic Management Board exemplifies the ecological modernisation paradigm operating at a larger scale than a watershed as it comprises 360 km of coastline and involves a more complex set of stakeholders, including: four levels of government (federal, provincial, regional district, and tribal council) and seven stakeholder groups (sport, commercial, environmental, aboriginal, aquaculture, labor, processor). In this case the ecological modernisation paradigm was based on agreement on a broad vision of the connection of communities to ecosystems and a balance of protection, use, and research. The Board plays the following roles: as a creator of new modes of regulating local fisheries that were unmanageable under conventional regimes; as a creator of synthesized databases and atlases of information about the region; a convenor and facilitator of processes among various stakeholders within and outside its region—connecting them to one another and to the vision of ecosystem management; and as a sponsor of specific projects within the region that would not otherwise happen because of failure to mobilize financial and human resources. Through the Board, governments have been able to explore a different, more "integrated," way of operating than the standard sectoral advisory process, and to seek solutions to the puzzle of how to recognize the constitutionally protected rights of aboriginal people, without creating even more conflict with other stakeholders (Pinkerton et al., 2005).

2. Overcoming the "Turf Protection" Barrier

Government agencies are predominantly hierarchical structures functioning according to instrumental values and technical considerations (Cyert & March, 1963). As such, they tend to protect their power preserves at all costs, and to perceive the sharing of power and resources as a zero sum game in which if some is shared, the government agencies will have exactly this much less (Songorwa et al., 2000; Clarke & McCool, 1996).

The Sustainable Communities Initiative (SCI) was a partnership of 7 federal departments that worked with over 250 communities across Canada in 109 projects to help local residents learn mapping technologies in order to create and use maps for the

sustainable development of resources (see http://sci.nrcan.gc.ca/index_e.php). Many project participants, both at the community and government levels, testified to the breaking down of turf barriers through these kinds of multidepartmental—community partnerships.

One such example was the Annapolis Basin and St. Mary's Bay Working Groups in Nova Scotia; a coalition of First Nations, fishing, aquaculture, tourism, conservation, and community economic development groups with the stated mission of integrated coastal management. Working through the SCI, the two working groups embarked on compiling an inventory of ecological, economic, and social assets to be used in integrated management research and developing a community-based oil spill response (Bay of Fundy Marine Resource Centre, 2002). Despite initial successes in developing community data bases, mapping capacity, and response plans (GeoConnections, no date), the two working groups never received recognition and support from government ocean policy initiatives and have become dormant. The funding for SCI has also ended.

3. Compatibility of Goals

When CBM initiatives are funded and initiated by external organizations, which press for particular goals that may not be the community's goals or priorities, the authentic construction of a viable process may be bypassed, and the effort may fall apart when external funding is exhausted (Hara & Nielsen, 2003; Songorwa et al., 2000). Even when a successful agreement has been reached, the process of genuine co-management may be subverted if (a) communities are required to adapt to an external organization's or government's planning schedule, a schedule that may not permit consultation with their own members, and/or (b) unreasonable attempts are made to achieve bureaucratic needs and time efficiencies (Kofinas, 1998; Pinkerton & Keithlah, 1990). Furthermore, internal representatives may form oligarchies (Michaels, 1962) endorsing their own interests, which become more important than the people they are representing (Hara & Nielsen, 2003).

The West Vancouver Island Aquatic Management Board helped to ensure the compatibility of goals by facilitating federal/provincial/local communication in the creation of the 2003 provincially led Kyuquot Coastal Use Plan, which identified and prioritized potential uses of provincial foreshore and nearshore areas in the inlets and waterways of Kyuquot Sound (Government of British Columbia, 2003). The plan attempted to integrate use by balancing development and environmental protection in high conflict areas, through advisory committee participation with the Kyuquot/Checkleset First Nation, industry, environmental, and recreation organizations. The Board applied its ecosystem management principles to identify gaps in information, planning, and monitoring, eventually submitting a lengthy and comprehensive commentary on the plan. Importantly, it praised provincial efforts on 10 points, but also asserted that the plan was merely a first necessary step, and outlined 5 major next steps needed and the importance of being consistent with 5 principles of the Oceans Strategy and the Board's integrated ecosystem principles. It helped identify and initiate three follow up activities, working closely with the local First Nation. In this way, the Board acted as a watchdog on provincial, and by implication federal, implementation of integrated planning processes.

4. The sufficiency of Information

Knowledge is bound together with issues of social power and relationships among stakeholders. Government information-gathering resources will never be sufficient to obtain the information needed to make fully scientifically informed harvesting decisions (Wilson et al., 1994). Although the literature shows many cases of sustainable CBM based

on allocation of geographic space, or other indirect means of keeping resource use at sustainable levels (Schlager & Ostrom, 1992), it is very difficult for governments to trust these proxies or the knowledge on which they are based (Finlayson, 1994; Wilson, 2003; Holm, 2003). The knowledge of ocean and coastal users may be tacit, eluding the discursive world of scientific experiment, and dismissed because of dissimilar cognitive cultures, and the use of alien rules, norms, and languages in negotiation of validity (Neis & Felt, 2000; Palsson, 1995). Thus government often rejects forms of knowledge that could help close the information gap, especially when combined with technical specialist knowledge.

Real progress is not likely to be made until there is a more widespread acceptance of new ways of approaching science, which includes skills, practices, and networks as legitimate forms of knowledge in addition to mental representations and theories (Holm, 2003). An example of progress in the use of local knowledge and skills is in Eastport, Newfoundland where lobster fishers, having concerns over the health of local stocks, initiated participatory research projects in cooperation with scientists. Their efforts led to management recommendations to enhance lobster conservation and eventually to the proposing of a marine protected area that received formal designation in 2005 (Fisheries and Oceans Canada, 2005b).

5. Dealing with Internal Community Stratification

In some cases, local elites retain privileges and power in community-based management, and do not share the benefits of resource use equitably (Songorwa et al., 2000; Li, 2001; Agrawal & Gibson, 1999). The creation of CBM thus runs the risk of entrenching existing conflicts and inequities (Davis and Bailey, 1996). Alternatively, elites may view CBM with suspicion and resist it if they believe it will bring forms of democratization undermining traditional authority (Hara & Nielsen, 2003). Acheson (2003) notes that even in the Maine lobster fishery, arguably the best and longest-documented successful case of sustainable CBM, allocation is not fair.

Fung and Wright (2001) suggest three possible avenues for neutralizing power imbalances. First, institutional design for participatory decision making can include a variety of measures for control over the use of excessive authority, such as the power of firing local officials by community members. Second, building strong local advocacy groups, unions, and community organizations can counterbalance the impact of local elites. And third, the passing of legislation that makes domination much more expensive than cooperation may not only neutralize power imbalances but convert it to a productive force. Fung and Wright (2001, 24) cite the example of the *Endangered Species Act* in the United States (and perhaps Canada's recently proclaimed *Species at Risk Act*) where the penalty for violations is so great that land owners often cooperate in conservation efforts rather than oppose them.

6. Creating Cross-Scale Linkages

Integrated management, as described by Canada's *Oceans Strategy* (Government of Canada, 2002: 36), "acknowledges the interrelationships that exist among different uses and the environments they potentially affect. It is designed to overcome the fragmentation inherent in a sectoral management approach, analyzes the implications of development, conflicting uses and promotes linkages and harmonization among various activities." The recognition of the interconnected nature of ocean and coastal resource management policies (Cicin-Sain

& Knecht, 1998) provides a compelling reason for federal government departments to cooperate more effectively, and to build new relationships with other levels of government and resource users. The *Oceans Act* is hence designed to improve coastal zone management by mediating between potentially competing uses, and balancing resource conservation strategies with economic development.

To carry out the task of building cooperation requires new linkages and partnerships. We use the term *cross-scale interactions* to refer to two kinds of linkages: *horizontal* (across geographic space or across sectors) and *vertical* (across levels of organization) (Young, 2002). In many cases, linkages are in the form of networks in which distinctions between vertical and horizontal relations are often blurred (Carlsson & Berkes, 2005). In Canada's Oceans Strategy, harmonization refers to the horizontal linkages that are necessary to coordinate activities (e.g., transportation, oil and gas exploration, protected areas, fishery management) to overcome fragmentation of decision making by sector, and there has been considerable emphasis on building horizontal linkages ("horizontality") among federal government departments.

However, many of the linkages necessary to build new relationships between the Federal Government and other parties are not horizontal but vertical—they cut across levels of social and political organization. Some of these vertical linkages are familiar: Canada has a long history of federal–provincial relationships in ocean and coastal management. By contrast, effectively engaging other levels of government and stakeholder groups in management arrangements is a new and significant challenge. However, the opportunities created by such a policy are also significant. They include the opportunity to bring management closer to those most affected by the decisions made, that is, the subsidiarity principle, and the opportunity to mobilize local stewardship toward the goal of sustainable coastal management (Schlag & Fast, 2005).

What is Canada's experience with cross-scale linkages in coastal areas, and what do these linkages look like? Table 1 provides a sampling. Probably the best set of examples of these linkages comes from the Canadian North. They are found in areas of fish and marine mammal management, land management, parks and protected areas, environmental assessment, contaminants research, and even climate change research. The emergence of these linkages seems to be related to the development of land claims agreements (Berkes et al., 2001). Each of the Northern land claims agreements establish formal co-management arrangements, and some of these in turn lead to joint management plans in which governments as well as local communities are legally mandated participants.

The community-based narwhal management under the *Nunavut Land Claims Agreement* (NLCA) and the Beaufort Sea Beluga Management Plan under the *Inuvialuit Final Agreement* (IFA) are two examples of this. But there are many others, going from the most simple to the most complex, that include the various fisheries working groups under the IFA; polar bear management that includes NLCA and IFA representation; and the national–regional–international processes with considerable Northern indigenous involvement, leading to the 2001 Stockholm Convention on Persistent Organic Pollutants (Berkes et al., 2005).

It is not by accident that some of the more effective vertical linkages come from the Canadian North and involve indigenous groups who have formal agreements with the government. Elsewhere, co-management arrangements linking governments to local communities tend to be *ad hoc* and lack the mechanisms to make them work in the long-term. The east and west coasts of Canada are replete with examples. In British Columbia, both the Skeena Watershed Committee and the Fraser River Basin First Nations Memorandum of Understanding illustrate attempts to bring user-groups together to solve their problems.

Table 1
Examples of cross-scale (horizontal and vertical) linkages and networks from Canada's coastal areas

Arrangement	Kind	Levels or parties involved	Reference
Community-based narwhal management under the *Nunavut Land Claims Agreement*	Horizontal and vertical	Federal, Regional (RWOs) and local (community hunter and trapper organizations or HTOs)	(Berkes et al., 2005)
Beaufort Sea Beluga Management Plan under the *Inuvialuit Final Agreement*	Horizontal and vertical	Federal, Territorial, Regional (Inuvialuit Game Council), and local (HTOs)	(Fast, Mathias, Banias, 2001)
Skeena Watershed Committee, BC	Horizontal and vertical	Federal and Provincial governments, aboriginal, recreational, and commercial fishers	(Pinkerton, 1996)
Fraser River Basin First Nations Memorandum of Understanding	Mainly horizontal, networks	Some 90 First Nations of the Fraser River watershed signing an MOU to coordinate and conserve fisheries, as basis for future negotiations with Federal and Provincial governments	(Gordon, 1993)
The Fundy Project for herring management, NS and NB	Mostly horizontal; weak vertical	Purse seine, weir, and gillnet sectors of the Bay of Fundy herring fishery, in consultation with the Federal government	(Kearney, 1984)
Remedial Action Plans (RAPs) for areas of environmental concern around the Great Lakes	Vertical, horizontal, networks	Federal, Provincial, municipal bodies, local citizens groups, organized by site (*e.g.*, Hamilton Harbour RAP), initially in the 1980s involving some 40 RAPs around the Great Lakes	(Francis & Regier, 1995)

However, these cases and many others summarized in NRTEE (1998) show that, without a specification of rights and obligations agreed on by all the parties and a formal devolution of certain management functions, these initiatives never progressed from mere consultation to real management power-sharing through strong vertical linkages.

In what probably was the first fisheries co-management experiment in Canada, representatives from the three sectors of the Bay of Fundy herring fishery came together in 1976 to deal with problems of resource sustainability and gear conflict. Initially characterized by a high degree of cooperation between the fisher groups and the government, the project collapsed two years later, due to a complexity of problems including gear-group conflicts and the inability of the government to make its policies clear (Kearney, 1984). By contrast, a similar arrangement dealing with gear conflicts, but in this case formalized by legislation, involving the gear-groups of the Lofoten Islands cod fishery in Norway has survived and evolved for over a century (Jentoft & Kristoffersen, 1989; Holm et al., 2000).

Compared to the other coasts, the Great Lakes area provides a different and perhaps more mature perspective on integrated coastal management and participatory governance. First, ecosystem-based management thinking in the Great Lakes area goes back probably to the 1950s or the 1960s, and it is formalized in the 1972 *Great Lakes Water Quality Agreement* for coordinating water quality objectives in different jurisdictions. Second, a legal mechanism has existed since 1912 to connect the various levels of government in the two countries. The International Joint Commission (IJC) has played the role of providing vertical governmental connections within Canada, and horizontal links between the two federal governments and among the several state and provincial governments (Francis & Regier, 1995; Sproule-Jones, 2002).

The IJC does not provide formal links between communities and governments, but it does provide opportunities for public hearings. Partly as a result of this, a multitude of different types of collaborations and a profusion of citizens groups have existed in the area. Examples include Great Lakes Tomorrow that was active in the 1970–80s, and Great Lakes United, established in 1986 as a loose coalition of some 200 citizen advocacy groups in United States and Canada (Francis & Regier, 1995). Rich in formal government horizontal and vertical linkages, and informal networks of citizens groups, perhaps the best example of cross-scale environmental action in the Great Lakes area involved Remedial Action Plans (RAPs) for areas of environmental concern around the Lakes (Spoule-Jones, 2002).

One feature of some of the more effective cross-scale linkages is the presence of a respected, authoritative, independent body that acts as the facilitator for the linkage arrangement. Such bodies may be called boundary organizations, a term initially designed to refer to institutions that are able to straddle the intersection between science and policy, but now more generally referring to any institution that facilitates cross-scale linkages (Cash & Moser, 2000). In the Great Lakes case, the IJC is a boundary organization. In the case of the Inuvialuit agreement, it is the Fisheries Joint Management Committee (FJMC); in the case of the Nunavut agreement, it is the Nunavut Wildlife Management Board (NWMB) that performs that function (Berkes et al., 2005).

The set of horizontal and vertical linkages and the role of the boundary organization (NWMB) in Nunavut's community-based narwhal management arrangement (the first example in Table 1) can be seen in Figure 3. Central to this scheme are the five community hunters and trappers organizations (HTOs) and the Regional Wildlife Organizations (RWOs). The NWMB is the facilitator of the interaction between these two layers and the one consisting of the Federal Department of Fisheries and Oceans (DFO) and a claims implementation organization (NTI) representing general Inuit interests. There should yet

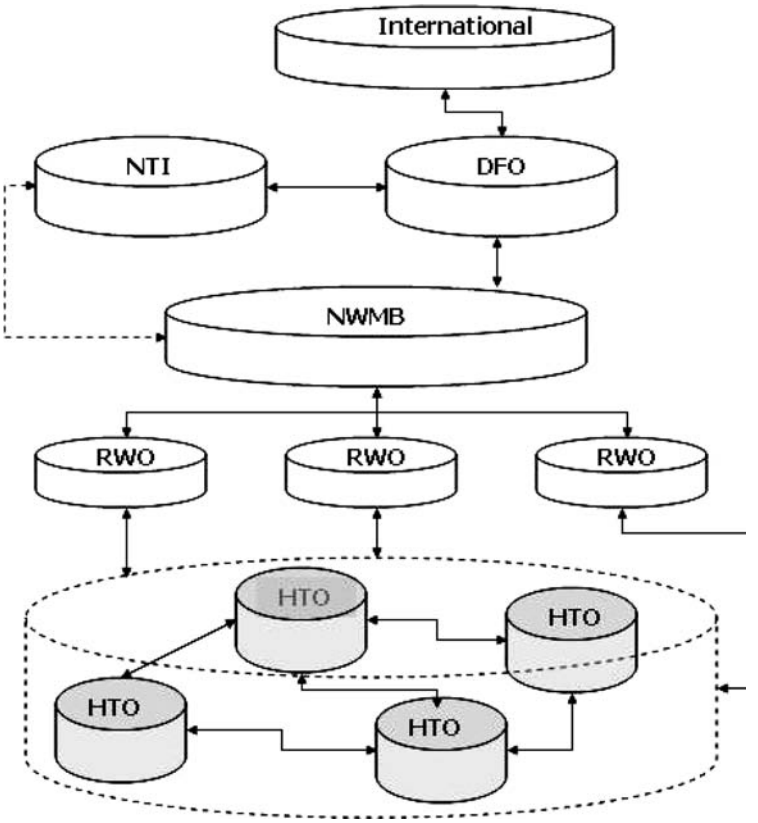

Figure 3. Horizontal and vertical linkages in the Narwhal Management Process in the Nunavut Territory. Source: Adapted from Armitage (2005).

be another layer, as the narwhal population is also hunted on the Greenland side, but an effective international linkage is as yet lacking (Berkes et al., 2005, Armitage, 2005).

Boundary organizations are an eclectic set; they could be formal co-management bodies, as in the case the various northern land claims agreements: they could be government-appointed or jointly appointed independent agencies, NGOs, or university groups. In one case, the Bras d'Or Watershed Stewardship proposal in Cape Breton, Nova Scotia, the Federal government provided funding in 1994 to the University College of Cape Breton to develop a community-based management structure. The university group recommended the establishment of a Bras d'Or Stewardship Commission, with legislated transfer of authority, for the management of a watershed that includes a large brackish-water lake and a variety of user-groups, including an aquaculture industry and five Mi'kmaq First Nations communities (NRTEE, 1998).

7. Creating a Participatory Policy Environment

A systematic assessment of the policy environment is needed to see how it enables or constrains ICOM, and in particular a role for communities in such management. The legal context in which local management and CBM can flourish is not well explored in most literature (but see Lindsay, 1998; Pinkerton, 1992). Legal institutions and actual patterns

of behavior differ dramatically even within national boundaries, but it is obvious that most CBM is developing in "the shadow of the law." That is to say, most CBM institutions have no legal basis and in many places, emerge despite an inhospitable legal environment, particularly with respect to prevailing property ideologies.

In Canada, as noted earlier, the *Oceans Act* suggests devolving more responsibility to communities, but the implementation of policy continues to operate in a top-down fashion, except in areas under land claims agreements. Communities have had to find the small legal spaces available in order to balance individual interests with communitarian interests (Milsom, 2003). CBM institutions have little legal security and are correspondingly fragile (Wiber, 2005), as trends by governments toward privatization have left little room for policy innovation at the community level. Enabling legal contexts are a necessary condition, then, for sustainable CBM; however, they are not in themselves sufficient.

If we focus on what this "enabling" context might look like, what is the international advice? Among those attempting to develop the local capacity for CBM, several key issues have begun to emerge, including:

1. An enabling legal environment needs to clearly delimit the respective powers and responsibilities of state versus community agents.
2. Local community institutions need to be legally recognized.
3. Responsibilities and rights need to be firmly linked to particular sites and resources.
4. Secure rights need to be granted, usually based on dependency on the resource or on historic patterns of access.
5. The boundaries of the community need to be defined both for membership and in terms of geographical space.
6. The state needs to sanction local law making and enforce them against interlopers. The state can also help tune these regulations to current ecological knowledge.

But all of these steps require that the state recognizes and is willing to support a local level right to participate in both governance and management in a meaningful way. Enabling legislation would have to include specific and clear language. Further, Lindsay (1998) suggests a most important consideration is that the time dimension of the rights that local users receive must allow them to experience the benefits of their investments in management and local institution-building. Local capacity-building is costly and people have to believe that they will benefit. In Canada, there is a need to make funding and other support available for communities that set out to build governance capacity. Local fishery organizations, for example, need further governmental support for capacity building and institutional development, as they are already required to contribute to the costs of fish stock management, catch monitoring, and science.

What are the current legal roadblocks to CBM? One problem is the lack of clarity over what authority has the right to delegate responsibilities to communities. Although the *Fisheries Act* contains a number of provisions for the protection of fish habitat, the sections of the Act pertaining to the advancement of the fishing industry may place officials in a potential conflicting position with the *Oceans Act* concerning delegation of authority as both laws are under the authority of the same Minister. Can the Canadian Department of Fisheries and Oceans devolve its responsibility? To do so will require reversing what has been a significant tendency to micro-manage—notably in the fishery, proscribing in too much detail, for example, the structural organization of local groups and their geographical access and patterns of fishing. This has proven detrimental to local flexibility (Finlayson & McCay, 1998). There is also a need to overcome a "silo" mentality in resource management, with a legal structure that compartmentalizes *both* resources (fishery, forestry, mining,

etc.) *and* the people that use them (e.g., native, non-native), writing these compartments into mandates and provincial/federal divisions of power. For example, when the Marshall Decision[1] introduced many new native entrants into the east coast commercial fishery, non-native fishers were advised not to meet with natives on a local basis to discuss the implications (Wiber & Kennedy, 2001). This task was claimed by the federal government, but as a result, local solutions to local problems were not encouraged.

The silo mentality has a number of impacts that undercut CBM. One problem, for example, is that the carving up of access to the various ocean and coastal resources pits local user against local user, individual against community (Milsom, 2003), with little flexibility built into management plans to allow for conflict management. Disgruntled local users then pull in state agents or local political actors in order to promote their own interests against those of others, especially when local consensus-based decisions go against them. This pattern of seeking political or state solutions to local conflict is then used by the state to demonstrate local management incompetence, while ignoring the state role in generating the context in which conflict is allowed to flourish.

An entirely different type of roadblock occurs when the government does recognize local managers, but does so in a way that limits their flexibility or freezes their organization at one point in time (narrowly based on gear licenses for example, versus home harbor or community residence). Recognition is a double-edged sword in this regard, often locking local users into past practice that may no longer be relevant. As many have noted before, natural resources, and the way local people use them, do not mesh well with administrative boundaries. Creating grounded local-level governance will further advance adaptive management, but only if local access is protected from outside encroachment.

The question then becomes, how do we overcome such roadblocks to free the enabling potential of the law? This will need to be an on-going process that is governed by the intended users of the resources as well as policymakers. This in turn means that we need to educate and enable not only local users but also policy bureaucrats and local officials; we all need to become part of the "learning communities" (Bennell et al., 2000) described later. We will also need to think of law as an enabling tool and not as a straight jacket, and this requires thinking strategically and multidimensionally, rather than instrumentally. We need to enable research, planning, and management at the local level, and to provide resources for capacity building, value generation, and conflict resolution at the local level (Parker, 1999). This will not be an easy process, and will require the cross-scale linkages discussed earlier, both horizontally (between communities and user groups) and vertically (between policymakers, bureaucrats, and local users). Finally, we need to devise methods to create effective, open boundaries—defining membership but also keeping our concepts of community politically engaged and responsive.

8. Building Community Capacity

We see four critical areas for developing the capacity of coastal communities for participatory governance:

Learning from Experience. Over the past ten years, a variety of community-based management initiatives have moved forward in Canada but this has taken place with little evaluation, reflection, and documentation. It is important to learn from what has already been accomplished, and specifically in assessing two types of such experiences: (1) organization-building and institutional innovation within community groups, and (2) bridging and network-building across communities. Community capacity is needed—using

a variety of participatory research methods—to engage in reflective discussion and compilation of relevant stories from their membership, documenting changes over time in resource use, coastal access, livelihood approaches, and the like.

This could be complemented by data gathered (1) to track the evolution of government policy relating to coastal and marine uses, and the organized response of resource users, and (2) on decision-making approaches, collaborations across community and sectoral boundaries, dispute resolution, financial sustainability, involvement in inter-sectoral management, innovative management initiatives, and approaches to deal with power differentials among stakeholders. Such capacity could lead to an increased understanding of key institutional and capacity-oriented barriers to local initiatives, knowledge that will be crucial both at the community and the governmental levels.

The Formation of Learning Communities. Learning communities are inclusive, place-based groups that solve governance problems through collaborative, iterative processes of learning by doing (Fisk et al., 1998; Kilpatrick et al., 2003; Bennell et al., 2000). The knowledge and empowerment flowing from learning communities can lead to an acceptance of change, effective communication, improved economy, and social justice, as well as greater levels of trust that bind communities, making them more resilient. Because governance and management are on-going processes—learning communities scale-up their experiences by building learning alliances across geographic areas and resource stocks, which link together effective learning communities in order to bring about change in governance structures, community engagement, and government policy.

Coastal resource users living around the Bay of Fundy have been involved in the formation of an implicit learning community during the past 10 years. It started with the formation of two community-based groundfish management boards in 1996, one on each side of the Bay of Fundy (New Brunswick and Nova Scotia). The positive experience of the fishers with CBM led one board, the Fundy Fixed Gear Council, based in Digby and Annapolis counties of Nova Scotia, to initiate the formation of the Bay of Fundy Marine Resource Centre (MRC). The MRC is a support, capacity-building, and mediating institution for a diversity of users on the whole range of coastal and ocean issues affecting Bay of Fundy communities.

The need for this kind of community organization has led to the evolution of three sister institutions in other parts of the Bay of Fundy; two in Nova Scotia and one in New Brunswick. The combination of the community-based management boards, the community-oriented fishing organizations that comprise those boards, and the support centers with a much wider constituency than fishers, has led to a variety of innovative learning experiences through GIS mapping, participatory research, and experimental projects with a community focus. Notable outcomes of these learning experiences has been an increasingly positive experience with the integration of another community-oriented resource user group, the First Nations entering the commercial fishery as a result of the Supreme Court's Marshall Decision. The other is a natural evolution away from single sector management approaches to ICOM. Just as importantly, the Bay of Fundy organizations have formed strong horizontal linkages, or learning alliances, with coastal organization and resource centers in New England, British Columbia, and Alaska (see Kearney, 2005).

Create Experiments in Collaborative ICOM. Community organizations, as place-based and resource-dependent associations, face a range of constraints on organizational and institutional capacity. A key constraint lies in the reality that the organizations are currently caught in a web of "conventional" management practices, largely oriented toward one

economic sector at a time, lacking integration across sectors, and lacking an ecosystem focus. Organizations must participate in this conventional system to avoid risking a loss of livelihoods among their members, but this consumes a great deal of human, financial, and time resources, so it is difficult for partners to develop innovative approaches that move beyond regular operational activities. Thus, it would be useful for government agencies and community organizations to create spaces, time, and resources for small experiments in integrated coastal management where there is a sharing of management authority.

As noted earlier, since 1994, residents of the Bras d'Or Lakes watershed of Nova Scotia have come together to try a number of experiments to deal with issues such as invasive species, waste water management, declining water quality, land development, forestry practices, and declining fish stocks (Wehrell, 2005). These efforts have culminated in the formation of the Collaborative Environmental Planning Initiative led by a First Nation organization, the Unama'ki Institute of Natural Resources, and including the membership of many community representatives as well as several federal and provincial government agencies. As a watershed and coastal area within the ESSIM area, the Bras d'Or Lakes initiative provides a possible opportunity and model for the development of a higher degree of community collaboration in ICOM.

Develop Mechanisms for Financial Stability and Long-Term Sustainability of Community-Based Organizations. As capacity develops from the reflection on past practices and the experience and skills gained from learning communities and experiments in participatory ICOM, it is necessary to institute mechanisms for long term stability. In this regard, much can be learned from the experience of the Atlantic Coastal Action Program (ACAP).

ACAP was established by Environment Canada in 1991 as a community-based initiative to restore and sustain watersheds and their adjacent coastal areas (see http://atlantic-web1.ns.ec.gc.ca/community/acap/). Eventually 14 community organizations were formed in the four Atlantic Provinces. The ACAP has made significant contributions to developing community capacity, forging partnerships with government agencies, promoting community stewardship of watersheds and coastal areas, and implementing conservation and monitoring action plans. However, what we wish to highlight here is the example that the ACAP provides in demonstrating how government investment in community-based programs can provide a high return on that investment, both to the government and to the community, while fostering the long-term sustainability of community organizations. As indicated in an economic assessment (Gardner Pinfold Consulting Economists Limited, 2002), it would have cost Environment Canada at least 12 times its ACAP program expenditures if it had tried to deliver the same services itself during the period 1997–2001. Moreover, for the $6 million invested by Environment Canada in ACAP, the ACAP organizations spent $13.5 million, created 482 person-years of employment, contributed $22 million to GDP, and added $8 million to federal and provincial taxation revenues.

9. Monitoring and Assessment of Local-Level ICOM Initiatives

What progress is being made in community-based ICOM, both with respect to the process involved, and the outcomes of that process? How do we assess the extent to which effective community-based ICOM is taking place? There are two key prongs to accomplishing this. First, it is important for communities and governments alike to be able to monitor and assess the state of the relevant coastal and marine systems, including the biophysical as well as the human dimensions, how each of these is changing over time, and their overall sustainability and resilience. Second, involving coastal communities in ICOM, and utilizing approaches

of participatory governance and community-based management, highlights the need for an understanding of the effectiveness and acceptance of the process—a need to carry out a "performance assessment" to assess the extent to which ICOM is working in practice, at a community or local level (or indeed more generally).

Monitoring the State of Coasts and Oceans. The first avenue of monitoring and assessment focuses on the outcomes of ICOM, developing and utilizing appropriate on-going indicators to track over time (1) the "state of the world" in oceans, coastal zones, and coastal communities, and (2) progress toward the key goal of ICOM, of facilitating sustainable development in ocean and coastal areas. Each of these aspects can be implemented from a "macro" perspective of a nation or region, but also has a local, community scale that must not be neglected (e.g., see Boyd and Charles, 2006).

The first class of indicators noted—"state of the world" indicators—range from the biomass of fish in the ocean and the geographical extent of their distribution, to the level of ocean-based GDP and the level of fish exports, to measures of the distribution of ocean-based wealth and the well-being of the coastal communities. Monitoring each of these indicators requires on-going attention to data management and statistical systems, which can be a challenge at the local level. Indeed, in support of participatory governance, there is a need (1) for ICOM efforts to pay attention to consolidating and utilizing information about coastal communities needed for effective management, and (2) to incorporate local participation in the monitoring of indicators of relevance to coastal communities.

The second class of indicators focuses on monitoring progress toward sustainability, and resilience, of the ocean and coastal systems. The practical assessment of sustainability requires a suitable framework of *indicators* that address whether the system is sustainable, and if not, what improvements are needed. When dealing with coastal communities and local-level integrated coastal and ocean management, indicators of sustainability must deal with the well-being of the communities, as well as that of the ecosystem, the socioeconomic structure, and the institutional integrity of the system.

Similarly, one must examine the *resilience* of coastal communities, together with that of ecosystems, human systems, and management systems (Charles, 2001). This might include, for example, indicators that assess the capability of coastal communities to "bounce back" from dramatic changes in the natural resource base or the overall economic system. For example, Charles et al. (2002) examine indicators in relation to fisheries and the marine environment of Nova Scotia, including the age distribution of fishers, the proportion of fishers with multiple licenses, the diversity of employment sources for fishers, and the economic diversity in the coastal community. A procedure to implement this multifaceted approach to indicator use at the community scale is reported in Boyd and Charles (2006).

Performance Assessment. The idea of monitoring and assessing the performance of an organization, an institution, or a management process is by no means new. There are diverse approaches to carrying this out, whether in the realm of oceans and coasts, or elsewhere—these typically include consideration of performance in terms of levels of participation in ICOM, and of community involvement, as well as the organizational performance of ICOM systems (see Andalecio [2004] for a comprehensive analysis, with emphasis placed on assessing the extent and quality of participation, in the context of fisheries management). The following describes two broad-based performance evaluations, carried out on Canada's Pacific and Atlantic coasts.

- First the Eastern Scotian Shelf Integrated Management (ESSIM) Initiative, described earlier, is a leading-edge component of the Canadian government's attempt to

develop a set of large ocean integrated ocean management areas. ESSIM has pursued a path of developing parallel ecological and human considerations, notably sets of "ecosystem objectives" and "human use objectives," laying out what DFO, and hopefully others involved in ESSIM, wish to achieve through the process. Descriptions of the objectives are (or will be) accompanied by sets of indicators for monitoring their achievement. The human use considerations—which include "social, economic and institutional (governance) components of ecosystem-based management" (Walmsley, 2005)—were elaborated through a workshop held in 2005, leading to a report "Human Use Objectives and Indicators: Framework for Integrated Ocean Management on the Scotian Shelf" (Walmsley, 2005). It is notable, in terms of community involvement in ICOM, that one of the four broad human use objectives identified for ESSIM is "Community Well-Being" (i.e., contributing to the "long-term social and cultural well-being of communities in Nova Scotia")—alongside economic well-being, industrial capacity and assets, and a strong integrated management process.

- Second the West Coast Vancouver Island Aquatic Management Board (described earlier) is an institution developed in British Columbia as a pilot project of regionally defined participatory planning and decision making. In 2005, the AMB underwent an external evaluation that assessed the performance of the AMB from a number of perspectives, and based on a number of indicators, including some relating to levels of participation. That evaluation was sufficient to reach the key conclusion "that the AMB is a unique and significant pilot effort in multi-party regional integrated aquatic management and definitely warrants continued support beyond its pilot period in order to continue the positive work it has already achieved, and to further contribute in areas of high promise" (Pinkerton et al., 2005).

Conclusion

This article has offered a number of examples of participatory governance and community-based management in Canada's coastal and ocean areas. Few of these examples are formal ICOM initiatives, and these are relatively weak in their support for participatory and community-based approaches. There is perhaps good reason for this. Community-based management and co-management take a long time to develop (McCay & Jentoft, 1996; Wilson, 2003). The *Oceans Act* was only proclaimed in 1997 and its implementation is even more recent. Both the Act and the policies arising from it clearly exhibit a strong potential and commitment to increased participatory governance. It is equally clear that there is a demand on the part of coastal residents for more meaningful involvement in governance (see for example, Reid, 2004) and that community-based management is advancing in Canada, even without government support. It is time to merge these two forces and advance participatory governance through the *Oceans Act* and not despite it.

We have suggested a number of avenues for moving forward. However, these can be condensed into two main areas: the creation of a participatory policy environment and capacity-building. The adaptation of existing policy and legal frameworks will be required to move government collaboration with communities from an advisory mode to one where there is a greater sharing of authority through community-based and co-management arrangements. As an initial step in achieving this, the federal government's current emphasis on targeting five large ocean management areas for ICOM development might be partially

re-directed toward providing more resources to existing local-level ICOM efforts that can later be incorporated into the formal ICOM management bodies.

Capacity-building is necessary both to overcome the barriers to collaboration and to strengthen existing participatory efforts. In overcoming these barriers and in creating a collaborative environment, capacity-building is required for all participants, be they with government, industry, scientific institutions, or communities. We suggest that these capacity building efforts will be more effective if these different groups can combine their efforts by coming together in learning communities for ICOM.

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Notes

1. On September 17, 1999 the Supreme Court of Canada acquitted Donald Marshall Jr. of three charges relating to federal fishing regulations upholding a 1760 treaty that gave the Mi'kmaq the right to trade products of their hunting, fishing, and gathering for "necessaries."

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