

## LEGAL PLURALISM AND INTEGRATED MANAGEMENT IN SAINT JOHN HARBOUR, CANADA

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**ABSTRACT** The Canadian port of Saint John, New Brunswick, has many management challenges, including expanding industrial development, oil refineries, freighter and cruise ship terminals, land-based pollution, harbour dredging and dredge dumping, and raw municipal sewage outflows. In the midst of this remains an important inshore fishery. Mitigating environmental impacts and juggling the multiple uses of the harbour requires effective regulation as well as effective management institutions. However, jurisdictional overlaps, under the combined mandates of several international, federal, provincial and municipal agencies, have resulted in fragmentary management efforts. While Canada's 1996 *Oceans Act* promised integrated management and a stronger role for stakeholders, over ten years have passed without any progress in improved management. This paper focuses on the concerns of the inshore fishery to highlight the legal pluralism aspect of the problem. Where regulatory regimes collide, bringing fishing, shipping and industrial development into conflict, fishing generally loses out to international shipping and to large capital intensive developments. This case illustrates the need to improve natural resource management through realistic integrated planning processes that will effectively deal with legal pluralism, and that will equitably balance the many competing demands on natural resources.

### Introduction

A harbour is a naturally occurring waterway, sheltered from weather by surrounding landforms, and with deep enough water to furnish anchorage for shipping. Often harbours are at the mouths of rivers, and are affected by major downstream anthropogenic impacts. Ports, on the other hand, are man-made structures located at the intersection point between land and water, which serve as transfer hubs for trade. They are usually but not always built near or on natural harbours. They consist of major features such as docks or berths where vessels moor, equipment and personnel to load and unload vessels, connections to land transportation (such as highways, railways, and pipelines), and cargo storage areas. Where harbours are associated with seaports, the interaction of major activities on the

water (fishing, shipping, recreation) with major activities on land (transshipping, storage, processing) can result in significant regulatory challenges.

International seaports present one of the most difficult environmental, social and political challenges, given their industrial nature, and situated as they are at the mouth of important and often transboundary watershed systems (Dawkins and Colebatch 2006). Jurisdictional overlaps are common. This together with exponential growth in seaport infrastructure and activities has everywhere challenged the capacity of local agencies to produce sustainable, participatory, and well-integrated management plans that can respond to global environmental challenges (Thom and Harvey 2000). Recent anti-terrorism regulation for international shipping has only added to the complexity (Stasinopoulos 2003, Goulielmos and Anastasakos 2005). And yet, a survey of seaport governance literature demonstrates that management capacity has not kept pace with this unprecedented growth of management challenges (Brooks 2004; Sherman 2002; Thom and Harvey 2000; Van Gils and Klijn 2007; Wakeman and Themelis 2001). One interesting gap is the role that fisheries play in a number of important harbours around the world that house international ports; in the limited literature that does exist on the management of such harbours, the integration of fisheries into management plans is noticeably absent. It would appear that in terms of seaport management, the trend is to eliminate any existing fishery (often through spatial management) rather than working to retain existing resource uses in the face of industrial expansion. Where the legal pluralism literature has focused on resource management, a common concern has been this elimination of established resource users to make room for expansion of more capital intensive exploitation (see F. and K. von Benda-Beckmann 1997).

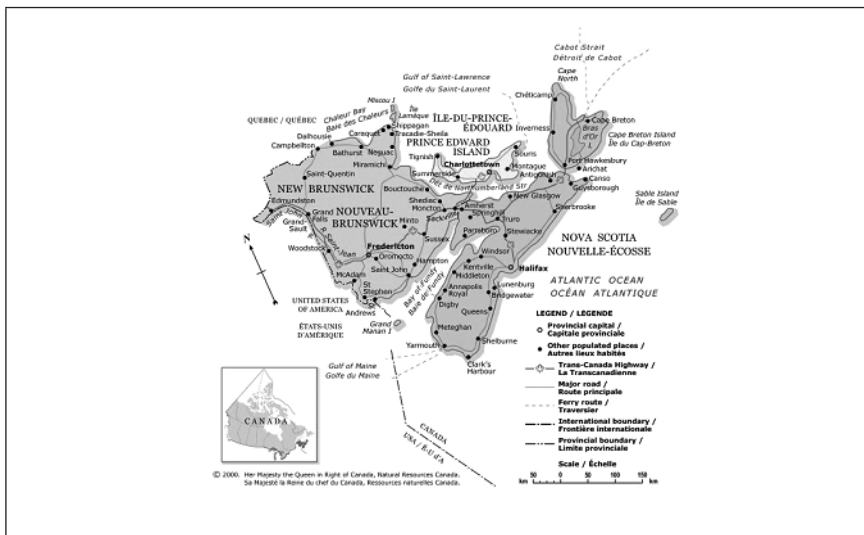


Figure 1: Maritime Provinces of Canada

## Integrated Coastal Management

As a result of the 1992 United Nations Rio Declaration on Environment and Development, integrated management (IM) became a significant mechanism for addressing those critical environmental, economic and legal challenges that face resource dependent communities and resource managers (Cicin-Sain and Knecht 1998). The Rio Declaration envisaged integrated management as a means to reconcile the conflicting values of economic development and environmental sustainability. Integrated coastal management (ICM) has been defined as:

a continuous and dynamic process that unites government and the community, science and management, sectoral and public interests in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources (GESAMP 1996, cited in Bastien-Daigle *et al.* 2008).

Components that require 'integration' include, political and legal jurisdictions, ecosystem parameters, conflicting uses, social, cultural and economic needs, different knowledge systems, and controls on anthropogenic impacts.

Since 1992, the concept of ICM has provided both hope and frustration. Hope that ICM would manage the ongoing conflict of values (as in 'sustainable development'), and frustration that viable ICM institutions have been so slow to develop. Several factors have been highlighted as key to success. Tobey and Volk (2002:290), for example, have argued that effective public participation is crucial. Learning theory suggests that ICM must also involve open discussion of the values and objectives that any planning exercise would promote in any particular geographic area, as well as open sharing of relevant information (Keen and Mahanty 2006). The ICM literature suggests that new management institutions and policy initiatives be guided both by the local specificities and by best practices from elsewhere (Allan and Curtis 2005; Stojanovic *et al.* 2004). Stojanovic *et al.* (2004:290) in particular have suggested that nine factors contribute to successful ICM, including management that is: participatory, long-termist, focused, incremental, adaptive, comprehensive, precautionary, co-operative, and contingent.

Experience to date, however, suggests that management planning largely remains *ad hoc*, problem driven, short-term and highly political. Further, creating the environment for wider public participation seems to be especially difficult (see Gibson 2003). Cicin-Sain and Knecht (1998) identified four common kinds of resistance that may inhibit ICM, including: bureaucratic inertia, turf protection, ideological opposition, and opposition from economic interests. Together these may generate a lack of political will, but another difficulty is the real expense and difficulty of coordination given the many regulatory bodies involved, at the international as well as at national, provincial and local levels (Kearney *et al.* 2007; Wiber and Kearney 2009). Single ecosystems usually fall under the jurisdiction of multiple authorities, and 'the purposes for which authorities are statutorily permitted to act and their legal ability to cooperate with each other are sometimes restricted in ways that impede' (Gibson 2003:128). There are also no voluntary

collaborative processes where actors negotiate public policies based on multiple criteria, including norms and values (Turner 2000). This has led many to push harder to resolve ICM roadblocks and to create a management system that fully integrates jurisdictional and scalar differences.

Nichols (1999), however, cautions that any significant level of integration also has the potential to centralize state management and reorganize society and space in order to facilitate capital investment and economic growth, all without considering the impact on local livelihoods and on social equity. The end product may be short-term economic growth but long-term decline in resilience and sustainability. And Nichols points out that ICM often couches such outcomes in the language of legitimate ecological and social concerns.

In the Canadian context, integrated coastal management is mandated under the *Oceans Act* (Government of Canada 1996, Chapter thirty-one). Chapter thirty-one authorizes Fisheries and Oceans Canada (DFO) to work 'in collaboration' with other persons and bodies, including local stakeholders. Despite this DFO leadership, ICM has also been slow to develop in Canada (see Guenette and Alder 2007; Kearney *et al.* 2007), perhaps because local communities have often been suspicious of government objectives, or because they simply have different objectives (see Bastien-Daigle *et al.* 2008). This paper reports on one case study that illustrates many of the more intractable problems of ICM in the context of the Canadian Maritimes. It draws attention to the need for a better understanding of the complex legal environment in which ICM must work, and suggests the legal pluralism may set the context in which to design successful integrated management institutions.

## Legal Pluralism

Following Franz von Benda-Beckmann (2002), law is viewed in this paper as normative conceptions that are constraining and enabling, with respect to behavior, social relationships, occurrences *etcetera*, and which give these phenomena relevance of a particular type. Legal conceptions are shared and meaningful to a particular set of people – but contrary to Spiro (2005:1262) who argues for a seamless connection between community and law, most legal anthropologists would suggest that the nature of this connection remains an empirical question. For example, dairy farmers in Canada and Europe who operate under a quota regime have a great deal in common, despite their respective cultural or national differences (Wiber 1995). Legal pluralism, on the other hand, refers to situations where more than one legal regime is operating in a social field (Griffiths 1986; F. von Benda-Beckmann 2002; F. von Benda-Beckmann and K. von Benda-Beckmann 2007). In anthropology, legal pluralism has often been described as a 'sensitizing concept'. It sensitizes us to what Sally Merry (1988) has called the dynamics of the imposition of law and of resistance to law. It has also made us more sensitive to the complex and interactive relationship between official and unofficial forms of ordering.

Legal scholars have also found the concept useful, seeing it as an 'emancipatory' way to destabilize the 'dominant monist image of law as derivative of the political state and its progeny' (Kleinhans and Macdonald 1997:25). Berman (2006-7:1165) adds that it allows international legal scholars to conceive of their field as 'managing hybridity'. Rather than responding to 'conflict of law' situations by emphasizing formal state-to-state relations, or creating overarching universal norms, or resolving disputes by 'locating them territorially in order to choose a single governing law to apply', legal pluralism allows for a view of 'the global legal system as an interlocking web of jurisdictional assertions by state, international, and non-state normative communities' (*Ibid.*).

The research on which this paper is based is addressing questions that arise from the legal pluralism perspective. To what extent is state law really involved in maintaining normative ordering in resource use in coastal areas? If state law is not really influential in maintaining societal ordering – why is this the case? What other normative orders are influential? The concept of legal pluralism helps to explore those contexts where local law may come into conflict with state law, or state law with international or transnational law. But as Gordon Woodman (1998) has pointed out, it also helps to focus on pluralism *within* legal orders of all types (see also Chanok 1989:73).

In this paper, we view legal pluralism as ubiquitous, and accelerating under conditions of globalization. Held *et al.* (1999:16) have suggested that globalization is 'a transformation in the spatial organization of social relations and transactions' that generates 'intercontinental or interregional flows and networks of activity, interaction, and the exercise of power'. They argue that the impact of these transformations can be measured. Globalization affects law and regulation as it does other relations (see Dezalay and Garth 1995; Spiro 2005; Teubner 1997; Wiber 2005). It is important then to explore empirically how laws of different scales relate to each other in a context of globalization. In this paper, we provide a case study where diverse administrative agencies of several scales compete with each other to regulate conduct.

In constructing his 'cosmopolitan globalism', Berman (2006:1165) argues that: 'hybridity is a reality we cannot escape'. Perhaps then ICM should be conceptualized as one of those mechanisms or institutions for managing, without eliminating, different values and norms as applied to natural resource use. This may be a utopian perspective, as Michaels (2005:1214) and Spiro (2005:1264) suggest. Michaels (2005) argues that reconceptualizing law to admit hybridity and to decenter the state may in reality generate outcomes that no one would want (*Ibid.*:1250), especially given the lack of a 'robust political theory of global governance' to replace the state (*Ibid.*:1256). Some of this dystopian vision is reflected in Spiro's description of the consequences of the decline of state power (2005:1268). But from an empirical perspective, it would appear that many of the grim predictions have already come to pass (weakening of the welfare state, failure of equitable resource distribution). Further, in many settings, they may always have existed alongside or despite the state institution. In this paper, therefore, we agree with Berman (2006-7:1165) on purely practical grounds. It is clear that sustainable resource use will not happen if ICM emerges either as part of a retreat to a pure

sovereigntist position of state power, or as part of a universalist position of standardized international norms (*Ibid.*). The reason for this is quite simple; the state does not hold the monopoly on power, however much legal theory may operate as if it does (Michaels 2005:1236). And equally, there is no universal agency that can impose standardized international norms except in highly focused areas of concern inappropriate to broader questions of resource management.

## The Case Study

The case study on which this article is based is drawn from a five year collaborative research project focusing on the Canadian Maritime Provinces (see Map 1). The project is entitled the Coastal CURA or Community University Research Alliance ([www.coastalcura.ca](http://www.coastalcura.ca)) and is funded by the Social Sciences and Humanities Research Council of Canada under a program that brings communities and universities together to research problems of mutual interest. The Coastal CURA aims to build knowledge and capacity in coastal communities in order to support community initiatives and community involvement in ICM. The Coastal CURA involves eight partners – two universities (Saint Mary's University and the University of New Brunswick) and six community partners, including two fishermen's organizations, three aboriginal communities and a coastal resource center. All of these partners collaborate in defining research objectives and in sharing research findings relative to local-level use and management of fisheries, coasts and oceans. Projects have included both site-specific studies and broader policy-level research.

One of the Coastal CURA partners, Fundy North Fishermen's Association, has members that fish in Saint John Harbour, and the harbour has been one of several case studies into ongoing ICM efforts in the Canadian Maritimes. In all of these case studies, CURA project graduate students and academics have reviewed the relevant legislation, assessed stakeholder meeting minutes, tape recorded public meetings, and interviewed community partners, other stakeholders, and government regulators. Alongside community partners, they have also participated in-on-the water project activities, in collective discussions of the data, in analysis and in writing up of results. In the case study from Saint John Harbour, other methods have included a ghost trap survey and a survey of other North American harbours with significant local fisheries, both of which are discussed in more detail below.

Saint John Harbour is located on the north shore of the Bay of Fundy, a large body of water that opens onto the Gulf of Maine (see Map 1). The Saint John River empties into the harbour. The city of Saint John, located on the harbour is one of the largest cities in the province of New Brunswick, with approximately 122,389 residents. While it is an industrial city, with interests in oil, forestry, shipbuilding, media and transportation, Saint John has suffered an economic downturn for several decades (especially with the collapse of the shipbuilding industry) leading to population declines. Recent economic growth, particularly in the petrochemical industry, has begun to reverse this trend. The Irving companies are major employers in the region with businesses including eastern North America's

first deepwater oil terminal designed to receive super tankers, an oil refinery, a pulp mill, a newsprint mill and a tissue paper plant. Canaport LNG, a partnership between Irving and Repsol YFP, has constructed a state-of-the-art liquid natural gas receiving and regasification terminal in the city. This terminal is the first in Canada, and will deliver gas to both Canadian and US markets.

The Port of Saint John is ice-free year-round and as an international seaport is one of Canada's key ports. It handles a wide range of traffic, including liquid bulk, dry bulk, forest and petrochemical products, containers, general cargo and cruise passengers. It transships an average of twenty-seven million metric tonnes of cargo annually. It is also an important part of the regional infrastructure, providing close to 3,000 direct and indirect jobs (Saint John Port Authority 2009). It is essential to the province's petroleum, potash, forestry, tourism industries and to its import and export trade.

The area is also essential to the livelihoods of up to seventy-five fishermen who fish the waters inside the harbour. In a mail out survey conducted in December 2009, it was established that fishermen in the harbour come from coastal communities all along the southwest coast of New Brunswick. Fishing has historically been practiced alongside industrial activities in the harbour, but recent expansion of petrochemical and construction shipping has seriously challenged this coexistence. This case study examines the efforts of local fishermen to retain access to important fishing grounds inside the boundaries of an international harbour. The Saint John case mirrors similar struggles in many international ports of North America such as Placentia Bay, Newfoundland (see Ommer *et al.* 2007:163). We surveyed ports ranging in size from San Francisco, Portland, Seattle and Vancouver, to the much smaller Casco Bay and Penobscot Bay, Maine. Fishermen that work in or around these ports are experiencing similar difficulties. Our case study illustrates that situations of legal pluralism is not restricted to non-western nations or to the development context. Legal pluralism is pervasive in natural resource management and presents significant difficulties in terms of sustainable use of our natural resources.

### Levels of Regulation Affecting Saint John Harbour

As with other industrial nations, the port system in Canada has undergone significant change over the past ten years. Deregulation and the privatization of public infrastructure is a common theme in these transformations. Under the Canada *Marine Act* (1998)<sup>1</sup>, for example, Canada began a major reorganization (Sherman 2002). A total of 353 of 549 port facilities across Canada were transferred (to provinces, private enterprises or local interest groups), demolished, or decommissioned (*ibid.*). Among the remaining ports, eighteen independently-managed Canadian Port Authorities (CPAs) were established to operate particular ports on behalf of the Government of Canada. Together these accounted for over sixty percent of Canada's waterborne general cargo (Sherman 2002:6). Other ports have subsequently applied for CPA status. CPAs are neither public nor fully private organizations (see Brooks 2004). They possess the power to engage in activities

related to shipping, navigation and transportation of passengers and goods, may be given Crown land to operate and manage (but not to own), and may acquire and own land in their own name. However, Transport Canada (including Marine Security Regulatory Affairs) is responsible for ensuring that CPAs conduct their affairs in accordance with the provisions of the Canada *Marine Act*, the Port Authorities Management Regulations and the Port Authorities Operations Regulations, as well as the provisions set out in their Letters Patent. Letters Patent are issued by the federal government to grant port authorities the right to operate a particular port. In 1999, a Canada Port Authority was authorized for the port of Saint John.

But regulation of the Saint John Harbour is also impacted by a number of other agencies, both at the national and provincial level. The more important of the federal agencies include Industry Canada, Transport Canada, Environment Canada and Fisheries and Oceans Canada (DFO). Provincial departments include Tourism, Agriculture and Aquaculture, Fisheries, Transportation, Business, and Environment.

More layers of regulation are added through an international dimension. Since the mid-1950s, the regulation of high seas shipping has increasingly fallen under the control of international regulatory bodies. The International Maritime Organization (IMO) is the most important of these, and is a specialized agency of the United Nations, established under a Convention adopted in Geneva in 1948. The IMO's main task has been to develop and maintain a comprehensive regulatory framework for shipping and it addresses safety, environmental concerns, legal matters, technical co-operation, maritime security and the efficiency of shipping. Among other matters, signatory nations agree to maritime safety conventions for international ports. This has brought international standards into port management, especially as relates to traffic lanes, and to the interaction of shipping and fishing vessels.

For example, Rule ten of the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (hereafter colregs or Collision Regulations), notes that fishing vessels 'shall not impede the passage of any vessel following a traffic lane' but are not banned from fishing. This is in line with Rule nine, which states that: 'a vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway'.<sup>2</sup> The IMO also regulates which vessels can utilize inshore waters and a complex system of shipping lanes and signaling systems in international seaports.

When the September 11<sup>th</sup> us terrorist attacks highlighted security issues, the us called on the IMO to institute global shipping security measures (Sokolsky 2005:36). In 2004, a diplomatic conference adopted a number of amendments to existing IMO regulations (1974 SOLAS), among them, requirements for the completion and approval of port facility security assessments and plans.<sup>3</sup>

In the past, Canada has claimed that the IMO system for updating or creating conventions has moved too slowly for technological changes in the shipping industry; the IMO responded by instituting a 'tacit acceptance procedure' that can move amendments of a technical nature through more quickly. More recently, a coalition of government, fishing, oil and tourism industries, environmental



groups and marine scientists applied to the IMO to modify the Bay of Fundy Traffic Separation Scheme (shipping lanes) to protect endangered right whales feeding in the Bay.<sup>4</sup> These changes were approved by the IMO and implemented by Transport Canada. While this regulatory change was effective, it was also time consuming and required the combined efforts of national and international agencies. As this article will demonstrate, the effort required may have discouraged similar initiatives among members of the Canadian bureaucracy.

Another level of bilateral regulation has been undertaken to promote North American security following the events of 9/11 (Sokolsky 2005). As Sokolsky notes, this has primarily taken the form of collaboration between Canada and the US on shipping and port security, and by the 2004 formation in Canada of the Marine Security Operation Centers (MSOCs) to promote interagency cooperation. In part, these bilateral cooperative efforts are in support of the IMO's International Ship and Port Facility Security (ISPS) Code, which also took effect in 2004. As Stasinopoulos (2003:311) has argued, while 9/11 revealed the 'soft underbelly of globalization', subsequent US moves to enhance homeland security often reflected 'us "hegemonic" ambitions and unilateralism in maritime trade'. Given Canada's economic reliance on trade relations with the US, port security has been criticized as speedily undertaken without due public consultation in order to satisfy Canada's dominant trading partner. IMO security regulations have been similarly criticized (Goulielmos and Anastasakos 2005; see also Cowen and Bunce 2006).

## Issues and Problems in Harbour Management

The larger Saint John Harbour area has long been a catchment basin for the most heavily industrialized area in the province, affected by anthropogenic influences ranging from agricultural and forestry run-off, pulp and paper mills, textile plants, the oil refinery, a brewery, freighter and cruise ship terminals, harbour dredging and dredge dumping, as well as raw municipal sewage outflows (in excess of six million litres per day – see Vickers 2006). The port is also facing increasing planning pressures linked to global issues (Vandermeulen 1996), including expanding shipping and a growing tourist industry that includes small pleasure craft or large cruise ships. Also, all ships entering the harbour are now subject to a newly restrictive security environment (Cowen and Bunce 2006). While research in the natural sciences has helped to understand the impacts of such human activities (Zitko 1997; Hargrave *et al.* 1997), mitigating them requires better understanding of and management tools for social and economic behaviour and decision-making (Berkes *et al.* 1998).

Several mechanisms currently exist to deal with management challenges in the harbour. For example, environmental problems that may arise from new developments are addressed through the existing environmental impact assessment (EIA) process. Other challenges from ongoing operations are addressed through federal and provincial management bodies. Since the 1996 *Oceans Act* was passed, ICM has been promoted largely through efforts to coordinate agency efforts (with, for example, joint federal and provincial committees) and to build

bridges between the many competing regulatory bodies. Following the spirit of the Rio Declaration, both levels of government have also introduced more points in the management system at which 'local stakeholders' or communities of interest may play a role in planning and management.

The fishery has played a significant role in the local economy since before European contact, and remains an important economic generator for most coastal communities. Fundy North Fishermen's Association represents inshore fishermen from coastal villages from St. Martin's to the us border (excluding the island of Grand Manan). Inshore fishermen are owner/operators of boats less than fifty feet in length, and often hold multiple licenses for scallop, lobster, herring, groundfish, shrimp, gaspereau and shad. As many of their members fish in the greater Saint John Harbour, Fundy North Fishermen's Association has been recognized by the government as a stakeholder and has been included in some of the public consultation undertaken as a result of new or ongoing developments in the harbour. For example, they were accepted as interveners in the environmental impact assessment for the Eider Rock Oil Refinery project, particularly with respect to the potential impact of the project on the inshore fishing industry and local ecology. They have also worked for several years with the DFO and Environment Canada to assess the impact on migrating lobsters of harbour dredging<sup>5</sup> and of the dredge dump site which is located in prime lobster habitat and in an important transit area for lobsters. Over the last eight years, Fundy North has been working with Environment Canada to develop a long-term monitoring plan for the dredge dumpsite in addition to establishing a stakeholder committee to address this issue, and conducting research projects.

Another challenge arose as result of Post-9/11 port security planning. Under pressure to rapidly improve port security, the Saint John Harbour Authority decided to limit small craft access to the inner harbour. They unilaterally denied access to the wharf that fishermen had been using for generations. Fundy North has been meeting with harbour authorities ever since to try to develop alternatives that meet the security concerns.

Finally, the construction of a major new facility in the harbour, the Canaport liquid natural gas terminal (Canaport LNG Ltd.), generated a great deal of additional shipping and tug boat operation. Part of this additional shipping was contained within the International Marine Organization traffic separation schemes. However, since much of the manoeuvring within harbour limits of construction traffic, ships and tugs fell outside of the international shipping lanes, a great deal of conflict between lobster fishing and shipping began to develop. In Saint John Harbour, ship and tug traffic often results in lobster buoys being cut, letting lobster traps fall irretrievably to the bottom, where they continue to catch lobster until key components rot away. In addition, fishing gear was often caught up in the propellers of tugboats and other ships, and cost time and money to remove. With the advent of the new LNG terminal, ship traffic has increased significantly, thus increasing the risk of gear loss and entanglement. Under Section thirty-five of the Canada Fisheries Act (1985), any project that may do harm to fish habitat is subject to a HADD (Habitat Alteration, Disruption or Destruction) program that compensates for damage. As part of the HADD project for the construction of a

new oil terminal, Fundy North undertook a ghost trap survey over two summers to retrieve lost traps and to assess the lobster mortality rates in those traps lost as a result of tugboat and shipping damage. In 2007, Fundy North also supervised a Coastal CURA Masters student who developed a film to illustrate the planning problems in Saint John Harbour (Bood 2007).

In order to address expanding management problems, several *ad hoc* committees have been formed in the past few years, including: the Harbour Traffic Committee, the Dredging/Dumping Working Group, the Saint John Community Harbour Authority (that is: wharf committee), and the Canaport LNG Community Liaison Committee. Fundy North Fishermen's Association serves on all of these and initiated several of them. However, overall planning and management remains ineffectual with no overarching or coordinating authority. As committees have no real authority, there are often long periods between meetings when momentum is lost, and no government agencies have taken responsibility for carrying ideas into action. For example, Transport Canada has said that jurisdiction for the harbour traffic falls under the Port Authority, while the Port Authority claims that the issues fishermen want to address fall under Transport Canada's jurisdiction. Sometimes regulation proves a significant barrier. Transport Canada, for example, has argued that it would be difficult to improve marine traffic lanes to avoid fouling fishing gear, as the IMO presents a significant hurdle to adapting shipping lanes. Transport Canada officials have been reluctant to attend any *ad hoc* committee meetings.

In all of these activities, the Fundy North membership has experienced first hand the frustrations created by the existing stakeholder consultation process. As with other international ports, Saint John harbour might be said to be over-administered and under-governed (Dawkins and Colebatch 2006). From the perspective of the fishermen, there has been little progress on integrating all management processes to create a coherent sustainable management plan for the harbour. There are currently no initiatives to improve spatial planning of the sort common in other international ports (see Van Gils and Klijn 2007; Maes 2008). This is having environmental consequences – as was demonstrated by the ghost trap survey. Not only has ICM failed to build bridges between regulatory agencies, but ICM has failed to deliver on the promise of a much stronger role for community in the planning process (Bastien-Daigle *et al.* 2008). In fact, many stakeholders feel that their involvement is token, and both sustainable development and the precautionary approach remain ideals rather than practical outcomes of the management process (Kearney *et al.* 2007). This experience mirrors that found in other jurisdictions, where critical assessments of ICM are multiplying (see Shipman and Stojanovic 2007 on Europe; Lau 2005 on China; Christie *et al.* 2005 on the Philippines).

While a great deal of academic research is contributing knowledge vital to resolving marine and coastal environmental issues, often there is a disconnect between coastal and marine planning and the knowledge arena. Part of this disconnection problem lies in the workings of the planning institutions – into which stakeholders and the public are invited, but in which little attention has been paid to knowledge transfer. As a result, Fundy North Fishermen's Association has

found that stakeholders often come to the table determined to protect their own economic interests, and with little knowledge or understanding of broader issues. Given the emphasis on consensus, a single holdout stakeholder can scuttle innovations and responsible management. This has proven disastrous to environmental stewardship and to good management (Billé 2008). A far larger problem may be the *real politik* of decision-making (see also Fletcher 2003). Decisions taken at the political level in the interest of jobs or economic growth often override wise management planning.

In order to address management and environmental challenges in coastal and ocean environments, we argue here that evidence-based ocean and coastal policy must make better and more informed use of methods to integrate competing or conflicting regulatory systems. Berman (2006-7:1164) has suggested that we 'deliberately seek to create or preserve spaces for conflict among multiple, overlapping legal systems'. This might leave less room for abuse of political or economic power, as it would create 'procedural mechanisms, institutions, or practices that take hybridity seriously, rather than ignoring it through assertions of territorially-based power or dissolving it through universalist imperatives' (*Ibid.*). We will argue below that this approach would require new thinking about the creative and adaptive institutions that will be required for effective integrated management (see *Ibid.*:1237).

### Comparative Lessons: ICM and the Harbour

Creating local spaces to debate normative hybridity may empower local innovation and solutions. Several recommendations have come from local users as to management solutions in Saint John Harbour. Fundy North Fishermen's Association has suggested that traffic lanes or designated fishing areas within the harbour would do much to improve shipping safety and reduce gear conflicts. They have also suggested that one government agency must take the lead in establishing an integrated planning board that will facilitate harbour planning and operations, not by creating yet another level of administration, but by bringing parties together to discuss issues and resolve problems. Fundy North Fishermen's Association has taken the initiative to resolve issues on a case by case basis with *ad hoc* committees.

As part of the Saint John Harbour case study, and in order to assess how widespread the problem was, we undertook a small survey of North American ports to determine how other jurisdictions were resolving conflicts between shipping and fishing. In particular, we looked for innovative solutions to harbour traffic, particularly where international traffic separation schemes end and port control begins. We sought out North American examples of tow or transit lanes or designated fishing areas to separate fishing and shipping operations. The research followed several steps. First, a survey of both online (U.S. National Oceanic and Atmospheric Administration) and Canadian harbour charts was conducted to examine how harbour traffic and the movement of large vessels was regulated 'on paper'.<sup>6</sup> This was followed by email contact with harbour masters, coast guard

officers, industry stakeholders and fishermen's organizations to set up telephone interviews, to collect data on how the schemes actually worked.

We found that specific *ad hoc* arrangements have been worked out in several US locations, some of which involve aboriginal fishermen. For example, designated towlanes separate crab fishermen and tug/barge operations in the Columbia River leading up to San Francisco port. The towlanes are voluntary and there is no government regulations to enforce them, but the towlanes are negotiated annually and the scheme has been in place for thirty years. A similar traffic separation scheme is being attempted to separate Lummi Indian Reserve crab fishermen and the Cherry Point refinery traffic in Washington State. In the Duwamish waterways leading to Seattle, vessel operators are requested to coordinate with tribal fishermen, by calling them directly to ensure that they are aware of planned vessel movements. In Penobscot Bay, New England, Maine and New Hampshire regulators have agreed on another voluntary scheme to separate lobster fishing from larger vessels through a 'recommended vessel route'. In a similar fashion, the Canadian regulators have supported vessel traffic routes that fishermen should avoid, rather than protected fishing areas that vessel traffic must avoid.<sup>7</sup> As many port authorities have the power to regulate traffic within their jurisdiction, some (such as Victoria Harbour and DeltaPort in Vancouver) have excluded fishing from 'restricted areas' within the harbours.

A recent article on harbour management innovations in Sydney Harbour, Australia provides some alternative approaches to these voluntary spatial management schemes (Dawkins and Colebatch 2006). Institutions are said to rest on three mutually interactive supports: a shared framework of meaning, underlying values and an organizational focus. In terms of Sydney Harbour, Dawkins and Colebatch demonstrate that agencies and stakeholders had diverse values, although shared values did exist. While different actors agreed on the need for joint action in the interests of the harbour, they operated under different meanings of this need, and some were more interested in cooperating than others (particularly officials as opposed to the users). What was needed in this case was government leadership in the constitution and maintenance of the network, followed by 'managerial craftsmanship' to support framing, activation, mobilisation, and synthesizing of a harbour management approach.

The innovation of a harbour manager in Sydney created one policy entrepreneur who was dedicated to overcoming silo bureaucratic structures and lack of communication between agencies. Billé (2008:5) has called such an actor the *icm* 'facilitator'. But such facilitation requires the right conditions. In the case of Sydney's harbour master, no new levels of power or institutionalization were put in place. Indeed, Dawkins and Colebatch report that the harbour manager in Sydney saw no need for special powers, as he was afraid that these would have stepped on bureaucratic toes, saddled him with routine functions, encouraged agencies to limit interaction with him to the specified activities under his control, and kept the focus off the big picture. Instead, he focused on changing perceptions and relationships – in the Coastal *CURA* we have called this sort of initiative 'co-learning'. Over three years, his office used the small resources under their control to identify needs and opportunities, develop tools, strengthen partnerships, foster collaboration, develop new ways of working and provide models for innovation

(others have called this approach ‘interactive governance’ – Bavinck *et al.* 2005). In the Sydney Harbour case, this innovation was so successful, that when the state government allowed the position to lapse after three years, the process of collective management that had developed was formally recognized, and core agencies collaborated together to keep these operations going. As Dawkins and Colebatch (2006) note, policy in this scenario is less and less a product of a central authority, and more and more made in a process involving a plurality of both public and private organizations, and an outcome of continuing interaction between different sorts of organizations.

## Conclusions

At the beginning of this article, we asked to what extent state law maintained normative ordering in resource use in coastal areas. To the extent that state law was not the sole regulatory order, we ask what other normative orders were influential. The answer, as illustrated by the case in Saint John Harbour, is that several regulatory orders are at work in Canadian coastal zones, some national and some local or international, and that these regulatory orders are not well integrated. The question is not how do we reduce such legal pluralism, but how do we manage activities within it? And what outcomes will those management strategies promote?

As a developed nation, Canada prides itself on promoting social equity, economic growth and sustainable environmental management. It often advocates these same objectives in funding for development projects in other countries. It also offers lessons to the world in marine and coastal planning (Ricketts and Harrison 2007), implementing large ocean management areas (LOMAS) and marine protected areas, and experimenting with the institutions that will be required for sustainable utilization of coastal and ocean resources (as with the Eastern Scotian Shelf Integrated Management Initiative or ESSIM, see Walmsley *et al.* 2007). However, Canadian regulators frequently acknowledge that much of Canada’s integrated management efforts have so far been directed to ‘off shore’ zones, where the numbers and diversity of stakeholders is significantly less than in the near shore area, and where significant power differentials and value discrepancies are less common. In the near shore area, much remains to be done if we are to create equitable, economic and sustainable outcomes, as the situation in Saint John Harbour attests.

While a great deal of academic research is contributing knowledge vital to understanding marine and coastal environmental issues, often coastal and marine policy and the knowledge arena are disconnected. Part of this disconnection problem lies in the workings of the planning institutions (see Wiber *et al.* 2010). Sometimes stakeholders and the public are invited into the deliberations, but too often little attention has been paid to bridging regulatory agencies, to local knowledge and knowledge sharing, or to co-learning (Wiber 2009). It should be no surprise then that stakeholders often come to the planning table solely to protect their narrow economic interests, and with little knowledge or understanding of broader issues, including legal complexities or environmental issues. The *ad hoc* committees in Saint John Harbour have helped break down these barriers

to understanding, but as people who have the authority to make changes are not present at the meetings, politics rather than sound planning is determining coastal and ocean management. Perhaps information gets condensed as it is sent further up the chains of command so that the limited mechanisms that do exist for knowledge sharing are not creating the right policy changes. Best practices from other settings, taken together with the advice from ICM literature can do much to address these problems, but only if a lead agency or policy entrepreneur is enabled to address the core problems of lack of coordination (including legal coordination) in innovative ways.

On purely practical grounds then, we would argue that sustainable resource use will not happen without innovative ICM structures and institutions. These in turn will not emerge under a model that sweeps hybridity away and reinforces the state as the most powerful actor. Nor will they emerge as part of a universalist model of standardized international norms. The reason for this, as we have demonstrated, is that neither the state or global institutions hold the balance of power. Within specific resource sectors such as coastal zones, multiple agents compete for power and legal pluralism is the norm. ICM must deal with this empirical fact if it is to have any hope of fulfilling the promise of the Rio Declaration (Van Dyke 1996).

## Notes

- 1 See <http://laws.justice.gc.ca/en/C-6.7/> last accessed June 2009.
- 2 See [www.imo.org/](http://www.imo.org/) last accessed February 2009.
- 3 For the full text of SOLAS see [www.imo.org/](http://www.imo.org/), last accessed February 2009.
- 4 See [www.rightwhale.ca/shippinglanes-routesnavigation\\_e.php](http://www.rightwhale.ca/shippinglanes-routesnavigation_e.php), last accessed February 2009.
- 5 Dredging is usually done as a statutory requirement. It consists of the excavation of material from the ocean floor and the relocation of the excavated material elsewhere. Port authorities have a statutory responsibility to keep the navigational channels open to specific depths, depending on the requirements of regular commercial customers to the port. In this case, this statutory requirement was running afoul of the requirement of the federal Oceans Branch of the DFO to protect fish habitat.
- 6 For examples of relevant charts where recommended traffic lanes are often marked in green, see: for Casco Bay (<http://www.charts.noaa.gov/OnLineViewer/13302.shtml>), for Columbia River ([http://graysharbor.wsu.edu/marine/documents/TowlaneCharts2005\\_11\\_10.pdf](http://graysharbor.wsu.edu/marine/documents/TowlaneCharts2005_11_10.pdf)), for Shepscot River (<http://www.charts.noaa.gov/OnLineViewer/13295.shtml>).
- 7 It is interesting to note that the Canadian Navigable Waters Protection Act (1985) recognizes aquaculture operations as 'works' that can receive a permit to block navigation, perhaps because they are often fixed to the ocean floor, but that fishing is an 'activity' and thus cannot receive a permit to block navigation. See <http://laws.justice.gc.ca/en/N-22>, last accessed June 2009.

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