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OCEAN PLANNING AND THE GULF OF MAINE: EXPLORING BI-NATIONAL POLICY OPTIONS

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I. INTRODUCTION

Over the twenty-five years since a special Chamber of the International Court of Justice (ICJ) issued its decision in the *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Gulf of Maine Case)*,¹ legal scholars have written extensively on the significance of the ruling to influence Canada-U.S. relations specifically, and international arbitration in general.² While the rationale behind any particular scholar's interest in the case has varied over the years, its significance in informing deliberation surrounding maritime boundary delimitation owes much to the fact that the case presented many "firsts." Among these were: the use of a special Chamber of the Court;³ the decision by Canada to submit the dispute to an international tribunal on its own behalf;⁴ and the request that a decision be made on a "single maritime boundary" that would include, not only the seabed beyond the limits of the territorial

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1. *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.)* 1984 I.C.J. 246 (Oct. 12) [hereinafter *Gulf of Maine Case*].

2. See generally L.H. Legault & D.M. McRae, *The Gulf of Maine Case*, 22 CAN. Y.B. INT'L L. 267 (1984) (providing examples of a comprehensive analysis of the decision and its implications); Edward Collins & Martin Rogoff, *The Gulf of Maine Case and the Future of Ocean Boundary Delimitation*, 38 ME. L. REV. 1 (1986); Davis Robinson, David Colson & Bruce Rashkow, *Some Perspectives on Adjudicating Before the World Court: The Gulf of Maine Case*, 79 AM. J. INT'L L. 578 (1985).

3. See R. Brauer, *International Conflict Resolution: The ICJ Chamber and the Gulf of Maine Dispute*, 23 VA. J. INT'L L. 463 (1982-1983).

4. See Erik Wang, *Adjudication of Canada-United States Disputes*, 19 CAN. Y.B. INT'L L. 158 (1983).

sea, but also the water column.⁵ In addition to its uniqueness, the significance of this request for a single boundary to delineate both seabed and fisheries resources has led many scholars, and even one of the judges of the Chamber, to question the legality and appropriateness of the request.⁶

As only the third case of maritime boundary delimitation to be heard by the Court at the time, the *Gulf of Maine Case* highlighted the Chamber's novel use of a hierarchy of principles, equitable criteria, and practical methods in reaching its decision.⁷ At the same time, it has been subject to much criticism.⁸ Commentators have noted that the challenge of maritime boundary delimitation is to "reconcile conflicting claims to a maritime extension of coasts that differ in configuration, length and position in relation to the area to be delimited."⁹ While solutions to this problem have been attempted in decisions rendered by the Chamber¹⁰ and the full Court¹¹ over its sixty-five year history,¹² assessing these judgments for guidance on maritime boundary delimitation is *not* the aim of this Article. Rather, its purpose is to focus on the issues confronting Canada and the United States *after* the Gulf of Maine decision was

5. SPECIAL AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES AND THE GOVERNMENT OF CANADA TO SUBMIT TO A CHAMBER OF THE INTERNATIONAL COURT OF JUSTICE THE DELIMITATION OF THE MARITIME BOUNDARY OF THE GULF OF MAINE AREA, Article 2 (2), available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/CAN-USA1979MB.PDF>.

6. Judge Gros, one of the five judges of the Chamber, questioned how the parties could relieve themselves from the obligation of Article 6 of the 1958 United Nations Convention on the Continental Shelf simply by asking the Court to rule on a single boundary for both the seabed and the water column. He contended that since Article 6 called for the principle of equidistance to be applied in delimiting the seabed, in theory, two boundaries, one for the seabed and one for the water column, could be a likely outcome. The Chamber concluded that Article 6 was not applicable to the delimitation of a single maritime boundary. *Gulf of Maine Case*, 1984 I.C.J. at 365 (Gros, J., dissenting).

7. See Legault & McRae, *supra* note 2 at 289.

8. See Ted McDorman, Phillip Saunders & David VanderZwaag, *The Gulf of Maine Boundary: Dropping Anchor or Setting a Course*, 9 MARINE POLICY, 90 (1985); L. Clain, *Gulf of Maine: A Disappointing First in the Delimitation of a Single Maritime Boundary*, 25 VA J. INT'L L. 521 (1985); David Colson, *The Delimitation of the Outer Continental Shelf between Neighboring States*, 97 AM. J. INT'L L. 91 (2003).

9. See Legault & McRae, *supra* note 2 at 289.

10. See e.g., *Gulf of Maine Case*, 1984 I.C.J. 246.

11. See e.g., *Continental Shelf (Tunis. v. Libyan Arab Jamahiriya)*, 1982 I.C.J. 18 (Feb. 24); *North Sea Continental Shelf (F.R.G. v. Den.)*, 1969 I.C.J. 3 (Feb. 20).

12. The International Court of Justice is the principal judicial organ of the United Nations. It was established in June 1945 by the Charter of the United Nations and began work in April 1946.

rendered and to explore how these two “friendly” neighboring states have attempted to pursue the principles of cooperation and agreement following the decision of the Court.¹³

As such, this Article is structured around five key components and is aimed at: (1) highlighting the underlying economic rationale behind why the two neighboring countries of Canada and the United States sought to clarify a single maritime boundary in the Gulf of Maine; (2) identifying the challenges confronting the parties in managing their ocean resources, after ownership had been established, particularly in light of growing energy-related exploitation demands; (3) discussing mechanisms for ocean planning and management adopted by each party to utilize its living and non-living resources; (4) presenting two examples of existing bilateral cooperation from which lessons can be gleaned for future collaborative efforts; and (5) identifying policy options and an implementation mechanism for transboundary cooperation in the Gulf of Maine that could potentially meet the objectives of both countries as they seek to implement marine spatial planning in their respective maritime zones.

II. THE ECONOMIC RATIONALE FOR PURSUING A BOUNDARY DELIMITATION DECISION IN THE GULF OF MAINE

While evidence exists of sentiments of national pride and national honor being aroused by threats to territory¹⁴ and some scholars have pointed to the psychological importance of territory that exceeds its intrinsic value,¹⁵ it is clear that the exponential expansion of ocean territory by coastal states has arisen primarily over securing access to offshore resources. Key among these are fisheries resources, hydrocarbon deposits, and, more recently, the production of renewable forms of energy using wind, tides, and currents.

Canada and the United States have disputed each other’s maritime boundary claims in all three of their shared ocean spaces.¹⁶ To date, the

13. In the *Gulf of Maine Case*, the Chamber referred to the historical friendliness and cooperation between Canada and the United States and expressed confidence that the “parties will surely be able to surmount any difficulties and take the right steps to ensure the positive development of their activities” *Gulf of Maine Case*, 1984 I.C.J. at 344.

14. See A.O. CUKWURAH, *THE SETTLEMENT OF BOUNDARY DISPUTES IN INTERNATIONAL LAW* (1967).

15. See e.g., EVAN LUARD, *THE INTERNATIONAL REGULATION OF FRONTIER DISPUTES* (1970).

16. These include the disputed triangle in the Beaufort Sea in the Arctic, Juan de Fuca Strait between Washington State and Vancouver Island, Dixon Entrance, south of the

parties have sought clarification from an available international dispute resolution mechanism, such as the International Court of Justice, only in the Gulf of Maine disputed area¹⁷ and the evidence strongly suggests that that the driver behind this decision was economic in nature.¹⁸ While the parties called for a single maritime boundary to be drawn from the coast two hundred miles seaward, within the 90,000 square kilometer Gulf of Maine, the focus of the dispute was identified as Georges Bank, over which ownership of some forty-two percent of the Bank was in dispute.¹⁹

Georges Bank is a broad, shallow, detached marine area of approximately 45,000 square kilometers (300 km x 150 km) located on the continental shelf seaward of the Gulf of Maine but within the delimitation area, off the coasts of Massachusetts and Southwestern Nova Scotia. Water depths are less than 100 meters over most of the Bank. The area has been studied by Canadian and American researchers for more than 100 years and the existing scientific knowledge has been well documented and summarized.²⁰

On October 12, 1984, the ICJ ruled on the single maritime boundary dispute between Canada and the United States, granting Canada the water column and seabed of approximately twenty-five percent of the

Alaskan panhandle and north of Canada's Queen Charlotte Islands in the Pacific, and the area near Machias Seal Island, as well as the disputed area in the Gulf of Maine (settled by the ICJ in 1984).

17. As noted by Jonathan Charney, third party international dispute settlement has increased dramatically with the development of the dispute settlement system in the 1982 United Nations Convention on the Law of the Sea and its coming into force in November 1994. The Convention encourages parties to settle their disputes by means of their mutual choice, including negotiations and voluntary conciliation. The forums available include the Tribunal for the Law of the Sea, the International Court of Justice, arbitration, and special arbitration (for disputes involving fisheries, the marine environment, marine scientific research and navigation). See Jonathan Charney, *The Implications of Expanding Dispute Settlement Systems: The 1982 Convention on the Law of the Sea*, 90 AM. J. INT'L L. 69 (1996).

18. See generally Collins & Rogoff, *supra* note 2, at 2-7 (providing a summary of the economic importance of the area to both Canada and the United States); the Memorial of Canada (Can. v. US), 1982 I.C.J. Pleadings 1 (Sept. 27, 1982) [hereinafter Canadian Memorial]; Annexes to the Memorial of Canada (Can. v. US), 1982 I.C.J. Pleadings 1 (Sept. 27, 1982); the Memorial of the United States (Can. v. US), 1982 I.C.J. Pleadings 1 (Sept. 27, 1982) [hereinafter United States Memorial]; DAVID VANDERZWAAG, *THE FISH FEUD: THE US AND CANADIAN BOUNDARY DISPUTE* (1983).

19. Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.) 1984 I.C.J. 246, 272 (Oct. 12).

20. See RICHARD BACKUS, *GEORGES BANK* (Donald Bourne ed., 1987); P.R. Boudreau et al., *The Possible Environmental Impacts of Petroleum Exploration Activities on the Georges Bank Ecosystem*, 2259 CAN. TECH. REP. FISH. AQUAT. SCI. (1999).

Gulf of Maine and more importantly, an area of approximately 7000 square kilometers on Georges Bank. The decision to refer the dispute to the ICJ for a final and binding decision followed questions of ownership over both fishing and hydrocarbon resources. In the case of the fishery resources, overlapping areas became evident²¹ when each of the two nations responded to extensive foreign fishing pressures by claiming in legislation 200 nautical mile (nm) exclusive fishing zones (EFZ) in the mid-to-late 1970s.²² Disagreement over the seabed arose following the claiming of exclusive jurisdiction over the non-living resources of the continental shelf in 1945²³ and the subsequent granting of hydrocarbon permits by Canada in 1964.²⁴

The Canadian government leased the first parcel of land on Georges Bank to Texaco Canada Inc. in 1964. By 1986, Chevron, BP-Amoco and Texaco held large exploration permits covering the East Georges Bank Basin. These permits covered the entire Canadian portion of the Bank and in the case of BP-Amoco leases, extended off the Bank into deeper waters. In 1986, efforts by Texaco, aimed at soliciting public support for exploratory activities, coincided with the call for a provincial election. This resulted in political pressure being applied by the fishing constituency in the Southwestern portion of the province.²⁵ The power of the fishing constituency led to a political decision by the federal and provincial governments imposing a thirteen-year moratorium on petroleum activity on the Canadian portion of Georges Bank.²⁶

21. See Glen Herbert, *Fishery Relations in the Gulf of Maine: Implications of an Arbitrated Maritime Boundary* 19 MAR. POL. 301 (1995).

22. See Fishery Conservation and Management Act, Pub. L. No. 94-265, 90 Stat. 331 (1976) (codified as amended at 16 U.S.C. §§ 1801-1882 (2007)); Territorial Sea and Fishing Zones Act, Fishing Zones of Canada (Zones 4 and 5) Order, C.R.C. 1548, P.C. 1977-1, (1977).

23. Pres. Proc. No. 2667, Policy of the United States with Respect to the Natural Resources of the Subsoil and Seabed of the Continental Shelf, 3 C.F.R. § 39 (1945 Supp.) [hereinafter the Truman Declaration].

24. See generally Canadian Memorial, *supra* note 18, at 92-99 (discussing the claims by the two countries and the failure to reach agreement bilaterally); United States Memorial, *supra* note 18, at 81-86 (discussing the same).

25. An appreciation for the publicity and tension surrounding the 1987 debate to allow oil and gas exploration on Georges Bank can be gleaned from the following samples of headlines from newspaper articles at the time: *Risking the priceless fishery of Georges Bank to bring up more oil*, GLOBE AND MAIL, January 17, 1987; *Opening Georges Bank to firms would lure Americans*, DAILY COMMERCIAL NEWS, November 11, 1987; *Battlelines clearly drawn on Georges Bank dispute*, ATLANTIC INSIGHT, January 1988.

26. The prohibition was legislatively mandated in the 1987 Canada-Nova Scotia Petroleum Resources Accord Implementation (Nova Scotia) Act and its federal counterpart, the 1988 Canada-Nova Scotia Petroleum Resources Accord Implementation

Following the conclusion of a Public Panel Review in 1999,²⁷ the moratorium was subsequently extended to December 2012.²⁸ This decision resulted in both the U.S. and Canadian portions of Georges Bank being subject to a ban on petroleum-related activities.

In the United States, ten exploratory wells were drilled on the undisputed U.S. portion of Georges Bank between 1976 and 1982. This activity was associated with the only successful lease offering by the United States for the Georges Bank area.²⁹ None of the wells encountered significant concentrations of petroleum resources. Starting in 1982, the U.S. Congress enacted a series of one-year leasing moratoria on portions of the Outer Continental Shelf. This eventually led to an executive order by President William J. Clinton in 1998, preventing any leases from being offered for a period of fourteen years, in areas that were currently under moratorium. While there are no outstanding leases on the U.S. portion of the Bank, the three leaseholders on the Canadian portion of the Bank continue to hold exclusive exploration rights. However, these are suspended while the moratorium remains in effect.³⁰

Act. See Canada-Nova Scotia Petroleum Resources Accord Implementation (Nova Scotia) Act, S.N.S. 1987, c. 3 (1987); Canada-Nova Scotia Petroleum Resources Accord Implementation Act, S.C. 1988, c. 28 (1988).

27. Reflecting the growing recognition of public involvement in decision-making, the legislation also called for a public review to be established prior to the termination date of the moratorium. The review panel was authorized to examine the environmental and socio-economic impacts associated with exploration and drilling on Georges Bank and to make its recommendation to the responsible federal and provincial Ministers by July 1, 1999. The Ministers were charged with making a decision, prior to January 1, 2000, on whether the moratorium would be extended. In keeping with the legislative requirements in both the federal and provincial Accord Acts, a review process was conducted to examine the issues associated with oil and gas exploration on Georges Bank. Following the review process, the three-member panel recommended the extension of the moratorium. MULLALLY ET AL., GEORGES BANK REVIEW PANEL REPORT (1999), available at <http://www.cnsopb.ns.ca/pdfs/georgesbankreport.pdf>.

28. See Government of Nova Scotia, Petroleum Directorate, Georges Bank Moratorium Extended, Dec. 22, 1999, <http://www.gov.ns.ca/news/details.asp?id=19991222004>.

29. Federal Offshore Lease Sale 42 was held on December 18, 1979. It resulted in the leasing of sixty-three blocks to companies. The total value of the leases was \$816,516,546. Estimates of the hydrocarbon resources for this sale did not include the disputed area, and were given by the U.S. Department of the Interior as 123 million barrels of oil and 870 billion cubic feet of natural gas. GARY EDSON ET AL., U.S. DEPARTMENT OF INTERIOR, GEORGES BANK PETROLEUM EXPLORATION: ATLANTIC OUTER CONTINENTAL SHELF (2000), available at <http://www.gomr.mms.gov/PDFs/2000/2000-031.pdf>.

30. See Lucia Fanning, *Understanding Influence: Lessons from Canada's and Nova Scotia's 1999 Georges Bank Moratorium Decision*, 23 OCEAN Y.B. 119 (2009).

Technological advances at the time of, and subsequent to, the 1945 Truman Declaration³¹ clearly presented opportunities to exploit the hydrocarbon resources believed to be present on Georges Bank. However, the lack of drilling success, coupled with the political strength of the fishing sector in both Canada and the United States, significantly reduced the economic role of the petroleum sector as a key driver behind boundary delimitation at the time. Rather, the evidence more likely supports the role of Georges Bank as an important and traditional fishing ground for Canadian and U.S. fishers, due to its uniquely high biological productivity, as the principal economic driver behind the pursuit for a binding decision by the ICJ.

Georges Bank has been reported to sustain levels of fish productivity two to three times greater than comparable continental shelf areas, such as the Gulf of Maine, Scotian Shelf, and North Sea.³² However, as with the conflicting claims over the ownership of the seabed, the two countries also claimed 200 nautical mile EFZs in 1977, which resulted in overlapping boundaries. In 1978, both countries suspended the implementation of a 1977 Interim Fishing Agreement that allowed fishers from both countries access to areas in which they had traditionally fished, regardless of the newly-established EFZ boundaries.³³ In an attempt to resolve the disputes, a treaty³⁴ was signed by both countries in 1979 to submit the delimitation of the maritime boundary and an Agreement on East Coast Fishery Resources³⁵ to binding dispute settlement. The linking of the two issues required them both to be ratified by each country for either to come into force. However, the linkage was subsequently severed in 1981, due to massive opposition from the U.S. fishing industry in New England over the terms of the agreement.³⁶ Canada agreed to proceed with the boundary dispute

(providing a comprehensive examination of the factors influencing the decision to extend the petroleum moratorium on Canadian side of Georges Bank).

31. Truman Declaration, *supra* note 23.

32. See BACKUS, *supra* note 20; Boudreau et al., *supra* note 20. See also E.B. Cohen & M.D. Grosslein, *Production on Georges Bank Compared With Other Shelf Ecosystem*, in RICHARD BACKUS, *GEORGES BANK* 382 (Donald Bourne ed., 1987); Gardner Pinfold Consulting Economists Ltd., *Georges Bank Resources: An Economic Profile* (1998).

33. Canada-USA, *Reciprocal Fisheries Agreement between the Government of Canada and the Government of the United States of America* (Feb. 24, 1977).

34. Treaty to Submit to Binding Dispute Settlement the Delimitation of the Maritime Boundary in the Gulf of Maine Area, U.S.-Can., Mar. 10, 1979, T.I.A.S. No. 10204.

35. Agreement between the Government of Canada and the Government of the United States of America on East Coast Fishery Resources, S. Exec. Doc. V, 96th Cong., 1st Sess. (1979).

36. Herbert, *supra* note 21, at 308.

settlement treaty³⁷ without the Fishery Agreement, and Memorials³⁸ from both countries were submitted to the ICJ in 1982, along with the Special Agreement by the parties to submit the boundary question to a Chamber of the ICJ, rather than the full Court.³⁹

With the establishment of the ICJ boundary, known as ‘the Hague line’ in 1984, the jurisdictional issue between the two countries was resolved, with Canada receiving approximately one-sixth of the total area of Georges Bank, including the rich scallop and fishing areas known as the Northeast Peak and the Northern edge.⁴⁰ However, as has been noted by scholars since and experienced by resource managers for the two countries, the problem of managing Georges Bank’s transboundary fishery resources remained.⁴¹ Furthermore, since the ICJ decision in 1984, approaches recommended for managing coastal and marine resources have evolved from a single sector focus to integrated management across sectors, incorporating sustainable development principles of ecosystem-based management, the precautionary approach, and public participation. Part III of this Article highlights some of the challenges confronting the parties in managing a mature sector such as fisheries and a newly emerging sector such as renewable energies within the Gulf of Maine.

III. POST-HAGUE LINE DECISION CHALLENGES FOR OCEAN RESOURCE UTILIZATION IN THE GULF OF MAINE

While the 1984 ICJ “Hague Line” decision resolved the question presented to the Court regarding the establishment of a single maritime boundary in the Gulf of Maine, many of the practical issues surrounding the management of shared resources remained. Despite the expectation by the Court that the two parties would work collaboratively to resolve these issues,⁴² numerous incidents of U.S. vessels illegally fishing in Canadian waters were recorded.⁴³ Given the importance of resource

37. The Treaty came into force on November 20, 1981. See Collins & Rogoff, *supra* note 2, at 5.

38. See Canadian Memorial and United States Memorial, *supra* note 18.

39. See SPECIAL AGREEMENT BETWEEN THE UNITED STATES AND CANADA, *supra* note 5.

40. Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.) 1984 I.C.J. 246 (Oct. 12).

41. See e.g., Emily Pudden & David VanderZwaag, *Canada-USA Bilateral Fisheries Management in the Gulf of Maine: Under the Radar Screen*, 16 RECIEL 36 (2007).

42. *Gulf of Maine Case*, 1984 I.C.J. at 344.

43. See Herbert, *supra* note 21.

allocation, and specifically fisheries resources, as a key driver behind the pursuit of a binding settlement, it is appropriate to briefly describe the challenges and efforts undertaken to overcome them in the years following the decision. Additionally, this section will highlight some of the challenging issues that could arise from emerging ocean uses such as renewable energy exploitation and the efforts by both countries to seize existing opportunities within the Gulf of Maine.⁴⁴

A. The Fisheries

As described by Emily Pudden and Professor David VanderZwaag, fisheries management continued to be handled in a unilateral manner by Canada and the United States in the years immediately following the ICJ decision.⁴⁵ This persisted as the norm until 1995, when the continuing collapse of groundfish stocks on both sides of the line resulted in the establishment of the Canada-U.S. Steering Committee. This non-legislative, bilateral, advisory body is co-chaired by the Canadian Department of Fisheries and Oceans (DFO) Regional Director General (Maritimes Region) and the United States Northeast Regional Administrator, National Marine Fisheries Service (NMFS). In an effort to manage the three transboundary groundfish stocks of Georges Bank—cod, haddock, and yellow flounder—the Committee has the mandate of conducting joint stock assessments and recommending a sharing agreement for the total allowable catch (TAC) for these stocks. Since its formation, and following the success of the first joint stock assessment for cod, haddock, and yellowtail flounder conducted in 1997, a number of institutional arrangements have evolved under the auspices of the Steering Committee. Today, the work of the Committee is undertaken by the species-specific⁴⁶ Transboundary Resources Assessment

44. Since both countries implemented unilateral moratoria regarding offshore oil and gas exploitation in the Outer Continental Shelf at the time of the ICJ decision or soon thereafter, this Article will not discuss the petroleum sector efforts undertaken within each country. While no hydrocarbon exploitation has occurred on either side of the Hague Line to date, there is no longer a moratorium on the U.S. side as President Obama lifted the Executive Withdrawal on Offshore Lands on July 14, 2008, and, on October 1, 2008, the Congressional moratorium was allowed to expire. For a discussion on the Canadian decision to place a moratorium on oil and gas exploration on Georges Bank to December 2012, see Fanning, *supra* note 30.

45. Pudden & VanderZwaag *supra* note 41, at 36.

46. In addition to the three transboundary species of cod, haddock, and yellowtail flounder, joint assessment for herring, mackerel, halibut, dogfish, and pollock have either been agreed to or are being considered by the bilateral Steering Committee. See *id.* at 37.

Committee (TRACs) which provides technical advice to the Transboundary Management Guidance Committee (TMGC). The TMGC, in turn, provides advice on the status of the stocks and a proposed sharing of the TACs to the Canada-U.S. Integration Committee whose mandate is to ensure the integration of policies and consistency in approach across the TMGC and other working groups of the Steering Committee, including the Oceans, Habitat, and Species at Risk working groups.

Agreement on the sharing formula by the two countries required some degree of compromise as the United States placed more weight on historical landings while Canada favored distribution of the resource. Consensus was reached on the sharing formula that provided for a seven-year transitional schedule, with allocation percentages that take into account both contemporary resource distribution and historical utilization patterns.⁴⁷ The implementation of the recommended allocation in each country occurs through the inclusion of the TAC in the respective fisheries management plans, issued under the authority of the DFO (for Canada) and the New England Fisheries Management Council (NEFMC) (for the United States). The TMGC submits its recommendations to the NEFMC, while in Canada, it liaises with the Gulf of Maine Advisory Council (GOMAC), comprised of federal and provincial government representatives, as well as the fishing industry and the Canadian Consul in Boston, who makes the recommendation to the Minister of Fisheries and Oceans. However, it is important to note that the responsible agencies are not required to implement the recommendations of the Canada-U.S. Bilateral Steering Committee and may opt to increase, decrease, or maintain the status quo levels for each of the transboundary species in their respective fisheries management plans.⁴⁸

47. *Id.* at 38.

48. The Northeast (NE) Multispecies Fishery Management Plan (FMP) specifies a procedure for setting annual hard TAC levels for the U.S./Canada Management Area for GB cod (*Gadus morhua*), GB haddock (*Melanogrammus aeglefinus*), and GB yellowtail flounder (*Limanda ferruginea*). This action is needed to ensure that the stocks of GB cod, haddock, and yellowtail flounder that are shared between the United States and Canada, are managed as required by the FMP and as outlined in the U.S./Canada Resource Sharing Understanding (Understanding). The Understanding specifies an allocation of TAC for these three stocks for each country, based on a formula that considers historical catch percentages and current resource distribution. The purpose of this action is to implement TACs for these three stocks that will be consistent with the Understanding and the FMP. For an understanding of the process to implement the recommendations on the U.S. side of the Hague Line in 2008, see *Northeast Multispecies Fishery Management Plan, Specification of FY 2008 Total Allowable Catches for Eastern Georges Bank (GB) Cod, Eastern GB Haddock, and GB Yellowtail Flounder in the*

Apart from agreement on the management and sharing of allocation of the transboundary resources, another significant challenge confronting the two countries as a result of the establishment of the Hague Line was the issue of illegal fishing, particularly on the Canadian side. Non-compliance with the boundary line rose to a peak in 1989, spurred by the discrepancy in the penalties for illegal fishing.⁴⁹ In the United States, the maximum fine under the Lacey Act⁵⁰ was \$10,000, while in Canada, the penalties included a fine of \$100,000, confiscation of the catch, seizure of the vessel, and possible imprisonment.⁵¹ To address this problem, the “Agreement between the Government of the United States and Canada on Fisheries Enforcement” was negotiated between the two countries in 1990,⁵² making it illegal for nationals of one nation to not respect the laws and regulations of the other nation if operating within the jurisdiction of that nation. The Agreement, which included consistency with the stricter Canadian penalties, was implemented through each country’s national legislation,⁵³ and included regular cooperation, sharing of monitoring, control, and surveillance information, and joint patrolling along the Hague Line.⁵⁴ The outcome of the Agreement has been positive, with the number of violations decreasing substantial since its introduction.⁵⁵ Additionally, due to a shared commitment to rebuild the stocks in the Gulf of Maine, management efforts have facilitated a

U.S./Canada Management Area--Final Environmental Assessment--Regulatory Impact Review Final Regulatory Flexibility Analysis. NMFS (February 2008).

49. See Herbert, *supra* note 21.

50. Lacey Act Amendments of 1981, 16 U.S.C. §§ 3371–3378 (1982).

51. Pudden & VanderZwaag, *supra* note 41, at 40.

52. AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF CANADA ON FISHERIES ENFORCEMENT OF SEPTEMBER 26, 1990, H.R. Doc. No. 102-22 (1st Sess. 1990).

53. The United States has implemented the agreement by issuing the International Fisheries Regulations, U.S.-Canada Fisheries Enforcement, 50 C.F.R. §§ 300.140–300.144 (1996); Canada implemented the agreement with the United States Waters Fisheries Regulations, SOR/91-660, revoked and subsumed by United States Waters Fisheries Regulations, revocation Fishery (General) Regulations, amendment, SOR/94-296.

54. DFO and NOAA are committed to working closely together to coordinate and ensure the effective delivery of fishery law enforcement programs along the international boundaries. Representatives from both agencies expressed the need to continue sharing information in order to improve the effectiveness of enforcement programs. MELANIE KING, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, OFFICE OF INTERNATIONAL AFFAIRS, INTERNATIONAL AGREEMENTS CONCERNING LIVING MARINE RESOURCES OF INTEREST TO NOAA FISHERIES, 118 (2009), *available at* http://www.nmfs.noaa.gov/ia/docs/2009_International_agreements.pdf.

55. Herbert, *supra* note 21, at 315.

reduced number of vessels operating in areas close to the boundary line due to closures on the U.S. side to scallop fishers. Even with a limited re-opening, there have been no reports of illegal fishing in the area.⁵⁶

In assessing the challenges and actions arising from the establishment of the Hague Line with regard to fisheries resources, it is tempting to conclude that the collaborative, voluntary, and mandatory practices implemented by Canada and the United States were exactly those which the Chamber had in mind when it voiced its hope for cooperation and agreement by the two parties.⁵⁷ To that end, it would appear that there are valuable lessons other states can learn from the behavior of Canada and the United States, notwithstanding the call for a greater commitment by the two countries to an integrated transboundary ecosystem management approach in the Gulf of Maine.⁵⁸

B. Offshore Renewable Energy

While the issues surrounding transboundary fisheries have a long and well-established history in the Gulf of Maine that is familiar to both Canada and the United States, offshore renewable energy is a new and emerging activity for both countries. The attention given to renewable energy generation globally and in Canada and the United States is driven in large measure by three areas of concern, namely the growing recognition of the impacts of climate change on the earth's systems, the rising costs of energy derived from conventional non-renewable sources, and the need for both countries to ensure energy security.⁵⁹ While there is considerable debate over the sources of global warming, concern over its impacts has been increasing among policy makers, scientists, and the general public on a global scale.⁶⁰ However, according to the Intergovernmental Panel on Climate Change Fourth Assessment

56. Pudden & VanderZwaag, *supra* note 41, at 41.

57. Delimitation of the Maritime Boundary in the Gulf of Maine Area, 1984 I.C.J. 246, 344 (Oct. 12).

58. *Id.* at 344.

59. See President Barack Obama, speech at COP 15 in Copenhagen, Denmark (Dec. 18, 2009), available at <http://www.copenhagenclimatecouncil.com/get-informed/news/cop15-remarks-of-president-barack-obama.html>.

60. Efforts to address climate change impacts at a law and policy level include Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 148 (*entered into force* Feb. 16, 2005); The U.N. Framework Convention on Climate Change (UNFCCC), May 9, 1982, 1771 U.N.T.S. 107 (*entered into force* Mar. 24, 1994).

Report,⁶¹ global atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years. Furthermore, the report's authors have identified carbon dioxide as the most important anthropogenic greenhouse gas and have attributed the global increases in carbon dioxide concentration primarily to fossil fuel use and land use change, while those of methane and nitrous oxide were attributed primarily to agriculture.⁶²

In light of the potential opportunities available for renewable sources of energy⁶³ to address, to varying degrees, the three areas of concern mentioned above, increasing attention is being paid to the use of the ocean environment as a source of renewable energy by both Canada and the United States. For example, in fiscal year 2008, the U.S. Department of the Interior's Minerals Management Service (MMS) awarded seven new ocean environmental studies related to the Offshore Alternative Energy Program (worth \$3.8 million) to evaluate several aspects relating to alternative energy.⁶⁴ These studies were aimed at ensuring that the environmental consequences of alternative energy siting, operations, and interactions with other ocean resources are appropriately evaluated.⁶⁵ Furthermore, in April 2009, under the authority granted in the Energy Policy Act⁶⁶ (2005), MMS finalized its Framework for Renewable Energy Production in the United States.⁶⁷ In addition to establishing a process for granting leases, easements, and rights-of-way for offshore

61. Richard B. Alley et. al, Working Group 1 of the Intergovernmental Panel on Climate Change, *Summary for Policymakers*, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller eds., Cambridge University Press, Cambridge, United Kingdom, 2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>.

62. *Id.* at 2.

63. Alternative or renewable energy includes wind, solar, hydrokinetics (wave, current, and tidal), and ocean thermal energy conversion (OTEC).

64. See U.S. Department of the Interior, Minerals Management Service Fact Sheet on Environmental Studies Program, <http://www.mms.gov/offshore/RenewableEnergy/Studies.htm> (last visited June 10, 2010).

65. *Id.*

66. The Energy Policy Act of 2005 granted the Interior Department's Minerals Management Service (MMS) the authority to regulate renewable energy development on the OCS, but no action had previously been taken under that authority.

67. Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf, 30 CFR Parts 250, 285, 290, available at <http://www.mms.gov/offshore/AlternativeEnergy/PDFs/AD30RenewableEnergy04-22-09.pdf>

renewable energy development, the new program also established methods for sharing revenues generated from Outer Continental Shelf (OCS) renewable energy projects with adjacent coastal states.⁶⁸ The finalization of the program required an agreement⁶⁹ between the Department of the Interior and the Federal Energy Regulatory Commission (FERC) to clarify jurisdictional understandings with respect to renewable energy projects on the U.S. Outer Continental Shelf.⁷⁰ Additionally, the framework will enhance partnerships with federal, state, and local agencies and tribal governments to assist in maximizing the economic and ecological benefits of OCS renewable energy development.

At the state level, two New England states are working to address the larger coastal community planning issues posed by siting renewable energy projects in the ocean. Following the conclusions of the Massachusetts Ocean Management Task Force in 2004 calling for a comprehensive approach to coastal and ocean management, the legislature passed the Massachusetts Oceans Act in 2008. The Act requires the Secretary of Energy and Environmental Affairs to develop a comprehensive ocean management plan, incorporating stakeholder input and utilizing an Ocean Advisory Commission which includes an expert in offshore renewable energy, and an Ocean Science Advisory Council.⁷¹

68. Note that the term “adjacent coastal States” refers to states within the United States, not nation-states. This sharing of revenues in the Energy Policy Act raises an interesting question for cross-border countries such as Canada and the United States regarding the potential for shared revenues. Currently, the Act requires payment to eligible states of twenty seven percent of the revenues from any projects located wholly or partially within the area extending between three and six miles from shore. It also requires equitable distribution of shared revenue among coastal states that are within fifteen miles of the geographic center of the project. Given the potential for projects to be within this geographic area of each other’s maritime boundary, would an agreement for revenue sharing between the two countries be reasonable?

69. U.S. Department of the Interior & Federal Energy Regulatory Commission, Memorandum of Understanding Between the U.S Department of the Interior and the Federal Energy Regulatory Commission (Apr. 9, 2009), *available at* http://www.mms.gov/offshore/AlternativeEnergy/PDFs/DOI_FERC_MOU.pdf.

70. Under the agreement, the MMS has exclusive jurisdiction with regard to the production, transportation, or transmission of energy from non-hydrokinetic renewable energy projects, including wind and solar. FERC will have exclusive jurisdiction to issue licenses for the construction and operation of hydrokinetic projects, including wave and current, but companies will be required to first obtain a lease through MMS.

71. EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS, MASSACHUSETTS OCEAN MANAGEMENT PLAN (December 31, 2009), *available at* <http://www.env.state.ma.us/eea/mop/final-v1/v1-complete.pdf> [hereinafter MASSACHUSETTS OCEAN MANAGEMENT PLAN].

The final plan was promulgated on December 31, 2009, and guides the siting of renewable energy projects in Massachusetts' waters.⁷² Rhode Island has embarked on a similar comprehensive planning process to support a goal of obtaining fifteen percent (1.3 million MW-h-per year) of state energy requirements from wind energy resources by 2015. The Rhode Island Coastal Resources Management Council (CRMC), the state's coastal zone management agency, is developing the Ocean Special Area Management Plan (Ocean SAMP) which will define use zones for Rhode Island's offshore waters through a research and planning process that integrates the best available science with open public input and involvement.⁷³ The Ocean SAMP will be completed by June 2010. To prepare for the future development of an offshore wind farm, the Rhode Island Office of Energy Resources issued a request for proposals in 2008, selecting Deepwater Wind in October 2008. Once the Ocean SAMP is adopted by CRMC and subsequently by NOAA, the permitting and review process will commence with the selected developer.⁷⁴ In addition, although not as comprehensive a planning exercise as undertaken by Massachusetts and Rhode Island, a number of other states have begun the process of developing a regulatory framework specifically for offshore wind projects. This is mainly because, as noted in the report to the Governor of Michigan by the Michigan Great Lakes Wind Council (September 2009),

A process for approving or denying offshore use of the Michigan's Great Lakes bottomlands for wind energy does not currently exist. If an application were received today, the state's review process would prove inadequate and would likely lead to confusion within government agencies as well as for the applicant and the public.⁷⁵

Although only two offshore wind energy projects have formally been proposed in the U.S. Northeast region, at least twenty other separate projects may be proposed in the near future.⁷⁶ The most prominent

72. *Id.*

73. See generally Rhode Island Ocean Special Area Management Plan, <http://seagrant.gso.uri.edu/oceansamp/> (last visited June 10, 2010).

74. See *Background Document of Marine Renewable Energy Projects*, at 5, Marine Law Symposium, Roger Williams University School of Law, Oct. 23-24, 2008.

75. MICHIGAN GREAT LAKES WIND COUNCIL, REPORT OF THE MICHIGAN GREAT LAKES WIND COUNCIL 4 (2009), available at http://www.michiganglowcouncil.org/GLOW%20Report%209-1-09_FINAL.pdf.

76. Pudden & VanderZwaag, *supra* note 41, at 42.

project⁷⁷ is that of Cape Wind Associates (CWA), which proposes to construct a wind farm on Horseshoe Shoal, located between Cape Cod and Nantucket, in Nantucket Sound, Massachusetts.⁷⁸ The CWA project would have 130 wind turbines located as close as 4.1 miles offshore of Cape Cod in an area of approximately twenty four square miles with the turbines being placed at a minimum of one-third-miles apart.⁷⁹ The turbines will be connected by cables, which will relay the energy to shore and the power grid. If constructed, the turbines would preempt other bottom uses in an area, similar to oil and natural gas leases. The potential impacts associated with the CWA offshore wind energy project include the construction, operation, and removal of turbine platforms and transmission cables; thermal and vibration impacts; and changes to species assemblages within the area from the introduction of vertical structures.⁸⁰

In Canada, there has not been a comparable level of federal activity as in the United States and there is currently only one offshore marine renewable energy project in the developmental stage on Canada's East coast.⁸¹ Unlike the focus taken in the U.S. Northeast, efforts to advance offshore renewable energy in the Canadian Maritime provinces are focused on hydrokinetic technologies rather than wind, although there is growing attention for onshore wind generation in each of the three provinces. At the provincial level, the government of Nova Scotia

77. A second project is proposed by the Long Island Power Authority (LIPA) off Long Island, New York. See Rusty Russell, *Neither Out Far Nor In Deep: The Prospects for Utility-Scale Wind Power in the Coastal Zone*, 31 B.C. ENVTL. AFF. L. REV. 221, n.31 (2004).

78. See Michael Schultz, *Questions Blowing in the Wind: The Development of Offshore Wind as a Renewable Source of Energy in the United States*, 38 NEW ENG. L. REV. 415, 421-422 (2004).

79. See *id.* at 422.

80. See U.S. Department of the Interior, DOI News, Secretary Salazar Announces Approval of Cape Wind Energy Project on Outer Continental Shelf of Massachusetts, Apr. 28, 2010, <http://www.doi.gov/news/doinews/Secretary-Salazar-Announces-Approval-of-Cape-Wind-Energy-Project-on-Outer-Continental-Shelf-off-Massachusetts.cfm>.

81. In Canada, Nova Scotia is currently examining the policy and legal framework for exploiting in-stream tidal energy from the Bay of Fundy. See Government of Nova Scotia, Government Home, Energy, Renewables, Public Education, Tidal, Nova Scotia Renewables Public Education in Tidal Energy <http://www.gov.ns.ca/energy/renewables/public-education/tidal.asp> (last visited June 10, 2010); GEORGE HAGERMAN & ROGER BEDARD, EPRI, NOVA SCOTIA TIDAL IN-STREAM ENERGY CONVERSION (TISEC): SURVEY AND CHARACTERIZATION OF POTENTIAL PROJECT SITES (Oct. 2, 2006), available at http://oceanenergy.epri.com/attachments/streamenergy/reports/Tidal_003_ME_Site_Survey_Report_REV_1.pdf.

required that a Strategic Environmental Assessment be conducted on Fundy Tidal Energy to provide guidance on exploitation and the potential impacts of renewable ocean energy.⁸² Somewhat consistent with the broader, integrated planning efforts undertaken by Massachusetts and Rhode Island, Recommendation 25 from the OEER Technical Advisory Group to the Nova Scotia Department of Energy called for the Province of Nova Scotia to develop an Integrated Coastal Zone Management Policy for the Bay of Fundy before large scale commercial marine renewable energy developments are allowed to proceed. The province should involve communities and stakeholders in the development of the policy and should undertake to resource that involvement.⁸³ Interestingly, Recommendation 29⁸⁴ from the same report called for a major inter-jurisdictional workshop in 2009 involving Nova Scotia and New Brunswick, Canada, and Maine to examine integrated management issues and organization options for the Bay of Fundy.⁸⁵

Despite lessons learned in international law over principles guiding the exploitation of transboundary offshore non-renewable energy resources and the development of cooperative agreements between states driven by oil and gas resources,⁸⁶ very little attention is currently being paid in anticipation of the bilateral jurisdictional issues surrounding offshore renewable energy. According to a recent estimate from NOAA, approximately thirty-eight renewable energy projects in the U.S. Northeast are currently in various stages of approval from MMS and FERC and, among these, it would appear that approximately eight are within some proximity to the Hague Line.⁸⁷ As with cross-border nonrenewable resources, it seems reasonable to expect that countries would look to UNCLOS as one of the key drivers in providing guidance related to the development of international law affecting renewable

82. OEER TECHNICAL ADVISORY GROUP, FUNDY TIDAL ENERGY STRATEGIC ENVIRONMENTAL ASSESSMENT FINAL REPORT (Apr. 2008), available at https://www.oreg.ca/docs/Fundy_SEA.pdf

83. *Id.* at 71.

84. *Id.* at 83.

85. The authors are not aware that this activity has occurred.

86. For a discussion on the subject of emerging international environmental law and policy with respect to the rules of engagement for cross border oil and gas development, see Peter D. Cameron, *The Rules of Engagement: Developing Cross-Border Petroleum Deposits in the North Sea and the Caribbean*, 55 ICLQ 559 (2006).

87. Lopez, *Marine Renewable Energy: Growing Demands on NOAA and Our Oceans*, Marine Law Symposium Roger Williams University School of Law, Oct. 24, 2008, available at http://www.nmfs.noaa.gov/habitat/habitatprotection/oceanrenewableenergy/documents/Comments_and_Presentations/Presentations/RWmarinelawsymposium_oct2008.pdf.

energy resources.⁸⁸ Two key articles of the Convention that would be applicable are those pertaining to the sovereign right of the state for purposes of exploring and exploiting, conserving, and managing natural resources,⁸⁹ and a coastal state's sovereign rights to explore the seabed and exploit its natural resources.⁹⁰ At the same time, it has been debated whether it is "unlawful" for a sovereign state to unilaterally exploit a common petroleum resource or whether the international legal regime is simply providing "rules of engagement" for cooperation.⁹¹ Scholars have also drawn attention to Article 142 of the Convention, where resource deposits straddle maritime boundaries. Accordingly, prior notification to, and prior consent of, the coastal state is required when exploitation in a given area may result in exploitation of resources lying within national jurisdiction.⁹²

Given this level of complexity and legal uncertainty surrounding a "fixed" resource such as a petroleum deposit, it is difficult to predict how the legal regime regarding dynamic renewable resources in a cross-border situation might unfold. It may very likely be that, rather than looking for guidance from examples of nonrenewable resource decisions, more relevant insights might be obtained from decisions and agreements relating to how a coastal state manages its migratory living marine resources, nested within the evolving practice of integrated management and the application of an ecosystem-based approach.

IV. OCEAN PLANNING TRENDS IN THE U.S. AND CANADA

As with most coastal nations, sectoral ocean uses in the United States and Canada developed in isolation from each other, with different needs and technologies, separate networks, communications, and practices.⁹³ This has resulted in autonomous sectors, having minimal or no links between them.⁹⁴ Such a fragmentary approach may have been adequate

88. See United Nations Convention on the Law of the Sea art. 234, Dec. 10, 1982, 1833 U.N.T.S. 397.

89. *Id.* art. 56(1)(a).

90. *Id.* art. 77(1) & (2).

91. Cameron, *supra* note 86, at 561.

92. *Id.* at 567.

93. Scott Coffen-Smout, *Final Report of the Canadian Ocean Assessment: A Review of Canadian Ocean Policy and Practice* (1996); Lawrence Juda, *Changing National Approaches to Ocean Governance: The United States, Canada, and Australia*, 34 OCEAN DEV. & INT'L L. 161 (2003)

94. For example, to manage its coastal and ocean activities, twenty-nine federal departments and agencies have direct oceans-related programs with a suite of associated

early in the twentieth century. However, it has proven to be highly dysfunctional in the last quarter, an era of rapid technological change, many ocean uses and an increasing display of multiple-use conflicts, particularly in the resource-rich waters overlying the continental shelf. Additional factors further complicating efforts at ocean governance have been identified as the fluid, three-dimensional nature of the medium; the complexity of the interactive ecosystems; mobility and opacity of resources and activities; and the mismatch between administrative boundaries and jurisdictional authorities and the natural environment.⁹⁵

To address the sectoral shortcoming to ocean-related policy formulation, the past two decades have seen an increasing call for coastal states to adopt an integrated approach to policy, program, and planning development.⁹⁶ For the United States and Canada, efforts to respond institutionally and legislatively to a practice that would support a more holistic approach to management have been positive, albeit slow.⁹⁷ Reviews by both American and Canadian scholars have highlighted the progress made by the countries as each attempted to shift from a single sector, “silo” approach to one that is more reflective of interconnectivities between the multiple users and uses of the coastal and ocean environments.⁹⁸ Strategies adopted for implementing integrated

laws and statutes. Government of Canada, Fisheries and Oceans Canada, *The Role of the Canadian Government in the Ocean Sector* (2009), available at <http://www.dfo-mpo.gc.ca/oceans/publications/cg-gc/index-eng.htm>. At the provincial and territorial level, some seventy-six departments and agencies, with authority under approximately 200 pieces of legislation, exercise some role with respect to ocean-related programs and activities. Government of Canada, *The Role of the Provinces and Territories in the Ocean Sector* (2009), available at <http://www.dfo-mpo.gc.ca/oceans/publications/pg-gp/index-eng.htm>.

95. Alastair Couper, *History of Ocean Management*, in OCEAN MGMT. IN GLOBAL CHANGE 1 (Paolo Fabri ed., 1992).

96. See e.g., United Nations Conference on Environment and Development, June 3-14, 1992, *Rio Declaration on the Environment and Development*, U.N. Doc. A/CONF.151/26 (Aug. 12, 1992) [hereinafter *Rio Declaration*].

97. Betsy Baker, *Filling an Arctic Gap: Legal and Regulatory Possibilities for Canadian-U.S. Cooperation in the Beaufort Sea*, 34 VT. L. REV. 57 (2009).

98. See *id.*; Aldo Chircop & Larry Hildebrand, *Beyond the Buzzwords: A Perspective on Integrated Coastal and Ocean Management in Canada*, in TOWARDS PRINCIPLED OCEANS GOVERNANCE 19 (Donald Rothwell & David VanderZwaag eds., 2006); Lucia Fanning, *Towards an Understanding of the Role of Core Values and Policy Networks to Influence Decision-Making in an Evolving Ocean Governance Era: A Maritimes Canada Study* (2003) (unpublished PhD Thesis, on file with Dalhousie University); Juda, *supra* note 93; C.L. Mitchell, *Sustainable Oceans Development: the Canadian Approach*, 22 MARINE POLICY 393 (1998); Robert O’Boyle & Glen Jamieson, *Observations on the*

management and an ecosystem-based approach have also varied between the two countries, with the United States focusing initially on developing a federal Coastal Zone Management Act⁹⁹ in 1972 and Canada following some twenty-five years later with enabling legislation for the oceans with the passage of its Oceans Act.¹⁰⁰ Nonetheless, while following different paths, it seems that there is evidence to support the hope that each country has now committed to “adapt its practice to the science that has consistently shown that ecosystem-based, as opposed to sectoral, oceans management is the route to healthier and more productive oceans.”¹⁰¹

A. Canada's Ocean Management Regime

Canada's Ocean Act and its subsequently developed Ocean Strategy¹⁰² and Ocean Action Plan¹⁰³ reflect the underlying principles, current approach, and priorities that Canada intends to apply with respect to managing its coastal and ocean activities.

The need to increase policy coordination and coherence horizontally amongst responsible government agencies and vertically amongst responsible jurisdictions has been recognized in Canada's Oceans Act.¹⁰⁴ This legislation, *inter alia*, brought Canadian law in line with internationally agreed-upon jurisdiction for the oceans, increased the authority of the Ministry of Fisheries and Oceans to deal with oceans management, and introduced a new mechanism, known as ‘integrated management,’ to Canadian oceans management. Part I of the Act comprehensively states Canada's position to assume its rights and responsibilities over maritime zones, as granted to coastal states under UNCLOS.¹⁰⁵ Sections 4 through 19 assert Canada's claims over its maritime zones, consistent with customary international law and UNCLOS, even though Canada had not at the time ratified the

Implementation of Ecosystem-Based Management: Experiences on Canada's East and West Coasts 79 FISHERIES RESEARCH 1 (2006).

99. Coastal Zone Management Act, 16 U.S.C. §§ 1451-56 (1972).

100. Oceans Act, 1996 S.C., c. 31.

101. Baker, *supra* note 97, at 82.

102. FISHERIES AND OCEANS CANADA, CANADA'S OCEANS STRATEGY: OUR OCEANS, OUR FUTURE: POLICY AND OPERATIONAL FRAMEWORK FOR INTEGRATED MANAGEMENT OF THE ESTUARINE, COASTAL AND MARINE ENVIRONMENTS IN CANADA (2002), www.dfo-mpo.gc.ca/oceans/publications/cos-soc/pdf/cos-soc-eng.pdf.

103. FISHERIES AND OCEANS CANADA, CANADA'S OCEANS ACTION PLAN: FOR PRESENT AND FUTURE GENERATIONS (2005), www.dfo-mpo.gc.ca/canwaters-eauxcan/oap-pao/pdf/oap_e.pdf.

104. Oceans Act, 1996 S.C., c. 31.

105. *Id.* part 1.

Convention. This Part of the Act also asserts the rights of Canada over the seabed and subsoil in internal waters,¹⁰⁶ the territorial sea,¹⁰⁷ the Exclusive Economic Zone (EEZ),¹⁰⁸ and the continental shelf,¹⁰⁹ in accordance with the Act and international law.

Part II of the Act allows for the development and implementation of a national oceans strategy for the management of estuarine, coastal, and marine ecosystems in Canadian waters.¹¹⁰ The principles of sustainable development, integrated management, and the precautionary approach to be used in guiding the development of the strategy are articulated. The legal responsibility for leading and facilitating its development and implementation is assigned to the Minister of Fisheries and Oceans, in collaboration with a suite of listed agencies and bodies. Included in Part II are the basic authorities and tools to be used to define the parameters of the oceans strategy. These include: the establishment of marine protected areas;¹¹¹ the establishment and enforcement of marine environmental quality guidelines, criteria, and standards for the purposes of implementing integrated management plans;¹¹² and the development and implementation of integrated management plans.¹¹³ However, Section 31 the Act limits Ministerial implementation of the integrated management plans within those areas assigned by law to DFO.¹¹⁴ This Part of the Act also allows for the creation or recognition of advisory bodies¹¹⁵ and ends with a restatement of provisions for enforcement and penalties that are included in the criminal code.¹¹⁶

Part III of the Act names the Minister of Fisheries and Oceans as the lead federal authority responsible for oceans.¹¹⁷ The powers, duties, and functions of this role are detailed, including new responsibilities for the coast guard,¹¹⁸ the provision of hydrographic services,¹¹⁹ as well as

106. *Id.* part 1, §6.

107. *Id.* part 1, §4.

108. *Id.* part 1, §13.

109. *Id.* part 1, §17.

110. *Id.* part 2.

111. *Id.* part 2, §35.

112. *Id.* part 2, §31.

113. *Id.* part 2, §32.

114. *Id.* part 2, §31.

115. *Id.*

116. *Id.* part 2, §37.

117. *Id.* part 3, §37.

118. *Id.* part 3, §41.

119. *Id.* part 3, §45.

marine scientific advice supporting ocean management responsibilities.¹²⁰

The Oceans Act has the potential to restructure, consolidate and create a holistic approach to oceans management which could provide a mechanism for balancing the many competing ocean interests. However, it has been criticized for not living up to expectations, primarily by Canadian scholars.¹²¹ The academic literature focuses on two particular elements of the Act: “fragmentation” and “integrated management,” and it faults the Act for failing to reduce fragmentation in oceans management and failing to define many of the terms crucial to implementing integrated management.¹²²

An attempt to address these shortcomings is evident in Canada’s Ocean Strategy (the Strategy), released almost six years after being legislated for in Part II of the Oceans Act. The goal of the Strategy is “to ensure healthy, safe and prosperous oceans for the benefit of current and future generations of Canadians.”¹²³ The Strategy sets out the policy direction for ocean management in Canada and focuses on policies and programs aimed at understanding and protecting the marine environment; supporting sustainable economic opportunities; and providing international leadership.¹²⁴

The commitment to work collaboratively with all levels of government and to adopt a participatory principle with regards to engaging Canadians in meeting the objectives of the Strategy is declared.¹²⁵ The framework envisions this being accomplished with a specific geographic focus—through collaboration among governmental and non-governmental representatives with interests in a given area of ocean space, either offshore (large ocean management areas) or in areas designated as coastal management areas. Mechanisms to solicit

120. *Id.* part 3, §42.

121. Aldo Chircop, Hugh Kindred, Phillip Saunders & David VanderZwaag, *Legislating for Integrated Marine Management: Canada’s proposed Oceans Act of 1996*, 33 CANADIAN YEARBOOK OF INT’L L. 305 (1995); Aldo Chircop and Bruce Marchand, *Oceans Act: Uncharted Seas for Offshore Development in Atlantic Canada?* 24 DALHOUSIE L.J. 23 (2001); Chircop & Hildebrand, *supra* note 98; Sylvie Guénette & Jackie Alder, *Lessons from Marine Protected Areas and Integrated Oceans Management Initiatives in Canada*, 35 COASTAL MGMT. 51 (2007); John Kearney, et al., *The Role of Participatory Governance and Community-Based Management in Integrated Coastal and Ocean Management in Canada*, 35 COASTAL MGMT. 79 (2007).

122. McCrimmon & Lucia Fanning, *Critiquing Canada’s Ocean Act: A Review of the 1995-2008 Academic Literature*, (forthcoming).

123. *Supra* note 102, at 10.

124. *Id.* at 12.

125. *Id.* at 18.

stakeholder input and improve coordination in ocean management include the establishment of new and existing committees, management boards, and other forms of information sharing. Secondly, the Strategy identifies integrated management as the cornerstone of Canadian ocean governance and notes the explicit link between conservation and protection of ecosystems, while at the same time providing opportunities for creating wealth in oceans-related economies and communities.¹²⁶ It also highlights the adoption of sustainable development explicitly, with its reference to bringing together “the environmental, economic and social considerations by planning for sustainable use of the oceans in a safe and secure environment.”¹²⁷ Finally, the Strategy recognizes the need to engage Canadians in promoting stewardship and awareness of the oceans for present and future generations.

Critiques of the Strategy have focused on the general nature of the policy, recognizing that as a national policy, specificities would have to be addressed in the more detailed integrated management plans.¹²⁸ While adopting an ecosystem approach, it was noted that the boundaries of the proposed large ocean management areas appeared to be more administratively and jurisdictionally based than functional or ecosystem-based.¹²⁹ Efforts at integrated management and collaborative processes were viewed as a plus. However, a gap was noted in the need to clarify the accountability structure in the event of problems arising as a result of actions undertaken by these collaborative mechanisms, consisting of government and non-government actors.¹³⁰ The Strategy was also criticized for lacking the appropriate evaluation mechanism to fully capture the lessons learned from its “learning by doing” adaptive approach.¹³¹

Complementary to the Strategy, Canada’s Ocean Action Plan, released in May 2005, outlined the priorities for action and allocated some twenty-eight million dollars to implement these activities over a two-year period. Four main areas of focus were outlined for action. The first activity addressed “International Leadership, Sovereignty and Security,” in which efforts to work collaboratively with the United States in the Gulf of Maine to address transboundary fisheries management and improve environmental protection emergency response were identified.

126. *Id.* at 19.

127. *Id.* at v.

128. Chircop & Hildebrand, *supra* note 98.

129. *Id.* at 28.

130. *Id.* at 34.

131. *Id.*

The second activity focused on implementing “Integrated Management” planning for five large ocean management areas, including continuing the efforts to develop an Eastern Scotian Shelf Integrated Management Plan. The third activity centered on “Health of the Oceans” and the development of a Federal Marine Protected Areas Strategy and greater enforcement activity on Canada’s east coast to better identify and investigate marine pollution from ships transiting Canadian waters. The fourth area of emphasis addressed “Science and Technology” with the development of an Ocean Technology Network.

Current efforts to advance integrated management on the Maritimes Region of Canada have focused on the adoption of marine spatial planning (MSP) and the legislative framework needed to facilitate MSP implementation.¹³² The slow pace of implementation of an Integrated Management approach has led to suggestions for policy renewal, program review, and critical analysis. The potential ability of MSP to meet the intent of the Oceans Act and the expectations of the engaged public citizenry that has participated in the development process of integrated management to date was considered significant, particularly in light of the lessons being learned internationally.

Based on a preliminary analysis,¹³³ it would appear that Canada has at least three options for creating a functional MSP regime: (i) amending the Oceans Act, (ii) reinterpreting the Oceans Act; and (iii) using a Federal Cabinet Directive. However, any of these methods would require significant political consensus, as will the long-term application of any marine spatial plan. An MSP regime established by the Canadian federal government will also have to address its inability to manage the governing competencies granted to the provinces by the Constitution Act.¹³⁴ This can be done through the creation of Memorandums of Understanding (MOUs) with the provinces but, given the jurisdictional complexity in Canada, their necessity may make marine spatial plans in some regions impractical. For example, while in theory the Gulf of St.

132. In conjunction with the Marine Affairs Program, Dalhousie University, DFO Maritimes and Gulf regions, held a Learning Session on November 25, 2009 in Dartmouth, Nova Scotia entitled “Why Consider Marine Spatial Planning (MSP)? Does MSP provide an implementation mechanism for an integrated approach to coastal and oceans management and planning in a regional Atlantic Canadian context?” The intent of the learning session was to consider the suitability of MSP as a tool and process to advance the implementation of integrated approaches to coastal and oceans management in Canada.

133. McCrimmon & Lucia Fanning, *Marine Spatial Planning: International Lessons for Canadian Development* (forthcoming).

134. Constitution Act, 1982, c. 3 U.K..

Lawrence would be an ideal location for MSP based on its ecology and high usage, the need to coordinate management between multiple federal, provincial, municipal, and aboriginal governments and government agencies make successful MSP in the region unlikely. On the other hand, areas like the Eastern Scotian Shelf Integrated Management (ESSIM) area and the Bay of Fundy and the Gulf of Maine are likely better candidates for successful marine spatial plans in Canada.

B. U.S. Ocean Planning

Pursuant to the Oceans Act of 2000, the United States established a sixteen-member Commission on Ocean Policy (the Commission) “to make recommendations for coordinated and comprehensive national ocean policy.”¹³⁵ The Commission issued its final report—“An Ocean Blueprint for the 21st Century”—in September 2004.¹³⁶ The report contained over 200 recommendations for U.S. ocean and coastal policy.¹³⁷ In response to some of these recommendations, President George W. Bush established a Committee on Ocean Policy¹³⁸ as part of the Council on Environmental Quality, a coordinating body within the Executive Office of the President.¹³⁹ Shortly thereafter, the Commission expired under the terms of the Ocean Act of 2000.¹⁴⁰

In the meantime, the national interest in marine renewable energies blossomed. A proposal to establish the first U.S. off-shore wind farm off the coast of Massachusetts grabbed the nation’s attention and forced Massachusetts to examine its coastal and marine priorities. Indeed, as explained above, the state passed its own Oceans Act in 2008, calling for a comprehensive ocean management plan. As required, the Executive

135. Oceans Act of 2000, Pub. L. No. 106-256, 114 Stat. 644 (2000) (codified as amended at 33 U.S.C. § 857-19 (2001)).

136. U.S. Commission on Ocean Policy, *An Ocean Blueprint for the 21st Century* (2004), available at http://oceancommission.gov/documents/full_color_rpt/welcome.html (last visited June 10, 2010).

137. *Id.*

138. *See id.*

139. The Council on Environmental Quality was established pursuant to the National Environmental Policy Act of 1969. National Environmental Policy Act, 42 U.S.C. § 4321 (1969). *See also* The White House, Home, The Administration, Council on Environmental Quality, The Council on Environmental Quality-About, <http://www.whitehouse.gov/administration/eop/ceq/about> (last visited June 10, 2010).

140. *See* 33 U.S.C. § 857-19(Sec. 3)(f)(2)(i) (“The Commission shall cease to exist 90 days after the date on which it submits its final report.”).

Office of Energy and Environmental Affairs delivered a final Massachusetts Ocean Management Plan on December 31, 2009.¹⁴¹

Rhode Island also undertook marine spatial planning in response to off-shore wind development opportunities. Led by the Rhode Island Coastal Resources Management Council, a project is underway to create an ocean Special Area Management Plan (SAMP) to designate specific use zones of Rhode Island's state waters.¹⁴²

Incentives to develop marine renewable energy have also arisen in recent years. The federal government has offered financial incentives to investment firms who invest in marine renewable technologies while also issuing grants and loans directly to renewable energy developers under the American Recovery and Reinvestment Act and the Omnibus Appropriations Act for fiscal year 2009.¹⁴³ In addition, project approval delays and regulatory uncertainty caused by jurisdictional battles between the MMS and FERC were reduced by their recent MOU.¹⁴⁴ Following this agreement, MMS was able to "establish a new regulatory regime for wind, wave, current, solar and other emerging technologies" on the Outer Continental Shelf.¹⁴⁵

President Barack Obama's administration not only announced significant national interest in developing marine renewable energy, it also recognized the growing competition for use of marine environments and the need for ocean use planning. Accordingly, in June 2009 President Obama established the Interagency Ocean Policy Task Force (the Task Force).¹⁴⁶ The Task Force is led by the White House Council

141. MASSACHUSETTS OCEAN MANAGEMENT PLAN, *supra* note 71.

142. See Rhode Island Ocean Special Area Management Plan, About Us, <http://seagrant.gso.uri.edu/oceansamp/about.html> (last visited June 10, 2010).

143. Peter J. Schaumburg and Ami M. Grace-Tardy, *The Dawn of Federal Marine Renewable Energy Development*, 24 NAT. RESOURCES & ENV'T 15, 16 (2010).

144. *Id.* (citing U.S. Department of the Interior & FERC, Memorandum of Understanding Between the U.S. Department of the Interior and the Federal Energy Regulatory Commission (Apr. 9, 2009), *available at* www.mms.gov/offshore/AlternativeEnergy/PDFs/DOI_FERC_MOU.pdf). Prior to the MOU, each agency believed it had authority over renewable energy projects on the Outer Continental Shelf pursuant to the Energy Policy Act of 2005, which amended the Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331-56(a) (2005). *Id.*

145. *Id.*

146. The White House, Office of the Press Secretary, Memorandum for the Heads of Executive Departments and Agencies (June 12, 2009), *available at* http://www.whitehouse.gov/sites/default/files/page/files/2009ocean_mem_rel.pdf.

on Environmental Quality.¹⁴⁷ Its charge includes “developing a recommendation for a national policy that ensures protection, maintenance, and restoration of oceans, our coasts and the Great Lakes” and recommending “a framework for improved stewardship, and effective coastal and marine spatial planning.”¹⁴⁸

The Task Force issued its interim report on September 10, 2009. In preparing the report, the Task Force consulted the report prepared by the U.S. Commission on Ocean Policy.¹⁴⁹ The Task Force gently suggested that the Committee on Ocean Policy established following that report was only “moderately effective” in bringing federal agencies together to coordinate national ocean policy, and that there was much room for improvement in setting a strong overarching policy for national ocean priorities; getting high-level direction and policy guidance from a “clear and identifiable authority;” and creating enhanced “ongoing and active engagement with state, tribal, and local authorities, and regional governance structures” among other things.¹⁵⁰

To facilitate implementation of the numerous proposed ocean policy goals, the Task Force called for creation of a National Ocean Council (NOC).¹⁵¹ This body would consist of both principal-level administrators and deputy-level administrators,¹⁵² presumably to ensure appropriate decision-making authority while also carrying out the decisions through

147. See The White House, Council on Environmental Quality, The Interagency Ocean Policy Task Force, <http://www.whitehouse.gov/administration/eop/ceq/initiatives/oceans> (last visited June 10, 2010).

148. *Id.*

149. THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY, INTERIM REPORT OF THE INTERAGENCY OCEAN POLICY TASK FORCE 3 (Sept. 10, 2009), available at http://www.whitehouse.gov/assets/documents/09_17_09_Interim_Report_of_Task_Force_FINAL2.pdf.

150. *Id.* at 6.

151. *Id.* at 18.

152. *Id.* (“Members of the NOC would include: the Secretaries of State, Defense, the Interior, Agriculture, Health and Human Services, Commerce, Labor, Transportation, Energy and Homeland Security; the Attorney General; the Administrator of the Environmental Protection Agency; the Chair of the Council on Environmental Quality (CEQ); the Director of the Office of Management and Budget (OMB); the Administrator of the National Oceanic and Atmospheric Administration; the Director of National Intelligence; the Director of the Office of Science and Technology Policy (OSTP); the Director of the National Science Foundation; the Chairman of the Federal Energy Regulatory Commission; the Chairman of the Joint Chiefs of Staff; the Assistants to the President for National Security Affairs, Homeland Security, Domestic Policy, and Economic Policy; an employee of the United States designated by the Vice President; and such other officers or employees of the United States as the Co-Chairs may from time to time designate.”).

action. The NOC would be responsible for advising the President on the “National Policy for the Stewardship of the Ocean, Our Coasts and the Great Lakes,” and would also have overall responsibility for implementing the National Policy.¹⁵³ To carry out its functions, the NOC would be comprised of a steering committee, an Ocean Resource Management Interagency Policy Committee, an Ocean Science and Technology Interagency Policy Committee, and a Governance Advisory Committee.¹⁵⁴ The latter would consist of members representing states, tribes, and regional governance structures, and would “provide input to the NOC on issues of inter-jurisdictional collaboration and cooperation on the National Policy and related matters.”¹⁵⁵

One of the nine priority objectives listed in the Task Force’s Interim Report is coastal and marine spatial planning (CMSP).¹⁵⁶ Accordingly, on December 9, 2009, the Task Force issued another report titled “Interim Framework for Effective Coastal and Marine Spatial Planning.”¹⁵⁷ The report notes that most federal permitting processes for myriad ocean uses “focus solely on a limited range of management tools and outcomes” rather than incorporating a “more integrated, comprehensive, ecosystem-based, flexible, and proactive approach to planning and managing these uses and activities.”¹⁵⁸ The proposed framework for CMSP “is intended to yield substantial economic, ecological, and social benefits” by incorporating “principles of sound science for ecosystem-based and adaptive management,” and by being “transparent” and “informed by stakeholders and the public.”¹⁵⁹

The report notes that many of the federal administrative agencies responsible for planning with respect to the ocean, coasts, and Great Lakes are already authorized by their enabling legislation to implement CMSP “consistent with and under the authority of these statutes.”¹⁶⁰ The framework is simply in place to “provide all agencies with agreed upon

153. *Id.* at 20.

154. *Id.* at 22, 23, 24.

155. *Id.* at 24.

156. *Id.* at 7.

157. WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY, INTERAGENCY OCEAN POLICY TASK FORCE, INTERIM FRAMEWORK FOR EFFECTIVE COASTAL AND MARINE SPATIAL PLANNING (2009), *available at* <http://www.whitehouse.gov/sites/default/files/microsites/091209-Interim-CMSP-Framework-Task-Force.pdf> [hereinafter INTERAGENCY OCEAN POLICY TASK FORCE INTERIM FRAMEWORK FOR CMSP].

158. *Id.* at 1-2.

159. *Id.* at 3.

160. *Id.* at 6.

principles and goals to guide their actions under their authorities, and to develop mechanisms so that federal, state, tribal, and local authorities, and regional governance structures, can proactively and cooperatively work together to exercise their respective authorities.”¹⁶¹ If, however, any agency identifies a procedural or substantive legal constraint preventing full cooperation with the CMSP guidelines, the NOC would work with the agency to evaluate whether legislative or regulatory changes are necessary and appropriate.¹⁶²

Among the several guiding principles for CMSP, necessary to achieve the nation’s goals, are that CMSP Plans would be: informed by “the best available science-based information, including the natural and social sciences;” guided by the precautionary approach as set forth in the Rio Declaration;¹⁶³ and “implemented in accordance with customary international law, including as reflected in the 1982 Law of the Sea Convention, and with treaties and other international agreements to which the United States is a party.”¹⁶⁴

The geographic scope of the CMSP planning area in the United States would include the territorial sea, EEZ, and the Continental Shelf, and would “extend landward to the mean high-water line.”¹⁶⁵ In the Great Lakes region, the geographic scope of the planning area extends from the ordinary high-water mark to the limit of the U.S.-Canada international boundary.¹⁶⁶ Excluded are the submerged lands underlying the Great Lakes, which, on the U.S. side, are “entirely under the jurisdiction and ownership of the Great Lakes States.”¹⁶⁷ No specific mention is made of the Gulf of Maine region or any other geographical region shared with Canada or Mexico.

To implement CMSP, the report calls for the United States to be subdivided into nine regional planning areas. The areas would be based on the large marine ecosystem (LME) scale, “defined on the basis of

161. *Id.*

162. *Id.*

163. *Id.* Principle 15 of the Rio Declaration provides: “In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” *Rio Declaration, supra* note 96, at Annex I, Principle 15.

164. INTERAGENCY OCEAN POLICY TASK FORCE INTERIM FRAMEWORK FOR CMSP, *supra* note 157, at 8.

165. *Id.*

166. *Id.*

167. *Id.* at 9.

consistent ecological conditions.”¹⁶⁸ Modifications to the nine regional planning areas would be made to accommodate existing state or regional ocean governance bodies. The nine areas would include the Great Lakes, the Mid-Atlantic, South Atlantic, Northeast, Gulf Coast, and West Coast, as well as Alaska, the Pacific Islands, and the Caribbean.¹⁶⁹ The report calls on the NOC to facilitate regional CMS Plans for each of the nine areas.¹⁷⁰ Regional planning bodies would be created with membership representing federal, state, and tribal interests “and indigenous community representatives with jurisdictional responsibilities or other interests (e.g., resource management, science, homeland and national security, transportation and public health) relevant to CMSP for that region.”¹⁷¹ The report calls for “ex officio” membership by adjacent coastal states to encourage consistent planning among regions.¹⁷² Key to the subject of this Article, moreover, the report acknowledges that the United States shares maritime boundaries with Mexico and Canada and suggests that the regional planning bodies “*may* include ex officio representation or observers from those nations.”¹⁷³

In creating the regional CMSP plans, the regional bodies are to identify regional objectives and build upon existing planning efforts (such as, for example, the Great Lakes Restoration Initiative Action Plan, and the ocean plans prepared by Massachusetts and Rhode Island).¹⁷⁴ Efforts made by adjacent coastal nations to plan adjoining waters would be appropriately considered, therefore, in the regional planning efforts of the relevant U.S. regions. This means Canada’s Eastern Scotian Shelf Integrated Management plan should be among the plans considered by the U.S. Northeast Region in preparing a CMSP for the Gulf of Maine area.

IV. EXAMPLES OF BI-NATIONAL COOPERATION WITH REGARD TO TRANSBOUNDARY WATER BODIES

There are numerous examples of U.S.-Canada collaborative mechanisms, and a more recent count by the Gulf of Maine Council on the Marine Environment has identified some fifty binding and non-binding agreements that the two countries have entered into to manage

168. *Id.* at 10-11.

169. *Id.*

170. *Id.*

171. *Id.* at 12.

172. *Id.*

173. *Id.* (emphasis added).

174. *Id.* at 14.

cross-border issues.¹⁷⁵ Not surprising, the overwhelming number of these agreements are non-binding, with only eight having a mandatory obligation on the parties to comply with the terms and conditions identified therein.¹⁷⁶ The need and importance of these agreements to U.S.-Canada relations has been highlighted by numerous observers¹⁷⁷ and most recently, the Policy Research Initiative (PRI) of the Government of Canada has joined with several other federal departments and outside experts and stakeholders to examine the growing significance, scope, and nature of cross-border regional relationships, and to explore their importance for the Government of Canada. In the November 2008 Final Report, the Director General of PRI stated:

Clearly, a turning point has been reached, where the management of Canada-U.S. relations is evolving into something much more dynamic and sophisticated—involving not only the Canadian and U.S. federal governments, but the provinces and states, private businesses and civil organizations as well, in a plethora of informal and formal relationships and networks all concerned with the practical problem-solving of common challenges and issues in the border regions of Canada and the United States. More than anything, this growing involvement of players reflects a maturing of the Canada-U.S. relationship, and nowhere is this more evident than in the borderland regions, where cross-border regional relationships are flourishing.¹⁷⁸

175. Gulf of Maine Council on the Marine Environment, *Existing US-Canada Agreements*, prepared for GOMCME Meeting, 2009, Dartmouth, NS (on file with the authors).

176. Key binding agreements include commitments made under the Boundary Waters Treaty, Great Lakes Water Quality Agreement, the Migratory Birds Convention Treaty and amendments to the Treaty, the North-West Atlantic Fisheries Organization and the North American Salmon Conservation Organization.

177. See e.g., Baker, *supra* note 97; Lawrence Hildebrand et al., *Cooperative Ecosystem Management Across the Canada-US Border: Approaches and Experiences of Transboundary Programs in the Gulf of Maine, Great Lakes and Georgia Basin/Puget Sound*, 45 OCEAN & COASTAL MGMT. 421 (2002); Cynthia Lamson & David VanderZwaag, *Arctic Waters: Needs and Options for Canadian-American Cooperation*, 18 OCEAN DEV. & INT'L L. 49 (1987); Pudden & VanderZwaag, *supra* note 41; Allen L. Springer, *North American Transjurisdictional Cooperation: The Gulf of Maine Council on the Marine Environment*, CANADIAN-AMERICAN PUBLIC POLICY (Apr. 2002).

178. GOVERNMENT OF CANADA, POLICY RESEARCH INSTITUTE, THE EMERGENCE OF CROSS-BORDER REGIONS BETWEEN CANADA AND THE UNITED STATES: REAPING THE PROMISE AND PUBLIC VALUE OF CROSS-BORDER REGIONAL RELATIONSHIPS, FINAL REPORT iii (2008), available at http://www.policyresearch.gc.ca/page.asp?pagenm=2008-0002_01.

To provide an understanding of the significance of these agreements to the well-being of Canada-U.S. relations, the shared ecosystems and the people who depend on them, this section will highlight two such agreements. The first of these is the binding and long established Great Lakes Water Quality Agreement and the second is the non-binding and much more recent Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem.¹⁷⁹

A. Great Lakes Water Quality Agreement

The Great Lakes Water Quality Agreement (GLWQA or the Agreement) was first entered in 1972.¹⁸⁰ It was a product of the Boundary Waters Treaty of 1909—the foundation of U.S.-Canada transboundary water management.¹⁸¹ The Boundary Water Treaty provides for joint management between the countries of their shared waterways, performed under the authority of the International Joint Commission, a body with investigative and adjudicative authority whose six politically-appointed members equally represent both nations.¹⁸²

When, after World War II, scientists and others grew increasingly alarmed at the poor water quality of the Great Lakes and their ongoing degradation, the two nations knew something must be done. The GLWQA was born out of concern over “grave deterioration of water quality on each side of the boundary to an extent that is causing injury to health and property on the other side.”¹⁸³ The GLWQA set water quality objectives and created programs to achieve them.¹⁸⁴ It further defined the functions of the International Joint Commission, transforming it into an “environmental protection institution.”¹⁸⁵ Under the Agreement, the IJC is responsible for gathering, analyzing, and disseminating data from both nations regarding water quality of the boundary waters, and advising the authorities of both nations with regard to carrying out the terms of the

179. For a more detailed assessment of these two agreements, see Hildebrand et al., *supra* note 177.

180. Great Lakes Water Quality Agreement, U.S.-Can., Apr. 15, 1972, 23.1 U.S.T. 301 [hereinafter 1972 Great Lakes Water Quality Agreement].

181. Noah D. Hall, *The Centennial of the Boundary Waters Treaty: A Century of United States-Canadian Transboundary Water Management*, 54 WAYNE L. REV. 1417, 1418 (2008).

182. *Id.* at 1422.

183. 1972 Great Lakes Water Quality Agreement, *supra* note 180.

184. Hall, *supra* note 181, at 1431.

185. *Id.* at 1423.

Agreement.¹⁸⁶ Thus, while the IJC is actively involved in overseeing the GLWQA and helping to achieve its primary goals, the foremost responsibility for enforcing the agreement and, in particular, the water quality standards it contains, rests with the U.S. Environmental Protection Agency and Environment Canada.¹⁸⁷

The original GLWQA focused on phosphorous pollution, and while it had some success in reducing the impact of phosphorous discharge on the Great Lakes, scientific discoveries of other persistent organic chemicals degrading the water tempered the Agreement's overall success.¹⁸⁸ The Agreement was amended significantly in both 1978 and 1987, striving to eliminate the impact of toxic chemicals on the Lakes and prevent new discharges of any additional toxic substances.¹⁸⁹

The GLWQA has been criticized for its "sub-treaty status" (since it was never approved by the U.S. Senate) and for lacking adequate enforcement provisions.¹⁹⁰ It is not, for example, easy for adversely affected citizens to sue a responsible party for failure to enforce the Agreement.¹⁹¹ Nonetheless, the ICJ has made efforts to include citizens in its decision-making process. Following the ICJ's twelfth biennial report, released in 2004, the ICJ undertook a major public comment period to determine how effective the CLWQA had been.¹⁹² The synthesis of comments from over 4000 sources is included in a report the ICJ issued in August 2006.¹⁹³ The major recommendations of the report are that the Parties, among other things:

- Enter into a replacement Agreement that is more "action-oriented," signed by the Canada's Prime Minister and the President of the United States, and endorsed by the Canadian Parliament and the U.S. Congress.
- Commit to creating a separate and enforceable bi-national Action Plan that "engages federal, state, provincial and

186. 1972 Great Lakes Water Quality Agreement, *supra* note 180, at art. VII.

187. Hall, *supra* note 181, at 1432.

188. *Id.*

189. *Id.*

190. *Id.* at 1433.

191. *Id.*

192. See International Joint Commission, Canada & United States, Activities, The Great Lakes Water Quality Agreement (GLWQA) review, <http://www.ijc.org/en/activities/consultations/glwqa/index.php> (last visited June 10, 2010).

193. INTERNATIONAL JOINT COMMISSION, ADVICE TO THE GOVERNMENTS ON THEIR REVIEW OF THE GREAT LAKES WATER QUALITY AGREEMENT (2006), *available at* <http://www.ijc.org/php/publications/pdf/ID1603.pdf>.

municipal departments and agencies, as well as Tribes and First Nations” and contains clear accountability provisions.

- Establish a Steering Committee for the GLWQA comprised of heads of the Parties’ appropriate environmental protection and related agencies.
- Provide “a more clear and meaningful role” for the IJC in implementing the Agreement.¹⁹⁴

This increased public participation, to some, compensates for the claim that GLWQA fails to contain adequate enforcement provisions.¹⁹⁵ The fact that the parties turn, at least occasionally, to their citizens for feedback creates accountability and political pressure to comply with the Agreement.

As a model for the Gulf of Maine’s boundary waters, the GLWQA has much to recommend, in particular the strong role of the IJC and the representation by both parties on that commission. In addition, the lead environmental agencies of both nations are responsible for protecting the boundary waters of the Great Lakes, placing responsibility on the highest administrative authorities with the greatest ability, in principle, to mandate compliance and conduct enforcement. The GLWQA’s connection with the Boundary Waters Treaty elevates its status as a binational policy tool, but its lack of treaty status and endorsement by each nation’s legislative branch provides a lesson, for similar future agreements, in what to avoid. Lastly, as is commonly understood in ocean planning and other resource management programs today, public participation and the inclusion of state, local, and tribal entities is also key to sound decision-making, community support, and accountability.

B. Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem

The signing of the Statement of Cooperation by the Administrator of the U.S. Environmental Protection Agency (U.S.-EPA Region 10) and Canada’s Minister of Environment in January 2000, advocating a common framework for sustainability in the Georgia Basin and Puget Sound Ecosystem,¹⁹⁶ resulted from an ongoing historical practice of

194. *Id.* at 1-2.

195. Hall, *supra* note 181, at 1434.

196. See ENVIRONMENTAL PROTECTION AGENCY & ENVIRONMENT CANADA, JOINT STATEMENT OF COOPERATION ON THE GEORGIA BASIN AND PUGET SOUND ECOSYSTEM (2000), available at http://www.epa.gov/region10/psgb/media/pdf/statement_of_cooperation.pdf.

working collaboratively to address transboundary and global challenges confronting the shared ecosystem.

The ecosystem, known by the area's tribal and First Nations peoples as the Salish Sea, is comprised of the three basins of the Puget Sound, Strait of Juan de Fuca, and the Strait of Georgia on the Pacific coast of Canada and the United States. Known as the Georgia Basin and Puget Sound Initiative, the area is considered one of the most ecologically diverse in North America, possessing internationally significant species and habitats. With a population of some seven million inhabitants, pressures on the ecosystem include increasing population growth (at a rate that makes it one of the highest in North America), industrial expansion, and economic demands. These have led to poor air quality, toxic contamination of marine and fresh water, loss or degradation of farmlands, wetlands, and wildlife habitat, and decline of culturally important species.¹⁹⁷

The Statement of Cooperation promotes closer U.S.-Canada collaboration in addressing challenges confronting the ecosystem and serves to:

- publicly confirm the commitment by the two federal levels of government to transboundary collaboration for the health of the Georgia Basin -Puget Sound ecosystem;
- recognize the special role and interests of Coast Salish Nations and Tribes;
- acknowledge and support the excellent efforts in our region related to ecosystem management; and,
- establish a formal Canada-U.S. commitment at the regional level to work cooperatively on the challenges identified In the Statement of Cooperation, including sustainability.¹⁹⁸

The Statement of Cooperation commits Environment Canada and the U.S. EPA to develop annual action plans and report to the public on progress. The most recent Action Plan (2008-2010) focuses on transboundary collaboration, sharing knowledge and information, and transboundary demonstration projects contributing to improved air quality, water quality, and habitat and species health. While the administration and management of the agreement are the responsibility of the two federal agencies, a working group responsible for developing the action plans and reporting on progress is comprised of additional

197. Hildebrand et. al, *supra* note 177, at 436.

198. See Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem, *supra* note 196.

members from the Coast Salish Gathering Secretariats (representing Nations and Tribes in the Georgia Basin-Puget Sound region), the British Columbia Ministry of the Environment, Washington State Department of Ecology, and the Puget Sound Partnerships.

Triggers behind the establishment of formal ecosystem-wide agreements in the Georgia Basin-Puget Sound area have been identified to include the growing recognition amongst decision-makers, stakeholders, and residents on both sides of the border, that jurisdictional lines on the map notwithstanding, they share a common airshed, common watersheds, a common home for migratory birds and fish, and common urban growth pressures.¹⁹⁹ This recognition followed a number of successful sector-specific arrangements, both formal and informal, involving shared fish stocks and concerns with oil spills. It also drew on earlier efforts of the federal, provincial, and state governments on both sides of the border in advancing an ecosystem-based approach, and hence transboundary management, in the Puget Sound-Georgia Basin area. The spin-off effects of the formal efforts at collaboration have been remarkable with informal non-governmental partnerships, First Nation and tribal interests, and a host of other networks complementing the efforts of the government and oftentimes taking the lead in securing a more sustainable future for the area.

As noted by Hildebrand et al., these efforts have led to a cross-jurisdictional sense of community among the residents of the shared ecosystem.²⁰⁰ However, there are still a number of challenges to overcome for the full potential of these collaborative efforts to be realized. First, there is a need to ensure that transboundary partnerships are afforded the credibility and legitimacy required to be able to access resources and be assigned priority by responsible agencies in their planning processes. Second, it is essential to begin to move beyond the current level of arrangements to one in which a more comprehensive and more fully integrated system for transboundary cooperation can take place.

V. BI-NATIONAL POLICY OPTIONS FOR THE GULF OF MAINE

Over the past decade, there has been an increasing recognition that effective ocean management requires an integrated approach that serves to balance the carrying capacity of the natural system with human demands and considers the impacts of all ocean sectors on the marine

199. Hildebrand et. al, *supra* note 177, at 438.

200. *Id.* at 441.

environment.²⁰¹ Furthermore, as described in Part III above, both Canada and the United States have individually embraced the notion of ecosystem-based management as a fundamental principle for addressing coastal and ocean-related impacts in an integrated manner and for reconciling multiple use conflicts at different geographic scales. From a collaborative perspective, the two countries have demonstrated efforts to adopt and implement an ecosystem-based approach in the Georgia Basin-Puget Sound Initiative and in the evolving arrangements surrounding the Great Lakes Water Quality Agreement, as described in Part IV above.

This final section of the Article discusses a suite of transboundary policy objectives for the Gulf of Maine in general and Georges Bank in particular. It then provides some justification as to why these should be pursued at a bi-national level and explores a possible mechanism for meeting these objectives through the adoption of a more holistic approach to marine resource management for the Gulf of Maine.

A. Suite of Transboundary Policy Objectives

Having analyzed both the historical and current context surrounding U.S.-Canada relations in the Gulf of Maine, driven in large measure by the socioeconomic benefits provided by the shared ecosystem, we now focus on a suite of policy objectives that encompasses both existing interests (the fisheries) and potentially new or emerging ones (non-renewable and renewable energy). In identifying these objectives, we have constrained ourselves to those issues that would be regional, ecosystemic, and transboundary in scope. As such, policy objectives around issues that are localized within the state or province, although these may be extremely important and may even be common among the respective jurisdictions, are not discussed here.²⁰²

1. Shared Objectives for the Gulf of Maine Fisheries

As has been noted repeatedly in this Article, the shared fisheries in the Gulf of Maine have been the central focus for discussion between the United States and Canada for decades, and, it has been argued, were a

201. See Johannesburg Summit 2002, World Summit on Sustainable Development, Documents, WSSD Documents, http://www.un.org/jsummit/html/documents/summit_docs.html (last visited June 10, 2010); UNITED NATIONS, MILLENNIUM DEVELOPMENT GOALS REPORT 2009, http://www.un.org/millenniumgoals/pdf/MDG_Report_2009_ENG.pdf

202. Examples not discussed include coastal water quality, aquaculture, and coastal tourism.

principal factor behind the decision to seek a judgment from the ICJ. Furthermore, current sectoral efforts between the two countries in managing the shared stocks appear to lend credence to a shared policy objective that would recognize the historical and socio-economic significance of the fisheries to this region, while seeking to jointly support stock rebuilding efforts. Linked to achieving these objectives is the need to take into account cumulative impacts, protect critical habitat for fish and other sensitive areas, and understand carrying capacity. Of particular importance is the need to fill knowledge gaps regarding the Georges Bank ecosystem. This important Bank still serves as a lucrative fishing ground, despite losses to landings, income, employment, and consumer benefits that would have been realized if the catch of groundfish were at their long term potential level instead of being reduced due primarily to overfishing.²⁰³ At the same time, existing knowledge on ecosystemic connectivity across the Hague Line is being increasingly recognized and the precautionary approach called for, so as to influence ocean management decision-making.

2. New Economic Uses

The main transboundary policy objective regarding new economic uses in the Gulf is the requirement to minimize negative impacts from these activities on other users of the area as well as the environment itself. Potential new uses include petroleum exploitation, natural gas transshipment, renewable energy development, and ocean farming.

In the debate surrounding petroleum exploitation and the Georges Bank moratorium, concerns were raised over the potential environmental impacts associated with all phases of petroleum exploitation.²⁰⁴ During the exploratory phase, the effects of seismic-generated noise on marine mammals and fish behavior and mortality, at different stages of development, were identified. During exploratory and development drilling, the impacts arising from the release of drilling muds and cuttings, particularly on the lucrative scallop fishery, were cause for concern. At the production phase, the effects of produced water containing petroleum, heavy metal, and/or naturally occurring radioactive elements, on the commercially exploited biological resources

203. P.R. Boudreau et al., *The Possible Environmental Impacts of Petroleum Exploration Activities on the Georges Bank Ecosystem*, CAN. TECH. REP. FISH. AQUAT. SCI. 2259 (1999); Gardner Pinfold Consulting Economists Ltd, *Georges Bank Resources: An Economic Profile* (1999).

204. Fanning, *supra* note 30.

were raised. Also associated with the production phase was concern over the effects of petroleum spillage, whether through blowouts, chronic pipeline failure, or tanker accidents. While many of these concerns were applicable to any area of the offshore, they assumed an even greater significance when applied to the Georges Bank debate. This was due to the additional perceived linkages between the physical and biological processes occurring on the Bank and the belief that Georges Bank provided seed stock for other fishing areas in the region. As such, any disruption to these processes was seen as exacerbating the negative consequences of any catastrophic event that might occur on the fishery.

Additional challenges to this transboundary policy objective from the non-renewable energy sector include the issue surrounding transshipment of liquefied natural gas in the waters of the Gulf and the threats to iconic species and humans in the event of ship strikes and more serious catastrophes. Of particular concern is the proposed project by Downeast LNG Inc., to be located in Washington County, Maine. The project would also include the transit of LNG vessels through both United States and Canadian waters to and from the LNG terminal in Robbinston, Maine. The intended vessel transit routes include the waters of the Gulf of Maine, Bay of Fundy, Grand Manan Channel, Head Harbor Passage, Friar Roads, Western Passage, and Passamaquoddy Bay.

Regarding the potential negative impacts that could arise from emerging activities associated with the renewable energy sector in the Gulf, there is limited specific knowledge to draw on. However, with the proposals increasing for wind-related projects and the emerging use of hydrokinetics as a source of renewable energy, these uses could challenge the achievement of the shared policy objective of minimizing impacts to existing users and the environment in the Gulf of Maine area. Similarly, by taking a proactive approach to anticipating the transboundary consequences of ocean farming in the Gulf of Maine, potential areas of conflict can be minimized.

3. Co-existence

It could be argued that the drawing of the Hague Line provided the legal basis for encouraging co-existence by Canada and the United States in the Gulf of Maine. However, the administrative boundary holds little relevance when addressing ecosystem-wide issues, and the need to achieve a transboundary policy objective concerning the use of principles of equity and fairness in the allocation of resource use and space in the Gulf is evident. The naïve assumption that all demands on a given ecosystem can be met ignores the inherent conflicting nature between

many ocean activities and the underlying fact that “[w]here multiple desirable but competing objectives exist, it is not possible to maximize each . . . [and] in any system with multiple competing objectives, it will not be possible to meet every one.”²⁰⁵

The debate between just two ocean users—the fisheries and the non-renewable energy sector in the Gulf of Maine—has led to a decision that favored the former use over the latter on both sides of the Hague Line. The message conveyed by this decision was that co-existence was not possible if the public good was to be served. However, with new and emerging uses of the ocean environment being developed and the impacts arising from the broader policy environment surrounding climate change, population growth, and energy security, the influences shaping decision-making are likely to become more complex. Given this scenario, it is logical to explore approaches that would allow for these transboundary policy objectives to be achieved while permitting the effective and efficient use of shared marine resources in the Gulf of Maine.

B. Achieving the Transboundary Policy Objectives

There are numerous factors which support our belief that these objectives for the Gulf of Maine should be pursued in a bi-national context, not the least of which was the explicit expectation by the Judges of the Chamber for collaboration between these two “friendly” nations. However, as has been noted in the case of shared fisheries management and with regard to the ecosystem-wide activities on the Pacific coast and the focus on water quality as an issue of concern in the Great Lakes, these efforts have resulted in less than stellar accomplishments.

We suggest that one mechanism that could serve the needs of both countries while addressing previous shortcomings is to develop and implement a cooperative bi-national agreement for marine spatial planning (MSP) for Georges Bank. This spatial area is identified rather than the entire Gulf of Maine as a means of taking a “learning by doing” approach to the pursuit of shared policy objectives that is ecosystemic, rather than sector or issue specific. We submit that Georges Bank has many of the characteristics that have been identified as benefiting from

205. Michael Weinstein et al., *Managing Coastal Resources in the 21st Century*, 5 FRONTIERS IN ECOLOGY & THE ENV'T 43, 44 (2007) (citing U.S. Commission on Ocean Policy (2004)).

the application of an MSP approach.²⁰⁶ These include: areas with high levels of activity in order to balance competing activities and ensure sustainable use of the oceans; areas where the likely increase of activity in the region and the potential to negatively and irreversibly affect the ecosystem (natural and human subsystems) is high; and areas in which there is a wealth of existing knowledge (scientific and local) of the area. Furthermore, focusing on a joint deliverable that is tractable yet adopts current thinking in integrated oceans management, displays international cooperative leadership on the part of both countries. It also demonstrates to individual sectoral stakeholders that a single sector focus to decision-making is no longer acceptable nor capable of meaningfully addressing the needs of any one particular sector, let alone the entire suite of legitimate ocean users in an era of principled oceans governance.²⁰⁷ This proposal also addresses a current stated priority for MSP in the United States and, to a growing extent, Canada, and as such, is potentially consistent with directives at the highest levels of decision-making. It is consistent with UNLOSC articles respecting sovereign rights and powers of coastal states while demonstrating the obligation of the duty to cooperate in transboundary related matters. It adds scientific objective rationale to decision-making regarding the use of the marine resources and has the potential to be viewed as an acceptable process by all stakeholders. Most importantly, we suggest that an acceptable champion in the form of the Gulf of Maine Council on the Marine Environment (GOMCME or the Council) exists to advance and successfully lead this initiative.

C. Gulf of Maine Council on the Marine Environment

The GOMCME was established in 1989 by an agreement signed by the Governors of Maine, Massachusetts, and New Hampshire and the Premiers of Nova Scotia and New Brunswick to cooperatively work to

206. MSP is an iterative process involving: the identification of a geographic area based on ecosystem objectives; the collection of baseline information on the resources within the area; an understanding of the human activities and interactions with each other and the environment; the identification of a science-based plan that recommends the spatial areas for desired human activities based on current knowledge and a shared vision for a specified temporal period; the establishment of a permitting process and conflict resolution structures; and, a monitoring and evaluation mechanism to adjust the plan based on new information and changing values. See McCrimmon & Fanning, *supra* note 133.

207. See DONALD ROTHWELL & DAVID VANDERZWAAG, TOWARDS PRINCIPLED OCEANS GOVERNANCE: AUSTRALIAN AND CANADIAN APPROACHES (2006).

achieve sustainable development in the Gulf region, protect natural resources, enhance environmental quality, and maintain the ecological balance of the Gulf.²⁰⁸ The establishment of the Council came about following the recognition that, as a shared resource to the residents of the area, there was no complementary governance structure in place to coordinate issues of common concern at the ecosystemic level. As such, the Gulf of Maine Council on the Marine Environment is the only transboundary, regional-scale governance institution in the Gulf of Maine which focuses on coordination of the marine-related activities of state and provincial governments in the region. The Council is supported by a Working Group of state/provincial/federal planners and resource managers, and five committees: Data & Information Management; Environmental Quality Monitoring; Habitat; Aquaculture; and Public Education and Participation. Operations of the Council are assisted by a Secretariat that rotates among the five jurisdictions on an annual basis, as does the chairmanship of the Council.²⁰⁹ However, it is important to recognize that the GOMCME serves only a coordinating function and is not currently responsible for management decisions. These responsibilities rest with the agencies and departments that serve the members of the Council.

We argue that it is precisely because of its coordinating mandate that the Council is uniquely positioned to focus on issues that require or benefit significantly from regional coordination. As such a transboundary organization, with existing mechanisms of collaboration at the municipal, state, provincial, national, and bi-national levels, the Council can facilitate progress towards common goals. Additionally, by assigning the specific role of coordinating MSP development and implementation for Georges Bank to the GOMCME, the existing challenge of attribution for work done by the Council which currently exists can be addressed.

It is not the intent of this Article to resolve all of the necessary administrative, legal, and technical issues required to move forward on our suggestion but rather to raise the issue for further consideration and possible adoption. It is worth noting that the Council itself has been exploring the value of pursuing more formal agreements among its members.²¹⁰ As such, answers to questions such as—what purpose

208. See Gulf of Maine Council on the Marine Environment, <http://www.gulfofmaine.org/> (last visited June 10, 2010).

209. Hildebrand et al., *supra* note 177, at 427.

210. On June 24-25, 2009, one of the authors led a discussion for the Council on exploring opportunities for bi-national agreements in the Gulf of Maine.

exactly will an agreement serve; what opportunities might come from having such a tool implemented; when is an agreement likely to be supported; who needs to be convinced—can be specifically focused around a discussion of MSP on Georges Bank.

D. Challenges and Opportunities

Zoning is a term and concept typically applied to real property and thus conjures the notion of private property interests, a notion not comfortably acceptable to many who rightly view the ocean as public property held in trust by the government. One challenge to marine planning, therefore, is the notion that entities will acquire rights to use particular segments of the ocean in a private-property-like manner, to the discomfort of many citizens.²¹¹ An additional challenge to marine spatial planning is its three-dimensional nature, requiring extensive data on multiple physical, chemical, biological, and even legal parameters.²¹² Lastly, in the case of the Gulf of Maine, there is the real challenge discussed at length herein that actions by one nation in a shared water body significantly impact the resources and ecosystem of the waters of the neighboring nation. Accordingly, planning of transboundary waters should be undertaken in a bilateral effort, but such efforts are difficult to coordinate and their outcomes are very hard to enforce.

The opportunities presented by involving the Gulf of Maine Council on the Marine Environment in each nation's developing coastal marine spatial planning efforts are sufficiently rewarding, however, to overcome the challenges. The GOMCME is already engaged in trans-boundary scientific data gathering, even working to map the entirety of the Gulf of Maine basin.²¹³ The councilors making up the GOMCME represent federal, state, provincial, and non-governmental organization sectors, as well as the general public, from Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts.²¹⁴ They represent the authorities as well as the individual councilors likely to be called upon to serve on regional planning bodies in both countries. In other words, the proposed U.S. CMSP calls for regional planning efforts to include "indigenous community representatives with jurisdictional responsibilities or other

211. See FARA COURTNEY & JACK WIGGIN, GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT OCEAN ZONING FOR THE GULF OF MAINE: A BACKGROUND PAPER 6-7 (2003), available at <http://www.mass.gov/czm/oceanzoningreport.pdf>.

212. *Id.* at 7.

213. *Id.* at 23.

214. See Gulf of Maine Council on the Marine Environment, About the Council, Overview, <http://www.gulfofmaine.org/council/> (last visited June 10, 2010).

interests . . . relevant to CMSP for that region.”²¹⁵ The GOMCME is ready-made for that role.

V. CONCLUSION

In the Gulf of Maine, the United States and Canada share common concerns about fisheries resources, the impact of global climate change, and the potential for ocean-based energy development. Although the ICJ decision setting the boundary between the countries established territorial rights and governance jurisdictions for fishing and energy development, among other things, it could not shield either nation from the impacts of the other’s activities in the Gulf. After all, the ocean is fluid and three-dimensional; its ecosystems are delicate, complex and interdependent; its resources are opaque and mobile; and its physical and chemical properties are affected by coastal and in-shore activities from afar, as well as ocean-based ones. Oceans do not lend themselves well to neat boundaries and limited jurisdictional authority. As each country has learned, moreover, managing the ocean sector-by-sector also does not work. Accordingly, both the United States and Canada have pledged to manage their respective ocean waters through “integrated management” whereby multiple agencies with myriad responsibilities are obliged to coordinate their activities toward a common, collective set of goals. Both countries have adopted principles of sustainability, and plan to govern using the precautionary principle, ecosystem-based management approaches, and sound scientific data. They also intend to make public participation the cornerstone of their ocean governance plans.

Given the common policy interests of both nations, then, it seems logical and appropriate for the United States and Canada to actively and progressively involve representatives from each other’s relevant agencies when determining coastal and marine spatial planning regions and establishing their governing bodies. It would be appropriate for the Gulf of Maine Council on the Marine Environment in particular to be officially engaged in the CMSP efforts for the Gulf of Maine. The GOMCME is the only transboundary, regional-scale governance institution in the Gulf of Maine which focuses on coordination of the marine-related activities of state and provincial governments in the region. Should it be tapped to engage in U.S. and Canadian CMSP with regard to the Gulf of Maine, the GOMCME may serve as a model for similar transnational regional bodies to govern CMSP in other boundary

215. INTERAGENCY OCEAN POLICY TASK FORCE INTERIM FRAMEWORK FOR CMSP, *supra* note 157, at 12.

waters between the United States and Canada, or even between other nations with shared marine boundaries.