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A GULF UNITED: CANADA-U.S.
TRANSBOUNDARY MARINE ECOSYSTEM-BASED
GOVERNANCE IN THE GULF OF MAINE

*Lawrence P. Hildebrand**
*Aldo Chircop***

I. INTRODUCTION

In 1989, the Northeastern states of Maine, Massachusetts, and New Hampshire in the United States and the neighboring Canadian Provinces of New Brunswick and Nova Scotia embarked upon a new form of regional marine environmental cooperation when their governors and premiers adopted the Agreement on Conservation of the Marine Environment of the Gulf of Maine Between the Governments of the Bordering States and Provinces.¹ By doing so, they gave birth to an informal regime for the Gulf of Maine (GoM) (i.e. the Gulf of Maine Council on the Marine Environment), which to date has withstood the test of time. GoM regime participants undertake transboundary

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1. See GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, THE GULF OF MAINE ACTION PLAN 1991-2000 1, 6-7 (1991), available at www.gulfofmaine.org [hereinafter GO M AGREEMENT AND ACTION PLAN 1991-2000]. The agreement was published as an appendix to the original action plan.

cooperation on the basis of shared ecosystem goals and objectives, as well as through the implementation of quinquennial Action Plans.² In doing so, regime participants have effectively cooperated on the basis of a generally informal framework consisting of soft principles, understandings, and processes reflecting their mutual expectations in the regime's issue areas.³

The GoM regime has been the subject of several scholarly reviews in recent years.⁴ Chircop et al. noted that the GoM regime:

may be viewed as novel in at least three ways. First, the Agreement and Action Plan represent the first attempt to develop a broad regional marine environmental protection regime in North America Second, the Agreement is a provincial and state initiative, not a bilateral treaty between two sovereign nations. The Agreement, signed by the governors and premiers of the jurisdictions concerned, is neither a diplomatic instrument, nor a formal document. It is, essentially, a non-binding, multilateral, political agreement and therefore the impetus to cooperate is moral, rather than as a result of any legal obligation or commitment. This is in contrast to most regional marine environmental arrangements . . . which involve countries, such as the 13 Regional Seas Programmes facilitated by the United Nations Environmental Programme (UNEP) and the regional agreements for the Baltic and North-East Atlantic. Third, the Agreement and Action Plan are not limited in coverage to marine waters but adopt an ecosystem approach covering coastal areas and watersheds in the region. The Agreement explicitly provides for consideration of "the shoreline, seabed, waters and associated

2. *See id.* at 1.

3. *See generally* ROBERT O. KEOHANE, *AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY* (2005) (conceptualizing the GoM regime in a similar manner).

4. *See generally* Aldo Chircop, David VanderZwaag & Peter Mushkat, *The Gulf of Maine Agreement and Action Plan: A Novel but Nascent Approach to Transboundary Marine Environmental Protection*, 19 *MARINE POLICY* 317, 317-333 (1995) [hereinafter Chircop et al.]; ALLEN L. SPRINGER, *CANADIAN AND AMERICAN PUBLIC POLICY*, PAPER NO. 50, *NORTH AMERICAN TRANSJURISDICTIONAL COOPERATION: THE GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT* (The Canadian-American Center, University of Maine) (2002); Lawrence P. Hildebrand, V. Pebbles & D.A. Fraser, *Cooperative Ecosystem Management Across the Canada-U.S. Border: Approaches and Experiences of Transboundary Programs in the Gulf of Maine, Great Lakes and Georgia Basin-Puget Sound*, 45 *OCEAN & COASTAL MGMT. JOURNAL* 421 (2002) [hereinafter Hildebrand et al.].

natural resources of the GoM region, including Georges Bank and the Bay of Fundy.”⁵

The GoM regime has persisted for two decades and has grown to address increasingly more issues. It has evolved to respond to a changing biophysical and socio-economic operating environment in a different manner from other regional environmental regimes, and continues to do so with the release of its fourth and latest Action Plan for the period 2007-2012.⁶ Against this backdrop, this Article is an assessment of the GoM regime, and further builds on the literature on the subject. This assessment is considered in the context of the GoM’s geography, hydrology, ecosystem, resources, and legal considerations, and the ecosystem challenges faced by the region. The origins and historical evolution of the regime are then set out, followed by a discussion of the main elements of the GoM regime. This assessment is an attempt at explaining the persistence of the GoM regime by offering insights into key factors that have contributed to its endurance, while at the same time raising important questions for future continuity and further growth.

II. CONTEXT OF THE GULF OF MAINE

A. Geography and Hydrology

The Gulf of Maine transboundary ecosystem is located on the East Coast of North America, flanked on the U.S. side by the Northern New England states of New Hampshire, Maine, and Massachusetts, and on the Canadian side by the Maritime Provinces of New Brunswick and Nova Scotia (see Figure 1).⁷ Broadly defined and considered to include the watershed, coastal regions and marine waters of the Bay of Fundy, the GoM proper, and Georges Bank and Browns Bank, this important ecosystem is united in its biology, oceanography, and economy, but it is layered by: (1) a terrestrial boundary and a judicially-decided partial international maritime boundary between Canada and the United States⁸

5. Chircop et al., *supra* note 4, at 317-318 (internal citations omitted).

6. See GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, THE GULF OF MAINE ACTION PLAN 2007-2012 (2007), available at www.gulfofmaine.org [hereinafter GoM ACTION PLAN 2007-2012].

7. Gulf of Maine Council on the Marine Environment, About the Gulf of Maine, <http://www.gulfofmaine.org/aboutthegulfofmaine/> (last visited June 30, 2010) [hereinafter About the Gulf of Maine].

8. Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.), 1984 I.C.J. 246 (Oct. 12), available at <http://www.icj-cij.org/docket/files/67/6369.pdf> [hereinafter *The Gulf of Maine Case*].

and (2) sub-national terrestrial boundaries between New Brunswick and Nova Scotia, New Hampshire, and Maine, and New Hampshire and Massachusetts.⁹

The GoM encompasses 36,000 square miles (93,000 square kilometers) of ocean from Cape Cod in Massachusetts Bay in the south to the upper reaches of the Bay of Fundy in the Canadian Maritimes in the north.¹⁰ It extends seaward to the underwater barrier formed by Georges and Browns Banks.¹¹ The deepest areas of the Gulf reach 1500 feet (500 meters) and, although the entrance to the Gulf is by no means narrow (approximately 200 miles or 440 kilometers wide), it is separated from the Atlantic by the relatively shallow Georges and Browns Banks.¹² The watershed extends almost 200 miles (440 kilometers) inland, and covers a total drainage area of 69,000 square miles (179,000 square kilometers).¹³ More than 250 billion gallons of freshwater from more than sixty rivers flow into the Gulf per year. The highly indented coastline, punctuated by roughly 5000 islands, extends over 7500 miles (12,000 kilometers).¹⁴ The Gulf's pear-like shape, which is narrower in the north and wider in the south, drives fast tidal currents.¹⁵ Two powerful ocean currents control water circulation in the Gulf. One pulls water from the deep ocean in a counter-clockwise direction within the Gulf, which creates a unique, self-contained oceanographic system that circulates the nutrients and pollutants found in the Gulf's rivers and estuaries.¹⁶ The Bay of Fundy is known for its extreme tidal range—the highest in the world—which can be up to fifty feet (fifteen meters).¹⁷

9. About the Gulf of Maine, *supra* note 7.

10. *Id.*

11. Gulf of Maine Council on the Marine Environment, About the Gulf, Habitats, Barrier banks and deep channel, <http://www.gulfofmaine.org/knowledgebase/aboutthegulf/habitats/barrierbanks.php> (last visited June 30, 2010).

12. Gulf of Maine Council on the Marine Environment, About the Gulf, Introduction, <http://www.gulfofmaine.org/knowledgebase/aboutthegulf/aseabesidethesea.php> (last visited June 30, 2010) [hereinafter *A Sea Beside the Sea*]. In some areas the Georges Bank and Browns Bank are as shallow as thirteen feet (four meters). *Id.*

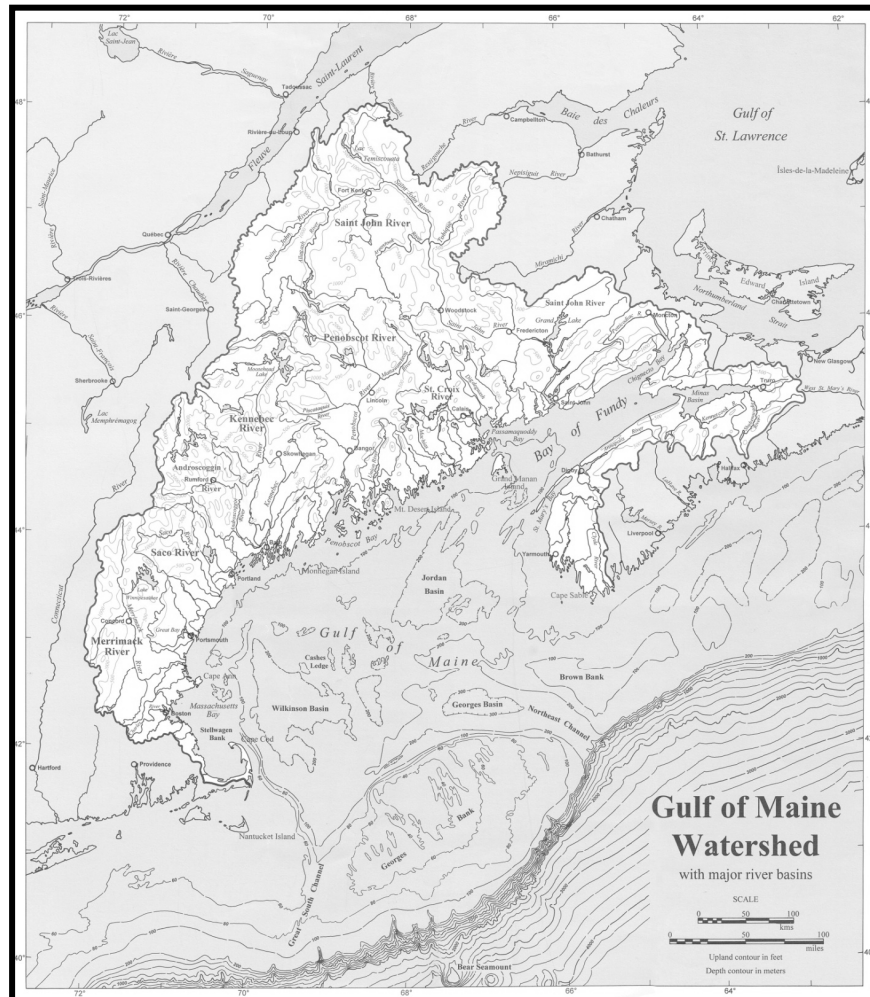
13. *Id.*

14. Gulf of Maine Ocean Observing System, About the Gulf of Maine, <http://www.gomoos.org/aboutgulfofme/> (last visited June 30, 2010) [hereinafter *Gulf of Maine Ocean Observing System*].

15. See generally About the Gulf of Maine, *supra* note 7. See also Gulf of Maine Area (GoMA), Census of Marine Life, About the Gulf, Circulation, <http://research.usm.maine.edu/gulfofmaine-census/about-the-gulf/oceanography/circulation> (last visited June 30, 2010).

16. Gulf of Maine Council on the Marine Environment, About the Gulf, Habitats, The Gulf's currents, <http://www.gulfofme.org/knowledgebase/aboutthegulf/habitats/thegulfscurrents.php> (last visited June 30, 2010); Gulf of Maine Council on the Marine

Figure 1: The Gulf of Maine Watershed¹⁸



Environment, About the Gulf, Habitats, Tidal action, <http://www.gulfofmaine.org/knowledgebase/aboutthegulf/habitats/tidalaction.php> (last visited June 30, 2010).

17. *Id.*

18. Gulf of Maine Council on the Marine Environment, About the Gulf, Maps and Other Resources, <http://www.gulfofmaine.org/knowledgebase/aboutthegulf/maps/mapsandphotos.php> (last visited June 15, 2010).

B. Ecosystem and Resources

The Gulf of Maine, which is widely regarded as one of the world's most biologically productive bodies of water,¹⁹ has nourished a thriving maritime heritage for several centuries. The GoM region supports a wide variety of habitats and hundreds of species of fish and shellfish, as well as more than eighteen species of marine mammals at some time during the year (including the North Atlantic Right Whale, *Eubalaena glacialis*, the most endangered of all the marine mammals found in the region).²⁰ The life cycles of many species of fish, marine mammals, and birds in the GoM are transboundary. The northern portion of the Gulf serves as an important stop on the Atlantic flyway for up to two million shorebirds migrating between breeding grounds in the Arctic and wintering sites in the south.²¹ The numerous estuaries are "vital at some life stage to 70 percent of the commercially-valuable fish species of the Gulf."²²

In an effort to fill some of the important information gaps about the marine components of the GoM, the Canadian and U.S. federal governments are collaborating to complete an Ecosystem Overview and Assessment Report.²³ The assessment component of the report is bringing together the best scientific information and knowledge to describe the current understanding of the ecosystem for use by oceans managers, partners, and stakeholders.²⁴ The ecosystem overview component of the report will describe major ecosystem components, relationships, and unique facets of the GoM, and will report on ecosystem status and trends.²⁵

19. A Sea Beside the Sea, *supra* note 12.

20. Gulf of Maine Ocean Observing System, *supra* note 14.

21. ATLANTIC COASTAL ZONE INFORMATION STEERING COMMITTEE SECRETARIAT AND THE MARINE & ENVIRONMENTAL LAW INSTITUTE OF DALHOUSIE UNIVERSITY, OVERVIEW OF CURRENT GOVERNANCE IN THE BAY OF FUNDY/GULF OF MAINE: TRANSBOUNDARY COLLABORATIVE ARRANGEMENTS AND INITIATIVES 41(2006) [hereinafter OVERVIEW OF CURRENT GOVERNANCE], available at aczisc.dal.ca/gomrpt.pdf.

22. GOM AGREEMENT AND ACTION PLAN 1991-2000, *supra* note 1, at 2.

23. GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, WORKING GROUP BRIEFING PACKET 8 (2006), available at http://www.gulfofmaine.org/council/internal/documents/gomc_wg_june_2006.pdf

24. *See id.* at 6-9.

25. *Id.*

C. Demography and Human Uses of the GoM

The GoM is home to more than six million people. It also provides valuable ecological services and resources to the region. Commercial and recreational fishing industries in the GoM employ many thousands and provide the social and economic lifeblood for a significant number of towns and villages along the Gulf coast of Canada and the United States. Fishers from both areas have traditionally exploited the Banks and enjoyed a friendly rivalry exemplified by historic schooner races. The Gulf also provides an outlet for tourism and recreation, shellfish harvesting, aquaculture, marine transportation, coastal economic development, and other important tangible products. The land around the Gulf is sought after for valuable agriculture as well as for residential, commercial, and industrial value. There is abundant evidence that the human population will continue its migration to the coast because of the intrinsic appeal of many coastal landscapes and habitats.²⁶

Despite reports of a potential hydrocarbon presence on Georges Bank, a moratorium on offshore exploration and drilling in that area has been extended on both sides of the border due to concerns about the potential impact of oil spills on fishery resources.²⁷ Ironically, and more recently, fishing interests in Canada—who have experienced a declining fishery and are considering economic alternatives—have expressed openness to the lifting of the moratorium.²⁸

26. See NEW HAMPSHIRE ESTUARIES PROJECT, MANAGEMENT PLAN 2000 2/12—2/14, 5/5—5/6, 5/9 (New Hampshire Estuaries Project) (2000), available at <http://www.prep.unh.edu/resources/pdf/nhepmanagementplan-nhep-05.pdf>

27. Chircop et al., *supra* note 4, at 320-21. See also Government of Nova Scotia, Georges Bank Moratorium Extended, <http://www.gov.ns.ca/news/details.asp?id=19991222004> (last visited June 30, 2010). On May 13, 2010 the Canadian federal government and Nova Scotia extended the moratorium on oil and gas exploration and drilling on Georges Bank until December 31, 2015. See Government of Nova Scotia, Premier's Office, Georges Bank Moratorium Extended, <http://www.gov.ns.ca/news/details.asp?id=20100513005> (last visited June 15, 2010). In the United States, President Barack Obama extended a moratorium on the American side of Georges Bank until 2017. See Michael MacDonald, *Oil and gas moratorium extended for Georges Bank*, THE GLOBE AND MAIL, May 13, 2010, available at <http://www.theglobeandmail.com/news/national/atlantic/oil-and-gas-moratorium-extended-for-georges-bank/article1568020/>.

28. CBC News – Nova Scotia, Debate Renewed on Drilling in Georges Bank, <http://www.cbc.ca/canada/nova-scotia/story/2008/02/12/georgesbank-oil.html> (last visited June 30, 2010). However, it appears that environmentalists continue to oppose the lifting of the moratorium. *Id.*

In addition to the goods and economic services that are traded in the marketplace, such as seafood and marine transportation, the GoM's coastal and marine ecosystems generate ecosystem services that are not easily quantified. Those services include: processes that influence climate and biodiversity; wetlands and dunes that protect lands during storms; nutrient cycling; control of diseases and pests; carbon sequestration; waste recycling and storage; recreation; educational opportunities; cultural identity, spiritual enrichment; and aesthetic experiences.²⁹

Until they were evicted in the 1970s as a result of the establishment of exclusive economic zones (EEZs) by Canada and the United States, foreign fishing fleets came from around the world to harvest the abundant supply of fish from Gulf waters. The result has been a significantly diminished resource. Beyond the fisheries sector, there are other uses which threaten the quality and sustainability of the GoM ecosystem. The shipping of petroleum products continues to be an important use of the Gulf, and cases of illegal oil discharges and accidental spills (as well as ship-whale collisions) that harm wildlife—including the North Atlantic Right Whale—are still occasionally reported.³⁰

Continuing population and economic growth has dramatically changed the types and intensities of land use in parts of the Gulf region. Population growth and concomitant development in the Gulf region have resulted in a series of stresses that impinge upon the regional environment. Limited (but improving) data exist to fully assess the trends in environmental quality in the Gulf of Maine, and the warning signs of degradation throughout the Gulf are clear from research over the last two decades. Hildebrand et al. summarized issue and trend information from a number of sources and highlighted that:

29. See Richard Silkman, *Gulf Report Overview in The Gulf of Maine: Sustaining Our Common Heritage Conference Proceedings 22-24* (Konard et al., eds., 1990).

30. See generally Transport Canada, Press Release, Bay of Fundy Shipping Lanes Moved to Protect Right Whale (Dec. 19, 2002), available at http://www.tc.gc.ca/eng/mediaroom/releases-atl-2002-02_a017e-4680.htm (noting that, on Canada's request, in 2002 the International Maritime Organization's Maritime Safety Committee approved changes to ship routing in the Bay of Fundy to minimize whale strikes); Offshore Traffic Separation Schemes, 72 Fed. Reg. 222 (Nov. 19, 2007) (to be codified at 33 C.F.R. pt. 167) (explaining that in November 2007 the U.S. Coast Guard solicited views from the public concerning potential changes to port access routes to reduce whale strikes). In the same area, NOAA manages the Gerry F. Studts Stellwagen Bank National Marine Sanctuary to protect its high biodiversity and productivity, including as a Northern Right Whale habitat. Stellwagen Bank National Marine Sanctuary, <http://stellwagen.noaa.gov> (last visited June 15, 2010).

[T]ons of raw and partially treated sewage are discharged into the Gulf each day, resulting in several hundred thousands of acres of productive shellfish habitat being closed to harvesting and resulting in serious loss of livelihood. Further, industrial discharges, urban runoff, and agricultural practices all introduce toxic contaminants and bacteria to marine and estuarine waters on a chronic, sometimes acute basis, with the result that certain fish and shellfish exhibit liver lesions, fin rot and other signs of environmental stress. Health advisories have been issued in several nearshore regions of the Gulf to protect the public from the hazards associated with swimming in polluted waters and eating contaminated seafood. Increased fishing effort has reduced fish stocks to all time lows and populations of some commercially valuable fish species now depend upon an increasingly limited number of year classes, and some may not be reproducing at all. Coastal habitat has been altered and destroyed by land development since the beginning of European settlement several centuries ago and development in the coastal zone continues to encroach on environmentally significant marine wetlands.³¹

As seen above, marine mammals and some avifauna (e.g., piping plover), among others, are at risk or endangered, and a degraded marine environment can be expected to place additional stress upon the general Gulf environment. Further, climate change and resulting temperature and sea-level effects will add to ecosystem stress.³² A significant concern has been that while there is some monitoring and reporting within the GoM, a regional-scale indicators and reporting program has been lacking, and this includes an integrated set of indicators that reflect the overall “health” of the Gulf.³³ However, since 2006, a new Committee of the Council—the Ecosystem Indicators Partnership

31. Hildebrand, et al., *supra* note 4, at 423.

32. See generally ATLANTIC COASTAL ACTION PROGRAM ST. JOHN, CLIMATE CHANGE BIBLIOGRAPHY FOR THE GULF OF MAINE (Environment Canada, 2007) (2005), available at <http://www.gulfofmaine.org/council/committees/ccn/docs/Climate-Change-Bibliography-for-Gulf-of-Maine.pdf> (referencing various works on the impact of climate change in the region).

33. KATHY MILLS ET AL., A STRATEGY FOR GULF OF MAINE ECOSYSTEM INDICATORS AND STATE OF THE ENVIRONMENT REPORTING 1 (Gulf of Maine Council on the Environment) (2006), available at <http://www.gulfofmaine.org/esip/docs/esipstrategy.pdf>.

(ESIP)—has been developing the framework and an initial set of indicators for the GoM regime area.³⁴

D. Law of the Sea Aspects

Canada and the United States have both claimed, or are entitled to, the full range of maritime zones permissible in the 1982 United Nations Convention on the Law of the Sea (UNCLOS),³⁵ namely: territorial sea,³⁶ contiguous zone,³⁷ EEZ,³⁸ and continental shelf.³⁹ Canada has long maintained a historical waters claim over the Bay of Fundy, which at times has been the source of friction with the United States. Consequently, all the waters in the Gulf and Bay of Fundy fall under one form of national jurisdiction or another. UNCLOS further provides a particular regime for enclosed and semi-enclosed sea, defined as “a gulf, basin or sea surrounded by two or more States and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States.”⁴⁰ The Gulf waters are largely separated from the north-western Atlantic Ocean by the submerged plateaus of underwater banks and are isolated by temperature and salinity differences from the rest of the Atlantic. Coastal states in similar geographical circumstances are expected (though not required) to cooperate in the exercise of their rights and duties under UNCLOS, whether directly or through an international organization in relation to marine living resources of the sea, marine environment protection, and marine scientific research.⁴¹ They are also expected to invite other interested states and international organizations to cooperate with them in this regard.⁴² The various regime activities may be seen as consistent with the expectations of this provision, although cooperation in the fisheries management field is in its early stages and the need to invite other states or international organizations has not arisen. The only external institution consulted to date is the

34. *Id.* at 2.

35. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

36. *Id.* at art. 2.

37. *Id.* at art. 33.

38. *Id.* at art. 55.

39. *Id.* at art. 77.

40. *Id.* at art. 122.

41. *Id.* at art. 123.

42. *Id.*

International Joint Commission.⁴³ Canada is a party to UNCLOS, whereas the United States is not. The United States' longstanding opposition to UNCLOS appears to have waned and it is expected to become a party in the near future.⁴⁴

III. CHALLENGES TO COOPERATIVE ECOSYSTEM GOVERNANCE

Historically, Canada and the United States have not had a smooth relationship concerning natural resource utilization and conservation in the Gulf. Access to fishing resources in the Gulf was the subject of an arbitration in 1910 which significantly reduced rights of access to fishery resources in Canadian waters for fishing vessels from the United States.⁴⁵ During the prohibition period in the 1930s, contraband alcohol was a sore spot in the relationship between the two countries. However, it was fishing that constituted the most contentious problem, especially with the advent of the EEZ in the 1970s and an increase in competitive fishing over the Georges Bank from fisherfolk from around the Gulf at a time when there was no maritime boundary between the two states.⁴⁶ In 1979, the concern for overfishing led the two states to negotiate a fisheries conservation agreement.⁴⁷ Unfortunately, a determined New England fishing lobby was able to block Senate ratification in the United States, with the consequence that the agreement never entered into force.⁴⁸ With a growing resource conflict in the absence of a maritime boundary, the

43. In 2000 a workshop was convened by the Council in Saint John, New Brunswick, on "Exploring Transboundary Arrangements for Management of the Gulf of Maine Ecosystem" at which a recommendation was developed to seek a formal request by the Canadian and U.S. governments for an International Joint Commission reference which would investigate and report on the adequacy of existing measures and arrangements for maintaining the integrity of the GoM ecosystem. Subsequent efforts to gain support for a reference were not successful.

44. See Jon Van Dyke, *U.S. Accession to the Law of the Sea Convention*, 22 OCEAN YEARBOOK 47 (2008); Alison Winter, *Sen. Kerry looks for window to ratify Law of the Sea*, N.Y. TIMES, May 7, 2009, available at <http://www.nytimes.com/gwire/2009/05/07/07greenwire-sen-kerry-looks-for-window-to-ratify-law-of-th-12208.html>.

45. *N. Atl. Coast Fisheries (U.K. v. U. S.)*, 11 R. Int'l Arb. Awards 167 (Perm. Ct. Arb. 1910). See also *Agreement between His Majesty and the U.S. Respecting the N. Atl. Fisheries, U.S. - Can.*, July 20, 1912, available at http://www.lexum.umontreal.ca/ca_us/en/cus.1912.456.en.html#NOTeref_1. The award of the I.C.J. was implemented in this agreement. See *id.*

46. See generally DAVID VANDERZWAAG, *THE FISH FEUD: THE US AND CANADIAN BOUNDARY DISPUTE* (Lexington Books) (1983).

47. *Id.* at 89.

48. *Id.* at 90.

two states proceeded to resolve their boundary dispute under the auspices of a Chamber of the International Court of Justice, and a maritime boundary which would concern both the water column and seabed was handed down in 1984.⁴⁹ The legal delimitation of the maritime boundary did not immediately put an end to illegal transboundary fishing incursions, though, particularly those from New England fisherfolk that remained dissatisfied with the International Court's decision. This problem would eventually be resolved with the adoption of a reciprocal fisheries enforcement agreement in 1991.⁵⁰ The contentious nature of the fishing issue in the Gulf convinced the GoM regime builders that the only option to promote regional marine environmental cooperation was to avoid the difficult fisheries issue. It would take almost two decades before Canada and the United States would be ready for preliminary exchanges on fisheries conservation-related matters between the national fisheries agencies, in particular through coordination of moratoria over certain species and habitat conservation, restoration, and mapping through the GoM regime. The relationship between Canada and the United States with respect to fisheries conservation over the years has been described as follows:

Prior to 1994, Canada and the United States managed their respective fisheries in the Gulf of Maine independent of one another to the detriment of the over-exploited transboundary groundfish stocks. In the early 1990s, Canada reduced its quotas in an effort to promote the recovery and sustainability of haddock stocks. Following a series of informal discussions, Canada and the United States made a joint commitment, in 1994, to reduce fishing levels and rebuild stocks in the region of Georges Bank. As a result, both countries extended their area and seasonal closures in the region. The apparent success of these coordinated efforts facilitated increased communication and cooperation on fisheries management issues. Regional level talks, between Canadian and American scientists, resource managers and fishing industry representatives, led to the formation of the Canada-U.S. Bilateral Steering Committee in 1995.⁵¹

49. *The Gulf of Maine Case*, *supra* note 8.

50. Agreement on Fisheries Enforcement, U.S.-Can., Sept. 26, 1990, T.I.A.S. No. 11753, 1852 U.N.T.S. 73.

51. OVERVIEW OF CURRENT GOVERNANCE, *supra* note 21, at 57. The Steering Committee oversees transboundary resource management issues in the GoM. It meets bi-

These activities operate outside of the GoM regime's Action Plan core priorities, but are seen as complementary to the broader goals of environmental cooperation espoused by the GoM Council. Continued convergence of these currently parallel processes is anticipated.

Cooperative fisheries management is not the only outstanding matter in the GoM regime area. Sovereignty over Machias Seal Island, located close to the land boundary between Maine and New Brunswick in the Bay of Fundy, is still disputed.⁵² The territorial sea boundary remains undelimited as the inshore waters in the proximity of the land boundary were not part of the decision of the International Court.⁵³ More recently, there has emerged a new irritant in bilateral relations in the Gulf as a result of plans by commercial interests in the United States to build a liquefied natural gas (LNG) plant in the border region, which would require the passage of U.S. LNG carriers through Canadian waters in order to reach the location of the proposed Maine plant.⁵⁴ At the time of writing, this issue remains unresolved. While the GoM Council does seek to inform itself about such issues, it does not take positions on contentious issues, or address them explicitly, as this is beyond the scope of the regime.⁵⁵

Despite the growing popularity of cooperative or coordinated ecosystem-based planning and decision-making arrangements, there is little sign that stresses on the coastal regions are abating. In many cases, the problems impacting critical coastal and aquatic habitats may be getting worse. While federal and related state and provincial environmental laws and regulations enacted in the 1970s have had an

annually to discuss transboundary issues and cooperative actions to address them. *See generally id.*

52. John C. Whitaker, *Machias Seal Island: A Geopolitical Anomaly*, 3 ATLANTIC ADVOCATE 50 (1979), available at <http://www.siue.edu/GEOGRAPHY/ONLINE/Schmidt.htm>.

53. Chircop et al., *supra* note 4, at 322-23.

54. *See generally* Ted L. McDorman, *Notes on the Historic Waters Regime and the Bay of Fundy*, in THE FUTURE OF OCEAN REGIME-BUILDING: ESSAYS IN TRIBUTE TO DOUGLAS M. JOHNSTON 701-22 (Chircop et al., eds., Leiden: Nijhoff) (2009). *See also* TED McDORMAN, SALT WATER NEIGHBORS 207 (2009).

55. *See generally* Gulf of Maine Council on the Marine Environment, <http://www.gulfofmaine.org/council/mission.php> (last visited June 30, 2010). As an example of an indirect way of informing and perhaps influencing decision-making on such contentious issues, during the June 2007 Council meeting held in the immediate vicinity of the proposed LNG project, the Councilors were taken on a boat tour of the proposed shipping route and plant site, ostensibly as a socializing occasion, but at the actual proposed project site. Further, the Council's Awards Ceremony on this occasion was held in a location with a panoramic view of the proposed plant site.

undeniably positive impact in the form of cleaner air, lakes, rivers and estuaries on a local and regional level, rapid population growth, coastal development, and increasing user conflicts have degraded natural resources and led to declines in both environmental integrity and general productivity.⁵⁶

IV. REGIME ELEMENTS

A. The GoM Council Agreement

Canada and the United States have constitutional restrictions on the rights of their respective provinces and states to enter into international agreements.⁵⁷ In particular, they cannot enter into international conventions which would have the legal effect of treaties in international law.⁵⁸ That extra-territorial power remains a federal prerogative in both nations.⁵⁹ Accordingly, the GoM Agreement is not a formal legal instrument that would fall within the purview of the international law of treaties, but is, instead, a political agreement in the realm of international relations, primarily engaging sub-national units in two nations, but also involving national level agencies in those countries. The political nature of the Agreement is evidenced by its own text. The Agreement itself generates little controversy in part because it requires little of the parties, yet offers the prospect of extensive and active transboundary cooperation. The Agreement's ambitious preamble sets out far-reaching areas of cooperation. The GoM is declared an "ecosystem that transcends political boundaries," and the "sustainable development" of its "interconnected" resources is "dependent on the ecological integrity of the Gulf ecosystem."⁶⁰ The parties "recognize a shared duty to protect and conserve the renewable and non-renewable resources of the Gulf for the use, benefit and enjoyment of all their citizens, including generations yet to come."⁶¹

56. Ola Ullsten, *The Politics of the Environment*, in *MANAGING FOR HEALTHY ECOSYSTEMS* 11-19 (David J. Raport et al., eds., 2002).

57. See U.S. CONST. art. 1, § 10.

58. *Id.*

59. *GoM AGREEMENT AND ACTION PLAN 1991-2000*, *supra* note 1, at 6-8.

60. *Id.* at 6.

61. *Id.* at appendix.

B. Guiding Principles

As with other contemporary regional marine environmental regimes, the GoM regime's general goal is cooperative and sustainable development and management, with an emphasis on stewardship in the governance of their relations. The GoM Council's mission statement emphasizes inter-generational equity through a commitment "to maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations."⁶² Four key principles guide the regime structure and regime participants, consistent with the two nations' international commitments and national legislation. The first concerns ecologically sustainable development, guided by the principle of intergenerational equity to sustain ecological processes and enhance the region's quality of life.⁶³ The second is ecosystem-based planning and management, aiming at integrating economic, social, and ecological values and objectives, and highlighting natural rather than political boundaries.⁶⁴ The third concerns the pursuit of coastal and environmental protection through precaution.⁶⁵ Finally, the fourth principle is that the GoM public is engaged in setting priorities through public information and participation.⁶⁶

C. Management Area

Unlike most other regional environmental regimes, the GoM regime's management area includes both land and marine space.⁶⁷ The watershed feeding into the Gulf is included with the coastal zone and marine waters.⁶⁸ This approach is reflective of the ecosystem-based management approach used in the GoM. Clearly, the management area is defined by natural and not by jurisdictional boundaries.

D. Action Plans and Issues

As in the case of other regional marine environmental regimes, problems and issues within the management area have been addressed through progressive action plans. The GoM Council on the Marine

62. *Id.* at 10.

63. *See id.* at 5.

64. *See id.*

65. *See id.*

66. *See id.*

67. *Id.* at 10.

68. *Id.*

Environment has produced four multi-year Action Plans since its foundation in 1989. The first was a ten-year plan (1991-2000)—general in nature—but central in setting the orientation, direction, and priorities for the future agenda together.⁶⁹ Building on this initial experience, since the mid-1990s a series of three consecutive five-year Action Plans have been produced, each building on the previous with greater specificity, focus, measurable objectives, and priority activities (see Table 1). The most recent Action Plan (2007-2012) employs a logic-model approach that identifies desirable short, mid, and long-term outcomes that guide the priorities and actions being pursued during this period.⁷⁰

Table 1: The Gulf of Maine Council Action Plans: 1991-2012

	1991 - 2000	1996 – 2001	2001 – 2006	2007 – 2012
Goals	<ul style="list-style-type: none"> • Habitat Protection • Protection of Public Health • Coastal and Marine Pollution • Monitoring and Research • Education and Participation 	<ul style="list-style-type: none"> • Protect and restore regionally significant coastal habitats (including those for shellfish and fisheries) • Protect human health and ecosystem integrity from toxic contaminants in marine habitats • Reduce marine debris 	<ul style="list-style-type: none"> • Protect and restore coastal and marine habitats • Protect human health and ecosystem integrity • Encourage sustainable maritime activities 	<ul style="list-style-type: none"> • Protect and restore habitats • Foster environmental and human health • Support vibrant communities
Objectives	<ul style="list-style-type: none"> • Habitat Protection: to foster an integrated approach to protection and sustainable use of GoM habitats 	<ul style="list-style-type: none"> • Coastal habitats throughout the GoM are healthy and support an appropriate abundance and range of plant and animal 	<ul style="list-style-type: none"> • Coastal and marine habitats throughout the GoM are healthy and support the Gulf's diversity of 	<ul style="list-style-type: none"> • Coastal and marine habitats are in a healthy, productive and resilient condition •

69. *Id.*

70. See GOM ACTION PLAN 2007-2012, *supra* note 6.

	<ul style="list-style-type: none"> • Research: to obtain and make available information required by resource managers to sustain the GoM ecosystem • Coastal and Marine Pollution: to reduce impacts from existing pollution sources and to prevent future environmental degradation of the GoM • Education and Participation: to cultivate a sense of stewardship among the citizens of the Gulf region and to enable them to make responsible decisions regarding GoM resource use • Protection of Public Health: to minimize public health risks from use of GoM natural resources 	<p>species</p> <ul style="list-style-type: none"> • GoM shellfish habitats will produce shellfish that are safe for human consumption • Toxic contaminants in the marine food chain of the GoM are at levels such that public health is protected and ecosystem integrity is maintained • The GoM is known for its clean marine environment. Its shoreline and waters are free of marine debris, and will be healthy for people and wildlife • The GoM has productive fishery resources that meet human needs and maintain ecological integrity 	<p>plant and animal species</p> <ul style="list-style-type: none"> • Contaminants in the GoM are at sufficiently low levels to ensure human health and ecosystem integrity • A marine research and monitoring strategy and a nature-based tourism strategy are developed and implemented 	<p>Environmental conditions support ecosystem and human health</p> <ul style="list-style-type: none"> • GoM coastal communities are vibrant and have marine-dependent industries that are healthy and globally competitive
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Much of the regime's initial effort in 1989 focused on developing the original ten-year Action Plan (the Plan), which was adopted by the Council in June 1991.⁷¹ The Plan was intended to serve as the framework for the Council's efforts.⁷² It was a flexible document, whose priorities could respond to changing environmental concerns and funding opportunities.⁷³ The initial Action Plan established a set of "high priority objectives" to be pursued over a ten-year period.⁷⁴ These included environmental monitoring, reducing point and non-point source pollution, public education and participation, control of marine debris, and habitat protection.⁷⁵

The second Action Plan (1996-2001) made the protection of coastal habitats the primary emphasis of the Council's work, narrowing its earlier concern for the entire GoM watershed to a more manageable focus.⁷⁶ It also put new emphasis on the development of "measurable objectives" for each of the five general habitat improvement goals and provided specific strategies and actions for each goal.⁷⁷ Acknowledging the key role to be played by organizations not directly under the purview of the Council, the Plan emphasized the importance of "building meaningful and lasting partnerships."⁷⁸ Yet Springer noted that:

[f]or all of its virtues, the second Action Plan required little of the Council. Even the objectives, often expressed in fairly specific and measurable terms, were seldom ones that the Council itself could reasonably be expected to meet without substantial cooperation from agencies and groups it could not control. As a result, the Plan provided a vehicle useful less for holding the Council accountable than for helping assess the progress made in meeting regional objectives.⁷⁹

71. GOM AGREEMENT AND ACTION PLAN 1991-2000, *supra* note 1, at 6. The development of the Action Plan began at the "Sustaining Our Common Heritage" conference held in December 1989 in Portland, Maine, where the Agreement was signed. *Id.*

72. *Id.* at 8-9.

73. *Id.*

74. *Id.* at 7.

75. *Id.* at 12-23.

76. See generally GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, THE GULF OF MAINE ACTION PLAN 1996-2001 (1996) [hereinafter GOM ACTION PLAN 1996-2001], available at http://www.gulfofmaine.org/council/publications/action_plan1996-2001.pdf.

77. *Id.* at 1-2.

78. *Id.* at vii.

79. SPRINGER, *supra* note 4, at 19.

A third Action Plan (2001-2006) was adopted in May of 2001, again the product of serious self-examination by the Council.⁸⁰ There was general agreement that the third plan must be defined as a blueprint for Council action, “not a comprehensive plan for the Gulf.”⁸¹ However, creating an action-oriented plan was not a simple task for a body which, by its very nature, depended on regime participants to undertake most of the programmatic work. In drafting the third Action Plan, more emphasis was placed on improving the clarity of the language used to define each objective and on ensuring that there was enough baseline data for any objective included in the plan to make it possible to assess the progress made. The third plan substantially built and expanded upon the work of the second, with emphasis placed on issues where regional collaboration was not only desirable, but also necessary if environmental protection efforts were to succeed. Thus, while coastal and marine habitat protection remained a central focus, the third plan targeted habitats significant to migratory and mobile species for particular attention.⁸²

The third Action Plan also broadened its focus to embrace two new goals.⁸³ The first, to “protect human health and ecosystem integrity,” focused on what the Global Programme of Action Coalition for the Gulf of Maine (GPAC) identified in 1998 as the seven top contaminants of the Gulf.⁸⁴ From this list, the GoM Working Group recommended that the Council focus on sewage, nitrogen, and mercury, with the goal not simply of raising awareness of the threat posed by these substances, but also of reducing the levels of contaminants discharged into the Gulf.⁸⁵ The second new goal, “to encourage sustainable maritime activities,” acknowledges the interrelationship of economic and environmental

80. *See generally* GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, GULF OF MAINE ACTION PLAN 2001-2006 (2001) [hereinafter GOM ACTION PLAN 2001-2006], available at http://www.gulfofmaine.org/council/action_plan/action_plan2001-06.pdf.

81. SPRINGER, *supra* note 4, at 19.

82. *See* GOM ACTION PLAN 2001-2006, *supra* note 73.

83. SPRINGER, *supra* note 4, at 29.

84. GOM ACTION PLAN 1996-2001, *supra* note 76, at 3-1. *See also* Global Programme of Action Coalition for the Gulf of Maine, <http://www.gpac-gom.org/> (last visited June 15, 2010). GPAC was formed under the auspices of the North American Free Trade Agreement (NAFTA). NAFTA’s Commission for Environmental Cooperation (CEC) selected the Gulf of Maine as the location for a pilot project designed to reduce pollution and protect coastal habitats, an initiative in which the Council has been both interested and involved. The seven top contaminants in the Gulf, identified by GPAC included: pathogens, nitrogen, biocides, mercury, dioxins/furans, petroleum hydrocarbons and polycyclic aromatic hydrocarbons.

85. *See* Global Programme of Action Coalition for the Gulf of Maine, *supra* note 84.

factors at work in the Gulf and propels the Council into such important and potentially controversial areas as aquaculture, shipping, and marine fisheries.

The Council's fourth and current Action Plan (2007-2012) was released in January of 2007.⁸⁶ It describes the goals, outcomes and activities that the Council will pursue through its committees and partnership in this five-year period.⁸⁷ The Action Plan focuses on key issues that Council members identified as priorities for which they have pledged support and that require or benefit significantly from regional collaboration.⁸⁸ The Action Plan was developed by incorporating public input and the findings of numerous studies, an internal needs assessment, workshops and key policy developments, including the Gulf of Maine Summit Proceedings and Proclamation,⁸⁹ Canada's Oceans Action Plan,⁹⁰ and the U.S. Ocean Action Plan.⁹¹ The fourth GoM Action Plan builds on results of the Council's previous action plans and contains three overarching goals, namely that: (1) coastal and marine habitats are in a healthy, productive, and resilient state; (2) environmental conditions in the GoM support ecosystem and human health; and (3) GoM coastal communities are vibrant and have marine-dependent industries that are healthy and globally competitive.⁹²

Within these broad goal areas, the Council has developed a detailed, multi-year Workplan.⁹³ The Action Plan identifies three long-range goals to be achieved via specific long-term outcomes (changes in environmental conditions), mid-term outcomes (changes in people's behavior), and short-term outcomes (changes in people's knowledge or awareness).⁹⁴ Performance measures will enable decision makers and

86. See GOM ACTION PLAN 2007-2012, *supra* note 6.

87. See *id.*

88. See *id.*

89. See *generally* Gulf of Maine Summit, <http://www2.gulfofmaine.org/gulfofmainesummit-org/> (last visited June 15, 2010).

90. See *generally* FISHERIES AND OCEANS CANADA, CANADA'S OCEANS ACTION PLAN FOR PRESENT AND FUTURE GENERATIONS (Communications Branch Fisheries and Oceans Canada) (2005), available at http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/oap-pao/pdf/oap_e.pdf [hereinafter OCEAN ACTION PLAN].

91. See *generally* U.S. OCEAN ACTION PLAN: THE BUSH ADMINISTRATION'S RESPONSE TO THE U.S. COMMISSION ON OCEAN POLICY, http://www.crrc.unh.edu/workshops/datastandards/us_ocean_action_plan.pdf (last visited June 15, 2010).

92. GOM ACTION PLAN 2007-2012, *supra* note 6.

93. See GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, WORK PLAN JAN. 2007 JULY 2008 (2006), available at <http://www.gulfofmaine.org/actionplan/Jan07-Jun08%20Work%20Plan%20Final.pdf>.

94. *Id.* at 1.

citizens to gauge the progress of the Council and its partners in pursuing these outcomes and goals.

The fourth Action Plan further sets out a vision for the future and emphasizes enhanced accountability.⁹⁵ The Council committed itself to advancing ecosystem-based approaches to management.⁹⁶ Building on past accomplishments, the Council intends to continue supporting region-wide information gathering and sharing (e.g., seafloor mapping, environmental monitoring, science translation to management, indicators development, and state-of-the-environment reporting), public outreach and education, habitat restoration, and addressing key science and policy gaps.⁹⁷ The Council will continue to foster innovative approaches to sharing information and enhancing collaboration, and nurture strong partnerships among local, regional, and national organizations that are responsive to issues of regional concern. Wherever appropriate, the Council will participate and assist these groups, often seeking to build their capacity by creating strategic alliances.

While embracing a gulf-wide ecosystem-based approach, for pragmatic reasons the GoM Council does not address all issues of relevance to the transboundary ecosystem. Professor Allen Springer noted that “[t]he Council’s original charge did not include marine fisheries, at least not directly Yet, despite the fact that fisheries are clearly the Gulf’s primary economic interest and the pressures on them are tremendous, the Council’s founders made the unavoidable political decision to exclude fisheries.”⁹⁸ Yet the Council recognized that it needed to maintain an integrated regional biophysical approach. Thus, in 1995 the Council passed a “Resolution on Restoration of Groundfish Resources” simply requesting that fisheries managers employ “fundamental principles of fisheries management” in their stock rebuilding efforts, and then listing some of those practices.⁹⁹ The Resolution was “carefully drafted to make clear that the Council’s role was to encourage and support, rather than in any way to supplant those efforts, but it still was an interesting move for an organization so obviously cautious on fisheries questions.”¹⁰⁰

The Council’s habitat work provides the most important link to the fisheries issue. In addition, the third and fourth Action Plans’ interest in

95. GOM ACTION PLAN 2007-2012, *supra* note 6, at 3.

96. *Id.* at 5.

97. *Id.* at 6.

98. SPRINGER, *supra* note 4, at 21.

99. GOM ACTION PLAN 1996-2001, *supra* note 76, at 5-1.

100. SPRINGER, *supra* note 4, at 23.

promoting sustainable economic activities adds another perspective from which the Council may decide to approach the fisheries issue if it is prepared to accept the political risk that this would likely entail. The Council's ultimate influence on this issue will likely depend on how committed Council members themselves are to the organization's priorities and how effective they are in promoting them within their home jurisdictions. At least for now, an indirect approach to the fisheries issue seems the only viable political and management option. An unintended benefit is that it has prevented the Council from becoming bogged down on a divisive problem and has permitted it to move ahead in areas where it can be more effective.

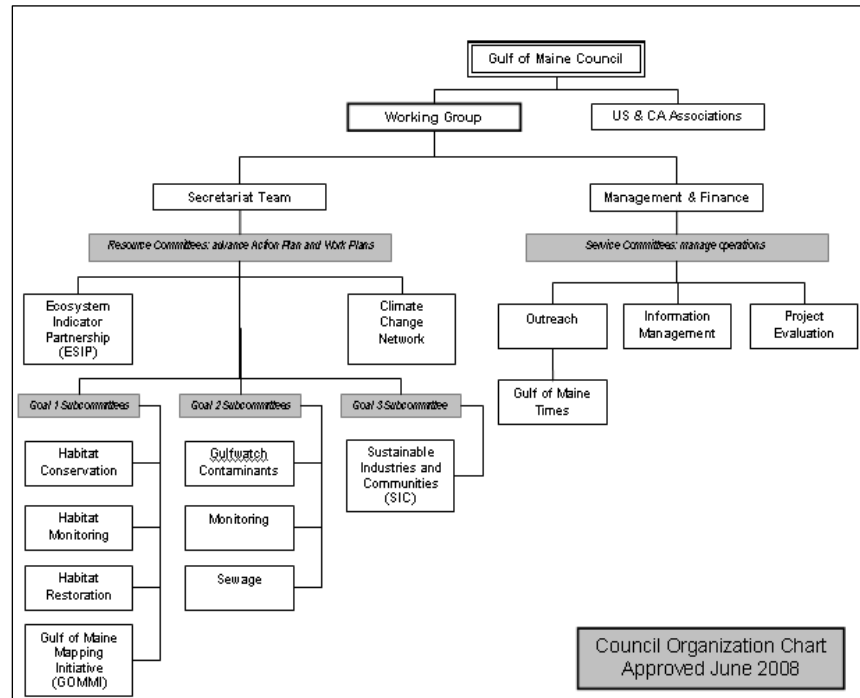
E. Institutional Structure

Originally, the GoM regime had a relatively simple institutional framework,¹⁰¹ but this has now evolved into a multiple committee structure (see Figure 2). This regime has a Council, a Working Group, Committees, and Sub-Committees (the latter two having Canadian and American co-chairs). There is a rotating Secretariat,¹⁰² a Secretariat Team,¹⁰³ a Council Coordinator, a Development Coordinator, a Management and Finance Committee, and two national not-for-profit associations. A characteristic of the Council, Working Group, and Sub-Committees is their relative informality and membership open to public, non-profit, and private entities.

101. See Chircop et al., *supra* note 4, at 325.

102. About the Council – Secretariat, <http://www.gulfofmaine.org/council/committees/secretariat.php>. Operations of the Council are assisted by a Secretariat which rotates among the five provincial/state jurisdictions on an annual basis. The responsibility to chair the Council includes hosting the Secretariat for that year. *Id.*

103. *Id.* The Secretariat Team is comprised of the past, current, and forthcoming Working Group chairpersons with Coordinator support. *Id.*

Figure 2: Gulf of Maine Council Organizational Chart¹⁰⁴

In comparison, the UNEP Regional Seas Programme regimes have more extensive and formal institutional structures involving political and technical levels (generally national line agencies), if not also the diplomatic level (e.g., ministries of foreign affairs). They tend to be serviced through regular biennial meetings of Contracting Parties and a system of Regional Activity Centres and national focal points. A Bureau operates as an inter-sessional executive body working closely with a permanent Coordinating Unit functioning as secretariat. The Coordinating Unit and Regional Activity Centres tend to be dispersed in different state parties, with each body having a formal agreement with the host state. In some regions (e.g., the Mediterranean) there is a regional Trust Fund and a Sustainable Development Commission.¹⁰⁵

104. Gulf of Maine Council Reference Handbook, <http://www.gulfofmaine.org/council/internal/rh/> (last visited June 30, 2010).

105. See Aldo Chircop, *The Mediterranean and the Quest for Sustainable Development*, 23 OCEAN DEV. AND INT'L LAW 17 (1992); Aldo Chircop, *The Emergence and Evolution of Mediterranean Regional Environmental Cooperation: Lessons for Regime-Building*, in *MEDITERRANEAN: LESSONS LEARNED IN MARITIME REGIME BUILDING*

The more elaborate institutional frameworks of UNEP Regional Seas Programmes might suggest that the GoM institutional framework is relatively under-developed. In reality, GoM Regime bodies effectively perform analogous functions. For example, as the major policy-making body, the GoM Council is the equivalent of the 1995 Biennial Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean.¹⁰⁶ The Council also performs similar inter-sessional functions as the Bureau of the Mediterranean Programme. These institutional and functional analogues are not accidental. The development of the GoM regime was influenced by the UNEP Regional Seas Programme, as well as arrangements for Chesapeake Bay and the Great Lakes.¹⁰⁷

The structure and composition of the GoM Council have evolved since its inception.¹⁰⁸ Currently, the membership of the Council consists of two provincial cabinet-level (Canada) or senior level state representatives (United States), and two non-governmental representatives from the non-profit and/or business sectors appointed by the respective Premier or Governor for each jurisdiction.¹⁰⁹ Canadian and U.S. federal agencies with a statutory mandate pertinent to the Agreement may designate a senior representative to serve as a member of the Council.¹¹⁰ In 2006, the Council added two-year renewable appointments for a representative of the scientific community from each country, and has designated a seat for a member of the Tribal/First Nations community, although the Council has not acted to fill this

LESSONS LEARNED AND THEIR RELEVANCE OR NORTHEAST ASIA 27, 27-50 (Mark Valencia ed., 2001).

106. Barcelona Convention for Protection of the Mediterranean Sea Against Pollution, Feb. 16, 1976, 1102 U.N.T.S. 27 (superseded by the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, June 10, 1995 available at http://www.unep.ch/regionalseas/regions/med/t_barcel.htm). This amended instrument constitutes the principal legal instrument of the Mediterranean Regional Sea Programme.

107. SPRINGER, *supra* note 4, at 11.

108. *See generally* Gulf of Maine Council Reference Handbook, *supra* note 104.

109. GULF OF MAINE COUNCIL ON THE MARINE ENVIRONMENT, TERMS OF REFERENCE (Jun. 7, 2006), <http://www.gulfofmaine.org/council/internal/rh/counciltor.pdf> [hereinafter GoMC ToR]. *See generally* Gulf of Maine Council on the Marine Environment, About the Council, Overview, <http://www.gulfofmaine.org/council/> (last visited June 30, 2010). The second private sector Councilor for each jurisdiction is a recent (2006) addition. However, few jurisdictions have filled the second position and some have nearly no private sector presence on a consistent basis.

110. GoMC ToR, *supra* note 109.

position.¹¹¹ The chairing of the Council rotates on an annual basis among the states and provinces, and the jurisdiction chairing the Council in a given year also serves as the Secretariat.¹¹² Each Councilor is expected to actively participate in the development and execution of Council meeting agendas, including follow-up actions.¹¹³ In addition, Councilors are “proponents of regional responses and actively pursue methods to advance the Council’s five-year Action Plans and annual work plan tasks . . . in their home jurisdiction.”¹¹⁴

The Council has various functions, among them: to coordinate conservation of the Gulf’s ecosystem (e.g., establish long-term, cooperative environmental management strategies), promote sustainable development of the Gulf’s marine and coastal resources, promote public awareness to improve stewardship of the Gulf, and expand the knowledge base of the Gulf (e.g., by promoting mapping, monitoring, data/information management, and research on the structure of the Gulf ecosystem and effects of pollution, habitat loss, and other stresses).¹¹⁵ The Council facilitates integrated watershed, coastal, and ocean management, thus fostering an ecosystem-based management approach.¹¹⁶ In general, the Council is a consensus-building forum for policies and programs affecting its mandate. The Council may decide to vote on specific issues, but the results are non-binding on those that oppose or abstain from the vote.¹¹⁷ The Council may also establish committees and sub-committees as it deems necessary to fulfill its mandate, and has done so from time to time.¹¹⁸ Representatives of

111. *Id.*

112. *Id.* The reasons for the rotating Secretariat are twofold. First, commitment for the process in each of the jurisdictions would be built by involving them in the workings of the Council and, second, at the end of their time there would remain within the jurisdiction a wealth of expertise about and sense of ownership of the Gulf of Maine regime. This is a significant difference from other regional regimes, which tend to have a permanent secretariat or coordinating unit in the member state servicing their needs. A disadvantage of the rotational arrangement is that by the time the host jurisdiction staff are comfortable with the operations of the Council, their term will have expired. After several full rotations and abundant experience with this rotating arrangement, the question of the most efficacious model remains.

113. *Id.*

114. *Id.*

115. *Id.*

116. *See id.*

117. *Id.*

118. *See id.* Committee structure (and sub-structure) and orientation have evolved over the life of the regime. The Committee structure is as follows: Overall Management (Working Group, Management and Finance, Secretariat Team, CA and U.S. Associations); Action Plan Goals—Habitat (Conservation, Monitoring, Restoration,

government agencies, academia, businesses, and non-governmental organizations participate in the Council's committees, and many of the numerous non-government organizations throughout the regime area work to achieve shared goals and objectives.¹¹⁹ The Council "routinely apprises the Premiers, Governors, and others about Council activities and prepares an annual report that documents its accomplishments and remaining challenges."¹²⁰

F. Participation and Leadership

Perhaps the defining feature of the GoM regime is the extent to which its creation, direction, and momentum have come from the state and provincial levels of government in the two nations. A small cadre of forward-looking middle-level state planners and provincial resource managers with similar concerns about the problems threatening the Gulf launched the regime in 1989 and has sustained it ever since. These members of what was later institutionalized as the GoM Working Group generally share a common language and intellectual orientation about the most appropriate kind of management response, including a pragmatic understanding of the political factors limiting the scope and extent of their endeavors and the potential to achieve shared objectives.¹²¹

Yet the GoM initiative was not a matter of sub-national governments simply filling a federal void. Had there not been regional forces pressing for action, the still limited nature of the threats to the Gulf would hardly have been sufficient stimulus. Past regional collaboration created a context in which such efforts could be undertaken. The Conference of

Mapping subcommittees), Contaminants (Gulfwatch Contaminants Monitoring, Sewage subcommittees), Maritime Activities (Sustainable Industries and Communities subcommittee); Cross-cutting themes (Ecosystem Indicators Partnership, Climate Change Network); and Services (Outreach, Information Management, Project Evaluation). See Gulf of Maine Council on the Marine Environment Reference Handbook, <http://www.gulfofmaine.org/council/internal/rh> (last visited June 15, 2010).

119. *Id.*

120. *Id.*

121. The provincial and state governments are represented by the Nova Scotia Departments of Fisheries and Aquaculture, and Environment, the New Brunswick Departments of Agriculture & Aquaculture and Environment, the Maine State Planning Office and Maine Department of Marine Resources, New Hampshire Department of Environmental Services, and the Massachusetts Office of Coastal Zone Management. The latter two state agencies have chosen to have their jurisdiction represented officially by only one agency, although the New Hampshire Department of Fish and Game and the Massachusetts Division of Marine Fisheries do send representatives to Working Group, but not to Council meetings.

New England Governors and Eastern Canadian Premiers had been working since 1973 on a range of regional issues, particularly in the energy field.¹²² There was growing recognition that governments in this part of North America also faced common environmental problems.

As the Council recognized that only limited resources could be generated from already tight state and provincial budgets, it was crucial to examine what existing Canadian and U.S. federal programs might be of use regionally. A key issue was how to focus the interest of federal agencies on an initiative in which many of them had, to that point, played only a minimal role. In June 1990, federal agencies were invited by the Council to name representatives to serve as formal participants in the Working Group and as observers at Council meetings. Within the Working Group, there remained concern that the federal representatives came from regional, rather than national, offices, presumably to ensure sensitivity to the particular dynamics of the situation in the GoM. Under the joint sponsorship of Environment Canada and the State of Maine, a workshop was held in Halifax in April 1992 for senior officials from relevant state, provincial, and federal agencies “to explore issues and opportunities for cooperative work” in the region.¹²³ The workshop was successful in highlighting relevant federal mandates and program activities in both nations, securing agreement on and offering federal commitments supplemental to the first Action Plan, and thereby building commitments to the Council’s work plan for the coming years.¹²⁴ Active federal participation in the GoM regime has continued ever since.¹²⁵

122. See The New England Governors’ Conference, Inc., <http://www.negc.org/premiers.html> (last visited June 30, 2010). The Conference is an organization of the six New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) governors and five Eastern Canadian (New Brunswick, Newfoundland & Labrador, Nova Scotia, Prince Edward Island and Quebec) premiers. *Id.* Since the early 1970s, the governors and premiers have met twenty-nine times to discuss regional issues and take action in a number of policy areas, including the environment, energy, economic development, trade, security, and most recently oceans issues. *Id.*

123. Oceans Institute of Canada, *Gulf of Maine Action Plan Workshop: Final Report*, Prepared for the Gulf of Maine Council on the Marine Environment (Halifax: Oceans Institute of Canada, 1992).

124. See *id.*

125. See Gulf of Maine Council on the Marine Environment, Gulf of Maine Council Member Agencies, http://www.gulfofmaine.org/knowledgebase/gomc_member_links.php (last visited June 30, 2010). Federal agency representation on the Council and Working Group include Environment Canada, Fisheries and Oceans Canada, U.S. National Oceanic and Atmospheric Administration, U.S. Environmental Protection Agency, U.S. Department of Interior (Fish & Wildlife Service and Geological Survey), and formerly the U.S. Army Corps of Engineers. *Id.*

Federal partners were “graduated” from observer status to full members in 1995, and have worked as equals with the state and provincial members in all aspects of the regime. While still respecting the state/provincial leadership in the regime, and remaining cautious about elevating this arrangement through more formal agreements or treaties between Canada and the United States, the federal partners’ regional leads drafted and signed two “Resolutions of Support by the Federal Partners to the Gulf of Maine Council” that feature prominently in the Action Plans for 2001-2006¹²⁶ and 2007-2012.¹²⁷

Options for greater federal roles in regional marine environmental protection might also be envisaged. Perhaps the most unlikely in the near future would be for the United States and Canadian governments to negotiate a treaty on marine environmental protection in the GoM region. The informal relationship in the GoM might be converted into a more formal one. As Chircop et al. wrote, “[t]he duty to cooperate might become translated into a duty to implement.”¹²⁸ Such a treaty would not have to usurp provincial and state roles, but could incorporate existing institutions such as the GoM Council and Committees or create new institutional forms entailing greater federal involvement.

Federal marine activities occurring outside the regime also have a role in building the larger bilateral relationship between the two nations in the Gulf. One long-standing and successful example of federal transboundary cooperation is the Canada/U.S. Joint Marine Pollution Contingency Plan (CANUSLANT), a mechanism for cooperative preparedness and response to spills of harmful substances in contiguous waters in the Gulf.¹²⁹ Under the Atlantic Geographic Annex to this plan, a Joint Environmental Section, led by the National Oceanic and Atmospheric Administration (NOAA) and the Chair of the Regional Environmental Emergencies Team, is responsible for recommending and implementing courses of action to minimize pollution threats.¹³⁰ When a pollution event such as an oil spill has the potential to impact both sides of the border, there is a requirement to harmonize the process of closing or re-opening affected fisheries.¹³¹ Fishery harvesting bans are necessary

126. GoM ACTION PLAN 2001-2006, *supra* note 80, at 7.

127. GoM ACTION PLAN 2007-2012, *supra* note 6, at 7.

128. Chircop et al., *supra* note 4, at 332.

129. See U.S. COAST GUARD, JOINT MARINE POLLUTION CONTINGENCY PLAN ATLANTIC GEOGRAPHIC ANNEX (Oct. 18, 2004), http://www.uscg.mil/d1/response/jrt/documents/AGA_English_Final.pdf.

130. *Id.* at Appendix, K-1.

131. See *id.*

to protect consumer health and to maintain consumer confidence in markets.

The importance of NGO and community participation in the regime was recognized at an early stage. The GoM Council has sought public involvement in various ways. First, public participation was present from the start in defining the Council's mission. At the 1989 Portland, Maine conference where the Gulf of Maine Agreement was signed, the process by which the Plan was reviewed and amended provided further opportunity for public involvement.¹³² Non-governmental organizations made up about thirty percent of the composition of Council committees.¹³³ The ongoing challenge has been to engage the wide range of groups and individuals interested in the Gulf in a Council process that is dominated by middle-level government officials. Given the number of interested organizations and their range in terms both of size and the interests they represent, integrating them into Council operations presents a major challenge, but a perennial objective. Over the past eighteen years, more NGO representatives have been participating on the Council's committees, sub-committees, and task forces, and the non-governmental representation on the Council since 1992 has increased to at least one person from each of the five jurisdictions.¹³⁴ The Council has also made effective use of individuals and groups concerned about the Gulf to implement some of its most successful initiatives.¹³⁵ Additional prominent partners in the regime include the Regional Association for Research on the Gulf of Maine (RARGOM), a Gulf-wide association of research groups that maintains an informal relationship with the Council,¹³⁶ and the Gulf of Maine Ocean Observing System

132. SPRINGER, *supra* note 4, at 25.

133. *Id.*

134. The current (2008) non-governmental members on the Council include representatives of the Conservation Law Foundation, the Urban Harbors Institute at the University of Massachusetts, Boston (Massachusetts), the Chewonki Foundation (Maine), St. Croix International Waterway Commission (New Brunswick and Maine), Fundy North Fishermen's Association (New Brunswick), Shipping Federation of Canada (Nova Scotia), and World Wildlife Canada (Atlantic). The Council website includes a database of more than 600 organizations with an interest in the Gulf of Maine and its watershed. *See* Gulf of Maine Council on the Marine Environment, NGO Directory Search, http://www.gulfofmaine.org/ngo_directory/ (last visited June 30, 2010).

135. For instance, the Action Plan Grants Program has involved numerous individuals and organizations in regime activities. *See* Gulf of Maine Council on the Marine Environment, Opportunities, Grants, awards, and contract positions available, <http://www.gulfofmaine.org/council/opportunities/> (last visited June 30, 2010).

136. *See* RARGOM, <http://www.rargom.org> (last visited June 30, 2010).

(GoMOOS),¹³⁷ a non-profit membership organization representing all user groups, that is conducting a national pilot program designed to bring hourly oceanographic data from the Gulf of Maine to all those who need it.¹³⁸

Financial pressures have made the private sector a potential source of funding as the Council attempts to create a sustainable financial base. Membership on the Council was expanded in 1992 to permit inclusion of private citizens capable of providing a link to potential private sector funding. The Council wants to avoid the image of a “network of bureaucrats,” and the issue of improving ties to the NGO and private sector communities has been a recurrent agenda item. This has the potential of improving public visibility, and the Council’s sense of legitimacy seems to point in the direction of a more direct and structured role for the private sector.

G. Knowledge for Decision-Making and Management

Like many other regional marine management programs, the GoM regime requires good understanding of the state of the GoM ecosystem to support decision-making and the commitments undertaken by regime participants. One of the most significant lines of activity in this regard was the establishment in 1990 of the Gulf of Maine Marine Environmental Quality Monitoring Program (MEQMP), followed the next year by the initiation of Gulfwatch. Gulfwatch is a chemical-contaminants monitoring program that has measured contaminants in blue mussels (*Mytilus edulis*) to assess the types and concentration of contaminants in coastal waters of the GoM since 1993.¹³⁹ It is one of a number of monitoring programs, but the only one in the Gulf that is coordinated in a transboundary manner. The results of Gulfwatch provide data to highlight trends which may assist decision-makers in

137. See GoMOOS, About GoMOOS, <http://www.gomoos.org/aboutgomoos> (last visited June 30, 2010).

138. *Id.* Identified users include commercial mariners, coastal resource managers, scientists, educators, search and rescue teams, emergency response teams, and public health officials. GoMOOS, Meet Our Members, <http://www.gomoos.org/aboutgomoos/members.html> (last visited June 15, 2010).

139. Gulf of Maine Council on the Marine Environment, Gulfwatch Contaminants Monitoring Program, <http://www.gulfofmaine.org/gulfwatch> (last visited June 15, 2010). Gulfwatch is coordinated and conducted by scientists and managers from agencies and universities around the Gulf. At nearly sixty sites around the Gulf of Maine, Gulfwatch measures contaminants including polycyclic aromatic hydrocarbons, polychlorinated biphenyls, chlorinated pesticides, and metals. *Id.*

setting environmental policies for the region. The most significant achievement of the Gulfwatch program has been in demonstrating that transboundary scientific cooperation where organizations are operating in different environments can be achieved. The knowledge generated by this regime activity is valuable to the provincial and state actors. For example, the New Hampshire Shellfish Program uses Gulfwatch data for evaluating the contamination of estuarine and coastal waters where shellfish are harvested for consumption, and the Massachusetts Bay Program used Gulfwatch's data to evaluate contaminant loading in Cohasset Harbor after lobstermen noticed elevated mortality of lobsters in the inner harbor. In addition, habitat restoration projects have used Gulfwatch data to evaluate the condition of rivers and estuaries and the implications of removing dams and other barriers. At the regional level, Gulfwatch has contributed to expanding efforts in marine environmental monitoring, indicators development, and environmental reporting around the Gulf.

Mapping the GoM seafloor is an essential step to achieve effective regional ecosystem-based management. The Council helped form the Gulf of Maine Mapping Initiative (GOMMI), a U.S.-Canada partnership of government and non-government organizations created to conduct comprehensive seafloor imaging, mapping, and biological and geological surveys.¹⁴⁰ Although still principally a United States-led initiative, GOMMI grew out of a mapping workshop in 2001 sponsored by the Council and NOAA.¹⁴¹ GOMMI is a sub-committee of the Council and is guided by a peer-reviewed strategic plan, the Gulf of Maine Mapping Initiative: a Framework for Ocean Management.¹⁴² GOMMI is currently working to secure funding to conduct a mapping program of areas in the Gulf not already mapped by multi-beam sonar surveys.

Through the development of a regional data and information management system in the early 1990s, Gulf researchers and resource managers began working together to develop consistent and updatable computer-based information that would be accessible via the Internet. In partnership with the U.S. EPA, in 2003 the Council convened the Northeast Coastal Indicators Workshop. The workshop brought together some ninety scientists and managers to develop ecosystem indicators

140. See Gulf of Maine Council on the Marine Environment, Committees, Gulf of Maine Mapping Initiative (GOMMI), <http://www.gulfofmaine.org/gommi/> (last visited June 30, 2010).

141. *Id.*

142. GULF OF MAINE MAPPING INITIATIVE, A FRAMEWORK FOR OCEAN MANAGEMENT (May 2004), available at http://www.gulfofmaine.org/council/publications/gommistrategicplan_entire.pdf.

applicable to the northeast coastal region. Building on the workshop, leaders from the GoM region formed the Ecosystem Indicator Partnership (ESIP) with support from the Council.¹⁴³ As a Committee of the Council, ESIP is developing indicators for the GoM region and integrating regional data for a new Web-based reporting system for marine ecosystem monitoring. The indicators focus on coastal development, contaminants and pathogens, eutrophication, aquatic habitat, fisheries and aquaculture, and climate change.¹⁴⁴

H. Public Education and Outreach

A basic challenge for the regime is that even after almost two decades of work, the Council lacks a clear public identity in a context where so many groups claim to speak about and for the GoM. In response, the Council's Outreach Committee (formerly the Public Education and Participation Committee) has been authoring initiatives to heighten awareness of the Gulf and to develop "a sense of stewardship among the citizens of the Gulf region."¹⁴⁵ The Gulf of Maine Times newspaper,¹⁴⁶ the Council website, and its science translation¹⁴⁷ efforts have played an important role in informing interested groups and decision makers about the range of activities taking place in the Gulf region. In addition, the Council has awarded over \$100,000 in grants and seed money annually to private organizations working on Gulf issues, and has developed a program of "visionary" awards to recognize individuals, organizations, and businesses who have demonstrated

143. See Gulf of Maine Council on the Marine Environment, Ecosystem Indicator Partnership, <http://www.gulfofmaine.org/esip/> (last visited June 30, 2010).

144. *Id.*

145. Gulf of Maine Council on the Marine Environment, Committee Outreach, <http://www.gulfofmaine.org/council/committees/outreach.php> (last visited June 15, 2010).

146. See GULF OF MAINE TIMES, <http://www.gulfofmaine.org/gomt/?p=227> (last visited June 15, 2010). Launched by the Council in 1997, the Gulf of Maine Times is a free quarterly newspaper reaching a circulation of 10,000 scientists, municipal leaders, resource managers, educators, NGOs, and the general public. Through feature articles, profiles, book reviews, and essays, the Gulf of Maine Times educates readers about social, economic, environmental, and scientific issues that impact the Gulf's complex ecosystems.

147. See Gulf of Maine Council for the Marine Environment, Projects, Gulf of Maine Science Translation Project, http://www.gulfofmaine.org/science_translation/ (last visited June 15, 2010).

particular commitment to the Gulf of Maine.¹⁴⁸ Additionally, the GoM Council has produced a large and diverse body of publications and web services for public use since it was established in 1989.¹⁴⁹

I. Funding

Since the inception of the regime, as with similar regional regimes, funding has been a serious and perennial challenge for the Council. The Council has never had the budgetary protection afforded by the system of assessed contributions based on the United Nations scale of assessment used in the UNEP Regional Seas Programme regimes. Beyond a modest secretariat supported by agency dues to coordinate its activities, the Council has proceeded on the basis that program funds could be generated only after well-designed plans were in place.¹⁵⁰ Working Group members are expected to identify potential sources of funds from their own and sister agencies, and the Council has always taken the priorities of funding sources into account in preparing its Action Plans. To support these efforts, the Council now employs a Fund Developer to pursue outside sources of financial support for GoM priorities.

NOAA's support has been particularly critical. Modest NOAA funds supported key Council programs in the early years. In 1992, for example, the Council failed to obtain a key NOAA grant and faced the next fiscal year with virtually no secure program support, highlighting

148. See Gulf of Maine Council on the Marine Environment, Opportunities, Grants, Awards, and Contract Positions Available, <http://www.gulfofmaine.org/council/opportunities/> (last visited June 30, 2010); Gulf of Maine Council on the Marine Environment, Opportunities, Previous Award Winners, <http://www.gulfofmaine.org/council/awards.php> (last visited June 30, 2010).

149. See Gulf of Maine Council on the Marine Environment, KnowledgeBase, <http://references.pearl.maine.edu/kb/search.asp> (last visited June 15, 2010). Publications include action plans, annual reports, technical reports, conference proceedings, presentations, background documents, journal articles, newsletters, newspapers, magazines, fact sheets, brochures, maps, and a video. There is also a comprehensive website. *Id.* A new *KnowledgeBase* interface on the Council website allows a variety of searching options and direct linking to over 300 relevant documents that were produced to disseminate information to environmental managers and other decision-makers throughout the regime and beyond. See *id.* See also Bertrum H. MacDonald, Ruth E. Cordes & Peter G. Wells, *Assessing the Diffusion and Impact of Grey Literature Published by International Intergovernmental Scientific Groups: The Case of the Gulf of Maine Council on the Marine Environment*, 23 PUB. RESEARCH 30-46 (2007).

150. The provinces each contribute \$20,000 CDN/year and the states \$18,000 USD/year each and the two Canadian agencies each contribute \$15,000/year. The U.S. federal agencies and non-government and private sector do not pay dues or contribute financially to Secretariat costs.

the significance of NOAA funding.¹⁵¹ The result was a difficult, at times testy, discussion of the regime's future as both the Working Group and Council attempted to establish core priorities. This also raised difficult questions, until then largely undiscussed, about the extent to which the burden of financial support was being shared fairly between the two nations. Should Canada's federal agencies each continue to provide \$10,000 (now \$15,000) per year to fund general Council operations and thus remain a less stable source of financial backing when their U.S. counterparts, although very generous in their past support, preferred to tie funding to specific programs? These early questions highlighted a longer-term equity issue for the Council to consider. This early budget crisis was overcome with the support of two New England senators,¹⁵² and NOAA support continued until mid-2008, but future funding remains uncertain. It is clear that the Council took for granted that the NOAA support would exist indefinitely and did not plan accordingly for a loss of funds. The Council is now exploring other means for a more diversified financial base.¹⁵³ On the Canadian side, recent rounds of financial support for ocean-related initiatives brought modest but important resources to the GoM regime. The implementation of Canada's Oceans Strategy mandated under the Canada Oceans Act has been followed-up with a two-year (2005-2007) Oceans Action Plan with discrete resources.¹⁵⁴ The Oceans Action Plan allocated \$600,000 for GoM priorities, and, in 2007, a five-year Health of the Oceans initiative provided a further \$1.5 million.¹⁵⁵

The lack of long-term funding and consequent budgetary uncertainty has made life difficult for Council committees, who are unsure whether to plan for a worst-case situation or to continue generating new and potentially costly ideas. The operations of the secretariat seem reasonably secure, given its modest cost and rotating nature, combined with the contributions from the states, provinces, and Canadian federal agencies. Overall, however, the tight budget has forced member governments and agencies to re-examine Council priorities and to recommit themselves to the work of the organization. It has been

151. SPRINGER, *supra* note 4.

152. Maine's George Mitchell backed 1994 legislation which led to a three-year grant from the U.S. EPA for \$1.9 million. In 1998, with the support of Senator (and former New Hampshire Governor) Judd Gregg, an original signatory of the GoM Agreement, Congress approved a \$500,000 appropriation for the Council in the NOAA budget.

153. SPRINGER, *supra* note 4.

154. See OCEANS ACTION PLAN, *supra* note 90.

155. See Canada's Health of the Oceans Initiative, <http://www.dfo-mpo.gc.ca/media/npress-communique/2007/hq-ac51-eng.htm> (last visited June 30, 2010).

suggested that this has kept the Council focused on the catalytic, coordinating role it plays best, leaving programs up to the states, provinces, and federal governments, rather than becoming bogged down in debates over how to spend money. The tight budget has also encouraged greater emphasis on the development of inexpensive, cost-effective approaches to both environmental monitoring and management, which may be crucial to the organization's long-term success. In addition, it has reminded the Council of the need to remain sensitive to the priorities of state and provincial agencies in the way it defines problems to be addressed in the Action Plans.

In the absence of formal agreements, there has been a concerted attempt to integrate regional commitments into departmental responsibilities. The practical implication of this is that the various agencies active in the regime simply utilize existing agency resources to fulfill commitments, thereby clarifying the procedure for incorporating decisions into domestic actions. Cooperation is a *de facto* responsibility of each participating agency. However, because environmental policies, programs, and legislation vary in accordance with local political priorities, the implementation of the Action Plans varies from jurisdiction to jurisdiction. Often, Gulf-related activities and efforts are assigned in addition to the regular responsibilities of departmental and agency staff. Interestingly, were all external funding to be terminated, many Gulf programs would still likely "limp along" because most are housed within administrations which consider these as internal lines of activities. This departmental internalization of regime commitments is a major strength of the regime, evidencing the actual implementation of commitments.

On the other hand, although all jurisdictions and participants have provided both financial and in-kind support, this is clearly not sufficient for longer-term regime development. There are activities under the Agreement and Action Plans that either require funding over and above what the agencies are able to commit, or where agency-based funding would not be appropriate. The financial base is uncertain from year to year, and productive activity time must be spent on fundraising and program re-orientation. The establishment by the Council of two not-for-profit corporations with charitable status, one each in Canada and the United States, created a mechanism to facilitate receipt of funds and support for Council projects outside the normal governmental channels. However, despite some modest contributions from regional businesses and foundations, these and other fundraising efforts have not generally been successful to date.

V. ASSESSMENT

The GoM regime has persisted for two decades. Assessing its first five years in 1995, Chircop et al. described the regime as “nascent” and still far from achieving maturity.¹⁵⁶ Is it still too early to judge conclusively the effectiveness of a regime still in the process of development? Arguably, it is not a premature exercise because the regime has subsisted over several political cycles within each of the participating jurisdictions. Moreover, other regional marine environmental regimes of comparable vintage have already been assessed¹⁵⁷ and, as noted earlier, the literature has already considered the GoM. What remains of enduring interest in an assessment of the GoM regime is how this social institution has been able to persist and grow, considering the absence of a legal instrument to help structure expectations for cooperation to pursue shared ecosystem management objectives. How can its persistence be explained? If the GoM regime is expected to continue in the future, it is also pertinent to enquire into the directions for future regime development and any factors that might facilitate or constrain further development.

A. Explaining GoM Persistence

1. Issue Focus

The choice of issues addressed by the regime provides insights. First, are regime participants focused on issues of common environmental concern, such as water quality and habitat conservation? The causes and consequences of these concerns lie within each of the participating jurisdictions, thus motivating each to commit to cooperate. This is a classic prisoners’ dilemma scenario, where the cooperation of all is required. Second, the focus is on “do-able” issues, i.e., issues that not only fall within their respective jurisdictions, but also which could be practically addressed within their existing capabilities (technical, resource, and other). Third, there has been avoidance of direct treatment of divisive issues, most notably fisheries management. This approach

156. Chircop et al., *supra* note 4, at 318, 330.

157. See EDWARD L. MILES ET AL., ENVIRONMENTAL REGIME EFFECTIVENESS: CONFRONTING THEORY WITH EVIDENCE (Nazli Choucri ed., 2002); MARITIME REGIME BUILDING: LESSONS LEARNED AND THEIR RELEVANCE FOR NORTHEAST ASIA (Mark J. Valencia ed., 2001).

ensured efficiency by focusing on priority issues that could be effectively addressed on a cooperative basis and thereby minimize transaction costs.

2. Leadership at the Sub-National Governmental Level

The political commitment of three states and two provinces was key to the emergence of the regime, and arguably also for its continuity. This sub-national commitment arose at a time when the will to cooperate on marine environmental matters at the national level had reached a low between the two nations. The discord that preceded resort to the International Court persisted well after that world body rendered its judgment in the Gulf of Maine dispute. Following the judgment, calls to suspend its implementation were issued on the United States side of the border, and fisherfolk violated the boundary in defiance of the judgment. The political conditions that led to the non-ratification of the 1979 agreement on fisheries conservation in the GoM had not changed.¹⁵⁸ This was in marked contrast to the political linkages already in place among the Governors and Premiers in the region.

Following the establishment and maturity through the first and possibly second cycle of the regime, the participation of national government agencies and the technical and financial resources they imported contributed to regime persistence. The Council served to focus the attention of both national governments on GoM issues, a critical starting point for national agencies faced with many competing priorities for limited national resources. Within the participating national agencies, the existence of a well-defined Action Plan with international dimensions has strengthened the hand of those regional officials who want to play a constructive role in the Gulf.

3. Flexibility of Regime Structure and Processes

Absence of formal legal and institutional structures (i.e., meetings are not conducted through diplomatic fora and processes) enabled regime participants to conduct business with a relative degree of informality and to adjust regime directions on the basis of consensus and with ease of flexibility. The moral commitment of participants to the objectives of the GoM regime enabled the achievement of mutual expectations. The Council process, with its biannual meetings, provides an opportunity for middle-level managers to focus senior department heads on Council programs that might not otherwise rise to the top of their respective state,

158. VanderZwaag, *supra* note 46, at 90.

provincial, and federal agendas. Within the Working Group and even at the Council level, there is a political pragmatism that discourages competitive behavior that could only undermine the work of a consensus-based organization. Meetings tend to be conducted in a collegial and low-key manner.

4. The Regime's Epistemic Community

The governmental and non-governmental participants in the various GoM meetings constitute a significant network of resource persons. Many of these persons, who are also active participants, know each other and communicate directly across bureaucracies on an ongoing basis. The GoM Council is an attractive mechanism to communicate efficiently with many of the top professionals from several sectors. Using a characterization proposed by Professor Peter Haas, this network constitutes, in effect, an epistemic community.¹⁵⁹ Network participants are engaged in regime activities both in institutional and personal capacities. For example, participants in the Habitat Conservation Subcommittee comment on, and buy into, proposed actions (without necessarily being bound to do so), while also sharing recreational pursuits or downtime.¹⁶⁰ These connections have helped to increase personal awareness and buy-in by persons who may well be the officials responsible for implementing regime commitments. Further, the rotational meetings of the Working Group and Council in the five sub-national jurisdictions provide opportunities for participants to learn about the local impact of regime activities. Thus, from a human perspective, members of the Working Group have developed genuine camaraderie and respect, along with a shared sense of mission, set of priorities, and approach to general management that foster dialogue and permit decision making.

5. Effectiveness of Regime Activities

Although the regime has lacked a rigorous results-tracking system for most of its history and many of its reported outcomes are anecdotal in nature, evidence suggests that it has made a difference in the region by producing some early results from its numerous activities. Using the current Action Plan's results management structure and its three orders

159. See Peter M. Haas, *Epistemic Communities and International Policy Coordination*, 46 INT'L ORG. 1, 1-35 (1992).

160. See *id.*

of outcomes (short-term changes in people's understanding, mid-term changes in people's behavior, and long-term changes in environmental conditions), it is clear that the regime is still mostly achieving short-term and some mid-term outcomes. For instance, the Gulfwatch program has played a significant role in enhancing knowledge regarding the state of the GoM's waters and marine environment generally. As noted earlier, this has provided a substantial knowledge base to support environmental protection initiatives in each of the participating sub-national jurisdictions. The *Gulf of Maine Times* newspaper is now a highly regarded source of current and important information about the Gulf, its activities, and results, and serves to expand and strengthen the epistemic Gulf community. The development and implementation of the GOMMI Strategy for mapping the ecosystem's seafloor has been an important accomplishment and a key source of information for ocean-based decision-making. The more recently established Ecosystem Indicators Partnership has already shown great promise in the numerous partnerships built in support of developing a core set of ecosystem indicators and the tighter focus it has engendered on tracking and reporting results.

The Council's habitat restoration initiatives¹⁶¹ perhaps stand alone in having achieved measurable long-term outcomes. In partnership with the NOAA National Marine Fisheries Service's Community-based Restoration Program, this Council initiative has restored thousands of hectares of critical coastal, riverine, and riparian habitats, largely through the strategic investment of approximately \$300,000 per year in restoration grants to numerous organizations throughout the Gulf.

B. Questions for Future Regime Development

As the GoM regime continues to evolve and grow, regime participants will need to consider a number of questions concerning its potential future directions. As the regime evolves from a more knowledge-generating and coordinating arrangement into one that will place more emphasis on regime outcomes, participants will need to consider the extent to which the existing governance regime has the capacity to implement a truly integrated and adaptable ecosystem approach to restore and sustain the integrity of, and human dependencies on, the GoM. In particular, should the GoM regime play a more direct role on fisheries issues? The political barriers that prevent the current

161. See Gulf of Maine Council on the Marine Environment, Gulf of Maine Habitat Restoration Web Portal, <http://restoration.gulfofmaine.org/> (last visited June 30, 2010).

governance regime in the Gulf of Maine from contributing to the management of the GoM's marine living resources will need to be considered, as will the extent to which these are likely to undermine cooperation in other regime activities.

In the long-run, justification for continued participation in the regime is likely to depend on the perception of regime effectiveness, in other words, in terms of ameliorating environmental conditions and supporting marine-based economic activities in the GoM. Accordingly, there will be increased emphasis on the ascertainment of results produced by regime activities and how these contribute to overall regime objectives. The question here is not simply whether the mission statement and principles of the GoM Council are implemented, but rather whether they do in fact make a difference, and if so, how. The reality is that many of the threats to the GoM, including pollution and over-fishing, are still managed intensely on a traditional sector-by-sector basis, and environmental conditions in many cases are not improving. The agencies responsible for the management of these sectors now have seats on the Council, and it remains to be seen whether the regime will exercise the "osmotic peer pressure" needed to facilitate the ongoing transition from sectoral to integrated management.

As the GoM regime continues to evolve, there will be an increasing expectation of more inclusive participation in the governance of the regime. Historically, and predominantly still extant at this time, major regime decisions and activities are authored by governmental participants. The regime's future governance is more likely to have greater community non-governmental organization participation. With such increase in the diversity of regime actors, there will be new opportunities for initiatives that are conceived of and led by non-governmental actors,¹⁶² and in turn this will increase the need to consider issues of governmental and non-governmental cooperation, information-sharing, funding, and accountability.

Funding is clearly a major concern that the regime must resolve to ensure long-term sustainability of its initiatives. The future uninterrupted activities of the regime will need sufficient and predictable funding. Given the limited financial resources available at the sub-national

162. For instance, the Nature Conservancy (TNC) in the United States is conducting The Northwest Atlantic EcoRegional Marine Assessment, a major effort to produce an integrated and publicly-available database of information on current conditions and trends in marine ecosystems, habitats, target species, and human uses. The GoM Council is collaborating with TNC in this effort by providing data sets for the GoM area and committing to use the broader dataset to inform its decisions.

governmental level, the role of federal agencies is potentially far-reaching for the successful funding of future regime activities. At the same time, as regime participation continues to diversify, and assuming that the institutional framework of the regime will facilitate such participation, there is significant potential for non-governmental funding that can be expected to accompany buy-in at the community level. The governmental actors will need to accommodate this more diversified participation not only to promote compliance with regime objectives, but also to ensure sustainably financed activities over the long-term.

The questions posed so far point to the current and future role of the Council. The Council may need to evolve from a primarily catalytic and coordinating body with carefully circumscribed powers, working mainly through state and provincial agencies, to a body that becomes a forum for reporting on, and scrutiny of, regime commitments. Internally, the Council may have to consider adjusting its structure and process of decision-making. Over the years, the Council has become increasingly bureaucratic and may not be operating as it was originally intended. This has arguably occurred in response to a temporary balloon in funding, which resulted in management constraints. The Council has since lost much of its funding, but not the bureaucracy that such funding generated. Bureaucracy has created an extended committee structure, producing varying degrees of member satisfaction, which threatens the historically minimally structured and flexible regime processes. These constraints, together with the consequences of a rotating Secretariat, pose challenges of lack of consistency between “rotating” operational procedures to make the Council run smoothly. This would build upon one of the Council’s clear strengths and provide a regional coordination function that is generally recognized as important and needed.

V. CONCLUSION

Costanza et al. wrote that:

[I]t should be understood that it is not humanly possible to design a flawless governance process capable of coping with multiple, complex systems. All that can be done is to attempt to design a system that operates under rules that allow sufficient information to be generated over time to enable participants to

learn from their mistakes and continually adapt and improve the institutional system to operate within natural limits.¹⁶³

In the opinion of the authors of this article, this statement is reflective of the approach of the GoM Council. The many partners involved in this shared ecosystem launched, and have continued to pursue, an experimental model that continues to be shaped through adaptive management while remaining tuned to the region's historical, ecological, political, and bureaucratic realities. Drawing from approaches and experiences from the bilateral relations between the two nations and from around the world, the adaptive management approach that the GoM Council is pursuing is unique.

163. INSTITUTIONS, ECOSYSTEMS, AND SUSTAINABILITY 14 (Robert Costanza et al. eds., 2001).