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Future of Fishery Management and Its Impact on the Seafood Industry: A Comparison of United States and Canadian Fishery Management Policies after UNCLOS III

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COMMENTS

The Future of Fishery Management and Its Impact on the Seafood Industry: A Comparison of United States and Canadian Fishery Management Policies After UNCLOS III

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ABSTRACT

The United States and Canadian fishery management regimes each professes to fulfill the goals of conservation enumerated under the United Nations Convention on the Law of the Sea of 1982 (UNCLOS III). These goals include conservation of scarce fish stocks and "optimum utilization" of those limited resources. The Canadian regime of centralized authority, informality and flexibility, however, actually comes closest to fulfilling these goals. While the United States may adopt some of the key elements of the Canadian regime, several barriers exist to such reforms. Another method for reconciling the differences between U.S. and Canadian policies would include the implementation of an international treaty to jointly manage the fishery region. Such a treaty remains a viable alternative to the current international regime of sovereign states' rights and strict notions of territorialism.

I. INTRODUCTION

Approximately ninety percent of the world's fishing takes place within 200 nautical miles of the coast of some sovereign nation.[1] UNCLOS III introduced three new elements to the regime for fishery management: "the management of migrating fish stocks; conservation measures for such living resources; and the 'optimum utilization' of fish stocks."[2] Within the last fifteen years, Canada[3] and the United States[4] have expanded jurisdiction over their fisheries to 200 nautical miles. For most Coastal States, the immediate and substantial gain to be won at UNCLOS III[5] was increased ocean space and resources which could be brought under their respective jurisdictions and control. Prior to UNCLOS III, the concept of the "continental shelf" had been the accepted ground for a new regime of exclusive Coastal State control over marine resources under customary international law.[6] The bounds of this pre-UNCLOS III legal definition of the outer limits of this regime, however, remained elastic, and it lay in the interest of "broad margin states" such as Canada and the United States, "to prevent a redefinition that would force them to roll back their claims to 'sovereign rights' over the non-living resources in their adjacent offshore waters."[7] In this context, the facts of geography and geology prevailed over any other consideration. This process had been, and continues to be under UNCLOS III, complicated by increasing political, economic and social pressures, and advanced scientific discoveries.

During this fifteen year period, two radically different approaches to fishery management emerged. The U.S. regime emphasizes formalized procedures and a high degree of public accountability. The Canadian regime, in contrast, emphasizes informal procedures, flexibility and the centralization of authority.[8]

As the world's population continues to rise, greater pressure is

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1 BERNARD H. OXMAN ET AL., THE LAW OF THE SEA: U.S. POLICY DILEMMA 137 (1983). *See also* MARTIN I. GLASSNER, NEPTUNE'S DOMAIN 73 (1990).

2 *Id.* at 137-38.

3 Fishery Zones of Canada (Zones 4 & 5) Order, R.S.C. ch. 1548 (1978).

4 Magnuson Fisheries Conservation and Management Act of 1976, 16 U.S.C. §§ 1801-1882 (1976)[hereinafter MFCMA].

5 *See infra* note 11.

6 DOUGLAS M. JOHNSTON, CANADA AND THE NEW INTERNATIONAL LAW OF THE SEA 4 (1985).

7 *Id.*

8 *See, e.g.*, Rodney A. Snow, *Extended Fishery Jurisdiction in Canada and the United States*, 5 OCEAN DEV. & INT'L L. 291 (1978); DAVID L. VANDERZWAAG, THE FISH FEUD (1983); David L. VanderZwaag, *Canadian Fisheries Management: A Legal and Administrative Overview*, 13 OCEAN DEV. & INT'L L. 171 (1983).

placed upon the ocean's limited resources. Food products harvested from the seas may provide a valuable source of nutrition for feeding this rising population. The demands of population expansion consequently necessitate an investigation of the two marine fishery management regimes in Canada and the United States. These regimes must be compared to determine which format—the formal approach favored by the United States, or the functionalist, informal approach of Canada—most efficiently and effectively meets the conservation recommendations prescribed by UNCLOS III. This Article focuses upon the impact the two regimes have on the conservation and "optimum utilization" requirements of UNCLOS III, and provides suggested reforms to more readily fulfill these requirements.

II. BACKGROUND

In 1973, the third United Nations Conference on the Law of the Sea was charged with preparing a uniform law of the sea by universal agreement.[9] In 1975, the officers of the Conference accumulated information from prior informal negotiations and submitted it as an informal text at the conclusion of that session.[10] After eight subsequent sessions, a final draft emerged.[11] Following the United States' call for a record vote on April 30, 1982, the Conference adopted the draft text by a vote of 130 delegates in favor and four against.[12] The United States refused to ratify the text of this document for national security reasons relating to offshore mining rights, not for the draft's conservation measures.[13]

The Preamble of the 1982 Conference refers to the need to "promote the equitable and efficient utilization of resources" while "taking due regard for the sovereignty of all states . . . ."[14] In addition, the Preamble notes that the achievement of such conservation goals "would contribute to the realization of a just and equitable international order which takes

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9 For the historical development of UNCLOS III, see generally DAVID J. ATTARD, THE EXCLUSIVE ECONOMIC ZONE IN INTERNATIONAL LAW 1-31 (1987); GLASSNER, *supra* note 1, at 8-17.

10 4 *Official Records (1974)* at 137ff (1975); A/CONF.62/WP 10; A/CONF.62/114.

11 The United Nations Convention on the Law of the Sea, Doc. A/CONF.62/122, 7 Oct. 1982, *opened for signature* 10 Dec. 1982 [hereinafter UNCLOS III].

12 21 I.L.M. 1245ff, 1477ff (1982).

13 George D. Haimbaugh, *Impact of the Reagan Administration on the Law of the Sea*, 46 WASH. & LEE L.REV. 151 (1989) ("President Reagan added that . . . the United States would seek changes necessary to correct unacceptable elements of the draft treaty and to achieve a treaty that would not deter development of any deep seabed mineral resources to meet national and world demand . . . [that] will ensure a national access to these resources by current and future qualified entities to enhance U.S. security of supply . . .)

14 ATTARD, *supra* note 9, at 157; *see also* UNCLOS III, *supra* note 11.

into account the interests and needs of mankind as a whole. . . ."[15] Thus, the Preamble indicates the desire of the signatories to create a new international order; one in which cooperation between sovereign states would enhance existing fish stocks. Such enhancement would lead not only to benefits for specific nations but for the world as a whole. Such goals are further emphasized in the articles of UNCLOS III.

According to Article 56 of UNCLOS III, "the Coastal State's sovereign property rights in the exclusive economic zone include exploring and exploiting, conserving and managing natural resources, whether living or non-living, of the waters adjacent to the sea bed."[16] The essence of the proposals in the draft convention are summarized in three general principles:

> (1) the Coastal State determines the allowable harvest of living resources within its exclusive economic zone, assuring that these resources will be protected from over-exploitation; (2) the Coastal State determines its own capacity to exploit those resources; and (3) the Coastal State shall give other States access to the surplus of the allowable catch, with the general objective of 'optimum utilization'.[17]

In determining the total allowable catch in accordance with Article 61, the Coastal State attempts to ensure preservation of living resources through a regime of conservation and management—a significant departure in international law dealing with the orderly utilization of natural resources.[18]

Article 56(1)(a) of the Convention recognizes each Coastal State's sovereign rights for "exploring and exploiting, conserving and managing living resources within the exclusive economic zone."[19] Most States adopted this provision verbatim.[20] The United States Exclusive Economic Zone Proclamation, for example, affirms "sovereign rights for the purpose of exploring, exploiting, conserving and managing natural resources, both living and non-living."[21]

Article 61 of the Convention contains the key provisions pertaining to the conservation of living resources in the exclusive economic zone. Under Article 61, Coastal States are obligated to ensure that the region's living resources are not depleted through over-exploitation and to deter-

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15 *Id.*

16 *Id.* at 150.

17 Lawrence Juda, *The Exclusive Economic Zone and Ocean Management*, 18 OCEAN DEV. & INT'L L. 305-31 (1987); *see also* ORREGO VICUNA, THE EXCLUSIVE ECONOMIC ZONE: REGIME AND LEGAL NATURE UNDER INTERNATIONAL LAW 50-53 (1989).

18 ATTARD, *supra* note 9, at 149-56.

19 *Id.* at 151.

20 *Id.*

21 *Id.* at 150 n.36.

mine the most efficient allowable harvest.[22] This allowable harvest is the catch which, if taken in any given year, will best fulfill the objectives of the "optimum" long-term yield. In order to achieve this goal, the Coastal State "shall ensure that proper conservation measures shall be taken."[23] These conservation measures are to be prescribed "taking into consideration the best scientific evidence available to the Coastal State."[24] Conservation and management procedures are to be designed and implemented "to maintain or restore populations of fish at levels which can produce the maximum sustainable yield"—the yield that can be taken year after year without depleting the stock.[25] By subjecting the maximum sustainable yield to "relevant environmental and economic factors, including the economic needs of the Coastal State and the special requirements of developing States,"[26] the Convention tempers the scientific character of the determination of the maximum sustainable yield with subjective judgments of verifiable economic and ecological factors.

The Convention further states that conservation and management regimes shall take into consideration "the effects on species associated with, or dependent upon harvested species, with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened."[27] Thus, UNCLOS III emphasizes not only preservation of current fish stocks harvested by regional fishermen, but also dependent stocks. Such stocks, while not in immediate danger of depletion through over-exploitation, might be threatened through depletion of other existing stocks. UNCLOS III takes a more long-term view to protecting and enhancing the marine fishery stocks of coastal states, than any prior international agreement.[28]

Therefore, the primary conservation goals of the 1982 Convention are to ensure:

> (1) the determination of the total allowable catch; (2) that the living resources in the exclusive economic zone are not endangered by over-exploitation; (3) that the populations of such species are maintained or restored at levels that allow the maximum sustainable yield; and (4) that associated or dependent species are maintained above levels at which their

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22 *Id.* at 152; *see also* UNCLOS III, *supra* note 11, at art. 61(2).

23 FAO Document submitted to UNCLOS III, Doc. GE 75-64093.

24 UNCLOS III, *supra* note 11, at art. 61(2).

25 *Id.* at art. 61(3).

26 *Id.*

27 *Id.* at art. 61(4).

28 *See, e.g.*, GLASSNER, *supra* note 1, at 16-17.

reproduction may be seriously threatened.[29]

With this brief overview of the major provisions of UNCLOS III, this Article focuses its attention on the existing fishery management regimes in the United States and Canada. The following sections discuss the major characteristics of each regime, and analyze these regimes in light of the provisions of UNCLOS III.

III. Fishery Management Regimes

Within the last fifteen years, both the United States and Canada have adopted exclusive economic zones.[30] Further, Canada ratified the provisions of UNCLOS III in 1982, while the United States did not.[31] However, in establishing an exclusive economic zone with regard to fishery management, the United States incorporated much of the language of the Convention.[32] While both nations have adopted the conservation goals of UNCLOS III,[33] each nation has implemented very different management regimes. The Canadian regime emphasizes centralized authority and flexibility, while the U.S. regime is characterized by a high degree of formalized procedures and separation of authority in planning and implementation. The following sections of this Article compare the regimes as they relate to the conservation directives of UNCLOS III. This article finds that the Canadian regime is better suited to foster international cooperation.

A. The Canadian Regime

Textually, the Canadian Constitution grants the federal government exclusive control over domestic fisheries. Section 91(12) of the Constitution Act of 1867 affords the federal Parliament "exclusive legislative authority over the sea and inland fisheries."[34] Two statutes expressly address the management of Canadian fisheries: the Fisheries Act[35] and the Coastal Fisheries Protection Act.[36] These two statutes authorize the Canadian Cabinet and the Minister of Fisheries and Oceans to manage

29 Shigeru Oda, *Fisheries Under the United Nations Convention on the Law of the Sea*, 77 Am. J. Int'l L. 739 (1983).

30 *See* Fisheries Zones of Canada Order, *supra* note 3; MFCMA, *supra* note 4.

31 21 I.L.M. 1245ff, 1477ff (1982).

32 Proclamation on the Exclusive Economic Zone, No. 5030, 10 Mar. 1983, 22 I.L.M. 461 (1983).

33 This adoption of the provisions of UNCLOS III has taken place either explicitly by ratification, as the Canadian government has done, or implicitly by incorporation of its key provisions as the United States has done.

34 VanderZwaag, The Fish Feud, *supra* note 8, at 63.

35 R.S.C. ch. F-14 (1970).

36 *Id.* at ch. C-12.

domestic and foreign fishing.[37] The Fisheries Act is the primary source of managerial power over domestic fisheries; the Coastal Fisheries Protection Act is the key source of managerial authority over foreign fishing.[38]

The Fisheries Act vests the power to promulgate regulations for all areas of fisheries operations, including licensing and operating fishing vessels, to the harvest, handling, processing and transportation of fish, in the federal government.[39]

> Rather than fleshing out numerous fishing regulations in detail, the Fisheries Act dangles three bare hooks waiting to be baited with administrative discretion: Section 7 allows the Minister of Fisheries and Oceans "in his absolute discretion" to issue fishing leases and licenses. Section 33 forbids the disposal of deleterious substances into water frequented by fish but leaves to Cabinet discretion what should be deemed deleterious. Section 34 grants the Canadian Cabinet discretion to regulate in thirteen areas: 1) proper management of seacoast and inland fisheries; 2) conservation and protection of fish; 3) catching, loading, landing, handling, transporting and disposing of fish; 4) operation of fishing vessels; 5) use of fishing gear and equipment; 6) issuing and canceling of fishing licenses and leases; 7) conditions of leases and licenses; 8) obstruction on pollution of any waters frequented by fish; 9) conservation of spawning grounds; 10) export of fish; 11) interprovincial transport or trade of fish; 12) duties of federal employees; and 13) delegation to federal administrators to vary any close time or fishing quota.[40]

The Coastal Fisheries Protection Act authorizes the Canadian Cabinet to establish the conditions under which foreign fishing vessels may enter Canadian fisheries, and authorizes marine investigation officers to board and search foreign fishing vessels operating in Canadian waters.[41] Pursuant to the provisions of the Act, "the Canadian Cabinet has issued regulations restricting such matters as mesh sizes, area closures, and species quotas."[42]

Under these Acts, the Canadian Cabinet created the Department of Fisheries and Oceans. The Minister of Fisheries and Oceans has four specific mandates: "to oversee seacoast and inland fisheries, to oversee

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37 The Coastal Fisheries Protection Act prohibits foreign fishing unless authorized by regulations promulgated by the Canadian Cabinet. *Id.* at § 3. Section 7 of the Fisheries Act gives the Minister of Fisheries and Forestry absolute discretion in issuing domestic licenses. *See supra* note 35.

38 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 68.

39 R.S.C. ch. F-14 at § 34.

40 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 68.

41 R.S.C. ch. F-14; R.S.C. ch. C-21 (1970).

42 *See, e.g.,* Foreign Vessel Fishing Regulations, C.R.C. 1978, Vol. VII, ch. 815 at 5083 [as amended]. The authority to issue foreign regulations also arises from Section 34 of the Fisheries Act itself.

fishing and recreational harbors, to oversee hydrography and marine sciences, and to coordinate Canada's ocean policies and programs."[43] The Department of Fisheries and Oceans is divided into four subsections: Atlantic Fisheries; Pacific and Freshwater Fisheries; Economic Development and Marketing; and Ocean Science and Surveys.[44] Atlantic Fisheries, which is responsible for fisheries management on the East Coast, not only has its key staff located in Ottawa, but also has three regional offices which carry on the bulk of managerial activities.[45] The branches and divisions of each regional office deal with all phases of fisheries management and development. These areas include scientific research, economic surveys and technology development, as well as the actual management of fisheries.[46]

The other three divisions are not vital to this Article, but are worth brief mention. Pacific and Freshwater Fisheries, responsible for fisheries management in central and western Canada, is similar in structure to Atlantic Fisheries.[47] Although some key personnel are situated in Ottawa, the majority are located in three smaller regional offices.[48] Development and Marketing, also stationed in Ottawa, has four major functions: "promotion of fish marketing, development of economic data and policy, administration of financial assistance programs, and negotiation concerning international fisheries relations."[49] Ocean Science and Surveys is responsible for oceanographic and hydrographic programs and operates through four regional science centers.[50] The Minister of Fisheries and Oceans and his deputy govern all four sectors of this federal bureaucracy.[51]

While the administrative structure is clearly defined, the administrative processes involved in fishery management planning are *not*.[52] The actual plan-making process of Canadian fisheries management is difficult to document for two reasons. First, many consultations with fishermen and processors take place outside of the formally recognized channels.[53]

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43 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 67.

44 *See generally id.* at 69-72 (Administrative Organization).

45 *Id.* at 70.

46 *See, e.g., id.* at 69-70.

47 *Id.* at 70.

48 *Id.*

49 *Id.*

50 *Id.*

51 *Id.* at 70-71 (Figure 3-1, Organization of Department of Fisheries and Oceans).

52 VanderZwaag, *Canadian Fisheries*, *supra* note 8, at 185. The Canadian fisheries management system is "some what like a ghostship . . . the system exists but it often lies veiled under a mysterious mist of flexibility and informality."

53 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 72.

Second, official publications describing the management processes of this federal bureaucracy are sparse.[54] Still, it is possible to describe this decision-making process in general terms.

Scientific data on the recommended total allowable catch and the conditions of existing fish stocks are provided by the Canadian Atlantic Fisheries Scientific Advisory Committee. The data is then reviewed by the directors of the regional offices.[55] Federal fisheries officials prepare a draft plan to be reviewed by the regional directors or the appropriate regional directors. This phase is generally followed by a review by the Minister of Fisheries and Oceans.[56] Plan variation depends upon whether the recommendations are developed for a region or for the entire Atlantic fishery.[57] Advisory committees and working groups vary in each of the regions. Few formal mechanisms exist for industry and public input except for these committees and working groups.[58] Nevertheless, informal consultation with both fishermen and processors is considered an important element in plan development.[59]

The determination of the total allowable catch available for domestic and foreign fishermen in Canadian fishery plans includes consideration of economic, social, political, and environmental concerns.[60] As one commentator noted:

> Although this sounds very much like the concept of "optimum utilization", which allows the optimum yield to be utilized for the long term, there is one basic difference. The biological reference point for the total allowable catch is approximately ten to twenty percent less than the maximum sustainable yield, and this results in conservative determinations for harvest allocations.[61]

Biologists have viewed this as a means for improving the economic efficiency of Canadian fisheries.[62] The total allowable catch is generally ex-

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54 *Id.*

55 *Id.* at 72-76.

56 *Id.*

57 *Compare id.* at 72-74 (Groundfish Plan-Making Process) *and id.* at 75 (Pelagic Plan-Making Process).

58 "The fact that advisory groups are so numerous and constantly changing makes it impossible to identify them all or even establish how many exist." Donna R. Christie, *Georges Bank— Common Ground or Continued Battleground: Comparative Marine Resource Management and Environmental Assessment*, 23 SAN DIEGO L.REV. 491, 511 n.151 (1986); VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 72.

59 "Consultation with Canadian fishermen is on an informal, individual level and consists of managers contacting union and company leaders when they want their advice or cooperation." Snow, *supra* note 8, at 309.

60 Parzival Copes, *Implementing Canada's Marine Fisheries Policy: Objectives, Hazards and Constraints*, 6 MARINE POL'Y 219, 223-24 (1982).

61 VanderZwaag, *Canadian Fisheries*, *supra* note 8, at 205 n.118.

62 *Id.*

pressed in terms of quotas for various classes of fishing vessels and specific areas.[63]

The Coastal Fisheries Protection Act provides authority for the Canadian Cabinet to police access to Canadian fishery zones by regulating the activities of foreign fishermen.[64] However, neither the Act nor its implementing regulations contain specific guidelines for determining the conditions for foreign entry or the method for allocating the allowable foreign catch.[65] Discretion and flexibility are the primary elements of this regime. The Canadian government has generally tied foreign access to surplus stocks to either trade or conservation concessions. In addition to tariff reductions, the Canadian government has negotiated for such concessions as the use of Canadian ports and processing facilities, transfer of fishing technology, and the observance of conservation measures beyond the Canadian fishing zone for fisheries important to Canada.[66]

B. The U.S. Regime

In 1976, many political forces were opposed to any further protection of the fisheries by unilateral U.S. action. The President and the State Department, concerned with goading other sovereign states into a "fish war," attempted to extend U.S. fisheries jurisdiction by rational negotiation at the United Nations Conference on the Law of the Sea.[67] The Defense Department feared that any unilateral extension of fisheries jurisdiction by the United States would induce other countries to declare their own exaggerated jurisdictional claims. This, in turn, would interfere with the free passage of U.S. warships and submarines.[68] Tuna and shrimp fishermen, fearful of foreign retaliations and closures of tradi-

63 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 74: "The Canadian catch is divided among five basic categories of vessels: under 65 feet in length/fixed gear, under 65 feet/mobile gear, 65 - 100 feet/fixed gear, 65 - 100 feet/mobile gear, and vessels over 100 feet in length. Overall quotas for the various vessel classes are set pursuant to the planning process. According to a concept called sector management, implemented in January 1982, inshore fishermen (vessels under 65 feet) may fish only in their regional sector and actual management (for example, actual division of quotas among fixed and mobile gears) would be discretionary with the Regional Director General. According to a concept called enterprise (or company) allocation, implemented on an experimental basis in 1982, the four major fish processing companies (National Sea Products Ltd., H.B. Nickerson & Sons, The Lake Group, and Fisheries Products) are granted individual quotas to be caught when and how they desire."

64 R.S.C. ch. C-21 at §§ 3,4 (1970).

65 *See, e.g.*, Can. Gaz., Vol. 4, ch. 413 (amended through 1985).

66 Copes, *supra* note 60, at 232-33.

67 SENATE COMM. ON COMMERCE AND NAT'L OCEAN POLICY STUDY, 94TH CONG., 2D SESS., A LEGISLATIVE HISTORY OF THE FISHERY CONSERVATION AND MANAGEMENT ACT OF 1976, 860.

68 *Id.* at 951.

tional fishing grounds, forcefully lobbied against any sweeping action on the part of the U.S. government.[69]

Four forces finally drove Congress to extend unilaterally U.S. control over fisheries to 200 miles. First, foreign fishing fleets were harvesting Atlantic waters to the point of near exhaustion.[70] Sixteen stocks were seriously depleted and foreign nations, left to self enforcement, were not obeying international quotas.[71] Second, foreign fishing fleets were destroying domestic fishing gear.[72] Third, the UNCLOS III talks promised no early resolution, and even if there were an early resolution, it was feared that ratification might take more than eight years.[73] Fourth, U.S. fishermen, seeing their livelihoods threatened by foreign factory ships, united against their foreign counterparts and, consequently, local cooperatives and associations grew in size and number. A powerful lobby of national organizations assailed Congress for unilateral action; action Congress finally took in the form of legislation.[74]

This legislation, the Magnuson Fishery Conservation and Management Act of 1976 (MFCMA), not only creates a 200 nautical mile fishery zone, it also establishes a comprehensive federal fishery management scheme.[75] The United States defines the scope of fisheries jurisdiction by making three claims and one disclaimer:

> The United States claims exclusive management authority over all fish within a 197 mile zone contiguous to the territorial sea; the right to manage andramous (non-sedentary) species throughout their migratory range, except where they enter foreign waters; and the right to manage continental shelf fishery resources beyond the fishery-conservation zone; it disclaims the right to manage highly migratory species of tuna within the conservation zone.[76]

State management of territorial fisheries continues primarily through representation on Regional Management Councils.[77] The New England Council, which has the greatest potential to affect U.S.-Canadian fisheries relations on the East Coast, has seventeen voting members and four non-voting members.[78] The voting members are the five directors of state marine fisheries departments, one regional director of the

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69 *Id.* at 952-53.

70 *Id.* at 260.

71 *Id.* at 239.

72 *Id.* at 237.

73 *Id.* at 249-50.

74 S. GREENE, WASHINGTON: A STUDY OF THE UNITED STATES FISH POLICY PROCESS 17-24 (1978).

75 MFCMA, *supra* note 4.

76 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 42.

77 MFCMA, *supra* note 4, at §§ 1852, 1856.

78 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 43.

National Marine Fisheries Service, and eleven "at-large" members appointed by the Secretary of Commerce from nominees submitted by state governors.[79] In general, these councils also include non-voting representatives of the Fishery and Wildlife Service, the Coast Guard, the Marine Fisheries Commission, and the State Department.[80]

With the assistance of their staffs, as well as a Scientific and Statistical Committee and additional advisors, the councils develop fishery management plans consistent with the seven federally enacted standards[81] set forth in the MFCMA.[82] These fishery management plans must include a description and assessment of the condition of the fisheries and a determination of their "optimum yield."[83] The regional councils are charged with determining domestic harvesting capacity, the portion of the optimum yield available for foreign fishermen, and the extent to which U.S. processors will utilize the domestic harvest.[84] The single most important determination made by these Fishery Management Councils regarding conservation measures is the calculation of the "optimum yield." The Act provides that the optimum yield is the amount of fish harvested that will "provide the greatest overall benefit to the nation, with particular reference to food production."[85] The actual yield is calculated taking into consideration the scientific determination of the maximum sustainable yield, modified by any relevant economic, social or ecological factors.[86] The optimum yield does not have to be expressed in terms of the amount of fish landed. It may be expressed in such terms as the amount of fish harvested in certain areas or during certain seasons or with a particular type of gear.[87]

The regional councils must then submit these fishery management plans, along with proposed regulations for implementing the plans, to the Secretary of Commerce for approval.[88] The 1983 amendments to the MFCMA impose strict timetables for Secretarial action on these fishery management plans and abbreviated time periods for promulgating regu-

79 *Id.*

80 MFCMA, *supra* note 4, at § 1852(c).

81 *See infra* note 104 and accompanying text.

82 MFCMA, *supra* note 4, at § 1851(a)(1-7). "In summary, the seven national standards require fishery management plans to establish nondiscriminatory conservation and management measures based upon the best scientific information to assure optimum yield. Fisheries should be managed throughout their range and measures should be taken to promote efficiency and avoid duplication." Christie, *supra* note 58, at 505 n. 99.

83 MFCMA, *supra* note 4, at § 1851(a).

84 *Id.* at § 1853(a).

85 *Id.* at § 1802 (18)(A).

86 *Id.* at § 1802 (18)(B).

87 50 C.F.R. § 602.11 (e)(4) (1984).

88 MFCMA, *supra* note 4, at §§ 1853(c), 1854.

lations for their implementation.[89] Congress instituted these procedural revisions to improve the efficiency of the fishery management plan development and implementation process.[90] These amendments may incidentally result in a greater role for the councils in determining domestic fishery policies because they allow regional interests greater procedural flexibility in the plan implementation process.

Public participation at all stages of development of fishery management plans is an important part of this process. Public meetings of the councils, their committees, and advisory panels provide an opportunity for discussion of fishery plans and proposed council actions.[91] Moreover, the councils must hold public meetings on management proposals in major ports and affected areas.[92] With this emphasis on public participation in the fishery management plan development processes, the MFCMA restricts judicial review of regulations promulgated to implement said plans.[93]

The fishery management plan process includes determinations of the amount of fish available for foreign fishermen in the U.S. exclusive economic zone. Through these management plans, councils may also impose conservation and management measures such as gear restrictions and designated fishing areas.[94]

Because the Act creates an absolute[95] priority for the U.S. fishing industry, the total allowable level of foreign fishing is limited to that portion of the optimum yield not harvested by domestic fishermen.[96] A 1980 amendment to the MFCMA, the American Fisheries Promotion Act, provides regional councils with an alternative formula for calculating the total allowable level of foreign fishing—essentially a program for phasing out foreign fishing in the U.S. exclusive economic zone, based on reductions in foreign fishing levels beyond actual increases in domestic harvesting capacity.[97]

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89 *Id.* at §§ 1854(a)(1)(B), 1854(b)(1), 1855(c). Regulations to implement fishery management plans must be promulgated within 110 days of the date the Council submits a plan. Regulations for plans resubmitted by the Council after disapproval must be promulgated within 75 days.

90 Christie, *supra* note 58, at 506.

91 50 C.F.R. § 601.24(b)(4) (1984). Meetings may be closed or partially closed, in certain limited instances, such as when they relate to matters of national security or employment matters. *Id.* at § 601.24(b)(4)(vi)(B).

92 MFCMA, *supra* note 4, at § 1852(h)(3).

93 *Id.* at § 1855(d)(1-2); 5 U.S.C. § 706(2)(A) (1977).

94 *Id.* at § 1853(a).

95 The Secretary of State must allot a portion of the surplus of fish to foreign nations, but there is no guarantee that such a surplus will in fact exist.

96 MFCMA, *supra* note 4, at § 1853(a)(4)(B).

97 Pub. L. No. 96-561, 94 Stat. 3296 (1980).

Once the level of foreign fishing is established, the Secretary of State, in cooperation with the Secretary of Commerce, determines the allocation of fish among foreign nations that have signed Governing International Fishing Agreements.[98] Although the list of factors considered in determining allocations contains no provisions for special deference to neighboring countries or countries that share fish stocks, it does include a general provision allowing consideration of "other matters deemed appropriate."[99] The 1980 amendment to the Act added other factors which emphasized U.S. fishery industry development and trade policies when determining foreign access to domestic stocks.[100] This policy links entry into the fishing zone to affirmative acts by a country such as reducing trade barriers and creating foreign markets for U.S. seafood exports.[101]

While the MFCMA has helped to further the goals of conservation enumerated by UNCLOS III, there are several shortcomings with the Act which have limited its effectiveness. Since the passage of the MFCMA, six major problems have plagued the U.S. fisheries management system: the council role, council composition, the lack of scientific knowledge, plan implementation, enforcement, and the poor attitudes of fishermen.[102]

The non-federal, independent status of the regional councils is emphasized in the MFCMA. The MFCMA grants councils almost exclusive plan-making powers and limits the federal role to reviewing plans for conformity with the seven national standards and other laws.[103] The contents of management plans must conform to seven national standards. The plan must:

> (1) prevent overfishing while achieving the optimum yield; (2) be based upon the best scientific information available; (3) manage a fish stock, to the extent feasible, as a unit throughout its range; (4) treat the fishermen of various states equally; (5) promote efficiency but not have economic allocation as the sole purpose; (6) allow a buffer in the optimum yield figure to account for variations in the fish resource; and (7) minimize costs and

98 MFCMA, *supra* note 4, at §§ 1821(e)(1)(a), 1821(a-c). In signing a Governing International Fishing Agreement, a country must make a commitment to follow the U.S. fishery regulations and be subject to U.S. inspection and enforcement. A country must also pay for various other items such as observers aboard their vessels, fishing fees and the costs of loss or damage to any U.S. fishing vessels or their gear. *Id.* at § 1821(c)(1-2).

99 *Id.* at § 1821(e)(1)(E)(viii). In the past, deferential consideration of foreign fishing rights has been such an "appropriate matter." *See, e.g.*, VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 43.

100 *Id.*

101 *Id.* at § 1821(e)(1)(E)(i-ii), (iv,v).

102 COMPTROLLER GENERAL OF THE UNITED STATES, PROGRESS AND PROBLEMS OF FISHERIES MANAGEMENT UNDER THE FISHERY CONSERVATION AND MANAGEMENT ACT (Jan. 9, 1979).

103 16 U.S.C.A. § 1854(b) (Supp. 1980).

duplications.[104]

The legislative history also supports the non-federal character of the councils. The original House and Senate bills, which would have made the councils more federal in character, were rejected.[105] Language from the Joint Explanatory Statement of the Committee of Conference indicates that the eleven at-large members of regional councils are not considered government employees.[106] Finally, members of Congress in various oversight hearings have strongly emphasized the independent character of the councils.[107] Two areas of federal law have threatened to undermine the autonomy of council plan making. First, the Federal Advisory Committee Act's burdensome notice requirements may prevent councils from acting with immediacy when emergency amendments to management plans are needed. In addition, these notice requirements may thwart councils from supplementing or amending management plans rejected by the Secretary of Commerce.[108] Second, application of federal criminal conflict of interest statutes to the councils could prevent industry representatives on the councils from voting on management plans because of vested financial interests in the outcomes; further, the industry representatives may be kept from considering confidential statistical data because of competitive implications.[109] One commentator offers several other explanations for the lack of autonomy of the regional councils based on the internal structure of the MFCMA and the structure of the U.S. federal system itself:

> The federal dependency of the councils may be explained by four factors. First, councils were like new workers in an established federal bureaucracy. Council members had to rely on federal officers to learn all the basics, such as who makes decisions and what guidelines to follow. A dependency once established may be difficult to overcome. Second, since council members are not full-time employees, meeting on an average of two to three days a month, a natural tendency would be to rely on full-time experts who have more time to devote to fisheries management. Third, Washington bureaucrats prefer established organizational lines and the advisory capacity is the line they are used to. Fourth, councils have relied on the Department of Commerce for funding and some staffing.[110]

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104 *Id.*

105 H.R. REP. No. 940-445, 94th Cong., 1st Sess. 10 (1975); S. REP. No. 961, 94th Cong., 1st Sess. (1975)

106 *Id.*

107 *Fishery Conservation and Management Act Oversight: Hearings Before the House Subcommittee on Fisheries and Wildlife Conservation and Environment of the Committee on Merchant Marine Fisheries*, 96th Cong., 1st Sess. 450 (1979)[hereinafter 1979 Oversight Hearing].

108 The Federal Advisory Committee Act requires 15 days advance notice in the Federal Register of committee meetings. 5 U.S.C. § 10 (1976).

109 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 47.

110 *Id.*

Council memberships have continued to be dominated by representatives from the commercial and recreational fishing industries since the adoption of the MFCMA.[111] Seventy-eight percent of the councils' at-large members are industry representatives.[112] Industry representatives control the majority in the New England council; other councils display a large share of industry representation as well.[113] Such representation indicates that it is the regulated that are doing the regulating. Thus, it appears that since regional plans are greatly affected by industry representation, such plans are subject to the short term interests of the industry representatives rather than the long-term goals of conservation intended by the Congress.

Arguably, councils have favored the subjective, short-term desires for profits of the fishing industry over the objective needs of conservation and management. As one commentator notes:

> Recent council plans have moved toward free-enterprise management where government regulation is kept to a minimum. . . . [s]uch plans may also be viewed in a more positive light. . . [t]he council has struggled seriously to maintain the proper balance of priorities: protection of the resource versus social and economic welfare of the industry. . . [e]mergency amendments may be viewed as an objective commitment to treat the economic woes of troubled fishermen. . . [t]he move toward free enterprise may also be viewed as an interim phase on the path to multispecies management.[114]

Despite the mass of scientific data collected for each fisheries management plan and the accompanying environmental impact statement, the U.S. fisheries management regime suffers from a lack of scientific information. For instance, little information exists with regard to fishing harvests of recreational fishermen. The salt-water sportfishing license, an efficient vehicle of data collection, is not required in most states.[115] Ecological research, particularly comprehensive studies of predator-prey and other inter-species relationships, is still in the developmental stages. Moreover, sociological and economic data have been so sparse and speculative that management plans have often been forced to rely on estimates of the biological conditions of existing stocks as the only valid criterion for fish stock evaluation and management.[116]

Due to the numerous regulations and guidelines that a regional council's proposed management plan must follow, plan implementation has become an administrative nightmare. "After four months to a year

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111 *Id.* at 48.
112 *Id.*
113 *See generally, id.* at 48, notes 90-91.
114 *Id.* at 48.
115 *Id.* at 49.
116 1979 Oversight Hearing, *supra* note 107, at 992-94.

of plan formulation, another 250 to 270 days is [sic] generally required for federal and public review."[117] It has been observed that "[a] simple regulatory amendment may take 120 days."[118] As a result of this tedious implementation process, only twelve management plans were implemented as of December 31, 1980.[119] Currently, management plans have been stalled in New England because of pressures from federal officials and the competing interests of regional fishermen.[120]

Enforcement of the MFCMA has suffered from four deficiencies:

> First, state regulations or lack of regulations have provided a wide loophole for fishermen to avoid federal management plans. For example, Maine has imposed no restrictions of cod, haddock or yellowtail flounder that can be harvested from its territorial waters. Fishermen have been able to catch thousands of pounds of groundfish illegally within the federal fishery zone and avoid punishment by claiming that the harvest occurred in state territorial waters. Second, low budgets have made enforcement personnel in short supply. In 1979, there were fewer than thirty agents from Maine to Virginia and only five agents in Massachusetts to cover nearly forty ports and over one thousand vessels. Third, regulations have tended to be so complex and changing that enforcement officers have had difficulty knowing which law to enforce. For example, the Coast Guard issued citations for violations of the surf clam plan only to find the fishing was actually legal under the amended plan. Fourth, prosecution of violations has tended to be slow and lax, with many cases taking years to settle and often with very small penalties.[121]

Many government officials have pointed to what may be the most serious obstacle in the U.S. fisheries management system: fishermen who resent *any* form of regulation. The tendency, particularly among New England fishermen, is to view the fisheries-conservation zone as a means to restrict foreign access, not to control domestic fishing. The fishermen therefore view any government action as an assault on independent life-styles.[122]

These are just some of the problems that have been plaguing the U.S. fisheries management system since the implementation of the Magnuson Fisheries Conservation and Management Act. The following section addresses the strengths and weaknesses of the U.S. and Canadian regimes, and offers some suggestions for reform of the U.S. system under the MFCMA.

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117 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 49.

118 *Id.*

119 *Id.*

120 *See generally*, Todd Campbell, *Politics as Usual in the Halls of Congress*, NAT'L FISHERMAN, Jan. 1991, at 22.

121 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 49-50.

122 1979 Oversight Hearing, *supra* note 107, at 177.

IV. ANALYSIS

UNCLOS III sought to ensure conservation through: (1) determination of the allowable catch; (2) ensuring that the living resources in a Coastal State's exclusive economic zone are not endangered through over-exploitation; (3) the maintenance of the maximum sustainable yield; and (4) the maintenance of species associated with or dependent upon the harvested species.[123] There are distinct differences between the Canadian and U.S. fishery management regimes. While both nations have adopted the UNCLOS III provisions for conservation (either expressly or implicitly), it appears that the Canadian regime of centralized authority, informality and flexibility is more likely to lead to the fulfillment of these goals.

While the U.S. fisheries management regime emphasizes formal procedures, bifurcation of authority in plan development and implementation, and a high degree of public accountability, the Canadian regime stresses informal procedures implemented on an ad hoc basis.[124] These regimes differ in four key areas: public accountability, flexibility, governmental authority and discretion, and the determination of the total allowable catch for foreign fishermen.

In the area of public accountability, the Canadian regime may at first appear to be inferior to the U.S. regime. However, upon closer examination, the Canadian regime may fulfill better the goals of conservation enumerated in UNCLOS III. Instead of being built upon closed meetings and discussions with members of the domestic fleet, which may lead to an unsupported determination of the total allowable catch, the U.S. procedure is constructed around a series of public meetings to receive citizen input, culminating in a detailed fishery management plan exposed to the rigors of scientific, economic and legal criticism.[125] The development of these plans and the accompanying debate are a central feature of the U.S. approach. In contrast, the only public document in the Canadian approach is the total allowable catch determination. Consultation with Canadian fishermen occurs on an informal, individual level and consists of managers contacting union and company leaders *when they want their advice or cooperation.*[126] It may appear that the U.S. procedure promotes the goals of conservation through its characteristic degree of public accountability. In fact, the U.S. procedures lead to counterintuitive results for several reasons.

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123 UNCLOS III, *supra* note 11, at art. 61(1-4).

124 Snow, *supra* note 8, at 309.

125 MFCMA, *supra* note 4, at § 1853(a); 50 C.F.R. § 601.24(b)(4) (1984).

126 Snow, *supra* note 8, at 309.

First, the U.S. regime suffers from too great a degree of public accountability. While legislators have attempted to establish limits for harvesting certain species, political pressures from New England fishermen and fishery industry representatives have thwarted such conservation measures to protect potentially vulnerable markets.[127] As the federal government launched an effort this past year to preserve New England's groundfish stocks from over-exploitation, commercial fishermen were coming into port with enough fish to make 1990 one of the most profitable harvest years in recent history. "Compared with 1989, last year's landings were up 15% and the value of the domestic harvest increased percent."[128] However, in 1990, a Massachusetts Yellowtail Flounder Task Force declared a crisis for the haddock, cod and flounder fisheries, and the New England Fishery Management Council reviewed several drastic measures to conserve groundfish stocks.[129] Moreover, groundfish sales jumped to 20,470,000 pounds in 1990 from 16,881,000 pounds in 1989.[130] This increase represents the failure of limiting harvests to further conservation goals.

Guarantees of immediate financial rewards have proven detrimental to the long-term goals of conservation. Industry representatives usually have not considered the far-reaching effects of their actions. This overfishing has reduced harvests. For example, the U.S. coastal fishermen indiscriminantly harvest species during spawning periods, effectively reducing their own resources for future years.[131] Further, New England fishermen enjoyed a record year in 1990, but with severe disadvantages for the long term:

> We have to get away from the temptation of looking from year to year. We have to look at the big picture, which is that there is much over fishing. The recently recorded figures are misleading. If more effort is expended, then more fish are caught. And if more fish are caught, the total value goes up. You are only looking at a piece of the pie. . . There's a lot of hours

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127 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 3: "Much depends on future fishing efforts and regulatory actions . . . unfavorable conditions could diminish a stock and thereby tense national nerves . . . much depends on future political rest or unrest of special-interest groups such as fishermen and processors."

128 Richard Salit, *New England Groundfish Catch is Up, But Officials Say Figures Are Misleading*, NAT'L FISHERMAN, June 1991, at 18.

129 *Id.*

130 Nancy Griffin, *Regional Update: Northeast*, NAT'L FISHERMAN, Yearbook 1991, at 4.

131 GLASSNER, *supra* note 1, at 73: "By the 1960's and early 1970's overfishing had become so severe in such places as the North Sea, the Northwest Atlantic and the coastal waters of Peru that some species were virtually exterminated, fishermen were thrown out of work and shore installations related to fishing were closed down. In some places the damage was done by local fishermen often outside the territorial sea, beyond the reach of any conservation enforcement officers there may have been." *See also id.* at 76, Table 76 (World Nominal Marine Catch).

being put in. . . A lot of these [fishermen] are really going straight out.[132]

Council members for the region have attempted to develop a five year plan to reduce fishing efforts for codfish, yellowtail flounder and possibly haddock.[133]

Conservationists, moreover, have charged that the New England council has ignored the long-term needs of these marine resources in order to satisfy fishermen's concerns. The Commerce Department's recently proposed guidelines mandate that the regional fishery management councils define and curb overfishing in the region.[134] However, inshore draggermen express wariness about fishermen being locked out of such a system. Representatives of the regional council are concerned that if the debate over limited entry delays action, "[w]e will lose the opportunity to protect the codfish that could contribute to stock rebuilding."[135] The council's stock replenishing goal is to achieve what has been defined as a twenty percent maximum spawning potential for the stock.[136] The way the council proposes to accomplish this is by reducing fishing mortality by fifty percent over the next five years.[137]

Second, the Canadian regime differs from the U.S. regime in that it emphasizes flexibility rather than focusing on rigid, formal rules. Consultations with Canadian fishermen and industry representatives are held on an informal basis when the Canadian government wants their advice or cooperation.[138] These are closed meetings on an ad hoc, flexible basis. The U.S. regime focuses upon a series of public hearings to receive citizen input.

The Canadian regime allows the Canadian federal government to utilize its own discretion, with the scientific, economic and political evidence of experts. It makes harvest determinations without the competing interests of individual fishermen and industry representatives who might not take into consideration the long-term results of their actions.[139] The Canadian government does not fall prey to the demands of localized interest groups. Unfortunately, however, the U.S. regime has experienced difficulties in implementing conservation plans in the past because of opposition by regional fishermen, who may obscure scientific findings with

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132 Salit, *supra* note 128, at 18-19.

133 *Id.* at 19

134 Susan Pollack, *New England Regulatory Knot Tightens Around Groundfishermen,* NAT'L FISHERMAN, April 1991, at 11.

135 *Id.*

136 *Id.* at 12.

137 *Id.*

138 Snow, *supra* note 8, at 309 n.5.

139 *Id.*

short term, economic concerns.[140] Therefore, the Canadian regime better utilizes available scientific data.

Third, the Canadian regime of fisheries management fulfills the goals of conservation set out in UNCLOS III through the centralization of government authority. The Canadian regime vests great discretion in the federal government.[141] In contrast, the U.S. regime is characterized by a bifurcation of authority between the regional councils and the federal government.[142] The Regional Councils must develop fishery management plans which conform to the national standards set forth in the MFCMA.[143] There is a separation between the groups that establish the standards and the groups that promulgate the rules of fishery management. This compounds the administrative process, and leads to an even greater necessity for public participation.

The Canadian regime has one level of authority vested in the federal government. Thus, less opportunity exists for industry interference in the decision-making process. Moreover, the Canadian federal government promulgates rules for fishery management and sets the standards for such rules.[144] In this manner, there is less opportunity for information to become misinterpreted or distorted to serve private interests.

Finally, the Canadian regime is better equipped to calculate the total allowable level of foreign fishing. The Canadian Cabinet has great flexibility to control entry to Canadian fishery zones by regulating the activities of foreign fishermen. While there are no formal guidelines for determining the condition for foreign entry or the method for allocating the foreign allowable catch, the Canadian government has tied foreign access to surplus stocks to either trade or conservation concessions.[145]

The American Fisheries Protection Act provides Regional Councils with formulae for calculating the total allowable level of foreign fishing. This determination is then either passed or declined by the Secretary of State.[146] The 1980 amendment to the MFCMA added factors for foreign fishing determinations emphasizing U.S. fishing industry development policies. Thus, entry into the U.S. exclusive economic zone is linked to affirmative acts by a country which reduce trade barriers and create markets for U.S. fish exports.[147] The U.S. regime emphasizes only strict

140 Pollack, *supra* note 134, at 12. *See also* Salit, *supra* note 128, at 18-19.
141 R.S.C. ch. F-14; ch. C-12 (1970).
142 *See generally*, VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 43-46.
143 MFCMA, *supra* note 4, at § 1851(a)(1-7).
144 R.S.C. ch. F-14; ch. C-12 (1970).
145 Copes, *supra* note 60, at 223-24.
146 MFCMA, *supra* note 4, at § 1853(a).
147 Pub. L. No. 96-561, 94 Stat. 3296 (1980).

trade policy concessions, ignoring conservation measures which are encouraged by the provisions of UNCLOS III.

There is no doubt that the MFCMA has had little success in the New England region. The reason for this poor performance is evident: very little attention has been paid to limiting entry of *domestic* fishermen. The result has been a drop in average weight landed by fishermen in the region from over 42,000 pounds in 1962 to less than 27,000 pounds in 1987, and a decline in average earnings per fisherman from approximately $5,500 in 1979 to approximately $3,500 in 1987 (adjusted by the Consumer Price Index).[148] The number of domestic fishing vessels over five tons has nearly doubled since 1976, but the domestic harvest has not increased by nearly as much, and the most important species continue to be over-harvested.[149]

For each of the above discussed reasons, the U.S. regime appears to be less effective at meeting the goals of conservation enumerated under UNCLOS III. The following section seeks to address possible reforms to the U.S. regime in light of these findings.

V. RECOMMENDATIONS

Upon reviewing these two regimes, the Canadian regime actually fulfills the conservation goals of UNCLOS III. The United States may reform the structure of its management scheme through several means.

The United States could amend the Magnuson Fishery Conservation and Management Act in such a way as to limit the role of the Regional Councils, either by making their roles advisory or eliminating the Regional Councils completely. Through such a revision, the U.S. federal government would have a greater opportunity to eliminate many of the private interests that run contrary to conservation goals.[150] However, since such a proposal is contrary to the democratic idea of equality of representation, it is unlikely to win much popular support.[151]

Yet another suggestion would be to implement standards utilizing the most current scientific data available at the federal level which would then be followed by the Regional Councils. Through this procedure, the

148 J.L. McHugh, *Fisheries Under the Magnuson Act: Is it Working?*, 21 OCEAN DEV. & INT'L L. 225 (1990).

149 *Id.* at 255-56.

150 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 48: "Since the regulated tend to do the regulating, councils have arguably favored the subjective whims of the fishing industry rather than the objective needs of conservation and management."

151 While this assertion begs the discussion of similarities between the overall U.S. and Canadian government structures, such a discussion would be too unwieldy to be discussed herein and is best left to another study.

federal government would set conservation goals to be observed by all of the regional fisheries. This centralization of authority would eliminate much of the discretion now held by the Regional Councils. These councils are highly responsive to regional interests and might not consider the long-term effects their actions have upon the fisheries under their jurisdiction.[152] Currently, the U.S. regime does not effectively allow for internalization of the economic externalities created by domestic harvesting. Following this suggestion, the federal government could amend the MFCMA in such a manner as to centralize it in a way similar to the Canadian regime.[153] This centralized, federal structure in Canada allows for federally mandated internalization of the economic externalities created by domestic fishermen.[154]

In implementing these formal standards for conservation, the federal government may also choose to eliminate many of the requirements for formal hearings at either or both levels of the decision-making process. While such standard-setting does require some minimum procedural hearings, the organic statute (the MFCMA) may be amended to eliminate such hearings at the federal level, at the stage of promulgating standards to be followed by the Regional Councils. While it is true that these standards must take into consideration the best scientific and economic evidence available, other factors should also be considered. It is at the regional decision-making level that such information should be considered, but again, this evidence should not overturn existing rules based on scientific and economic data. Rather, the U.S. regime should adopt a more informal procedure similar to that of Canada, which seeks information from fishermen and fishery industry representatives on an ad hoc basis.[155]

Finally, when promulgating rules regarding foreign fishing, the United Sates should adopt a regime similar to that of Canada as well. The Canadian regime emphasizes conservation measures over domestic economic success, and encourages such conservation measures on the

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152 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 48: "In 1978, the council's groundfish plan, based on biological data, recommended a catch of 6,000 metric tons of haddock, 27,500 metric tons of cod, and 8,100 metric tons of yellowtail flounder. When the industry complained of low quotas, the council listened. In three emergency amendments the quotas soared to 29,254 metric tons of haddock and 66,340 metric tons of cod."

153 *See, e.g.*, Todd Campbell, *World Fisheries Management Earns Poor Marks*, NAT'L FISHERMAN, Yearbook 1991, at 45: "The government stepped in with an infusion of capital and created two super companies and granted them enterprise allocations, which guaranteed them fixed quotas of fish to catch. By the end of the decade, it became clear that earlier stock assessments had been far too optimistic and were drastically reduced. The Canadians have done a better job than we have."

154 *Id.* at 42-45.

155 Snow, *supra* note 8, at 309.

part of foreign states by connecting foreign fishing rights with concessions for conservation as well as trade measures.[156] The U.S. regime focuses on trade concessions much more heavily than conservation measures, and seeks to ensure an absolute priority for the U.S. fishing industry without strongly encouraging conservation.[157]

Unfortunately, it is not likely that there will be such reforms in the near future. The New England fishing industry forms a powerful lobby group and is not likely to surrender its influence over fishery management policies. The promise of immediate financial rewards obscures the larger goals of conservation. Consequently, the legislature must search further for a viable alternative to the U.S. regime which will further not only the goals of conservation enumerated in UNCLOS III, but also foster international cooperation.

VI. Suggestions for Reform

The U.S. fisheries regime does not appear to meet the conservation goals of UNCLOS III. Numerous suggestions for reform have been recommended in the past. One of those suggestions has already proven effective in managing common fisheries shared by the United States and Canada: the implementation of international treaties to jointly manage the fishery region.

Prior to 1985, Canada and the United States had unsuccessfully negotiated a salmon treaty for over fifteen years. The desired result was an accord which would limit the number of salmon harvested which originated in the rivers of the other country. The intent of such an agreement was to ensure that both countries would reap the benefits of investment in their salmon fisheries. One factor hindering such an agreement was that the fishermen who benefitted from the agreement would not be the ones who would bear the economic burdens of the agreement. As one commentator has noted:

> For instance, an Alaskan fisherman may be asked to reduce his catch of salmon destined for Canadian rivers and a Canadian fisherman may be asked to reduce his catch bound for Washington state. The Alaskan fisherman would suffer greatly, but would receive no corresponding benefit, while the Washington fisherman's stock is increased with no corresponding detriment.[158]

In 1985, the Treaty between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon

156 Copes, *supra* note 60, at 223-24.

157 MFCMA, *supra* note 4, at § 1821(e)(1)(E)(i-ii), (iv,v).

158 Citizens for Ocean Law, Ocean Pol'y News 1 (Jan. - Feb. 1985).

(Pacific Salmon Treaty, or Treaty) was ratified.[159] This treaty had been drafted to preserve the Pacific salmon, a valuable export commodity, from over-exploitation during the spawning season. Increasing over-exploitation by Canadian fishermen had demonstrated to the United States the disadvantages of noncooperation.[160]

The Pacific Salmon Treaty focuses on two fishery management principles: the first is conservation; the second addresses international harvest allocation, also referred to as equity.[161] The Treaty provides that both Canada and the United States conduct their fisheries and salmon enhancement programs so as to prevent overfishing, provide for optimum production, and ensure that both countries receive benefits commensurate with the production of salmon originating in their waters.[162] However, achievement of these goals is limited by three considerations which each nation must take into account: (1) the desirability in most cases of reducing interceptions; (2) the desirability in most cases of avoiding undue disruptions of existing fisheries; and (3) annual variations in abundance of the stocks.[163]

"Equity" is defined as a "pragmatic reformulation of the countries' state of origin principles for harvest of anadromus fish."[164] This principle of equity is consistent with Article 66 of UNCLOS III which states that nations in whose rivers anadromus stocks originate shall have the primary interest in and responsibility for such stocks.[165] Neighboring states, through whose waters the salmon migrate, and other nations fishing the stocks are required to cooperate with the state of origin to achieve conservation and management of the resource and may elect to do so through regional organizations. The managerial form used to fulfill the Treaty's conservation and equity requirements is a two-tiered, bilateral bureaucracy.

The upper tier is the Pacific Salmon Fisheries Commission. The Pacific Salmon Fisheries Commission governs the management of the Northeast Pacific. This is the region where the salmon spawn annually, a

159 Treaty Between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon, Treaty Doc. No. 99-2, March 18, 1985 [hereinafter The Pacific Salmon Treaty]; *see also* Canadian Oceans Policy: National Strategies and the New Law of the Sea 17-35 (Donald McRae & Gordon Munro eds., 1989) [hereinafter McRAE & MUNRO].

160 Thomas C. Jensen, *The United States - Canada Pacific Salmon Interception Treaty: An Historical and Legal Overview*, 16 ENVTL. L. 363, 422 (1986).

161 *Id.* at 400.

162 The Pacific Salmon Treaty, *supra* note 159, at art. III, para. 1.

163 *Id.* at para. 3.

164 Jensen, *supra* note 160, at 400.

165 UNCLOS III, *supra* note 11, at art. 66.

region shared by both the United States and Canada.[166] Representation on this Commission is divided equally between the two Coastal States, with four commissioners each from Canada and the United States.[167] The purpose of the Commission is to represent the governments of the United States and Canada in the implementation of the Treaty. Each nation has one vote in the Commission; a decision or recommendation of the Commission shall be made only with the approval of both sections.[168] "The Canadian and United States resource managers have come to mutual agreements from differing viewpoints regarding optimal management strategies."[169]

The Pacific Salmon Treaty also establishes three subordinate, bilateral panels, consisting of six representatives from each country. Decisions or recommendations of these panels also require the concurrence of both nations' representatives.[170] These panels serve as an expert staff for the Commission. They receive technical information from the two countries and from bilateral technical teams.[171] The Commission then recommends harvest regulations and limits to each country. Each country promulgates and enforces regulations to accomplish the goals of these Commission regulations.[172]

The instrumentality by which the United States seeks to meet its obligations under the Pacific Salmon Treaty is established under the domestic enabling legislation, The Pacific Salmon Treaty Act of 1985 (Treaty Act).[173] The Act identifies the respective roles of many individual actors, including the federal government, the states of Washington, Oregon and Alaska, the Northwest's treaty Indian tribes, and the commercial and recreational fishing interests.[174] The Treaty Act also sets forth the processes by which decisions are made in the U.S. section of the Commission and panels.[175] The Treaty Act was drafted by many of the same federal, state, tribal and user group representatives who participated in the final implementation negotiations of the Pacific Salmon Treaty.[176] The Treaty Act delegates to the states of Oregon, Washington, Alaska, and the twenty-four treaty Indian tribes, the principal re-

166 Joy A. Yanagida, *The Pacific Salmon Treaty*, 81 AM. J. INT'L L. 577-92 (1987).
167 MCRAE & MUNRO, *supra* note 159, at 28-29.
168 The Pacific Salmon Treaty, *supra* note 159, at art. II, para. 6.
169 MCRAE & MUNRO, *supra* note 159, at 28.
170 The Pacific Salmon Treaty, *supra* note 159, at art. II, paras. 21-22.
171 *Id.* at art. III.
172 *Id.*
173 Pub. L. 99-5, 99 Stat. 7, 16 U.S.C.A. §§ 3631-44 (West 1985).
174 *Id.*
175 *Id.*
176 Jensen, *supra* note 160, at 411.

sponsibilities for implementation of the Pacific Salmon Treaty, subject to federal government intercession if the United States is not fulfilling its obligations under the Treaty.[177]

The Treaty Act provides that the U.S. Section of the Pacific Salmon Commission will be comprised of four persons "knowledgeable or experienced concerning Pacific Salmon," appointed by the President.[178] One seat is given to an Alaskan resident appointed from a list submitted by the Governor of Alaska, one to an Oregon or Washington resident appointed from a list jointly submitted by the governors of those two states, one appointed from a list provided by the treaty Indian tribes of Idaho, Oregon and Washington, and one to a U.S. government official.[179]

Decisions of the U.S. Section of the Commission are by consensus.[180] The state and tribal commissioners are all authorized to vote, but the federal commissioner does not.[181] Alaska, Oregon, Washington and the tribes have equal input into the implementation of the Pacific Salmon Treaty. This forces internal U.S. negotiations. Although the federal commissioner cannot overrule U.S. Section decisions, the Commissioner is expected to fulfill a necessary conciliatory and advisory function.[182]

The Treaty Act strikes similar balances in the three U.S. panels. The U.S. Section of the Southern Panel, for example, has six members: five fishery managers and one user group representative.[183] The managers are required to have "fishery management responsibility and expertise."[184] One represents the federal government, one the state of Oregon, one the state of Washington, two the treaty Indian tribes, and one who is "knowledgeable and experienced in the salmon fisheries" represents the fishing industry.[185] In the U.S. Section of the Southern Panel, recommendations and decisions require the concurrence of a majority in attendance, and voting must include at least one tribal representative and both the Oregon and Washington representatives.[186]

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177 *Pacific Salmon Treaty: Hearings on H.R. 1093 Before the Subcomm. on Fisheries and Wildlife Conservation and the Environment of the House Comm. on Merchant Marine Fisheries*, 99th Cong., 1st. Sess. 95-96 (Feb. 25, 1985); 85 C.I.S. H561-21.2.

178 16 U.S.C. § 3632(a). Alternate commissioners are appointed by the Secretary of State in consultation with the Secretaries of Commerce and the Interior. *Id.* at § 3632(b).

179 *Id.* at § 3632(a).

180 *Id.* at § 3632(g)(1).

181 *Id.* at § 3632(a): "The United States shall be represented on the Commission by four United States commissioners . . . [of] these, one shall be an official of the United States government who shall be a non-voting member of the United States Section . . . ."

182 *Id.*

183 *Id.* at § 3632(b).

184 *Id.* at § 3632(c).

185 *Id.*

186 *Id.* at §§ 3632(g)(2), (4).

The Treaty Act reserves to the United States the power to preempt (in certain limited circumstances) the decisions and recommendations of the U.S. Section of the Commission and the states and tribes. The Act anticipates two situations where preemption may be necessary. First, the Act empowers the Secretary of State to announce to the U.S. Section that the United States is in jeopardy of not fulfilling its international obligations under the Pacific Salmon Treaty.[187] The Secretary may set a deadline for action by the U.S. Section on a specific issue, if deemed necessary. If the U.S. Section has not taken action to ameliorate the Secretary's concern by that date, the issue may be referred, after consultation with the Secretaries of Commerce and the Interior, to the President for ultimate resolution.[188]

Second, the Treaty Act authorizes the Secretary of Commerce to preempt state or tribal regulations when such regulations (or failure to regulate) put the United States in jeopardy of not fulfilling its international obligations under the Pacific Salmon Treaty.[189] But even if a state or tribe is in fact jeopardizing a Treaty obligation, the Secretary of Commerce may not preempt without notice. Normally, fifteen days notice is required, unless earlier action is deemed necessary.[190] Commerce Department preemption of tribal fisheries subject to the continuing jurisdiction of a U.S. district court must be undertaken through the framework of that court's jurisdiction.[191] This restriction on the Department of Commerce was included because the district courts in western Washington and Oregon retain continuing jurisdiction over most Pacific Northwest tribal fisheries.[192]

In keeping with the general substance of the Treaty Act, which places principal responsibility for implementation and operation of the Pacific Salmon Treaty in the regional managers, certain limitations are placed on the Commerce Department's Treaty implementation role. The Treaty Act grants the Secretary of Commerce the power to promulgate

187 *Id.* at § 3632(g)(7).

188 *Id.*

189 *Id.* at § 3635.

190 *Id.*

191 Jensen, *supra* note 160, at 415 & n. 189: "Section 3635 provides in part that should the United States action be required to meet treaty obligations to Canada with respect to treaty Indian fisheries conducted in terminal areas subject to the continuing jurisdiction of a United States District Court, such action shall be taken within the framework of such court jurisdiction."

192 "Treaty Indian fisheries in Western Washington remain within the continuing jurisdiction of the United States District Court for the Western District of Washington in United States v. Washington, 384 F.Supp. 312 (W.D. Wash. 1984); tribal fisheries on the Columbia River are within the continuing jurisdiction of the United States District Court for the District of Oregon in United States v. Oregon, 302 F.Supp. 899 (D. Or. 1969)." *Id.* at 415 & n. 190.

regulations to carry out U.S. Pacific Salmon Treaty obligations in only two limited instances: (1) where the Secretary has preempted state or tribal regulations (or inaction), and (2) to institute conforming amendatory regulations in federal waters.[193] In either event, the Secretary of Commerce must first consult with the Secretary of the Interior and the appropriate regional fishery management council.[194] The Treaty Act also grants the Secretary authority to promulgate regulations in tandem with the regional councils, tribes, and states, though these regulations are not to conflict with state and tribal Treaty implementing regulations.[195] Finally, the Treaty Act provides for expedited federal court review of any regulation promulgated by the Commerce Department under the Act.[196]

Turning from the implementation of the Pacific Salmon Treaty in the United States, this Article looks to the actual application of the Treaty, and its consequences in the Pacific Northwest. Once the joint custodians of the Pacific salmon agree on optimal salmon management policies, bargaining is limited to the allocation of economic rewards derived from the region.[197] As stated previously, in carrying out its functions, the Commission is governed by two principles: equity and the prevention of over-fishing, and to provide for optimal production for both Coastal States.[198] Commentators have remarked that this system has advantages for both Coastal States in economic terms. Even more importantly, uniform conservation measures have also led to increased efficiency in the harvesting of salmon stocks, and an increase in existing stocks as well.[199]

Recently, researchers have studied the strength and size of Pacific salmon stocks. Salmon stocks in two of the Pacific Northwest's rivers could be declared threatened or endangered under the Endangered Species Act, depending upon the outcome of a complex process set in motion in 1990.[200] In the past five years, there has been a marked decline in

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193 16 U.S.C. §§ 3636(a), (b).

194 *Id.* at §§ 3635, 3636.

195 *Id.* at § 3636(b).

196 *Id.* at § 3636(c).

197 MCRAE & MUNRO, *supra* note 159, at 31: "If it were necessary to measure precisely the benefits of salmon production, the opportunities for wrangling would be limitless. What, for example, is really meant by the 'economic benefit' of a Fraser-produced sockeye or a Columbia-produced chinook? Economists and lawyers could debate the issue endlessly." *See also* Gordon Munro, *The Optimal Management of Transboundary Renewable Resources*, XII CAN. J. ECON. 355-76 (1979).

198 *Id.* at 30.

199 *See, e.g.*, Canada, Department of Fisheries and Oceans, Information Bulletin, No. 1-HQ-85-1E (1985).

200 Brad Matsen, *Regional Updates: British Columbia, Washington and Oregon*, NAT'L FISHERMAN, Yearbook 1991, at 21-23: "In April, the Shoshone-Bannock tribe in Idaho petitioned the regional director to list Snake River sockeye salmon under the Endangered Species Act. By early

total harvests in both the United States and Canada.[201] Such declines can be attributed to attempts to manage the total harvest of salmon in the Pacific Northwest, especially in light of the endangerment of several species subject to the Treaty.

While the power of management and short-term allocation of harvests is reasonably straightforward, the long-term problem of the division of the residual or "baseline" benefits from the entire set of salmon fisheries remains.

> In spite of American fears of being overall debtors, in practice the Canadian members of the Commission have taken the view that there is a rough balance between American interceptions of Fraser River sockeye salmon and the Canadian interceptions of American Chinook salmon, as allowed under the Pacific Salmon Treaty.[202]

The further point has been made that "if the Treaty succeeds in stimulating extensive enhancement and resource conservation, the relative importance of the baseline benefits will steadily decline."[203]

Such a regime may be possible to implement in the North Atlantic region, though several drawbacks are apparent. Most importantly, the North Atlantic region contains numerous indigenous species of fish.[204] Thus, rather than simply attempting to manage one species, such a treaty would in fact have to study and propose harvest allocations and conservation goals for many species, requiring much more diverse and compli-

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autumn, the council determined that there was enough evidence to study the requests, and is performing a review of the stocks which must be completed within twelve months. After that, the Secretary of Commerce has another year to determine if one or more of the species are threatened or endangered. If such declarations are made, the effects on commercial and sport fishermen, hydropower companies and other river users will be dramatic. If, for instance, one or more of the species are declared endangered, absolutely no mortality will be permitted. Because stocks are intermingled in the ocean from Alaska to California, and the taking of one species is prohibited, fishermen could be forced off the grounds entirely to avoid such a taking."

201 *Id.* at 22. In 1986, the Canadian domestic harvest of salmon was at an all time high of approximately 230 million pounds, and has since declined to approximately 190 million pounds in 1990. In 1986, the total harvest of salmon in Oregon was approximately 13.5 million pounds, and in 1990, that harvest declined to about 5 million pounds. In Washington, in 1986, the total harvest was estimated at 50 million pounds, and that harvest declined to approximately 42.5 million pounds in 1990. Thus it would appear that by limiting total harvests, the United States and Canada have attempted to increase existing fish stocks in the region that is jointly managed by them.

202 McRAE & MUNRO, *supra* note 159, at 34.

203 *Id.*

204 VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 3-25. VanderZwaag identifies several species with high conflict potential for the United States and Canada: Herring (*Clupea Harengus*); Cod (*Gadus Morhua*); Haddock (*Melanogrammus Aeglefinus*); Atlantic Sea Scallops (*Placopecten Magellanicus*); Pollock (*Pollachius Virens*); and Illex Squid (*Illex Illecebrosus*). Further, he identifies several species with moderate to low conflict potential: Atlantic Lobster (*Homarus Americanus*); Argentine (*Argentina Silus*); Cusk (*Brosme Brosme*); Redfish (*Sebastes Marinus*); Silver Hake (*Merluccius Bilinearis*); Red Hake (*Urophycis Chuss*); White Hake (*Urophycis Tenuis*); Loligo Squid (*Loligo Pealei*); and Mackerel (*Scomber Scombrus*).

cated scientific research. Further, nations outside of the United States and Canada rely upon the stocks native to the area.

In addition to simply ratifying a treaty regarding each other's fishing practices, the United States and Canada must come to an agreement regarding the determination of a total allowable level of foreign fishing for the region. Political and economic considerations must be taken into account by each party.[205] Finally, while each Coastal state may agree upon the need for conservation measures, there is considerable debate regarding the equitable proportionate share of species within the region, as several of these stocks straddle the boundaries of the exclusive economic zones of both the United States and Canada.[206] For these reasons, it might be difficult for the two nations to reach an accord as quickly as they did when devising the Pacific Salmon Treaty.

It is clear that many factual differences exist between the Pacific Salmon fishery and the North Atlantic fishery. As a result, a North Atlantic treaty would require much more intense negotiations. However, the possibility of such a treaty remains a viable alternative to the current international regime of the expression of sovereign states' rights and strict notions of territorialism.[207]

VII. CONCLUSION

It is apparent that while the U.S. and Canadian marine fishery management regimes profess to fulfill the goals of conservation expounded in the United Nations Conference on the Law of the Sea, the Canadian regime of centralized authority, informal procedures and flexibility actually fulfills the goals of (1) determining the total allowable catch; (2) ensuring that the living marine resources in the exclusive economic zone are not endangered by over-exploitation; (3) ensuring that the populations of such species are maintained or restored at levels that permit the maximum sustainable yield; and (4) guaranteeing that associated or dependent species are maintained above levels at which their reproduction may

205 *See, e.g.*, VANDERZWAAG, THE FISH FEUD, *supra* note 8, at 42 (Extent of Foreign Fishing) and at 72 (Administrative Plan-Making Procedures).

206 ROBIN R. CHURCHILL & ALAN V. LOWE, THE LAW OF THE SEA 207 (1983): "Of course, not all fish remain in a single state's exclusive economic zone all the time. Where stocks migrate between two or more exclusive economic zones or between an exclusive economic zone and the high seas, there is a general duty on interested states to cooperate in management."

207 ATTARD, *supra* note 9, at 152: "It may be argued that the existence of these bilateral treaties tends to weaken the evidence in favor of the customary rule relating to the sovereign rights for the purpose of exploring and exploiting, conserving and managing the living resources. The fact that Coastal States are prepared to allow access may indicate that they are not certain about the binding nature of said rule. On the contrary, however, the granting of access should be considered as the exercise of such rights rather than a derogation."

be seriously threatened.[208]

Perhaps if the United States were to adopt some of the elements of the Canadian regime, conservation goals would be furthered. However, a more effective means of meeting the conservation goals of UNCLOS III would be to adopt a North Atlantic Fishery Treaty with Canada, modeled after the Pacific Salmon Treaty. In this way, not only could international conservation measures be advanced, but there could also be a heightened sense of international cooperation that might lead to the adoption of such treaties in other regions where two sovereign states share common fish stocks across their exclusive economic zones. Through such treaties, it is likely that international cooperation could create uniformity in conservation measures, rather than relying upon a series of individual coastal states adopting individual, and often competing, measures. Such a system would most effectively meet the goals of conservation expressed by the United Nations Conference on the Law of the Sea, leading to an increase in available marine resources to be exploited by the world's growing population.

[208] Snow, *supra* note 8, at 309.