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Turbot Wars: Straddling Stocks, Regime Theory, and a New U.N. Agreement

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TURBOT WARS: STRADDLING STOCKS, REGIME THEORY, AND A NEW U.N. AGREEMENT

JAMISON E. COLBURN*

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I. INTRODUCTION

On March 9, 1995, Canadian Fisheries and Coast Guard vessels ventured onto the high seas to search for and seize a Spanish fishing trawler which had purportedly been overfishing a certain stock of fish in the northwest Atlantic Ocean.[1] The incident embodied the

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1. *See* John DeMont et al., *Gunboat Diplomacy: Canada Fires the First Shots in What Might Become an All-Out Fish War with Europe*, MACLEAN'S, Mar. 20, 1995, at 10.

latest phase of the historic and continuing contest between coastal states, i.e., those nations with rich fisheries located adjacent to their borders, and distant-water fishing nations ("DWFNs"), i.e., states without such a natural patrimony.[2] The two parties to the incident now face each other in a pending International Court of Justice case,[3] continue to grapple with an interim fisheries agreement which was reached in the wake of the incident,[4] and, along with the rest of the international community, continue to function within a system incapable of coping with the issues that precipitated the episode.

At issue are the peculiar factual realities of fish stocks that spend a portion of their existence on the high seas and a portion within the jurisdiction of states—so-called "straddling stocks" and "highly migratory stocks."[5] Straddling stocks have proven, thus far, to be an insuperable dilemma for the current faculties of public international law, precluding the emergence of an effective regime of managing the globe's invaluable extant fishery resources.

The Northwest Atlantic Fisheries Organization ("NAFO"), recombinated in 1978 by a multipartite agreement,[6] has as its charge,

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2. Disputes between coastal states and DWFNs typically involve several subjects of international law: (i) an international regional fisheries organization ("RFO") that sets quotas on the harvestation of fish stocks, *see* discussion *infra* Part III.A.2; (ii) an exclusive economic zone ("EEZ"), *see* discussion *infra* Part III.A.1; and (iii) a species of fish living part of its existence within this jurisdictional zone and part beyond this zone (a so-called "straddling stock"), *see* discussion *infra* Part III.B and note 127. These elements have combined to produce an intriguing international legal dilemma which is the focus of this article: the dynamics of straddling stocks, international law, and global fisheries management.

3. *See* Fisheries Jurisdiction (Spain v. Can.), 1995 I.C.J. 87 (May 2).

4. The interim agreement, in relevant part, tendered larger quotas of the stock to the European Union, *ex rel.* Spain, in consideration for an enhanced power of supervision, e.g., independent, full-time observers aboard all vessels of the states that are members of the Northwest Atlantic Fisheries Organization ("NAFO"), as well as satellite tracking systems aboard thirty-five percent of member-states' vessels in the regulatory area of NAFO. *See* Canada-European Community: Agreed Minute on the Conservation and Management of Fish Stocks, Apr. 20, 1995, Annex II, 34 I.L.M. 1260, 1269, 1271; *see also* 28 LAW OF THE SEA BULL. 34 (1995). This enhanced monitoring faculty is a prime focus of the United Nations' ("U.N.") latest instrument. *See* Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Seas of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, U.N. Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, 6th Sess., U.N. Doc. A/CONF.164/37 (1995), *reprinted in* 34 I.L.M. 1542 [hereinafter Straddling Stocks Agreement]. For a discussion of this agreement, see *infra* Part III.B.1.

5. Such stocks have been repeatedly recognized as an "intractable problem to emerge in high-seas fisheries...." U.N. DIV. FOR OCEAN AFFAIRS & THE LAW OF THE SEA, OFFICE OF LEGAL AFFAIRS, LAW OF THE SEA: REGIME FOR HIGH-SEAS FISHERIES—STATUS AND PROSPECTS ¶ 61, at 21, U.N. Sales No. E.92.V.12 (1992) [hereinafter HIGH-SEAS FISHERIES—STATUS AND PROSPECTS].

6. *See* Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 24 Oct. 1978, 1978 O.J. (L 378) 16, *reprinted in* UNITED NATIONS ENVIRONMENT PROGRAMME, SELECTED MULTILATERAL TREATIES IN THE FIELD OF THE ENVIRONMENT 60 (Iwona Rummel-Bulska & Seth Osafo eds., 1991).

inter alia, the continued health of the rich fishery situated off the coast of Newfoundland.[7] This treaty organization has been rift with antagonism and discord,[8] and the Canadian-Spanish confrontation was but another episode in the drama of a dwindling resource which has faced escalating multinational demand.[9] However, these failures have been on the carriage of a wholly unconcluded international legal order. The turbot incident spurred the negotiation and completion of a new United Nations ("U.N.") Straddling Stocks Agreement at the Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks.[10] As a result of the intensifying multilateral pressures, on August 4, 1995, the Straddling Stocks Agreement was adopted by a majority of this conference.[11]

The Straddling Stocks Agreement represents an auspicious and potentially revolutionary development of the still inchoate regime of preserving and managing global fishery resources. Without the implementation of this latest U.N. achievement in the arena of fisheries protection, grave mismanagement is sure to continue, states will be incapable of effectively ordering their usage and conservation strategies, and stocks will continue to dwindle precipitously.[12]

In Part II, this article explores the dilemmas of straddling fisheries, illustrating the inability of the international legal order, without

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7. The fishery at issue in the turbot dispute lies in a 36,000 square mile area of submerged marine highlands, east of the Laurentian Channel, known as the Grand Banks. The area, as it occurs both within the national jurisdiction of Canada and in the adjacent high seas, has been the subject of a continuing international dialogue attempting to regulate and apportion its annual exploitation. *See* PETER H. SAND, THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL AGREEMENTS 280 (1992) (surveying NAFO).

8. [Ten] years after its creation, NAFO . . . [faces] grave difficulties from two sources: (1) increasing fishing effort on straddling stocks . . . and (2) severe conflict with a very important member of the NAFO arrangement, the [European Union], over the fishing operations of the Spanish fleet . . . and Canada's attempt to conduct surveillance/enforcement operations . . . against the Spanish fleet.

Edward L. Miles & William T. Burke, *Pressures on the United Nations Convention on the Law of the Sea of 1982 Arising from New Fisheries Conflicts: The Problem of Straddling Stocks*, 20 OCEAN DEV. & INT'L L. 343, 344-45 (1989).

9. The stock which occasioned the Spanish/Canadian fallout is a species of groundfish known as turbot, or Greenland halibut. The turbot stocks of the area faced purported extinction due to over-exploitation, *see* DeMont, *supra* note 1, at 10, an issue the Canadian government continually attempted to raise with its European NAFO partners, to little avail. *See* Anne Swardson, *Canadians Drive Off Spanish Fish Trawler; High Seas Confrontation Is 2nd This Month*, WASH. POST, Mar. 27, 1995, at A13.

10. *See* Straddling Stocks Agreement, *supra* note 4, 34 I.L.M. at 1542. The convening of this conference was at the recommendation of the U.N. Conference on Environment and Development ("UNCED"), which took place in Rio de Janeiro in June 1992). *Report of the United Nations Conference on Environment and Development*, UN Doc. A/CONF.151/26, Agenda 21, para. 17.49 (1992) [hereinafter *Report of the UNCED*].

11. Straddling Stocks Agreement, *supra* note 4, 34 I.L.M. at 1542.

12. *See* discussion *infra* Part II.A-C.

the addition of the Straddling Stocks Agreement, to cope effectively with the perplexing puzzles of straddling stocks. Part III examines the current international legal constructs and the Straddling Stocks Agreement. Finally, Part IV demonstrates how this new agreement will facilitate the process of stabilizing, and rendering effective, the public international law of transboundary fisheries management.

II. THE DILEMMAS OF STRADDLING STOCKS

Straddling stocks represent economic resources over which coastal states claim jurisdiction for significant lengths of time—tracking, managing, and conserving them while the stocks are within their zones of jurisdiction.[13] Later, when the stocks migrate from the jurisdiction zone to the high seas, they are susceptible to being harvested in gross by the high-seas fishing fleets of other nations.[14] This presents a legal dilemma: with conflicting claims and policies for the resource between coastal states and DWFNs, how are state behaviors to be harmonized into a rational and cooperative system? With the majority of oceanic production coming from either (i) the exclusive economic zone ("EEZ") of the coastal state[15] or (ii) the area immediately beyond and adjacent to the EEZs,[16] the order that regulates that production necessarily must involve noncoastal states to be effective. The scientific evidence thus far rendered

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13. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 62, at 21; *see also* United Nations Convention on the Law of the Sea, Oct. 7, 1982, arts. 56-59, U.N. Doc. A/CONF.62/122 (1982), *reprinted in* 21 I.L.M. 1261, 1280 (1982) [hereinafter UNCLOS III].

14. *See Report of the Technical Consultation of High Seas Fishing*, U.N. Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, *passim*, U.N. Doc. A/CONF.164/INF/2 (1993) [hereinafter *Technical Consultation*].

15. The EEZ is a band of sea adjacent to the coastal state's territorial sea, extending seaward no further than 200 nautical miles from the low-water line along the coast as marked on large scale charts (the baseline), to which coastal states enjoy "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the sea-bed . . . and its subsoil." UNCLOS III, *supra* note 13, art. 56(1)(a), 21 I.L.M. at 1280. The EEZ has been recognized as part of customary international law, irrespective of UNCLOS III. *See* RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE UNITED STATES § 514 cmt. a (1987) [hereinafter RESTATEMENT (THIRD)]; Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.), 1984 I.C.J. 246, 294-95 (Oct. 12); Continental Shelf (Tunis. v. Libya, 1982 I.C.J. 18, 38, 47-49 (Feb. 24); *see also* discussion *infra* Part III.A.1.

16. *See* Continental Shelf (Tunis v. Libya), 1982 I.C.J. at 45. While there are highly productive local areas that lay beyond coastal states' jurisdictions, the majority of high-seas production occurs immediately adjacent to EEZs. *See id.* Moreover, much of the global harvestable production is concentrated in relatively small areas with certain hydrographic and other characteristics. With modern technologies, such as satellite imagery and high-precision position-finding devices, stocks are becoming progressively easier to locate. Thus, despite the immense surface area of the high seas, the harvestable concentrations of marine resources are generally congregated in certain well-defined areas for feeding and reproduction, rendering the stocks vulnerable to intense exploitation. *See id.* at 46-47.

indicates that efforts to manage resources optimally within an EEZ must adequately account for exploitation beyond the EEZ as well.[17]

Most typically, such stocks frequent the localized edges of wide continental shelves, e.g., the "Flemish Cap" in the northwest Atlantic,[18] or the continental slopes, necessitating an international order regulating the exploitations by both the coastal states and the DWFNs harvesting stocks on adjacent high-seas areas.[19]

The legal difficulties that attend the straddling stocks situation may be illuminated by analogy. The international community had prior occasion to settle conflicting prerogatives to fish stocks that carry fluctuating degrees of legal claim. Anadromous fish stocks,[20] though mostly managed by the coastal states of their origin, present exploitation opportunities to numerous states.[21] In the anadromous species regime, the identification and crystallization of legal claim by the coastal states lessened the degree to which other fishing fleets were permitted to exploit the stocks.[22] Straddling stocks present a

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17. *Id.* at 47. Nearly all resources taken on the high seas are managed within EEZs for some period of their life cycle. Even after such stocks reach commercially exploitable sizes, they remain "straddling" or "highly migratory." *Id.*

18. *See id.* The Flemish Cap is located in subdivision 3M of the regulatory area, approximately seventy-five nautical miles seaward of the Canadian EEZ off Newfoundland. *See id.* at 29 fig.1.

19. The palpable lack of such an interface in UNCLOS III has been roundly criticized. *See, e.g,* William T. Burke, *Implications for Fisheries Management of U.S. Acceptance of the 1982 Convention on the Law of the Sea,* 89 AM. J. INT'L L. 792, 802 (1995) ("[S]omething needs to be done to provide a more adequate high seas fishing regime than simply freedom to fish, without qualification....").

20. Anadromous fish species hatch in inland streams and migrate into the oceans, eventually becoming a target for fishing fleets that lay beyond the jurisdiction of the coastal state. *See* DAVID J. ATTARD, THE EXCLUSIVE ECONOMIC ZONE IN INTERNATIONAL LAW 186 (1987).

21. The treatment of anadromous stocks in UNCLOS III is informative by analogy. UNCLOS III, *supra* note 13, art. 66(1), 21 I.L.M. at 1282 (recognizing that "States in whose rivers anadromous stocks originate shall have the primary interest in and responsibility for such stocks"). To survive, such stocks must return to the same inland river to spawn and eventually die. This presents a difficult situation: the harvesting of these stocks by noncoastal states can often surpass the sustainable limits of exploitation, leaving no latitude for exploitation by the coastal state, which often must undertake substantial hardships to allow the stocks continued migratory access, e.g., forsaking irrigation development and electricity generation. *See* ATTARD, *supra* note 20, at 184. In the absence of comprehensive arrangements on exploitation rights, to which the coastal state enjoys a preponderance of claim, collapse of the fishery would clearly ensue. Under Article 66 of UNCLOS III, the coastal state is to establish total allowable catches within its EEZ. *See* UNCLOS III, *supra* note 13, art. 66, 21 I.L.M. at 1282.

22. The exploitation of anadromous species is to be conducted *exclusively* within the EEZ of the coastal state, with the coastal state establishing, after consultations with the other states fishing these stocks, total allowable catches thereof. *See* UNCLOS III, *supra* note 13, art. 66(2), 21 I.L.M. at 1282. The total-allowable-catch process is a precursor for the necessary agreements that are to apportion the limited usufruct in a way that minimizes "economic dislocation in such other States fishing the stocks . . . ." *Id.* Coordinated and effective management efforts under the anadromous species regime proceeded despite the factual difficulties. *See* ATTARD, *supra* note 20, at 188 n.346.

somewhat more vexing question, however. The disparity in legal claim, as between coastal states and DWFNs, is not so stark as with anadromous species, and typically DWFNs can claim a genuine and compelling interest in the stocks.[23] This unsettledness often leads to precipitous declines in management efforts and to an eventual breakdown in the order of frontier fisheries.

Without a functioning order, nations of the world will be continually drawn to further jurisdictional extensions.[24] Such an increasing monopolization of oceanic yields is an acute detriment to the nations of the world dependent upon global fisheries nutritional supplies.[25]

A. Demands

The human demands upon the oceanic resources of the world have steadily increased, despite a declining ability on the part of the oceans to replace that exploitation.[26] Perhaps the most quantifiable (and thus telling) statistic by which to gauge the future of oceanic exploitation is the human population itself. Growth of the human population has been the focus of increasing international concern.[27] The most effective assessments of a population do not merely tabulate a population's gross density, but rather assess the supporting environment's carrying capacity, i.e., the number of individuals in a given area relative to its resources and the capacity of the environment to sustain (human) activities.[28] Thus, with over 700 million people estimated to be suffering from some form of malnutrition in

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23. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 70, at 24.

24. Spontaneous extensions of jurisdiction have been at the core of the instabilities in the public international law of the oceans. *See* Bernard H. Oxman & Anatoly L. Kolodkin, *Stability in the Law of the Sea, in* BEYOND CONFRONTATION 165, 167 (Lori Fisler Damrosch et al. eds., 1995). The modern dialogue hails from the famous dictum of the Permanent Court of International Justice, which noted that international law imposes few restrictions on a state's establishment of civil jurisdiction:

> Far from laying down a general prohibition to the effect that States may not extend the application of their laws and the jurisdiction of their courts to persons, property, and acts outside their territory, [international law] leaves them in this respect a wide measure of discretion *which is only limited in certain cases by prohibitive rules;* as regards other cases, every State remains free to adopt the principles which it regards as best and most suitable.

S.S. Lotus (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 10, at 19 (Sept. 7) (emphasis added).

25. *See* Peter Weber, *Protecting Oceanic Fisheries and Jobs, in* STATE OF THE WORLD, 1995, at 21, 28 (Linda Starke ed., 1995) (detailing the effect of fisheries pressures on poorer populations that heavily rely on oceanic protein sources).

26. *See id.* at 25.

27. *See generally Report of the International Conference on Population and Development*, U.N. Doc. A/CONF.171/13 (1994) (calling upon member nations to institute various measures of population control).

28. *See* PAUL EHRLICH & ANNE EHRLICH, THE POPULATION EXPLOSION 38 (1990).

the world today[29] and with the human population projected to continue on its path of exponential growth to 10 billion by the year 2050,[30] the ability of nations to effectively and efficiently harness and preserve the Earth's carrying capacity becomes critical.[31] Cloaked within such a task is the assembling of an optimal utilization order for the world's oceans.

B. The Management of Fisheries

A phalanx of international agreements on the subject of fisheries delimitation, protection, and management currently exists.[32] These instruments have invariably been marked with a clear purpose: the maximization of any given state's fisheries access. However, the self-evident explanation of this inclination toward egoistic self-interest[33] leaves the harder question unanswered. If it is the maximization of net benefit to the decision-maker that motivates states' decisions in this and other arenas,[34] why has not a model of regulation emerged to order and normalize state behaviors to maximize the utility of the world's fisheries? The answer, simply, is that without a reliable structure of public international law that constrains (and thereby renders predictable) the behaviors of other states,

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29. *Id.* at 67.

30. *See* U.N. DEP'T OF INT'L ECON. & SOC. AFFAIRS, LONG-RANGE WORLD POPULATION PROJECTIONS: TWO CENTURIES OF WORLD POPULATION GROWTH, 1950-2150, at 22, U.N. Sales No. E.92.XII.3 (1992). Whether such an estimate represents an apex or not remains conjectural. The U.N. estimates, for instance, that the human population could theoretically reach 11.5 billion by the year 2150, *id.*, though most scholars question the sufficiency of the Earth's carrying capacity to allow such an ascendancy prior to an inevitable crash. *See* EHRLICH & EHRLICH, *supra* note 28, at 119.

31. An indispensable element of carrying capacity is ocean fisheries. The U.N. Food and Agricultural Organization ("FAO") estimates that approximately sixteen percent of human-consumed animal protein comes from fish. *See* Peter Weber, *Safeguarding Oceans, in* STATE OF THE WORLD, 1995, *supra* note 25, at 41, 43 (citing U. N. FOOD & AGRIC. ORG., MARINE FISHERIES AND THE LAW OF THE SEA: A DECADE OF CHANGE, FISHERIES CIRCULAR NO. 853 (1993)). In some regions of the world, the proportion of animal protein derived from fish reaches almost twenty-eight percent. *See id.*

32. *See* SAND, *supra* note 7, at 256.

33. The thesis that nations are perpetually attempting to maximize their net benefit by externalizing costs and internalizing gains, i.e., through treaties and other arrangements, is virtually unopposed. *See* RICHARD BILDER, MANAGING THE RISKS OF INTERNATIONAL AGREEMENT 181 (1981). Indeed, canons of treaty construction have long adopted this presumption, accrediting states with such an egoistic agenda. *See, e.g.*, MYRES S. MCDOUGAL ET AL., THE INTERPRETATION OF INTERNATIONAL AGREEMENTS AND WORLD PUBLIC ORDER at xxiv (2d ed. 1994).

34. The dichotomy of short-term gross benefits and long-term net loss is a storied paradox in international fisheries management. *See generally* PETER WEBER, NET LOSS: FISH, JOBS, AND THE MARINE ENVIRONMENT (1994).

decision-makers lack the requisite incentive to faithfully discharge their own negotiated duties.[35]

In the absence of such a crystallized order, the dynamics of a prisoner's dilemma absorb the alternatives into an inevitably sub-optimal set of choices, and the inchoate management system becomes an artifice of the overexploitation cycle.[36] Management of straddling stocks is impossible in the absence of a concrete system of incentives that counterbalances the strong pressures to exploit.[37] Historically, the state of scientific knowledge about fisheries exploitation explained much of the inaction.[38] While today there exist several certainties,[39] the need for further research continues.

The U.N. Food and Agricultural Organization ("FAO") projects that fully one half of any projected yield increases that materialize

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35. *See* Oxman & Kolodkin, *supra* note 24, at 167 n.12; *see also* discussion *infra* Part IV.B.

36. The prisoner's dilemma has been extensively explored as a device explaining state behavior in the environmental particulars of today. *See, e.g.*, Marvin Soroos, *Global Change, Environmental Security, and the Prisoner's Dilemma*, 31 J. PEACE RES. 317 (1994). The prisoner's dilemma is simply an allegory whereby the mutually self-interested actors, in gauging their alternatives, discover that each can make a noncooperative decision that could potentially benefit himself or herself, and detriment his or her counterpart greatest. "In weighing the alternatives, both actors face a situation in which the noncooperative alternative results in a more favorable outcome regardless of the choice made independently by the other party." *Id.* at 326. Thus each actor's *potentially* greatest benefit is to "defect." *Id.* However, the greatest overall utility, i.e., benefit to both actors, comes from a cooperative choice wherein both choose not to defect.

37. The dilemma of two prisoners, interrogated for what they know of each other, each without assurance of the cooperation of the other, is the metaphor. If the prisoner elects to "defect," he or she can guarantee a minimally acceptable outcome. However, if he or she refuses to defect, owing that refusal to a faith in the other prisoner—and that other prisoner defects—the first prisoner loses greatest. Thus

> rational calculations of self-interest result in a sub-optimal outcome for the two parties. In the case of military security, both bear the costs of building up their armaments and must contend with the more imposing threat of the other. If both cooperated, they could save substantially on arms expenditures and face a lesser threat from the other. *The actors could be expected to change their behaviour only if they were fully confident that the other would reciprocate their cooperation.*

See Soroos, *supra* note 36, at 326 (emphasis added). Without some guaranteed commitment to forego the exploitation of straddling stocks from DWFNs, coastal states have little incentive to "cooperate." *Cf.* Oxman & Kolodkin, *supra* note 24, at 167 n.12 (stating that the pressures to extend jurisdiction and preclude fishing *in toto* increase in the absence of an effective management order).

38. *See Technical Consultation*, *supra* note 14, at 53 ("In general, there is a need in the case of straddling demersal stocks to clarify the extent of the stocks, their spawning, juvenile and feeding areas, and their migration routes. The impact of fishing outside the contiguous EEZ on the stocks within national jurisdiction will need to be evaluated."). The uncertainties of fisheries have historically fueled their systemic vacuum of management.

39. The historic lack of any consensus (via scientific evidence) has been replaced with a measure of certainty on several issues. Chief among them is the recognized utility of a better machinery with which to coordinate, direct, and allocate the exploitation of many of the globe's dwindling stocks. *See id.* Perhaps the most important element of consensus to emerge is this recognized utility of an enhanced management apparatus. *See* discussion *infra* Part IV.B.3.

from the world's fisheries "will only be obtained through the better management and utilization of the resources."[40] The question for states, thus, inevitably becomes the balance of interests and whether to employ a short-term or a long-term appraisal.[41]

C. *The Globalization of Fisheries*

About ninety percent of the history of life on earth occurred in the oceans of the world.[42] Today, the oceans provide for much of humanity.[43] The unbending reliance on ocean production by so many nations demands that public international law adapt a system capable of optimally managing and preserving these invaluable storehouses. FAO estimates that all seventeen of the world's major fishing regions have either reached or exceeded their natural production limits.[44] In four of these regions, the catch has recently shrunk by more than thirty percent.[45] Overall, the world harvest of all oceanic resources fell by five percent from a high in 1986 and has stagnated ever since.[46]

It has historically been recognized how important oceanic resources are to the domestic economies of fishing states.[47] In 1948, the nations that fished in the Grand Banks assembled an

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40. U.N. DIV. FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, OFFICE OF LEGAL AFFAIRS, 1989 THE LAW OF THE SEA: ANNUAL REVIEW OF OCEAN AFFAIRS at 470, U.N. Sales No. E.93.V.5 (1993) [hereinafter 1989 ANNUAL REVIEW OF OCEAN AFFAIRS]. FAO projects that narrow increases in the future are possible, but only because of (i) enhanced international cooperation in management; (ii) potential shifts in, and increasingly selective, harvesting patterns; and (iii) the recruitment of previously undesired species of lower economic yield value. *See id.* Little of any projected increases will come from intensified fishing efforts. *See id.*

41. The short-term interest is the maximization of present fisheries access. The aggregate long-term interest, in light of the substantive science now emerging, is the negotiation of a stable and effective order designed to optimally manage and apportion the usage of the fishery so as to not deplete and eradicate it in the short term.

42. *See* Weber, *supra* note 31, at 43.

43. FAO estimates, for instance, that at approximately 70 million tons and 52 million tons per year, respectively, pork and beef production are second and third to annual marine fish production of 80 million tons. *See id.* at 43 n.12. Moreover, by FAO estimates, ninety percent of the global marine catch is caught in the area under examination in this article—the third of the oceans adjacent to land. *See id.*

44. *See id.* at 52.

45. *See id.*

46. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 470.

47. Regional fisheries arrangements have been around for quite some time. The earliest trace their roots to the turn of the century. *See* SAND, *supra* note 7, at 274. The post-war era has seen their progeny—RFOs—replace and surpass the arrangements of the past, both in form and function. Today, RFOs command budgetary contributions from member states, issue recommendations on exploitation strategies within EEZs, accept and discharge administrative duties under UNCLOS III, conduct substantive scientific research and development, and continue to fulfill their original duty—providing a forum for member states in their negotiations surrounding fisheries usufruct.

organization directed at coordinating their shared exploitation of the region.[48] Nonetheless, decades of increasing multilateral demands upon the Grand Banks fisheries have continued to speed their decline.[49]

One study group lucidly describes the present importance and continued decline of the world's fisheries.[50] Its report tracks fishing harvests and fleets from 1970, where it estimates that the world harvesting capacity (number of boats) began to outdistance global potential yields.[51] The empirical realities are becoming increasingly clear: the globalization of demand and overcapitalization of the world's fisheries have taxed the oceans' generating capabilities so thoroughly that global yields are now beginning to fall below the gross demands nations place upon the stocks. For instance, FAO demonstrated that between 1970 and 1990, the world fleet doubled from 585,000 to 1.2 million large boats.[52] European Union nations, FAO estimates, maintain fleets which outpace capacity harvest by forty percent.[53] The Nova Scotia trawlering industry was calculated to have four times the boats necessary for its capacity harvest.[54] And in the United States, it was simulation-demonstrated that as few as thirteen boats would be sufficient to harvest (at capacity) the East Coast surf clam fishery. In reality, there were ten times that number of boats harvesting the clams.[55]

In addition to the burgeoning human populations, which have more than quadrupled the demand on fisheries since 1950,[56] the development of revolutionary technologies, i.e., freezing at sea, the introduction of synthetic fibers in the manufacture of nets,

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48. The organization assembled to oversee the harvesting of the Grand Banks region in 1948 was the International Convention for North-West Atlantic Fisheries ("ICNAF"). *See id.* at 280. With the emergence of the EEZ, when seventy-four states declared 200-mile EEZs, and twelve more claimed EEZs greater than ten but less than 200 miles, the ICNAF arrangement became antiquated. *See* IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 208 (4th ed. 1990). Much of the regulatory area had been or was soon to be subsumed into the national jurisdiction of the coastal states of the region. *See* SAND, *supra* note 7, at 280.

49. FAO estimates that all fifteen of the groundfish species managed in the NAFO regulatory area are either straddling stocks or occur exclusively on the high seas. *See Technical Consultation, supra* note 14, at 56.

50. *See* WEBER, *supra* note 34, at 18-23.

51. *See id.* at 10.

52. *See id.* at 28.

53. *See id.*

54. *See id.* The Canadian government was even forced to begin "buying-out" many Nova Scotian fishers. *See* Ian Bailey, *Fishermen Net Benefits as Government Scales Back Industry*, OTTAWA CITIZEN, Oct. 12, 1995, at A20. Thus in 1995, it spent $31 million to buy the licenses of about 200 fishermen "to trim an oversized Atlantic fishing industry with few fish to chase." *Id.*

55. *See* WEBER, *supra* note 34, at 28.

56. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 467.

mechanical net hauling and stern trawling, as well as electronic aids and the dramatic increases in size and operational range of the crafts used,[57] have sped the depletions and concomitant shortfalls in ocean resources now being experienced in the fisheries of the world.[58]

III. THE INTERNATIONAL LEGAL ORDER OF STRADDLING FISHERIES

Over 300 treaties exist just to order the use and protection of inland marine resources, such as rivers, lakes, and drainage basins.[59] Moving out to sea, the complexity intensifies. The framework document that governs all nations' arrangements and expectations on the high seas and contiguous zones is the 1982 United Nations Convention on the Law of the Sea ("UNCLOS III"), which was adopted by the Third United Nations Conference on the Law of the Sea ("Third Conference").[60] UNCLOS III comprises over 300 articles in seventeen parts and is an instrument of immense complexity. It serves as the constitutive framework for a myriad of other instruments and orchestrations regulating states' relations and jurisdictions on the seas of the globe.[61] Despite the absence of several prominent nations to ratify UNCLOS III,[62] it has become the preeminent expression of the public international law of the sea.[63] As such, it must be the first object of analysis in any attempt to understand the discrete international legal order of straddling stocks.

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57. *See id.*

58. *See id.*

59. *See* EDITORS OF THE HARVARD LAW REVIEW, TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW 47 n.2 (1992). Inland marine management has not necessarily outperformed its oceanic counterpart. For instance, the UNCED documented and deconstructed twenty-four multilateral agreements and instruments relating to transboundary freshwater, concluding, *inter alia,* that there is an overall "lack of coordination" in the area of consultation and assistance in conventions and commissions charged with international water basin management. *See* SAND, *supra* note 7, at 307.

60. UNCLOS III, *supra* note 13, 21 I.L.M. at 1261. Usage of the word "governs" is intended, though not *precisely* accurate. It remains maximal that states which withhold their assent to an instrument are not legally bound to its terms. However, where an instrument is the product of such a consensus (e.g., a major portion of UNCLOS III), and in fact generates such a large measure of de facto assent (as with a major portion of UNCLOS III), it reaches into the realm of customary international law and takes on the character of at least quasi-governance. *See* Jonathan I. Charney & Gennady M. Danilenko, *Consent and the Creation of International Law, in* BEYOND CONFRONTATION, *supra* note 24, at 23, 42 n.83. The portions of UNCLOS III discussed herein have been recognized as customary international law. *See Introduction* to RESTATEMENT (THIRD), *supra* note 15, at pt.V n.5.

61. *See* Oxman & Kolodkin, *supra* note 24, at 165, 166.

62. Two of the most notable nations that have yet to ratify UNCLOS III are the United States and Japan. However, both have recently begun their own constitutional processes leading to ratification. *See* Burke, *supra* note 19, at 792.

63. *See* BROWNLIE, *supra* note 48, at 237.

A. UNCLOS III

On November 16, 1994, UNCLOS III entered into force.[64] Much of UNCLOS III represents a codification of the customary law of the sea as received by the states of the world.[65] Portions of UNCLOS III, however, pose new and developing questions to the community of nations.[66] UNCLOS III efforts to codify came mostly in the arena of diffuse principles, leaving many of the procedures that implement the principles to be negotiated out at some point in the future.[67]

One of the major new concepts that the international legal order still struggles to solidify is the EEZ. The EEZ substantively alters the balance of global fisheries usufruct.[68] Essentially, DWFNs have been consigned to the ten percent of the global exploitation that occurs on the high seas and in agreements with coastal states.[69] This naturally has led to greatly intensified efforts in the high seas immediately adjacent to the EEZs. Because of this shift, the EEZ has become a crucially important medium of international law, commanding stirring amounts of scientific, economic, political, and legal attention.[70] Ironically, it has occasioned the very basis of the

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64. *See* 28 LAW OF THE SEA BULLETIN 1 (1995).

65. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 9, at 7.

66. Certain sections of UNCLOS III, while beyond the scope of this article, attempt to structure newly devised schemes of public order, *see, e.g.*, UNCLOS III, *supra* note 13, arts. 150-155, 21 I.L.M. at 1295-98, and have been recognized as not reflective of customary international law. A puzzle of perhaps even greater scope—the EEZ—is treated herein only as necessary in explanation of the public order of straddling stocks. The EEZ and its concretization were the centerpieces of the UNCLOS III negotiations on fisheries. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 7, at 7. The broad consensus achieved at the Third Conference has solidly anchored the EEZ in international law. *See* RESTATEMENT (THIRD), *supra* note 15, § 511 Reporter's Note 7.

67. *Cf.* UNCLOS III, *supra* note 13, arts. 297-299, 21 I.L.M. at 1324-26. While section 2, part XV, of UNCLOS III establishes a definitive approach to dispute resolution, several substantive exceptions are made, including disputes arising from EEZ fisheries, *id.* art. 297(3), 21 I.L.M. at 1325, disputes arising from the granting of consent to the conduct of marine scientific research ("MSR") within the EEZ, *id.* art. 297(2), 21 I.L.M. at 1324-25, and disputes wherein the parties have agreed to an ad hoc system of procedures, *id.* art. 299(2), 21 I.L.M. at 1326. Most importantly, though, in the arena of regional fisheries management, UNCLOS III leaves virtually all of the development of implementing procedures and mechanisms to the RFOs and their respective futures. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 102, at 31.

68. *See* ATTARD, *supra* note 20, at 182.

69. *See Technical Consultation*, *supra* note 14, at 27 n.2. Nevertheless, exploitation on the high seas remains significant enough to frustrate management efforts absent the cooperation of DWFNs. *See id.* at 66 ("Harvesting practices involve selective allocation of fishing effort in space, time and among species and age groups using various gears in different areas and seasons . . . [certain] 'critical areas' for migrating fish and their access by fishing [must be] strictly regulated.").

70. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 5, at 7 ("[N]egotiations on fisheries at [UNCLOS III] focused on the exclusive economic zone."); *see also* H. Gary Knight, *International Fisheries Management: A Background Paper*, *in* THE FUTURE OF

emergent regime of contemporary fisheries management while at the same time complicating and obstructing the concretization of that regime. The EEZ's effects are manifold.

1. The EEZ

The EEZ, as a concept, began enveloping the international community in the 1950s.[71] Several states began recognizing the need to protect their valued coastal estuaries, many of which were then being exploited at alarming rates.[72] Initial efforts, such as the Truman Proclamation,[73] were gradually built upon,[74] and, by the 1970s, a conceptual framework had emerged. In 1958, the First United Nations Conference on the Law of the Sea ("First Conference") faced maritime jurisdictional claims ranging from three to 200 nautical miles in breadth.[75] At the First Conference, four separate

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INTERNATIONAL FISHERIES MANAGEMENT 1, 41 n.25 (H. Gary Knight ed., 1975) (detailing the various proposals that had been suggested to the Third Conference regarding the then inchoate order of exclusive zones).

71. *See* ATTARD, *supra* note 20, at 7-9.

72. *See id.* Iceland, in 1948, promulgated the Law Concerning the Scientific Conservation of the Continental Shelf Fisheries, which enabled the establishing of "explicitly bounded conservation zones within the limits of the continental shelf of Iceland where all fisheries shall be subject to Icelandic rules and control." *Id.* at 10. This first attempt prompted Iceland to promulgate its Fishery Regulations in 1952, establishing a four-nautical-mile fishery zone. *See id.* at 10-11. This promulgation ignited virulent British protests, and Iceland agreed to freeze its extensions until the completion of the pending First United Nations Conference on the Law of the Sea ("First Conference"). *See id.* In 1958, the First Conference adopted the Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205. With the passing of this convention, and with its failure to effectively establish the limits of the new fishing zone, Iceland quickly thereafter established a new twelve-nautical-mile fishery zone, and the EEZ era began. *See* ATTARD, *supra* note 20, at 11.

73. On September 28, 1945, President Truman of the United States issued a proclamation aimed at implementing conservation measures outside and adjacent to American territorial waters. Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf, Proclamation No. 2667, 3 C.F.R. 67 (1943-1948) [hereinafter Truman Proclamation]. Truman said nothing of an "exclusive economic zone" and did not claim rights to exclusive fishing, but his unilateral proclamations (on the seabed, its subsoil, and certain "conservation zones") served as the conceptual underpinnings of the subsequent extensions. *See* UNITED NATIONS, LAW OF THE SEA: EXCLUSIVE ECONOMIC ZONE: LEGISLATIVE HISTORY OF ARTICLES 56, 58 AND 59 OF THE U.N. CONVENTION ON THE LAW OF THE SEA at 1-2 (1992) [hereinafter ARTICLES 56, 58 AND 59: LEGISLATIVE HISTORY].

74. An influential event that fostered the conceptual progression of the EEZ was the self-styled 1952 Declaration of Santiago, which advanced the notion of extended exclusive zones of economic dominion. *See id.* at 3 (citing Declaration of Santiago, Aug. 18, 1952). Undertaken by several Latin American states, the Declaration of Santiago expressly advanced the 200-nautical-mile extension and expounded a duty of coastal states to adopt affirmative measures that would protect the natural resources that the coastal states-parties had peculiarly come to rely upon. *See id.* at 3-4 (citing Declaration of Santiago, Aug. 18, 1952).

75. *See* ATTARD, *supra* note 20, at 11. While Chile was the first state to proclaim a 200-nautical-mile EEZ, with El Salvador following in 1950, many states had, as early as 1951, adopted other less expansive claims, i.e., Ecuador and Peru were content with twenty-five nautical miles or less. *See id.* at 5-7.

conventions were adopted,[76] but missing from the ranks was a convention on EEZs.[77] No consensus was generated at the conference sessions, and the issue was, thus, left in flux for several years.[78]

Eventually, the U.N. undertook the issue again. At the convening of the Third Conference in 1974, 118 of the Third Conference participants were coastal states. Coastal states stood much to gain from the establishment of the EEZ (allowing the extension of economic rights beyond the customary limits of the territorial sea),[79] and the coastal-state bloc facilitated the opportunity to effectively manage the living resources of global fisheries.[80] In addition to the clear benefits of exclusion that coastal states stood to gain, the overall health of the fisheries of the world were in issue.[81] UNCLOS

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76. The First Conference adopted the following four instruments: Convention on the High Seas, Apr. 29, 1958, 13 U.S.T. 2312, 450 U.N.T.S. 82; Convention on the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 1606, 499 U.N.T.S. 311; Convention on the Territorial Sea and Contiguous Zone, *supra* note 72, 15 U.S.T. at 1606, 516 U.N.T.S. at 205; and Convention on Fishing and Conservation of the Living Resources of the High Seas, Apr. 29, 1958, 17 U.S.T. 138, 559 U.N.T.S. 285 [hereinafter Convention on Fishing and Conservation]. While implicitly avoiding the question of EEZs, the Convention on Fishing and Conservation did incorporate the Truman Proclamation, *supra* note 73, conceptually by declaring that "[a] coastal State has a special interest in the maintenance of the productivity of the living resources in any area of the high seas adjacent to its territorial sea." Convention on Fishing and Conservation, *supra*, art. 6(1), 17 U.S.T. at 141, 559 U.N.T.S. at 285. This formulation was aimed more at the encouragement of a regime of negotiated bilateral agreements to conserve fishery resources. *See* SUSTAINABLE ENVIRONMENTAL LAW § 7.1(B)(3), at 385 (Celia Campbell-Mohn et al. eds., 1993). However, many more states simply went their own route in conservation, opting not to engage in cooperative management. *See id.*

77. The conspicuous lack of production on the EEZ at the First Conference was expected. The consensus on the EEZ had simply not solidified sufficiently. *Cf.* ATTARD, *supra* note 20, at 13 (recounting the offer at the First Conference of compromise proposals by the United States and Canada, which were simply too new to attract a solid majority). However, another early opportunity to concretize the EEZ regime was lost as well. In 1970, at the Second United Nations Conference on the Law of the Sea ("Second Conference"), the measures offered failed to obtain the necessary two-thirds majority by one vote. *See id.*

78. As the First Conference adjourned, a general understanding was reached to maintain the status quo as to EEZs, hoping that the impending Second Conference would be a more fruitful opportunity to solidify the concepts. *See id.* Nevertheless, Iraq, Panama, Iran, Libya, and Iceland all adopted extending legislation soon thereafter. *See id.*

79. *See id.*

80. The International Court of Justice treated the issue in 1974 in *Fisheries Jurisdiction (U.K. v. Ice.)*, 1974 I.C.J. 3 (July 25), establishing "preferential rights of fishing in adjacent waters in favor of the coastal state in a situation of special dependence on its coastal fisheries, this preference operating in regard to other states concerned in the exploitation of the same fisheries." *Id.* at 23. The widespread support for the EEZ at the Third Conference originated in part from the 1974 juridical recognition by the court. *See* BROWNLIE, *supra* note 48, at 209.

81. As the Declaration of Santiago observed in 1952:

> Owing to the geological and biological factors affecting the existence, conservation and development of the marine fauna and flora of the waters adjacent to the coasts . . . the former extent of [customary jurisdictional limits] . . . is insufficient to permit of the conservation, development and use of those resources, to which the coastal countries are entitled.

III ultimately defined the coastal states' rights in the EEZs as sovereign "for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the sea-bed . . . ."[82] Essentially, the EEZ scheme makes the coastal state the steward of all the sea's natural resources landward of 200 nautical miles.

While the EEZ has a comparatively brief history,[83] its influence on the principles and machinery of contemporary international law has been enormous.[84] The impact of this new paradigm has been variable between states, however. Major beneficiaries, of course, have been those "developed" states, such as the United States and Canada, who have extensive EEZs and the technological harvesting capabilities necessary to take full advantage of the exclusion of foreign fleets.[85] Although the global harvest saw increases throughout the 1980s, the benefits were not equally shared throughout the world.[86] Many historically open fisheries increasingly came to be regulated by coastal states.[87] Thus DWFNs have continually been

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ARTICLES 56, 58 AND 59: LEGISLATIVE HISTORY, *supra* note 73, at 3 (quoting Declaration of Santiago, Aug. 18, 1952). Thus the unregulable exploitation of coastal estuarine resources was recognized as being an ineffective regime of optimal utilization. The scientific consensus of today overwhelmingly supports this proposition. *See Technical Consultation, supra* note 14, at 80 ("Mechanisms for enhancing the management of high seas fisheries need to be found . . . . [U]nregulated, open-access fishing is not only economically wasteful but it is increasingly becoming less acceptable to the international community . . . .").

82. *See* UNCLOS III, *supra* note 13, art. 56(1)(a), 21 I.L.M. at 1280.

83. The United States initiated the notion of an extended belt of economic jurisdiction with the famed Truman Proclamation, *supra* note 73, but it was not until the 1970s that the unique juridical formula of today's EEZ was solidified and championed in the international community. *See* ATTARD, *supra* note 20, at 40. Later, the EEZ was codified and comprehensively drafted into UNCLOS III, structuring the new regime to interface the rights of the coastal states with those of the DWFNs. *See* UNCLOS III, *supra* note 13, arts. 55-75, 21 I.L.M. at 1280-84.

84. *See* U. N. DIV. FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, OFFICE OF LEGAL AFFAIRS, THE LAW OF THE SEA: PRACTICE OF STATES AT THE TIME OF ENTRY INTO FORCE OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA at 9, U.N. Sales No. E.94.V.13 (1994) [hereinafter PRACTICE AT ENTRY INTO FORCE]. Almost every RFO has been substantially affected by the establishment of the EEZs. The International Baltic Sea Fisheries Commission, for example, suffered a significant diminution in competence with the establishment of the Baltic Sea states' EEZs. *See* SAND, *supra* note 7, at 277. Similarly, the NAFO regulatory area was substantially decreased with the subtraction of the Canadian and Greenland EEZs. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 487.

85. *See id.* at 468. The United States boasts the largest EEZ in the world, estimated at approximately 2.8 million square nautical miles. Canada, though it has declined to establish an EEZ under UNCLOS III, *see* PRACTICE AT ENTRY INTO FORCE, *supra* note 84, at 129, has an established "fishing zone" area (which amounts to the jurisdictional equivalent of an EEZ) of 857,000 square nautical miles. *See* ATTARD, *supra* note 20, at xxxiv.

86. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 487.

87. *See id.* The trend has been documented as especially acute in the NAFO regulatory area. Decreasing yields across the spectrum of harvested species have forced certain of these coastal states to curb their exploitations and, in some cases, declare moratoria on certain of the stocks. *See id.* at 488.

forced to operationalize new strategies and pursue new stocks, reduce fleet sizes, and deploy different vessel mixes in an effort to secure the same tonnage they had previously harvested in various coastal waters.[88]

Beginning as early as 1985, it was recognized that the EEZs preclusion of distant-water fleet exploitation in coastal regions had led to detrimentally intensified efforts in the high-seas areas directly adjacent to the EEZ, e.g., where straddling and highly migratory stocks occur most frequently.[89] This is the principal dilemma of any straddling or highly migratory stock: without a fully inclusive management order, any efforts made within an EEZ can be thoroughly frustrated just beyond that EEZ.[90] UNCLOS III structured the situation of coastal states and distant-water fishing fleets.[91] Efforts thereafter began to focus on establishing a machinery to speed coordination enterprises and begin the agreement process contemplated by UNCLOS III.[92] Even after the conclusion of the First Conference,

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88. Spain and Portugal exemplified the trend. As nations with extensive distant water fleets (Spain with the largest fleet in the European Union), both nations faced profound changes in their fishing strategies. *See* DeMont et al., *supra* note 1, at 13.

89. These stocks, as transients, are most easily harvested in the adjacent waters since it is at these "cross-roads" that they frequently congregate. *See Technical Consultation, supra* note 14, at 33. DWFN fleets, thus, can lay in wait for both straddling stocks and migrating stocks where they are most easily exploited. This is one of the key biological difficulties that straddling and migratory stocks present: when (or if) the coastal state undertakes unilaterally austere conservation measures, any gains that such efforts produce can easily be frustrated by DWFNs directly beyond the threshold of coastal state jurisdiction as the fish exit the EEZ. *See id.*

90. [U]nrestrained fishing of a straddling stock in an area beyond 200 miles can render useless any measures taken within 200 miles to manage that stock. Moreover, if the stock is predominantly within 200 miles during the greater part of the year, catches beyond 200 miles may be out of proportion to the actual distribution of the stock between the areas within and outside 200 miles.

HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 62, at 21. Essentially, the problems of straddling and highly migratory stocks are that the biology of these resources is just complicated enough to confound the management efforts heretofore employed. *See id.*

91. Article 63 of UNCLOS III states:

1. Where the same stock or stocks of associated species occur within the exclusive economic zones of two or more coastal States, these States shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary to co-ordinate and ensure the conservation and development of such stocks without prejudice to the other provisions of this Part.

2. Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area.

UNCLOS III, *supra* note 13, art. 63, 21 I.L.M. at 1282.

92. *See, e.g.*, ATTARD, *supra* note 20, at 184 (quoting 5 LAW OF THE SEA BULL. 46 (1985) ("[T]he States fishing for [straddling] stocks in the adjacent area are duty bound to enter

though, which codified the EEZ, concretizing it as a construct of customary international law, several nations (among them, the United States) periodically refused to recognize the jurisdiction of coastal states attempting to regulate highly migratory species within their EEZs.[93] Certain nations continue to contest the notion of jurisdiction over particular migratory species.[94]

Regional regulatory efforts and attempts to collaboratively manage the stocks have faltered in the absence of an objective, compliance-oriented procedural apparatus to structure the regional fisheries organizations ("RFOs") comprehensively. RFOs have been left to develop ad hoc, addressing problems impromptu, often establishing only the minimum possible existence.[95] The EEZ, thus, was left conceptually impaired: regardless of how distantly states are permitted to extend their jurisdictional reach upon the oceans of the world, there always exists an interface over which certain of the precious resources sought to be protected will travel. Such an interface will inevitably require a concert of action to most efficiently and effectively manage those resources. Without a construct that

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arrangements with the coastal State upon the measures necessary for the conservation of these stocks....").

93. *See id.* at 184-85. The United States, Japan, and the Bahamas had all propounded specific exceptions to EEZ jurisdiction as to highly migratory species, such as tuna. *See id.* The United States had vessels seized because of its refusal to heed coastal States' prohibitions. *See id.* at 176, 184 n.314. The predominant view has been the opposite: such stocks were in 1982, and continue to be, treated by the majority of states no differently than other living resources that fall within the EEZ. *See* Burke, *supra* note 19, at 792; *see also* BROWNLIE, *supra* note 48, at 211. UNCLOS III dealt with highly migratory species as well, expressly stating the need for regional cooperation and, where applicable, regional organizations:

> 1. The coastal State and other States whose nationals fish in the region for . . . highly migratory species . . . shall co-operate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall co-operate to establish such an organization and participate in its work.

See UNCLOS III, *supra* note 13, art. 64, 21 I.L.M. at 1282.

94. However, in 1992, the United States ended its long dissent to the assertion of coastal state jurisdiction over highly migratory species, such as tunas, marlins and sharks. *See* Magnuson Act, 16 U.S.C.A. § 1802(14) (Supp. 1996). The Magnuson Act directs the Secretary of Commerce to "cooperate directly or through appropriate international organizations with those nations involved in fisheries for highly migratory species with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout their range, both within and beyond the exclusive economic zone." *Id.* § 1812.

95. The North-East Atlantic Fisheries Commission, as its regulatory area encompasses few resources (virtually all exploitable stocks in the region fall within the EEZs of member states) and relies almost entirely on the International Council for the Exploration of the Seas for its marine scientific expertise, fulfills little function indeed. *See* SAND, *supra* note 7, at 289. The commission has even complained of problems in members' timely submission of data inputs. *See id.*

has been negotiated and consummated within the international community, state behaviors will be left to short-term calculations that unfailingly disrupt an optimal long-term balance.[96] Certainly, a stable public international order is the clearest precondition to any such long-term balance.[97]

Another important development of UNCLOS III was its focus upon and encouragement of regional bodies designed to regulate and facilitate the intelligent use of the planet's marine resources.[98] In no fewer than eight references, UNCLOS III calls upon states to establish such bodies and to work toward their efficacy.[99]

2. *RFOs*

Several RFOs presently span the globe.[100] These organizations function under the rubric of UNCLOS III, through its several explicit

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96. For decades, the jurisdictional extensions by coastal states constituted the prime modality of such disruption. *See* Oxman & Kolodkin, *supra* note 24, at 166 ("The twentieth century revolution in the law of the sea has witnessed a massive distribution of control over uses of the sea to coastal states.").

97. As commentators have noted:

> The question of whether the law of the sea has been stabilized is essentially a question of whether expansions of coastal state authority beyond those permitted by . . . [UNCLOS III] will occur. These can take two forms. One is expansion of the geographic limits of the area to which a regime of coastal state jurisdiction applies, such as the territorial sea, the exclusive economic zone or the continental shelf. Another is the expansion of coastal state substantive authority within the area subject to a particular regime. In either case, the question is stability in fact: are coastal states being restrained from making or maintaining more expansive claims?

Id. at 167.

98. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, at v. Extensions by coastal states are not necessarily an artifact of history, despite the receipt of UNCLOS III. Prior to the turbot incident, a Canadian commission concluded that that nation's best hope for fisheries preservation was to extend its exclusive fishing zone to 300 nautical miles. *See* Patricia Birnie, *International Environmental Law, in* THE INTERNATIONAL POLITICS OF THE ENVIRONMENT 51, 61 n.26 (Andrew Hurrell & Benedict Kingsbury eds., 1992) (citing 29 FISHING NEWS INT'L 2 (1990)). The commission's conclusions were ultimately abandoned in favor of the Coastal Fisheries Protection Act amendments which "empowered" Canadian officials to seize the Spanish trawler in the NAFO regulatory area. An Act to Amend the Coastal Fisheries Protection Act, May 12 1994, 1994 S.C. (Can.); *see also* U.N. DIV. FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, OFFICE OF LEGAL AFFAIRS, THE LAW OF THE SEA: CURRENT DEVELOPMENTS IN STATE PRACTICE NO. IV at 29, U.N. Sales No. E.95.V.10 (1995) [hereinafter CURRENT DEVELOPMENTS NO. IV].

99. *See* UNCLOS III, *supra* note 13, arts. 55-75, 21 I.L.M. at 1280-84.

100. *See* SAND, *supra* note 7, at 256. In addition to NAFO, there are the following RFOs: the Indo-Pacific Fisheries Commission, the International Baltic Sea Fishery Commission, the Inter-American Tropical Tuna Commission, the General Fisheries Council for the Mediterranean, the Permanent Commission on the South Pacific, the South Pacific Forum Fisheries Agency, the North-East Atlantic Fisheries Commission, the International Commission for the Conservation of Atlantic Tunas, and the North Atlantic Salmon Commission. *See id.* at 300; *see also* CURRENT DEVELOPMENTS NO. IV, *supra* note 98, at 188 (detailing the newly instituted Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean).

reliances upon them,[101] as well as its presupposition of their existence apparent in its contemplated scheme of the world public order of ocean fisheries.[102] Given the ubiquity and near universal acceptance of the duty of states to "promote the objective of optimum utilization of the living resources," both within their EEZs[103] and on the high seas,[104] the importance of RFOs—to coordinate and correlate states' efforts directed at conservation, preservation, and the establishment of rational utilization schemes--becomes manifest.[105] Certain duties that many RFOs discharge are consistently well handled.[106] However, certain other issues and duties have been persistently degenerative to the order of RFOs.[107] Moreover, disparity between organizations, some with successes, some with failures, has been prevalent.[108]

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101. *See* UNCLOS III, *supra* note 13, arts. 61-62, 118-119, 21 I.L.M. at 1281, 1291.

102. UNCLOS III vests states with the right to exploit the living resources of the high seas, "subject to their treaty obligations." *Id.* art. 116, 21 I.L.M. at 1290. This notion of treaty-negotiated management of high-seas exploitations proceeds from a presupposition of shared and coordinated interests. The paradigm, of course, augments the importance of the RFOs, defining them, essentially, as the sole instrumentality of U.N. directed multilateral management efforts. Thus, without an effective development of the RFOs, management and conservation successes stand little chance of materializing. *See id.*

103. *See* UNCLOS III, *supra* note 13, art. 62, 21 I.L.M. at 1281 (art. 62); *see also* Knight, *supra* note 70, at 2, 23 ("Optimum sustainable yield was established as the international management criterion for fisheries in the Convention on Fishing and Conservation of the Living Resources of the High Seas."). The calculation of an "optimum sustainable yield" often becomes more a political than a scientific question, given the fact that "raw data is always subject to interpretation and . . . there can be as many interpretations of fisheries data as there are interpreters." *Id.* at 24. The *Technical Consultation* recognized "the inherent political nature of fisheries management, particularly when allocations within a fishery are necessary as a basis for management. [FAO Strategy] also acknowledges that coastal States and distant-water fishing nations have divergent interests . . . . " *Technical Consultation, supra* note 14, at 70. Nevertheless, the duty to conserve is firmly established in the public international law of oceanic management. *Cf.* BROWNLIE, *supra* note 48, at 265 (recognizing that UNCLOS III changed little of the duty to conserve as it was received from the 1958 Convention in Fishing and Conservation). Better facilitating the discharge of this duty is now the task of the international legal order.

104. *See* UNCLOS III, *supra* note 13, arts. 116-117, 21 I.L.M. at 1290-91.

105. UNCED incorporated several references to fisheries management into its final document. *See Report of the UNCED, supra* note 10, at para. 17.49.

106. Chief among the functions that most RFOs claim as relative successes are the conduct, facilitation, and exchange of MSR. The primary MSR organization of the fisheries management order of the Atlantic is the International Council for the Exploration of the Seas. *See* SAND, *supra* note 7, at 274. The council acts as both broker and provider of major scientific contributions to the RFO order. *See id.* at 275. Many of the RFOs, indeed, rely solely on ICES for the supply of the MSR utilized in the conduct of management operations in the Atlantic. *See id.*

107. *See* Miles & Burke, *supra* note 8, at 350.

108. *See Technical Consultation, supra* note 14, at 70. A host of factors can be attributed to the differing levels of success, but chief among them has been the inability to affect, much less control, the unregulable fishing by noncontracting parties. *See id.* at 71. Such free-riders are an historic dilemma of RFOs and are amongst the chief foci of the Straddling Stocks Agreement. *See* discussion *infra* Part III.B.1.

Parties to the organizations, by their respective accessions to the instruments, clearly have manifested an intent to participate in the regional management schemes. However, there exists no legal obligation on the part of nonparty states to abide by the rules and procedures of regional fisheries arrangements.[109] Such states remain free to enter upon and exploit the regulated stocks, straddling or otherwise, which lie on the high seas, regardless of what treaty organizations exist to manage the stocks. Thus the paradox of the RFOs has historically been that nonparty states, while not observing any of the restraint in the fisheries' exploitation that member states do, have benefited from the management schemes by their recruitment of the stocks without self-limitation.[110] This has virtually precluded the formation and crystallization of the regimes that the instruments have potentialized and has consistently frustrated efforts of many of the RFOs.[111]

Typically, the first task of an organization charged with regulating a fishery is to establish a total allowable catch for each of its stocks.[112] Some RFOs have had trouble even traversing this

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109. Without the manifestation of consent in some fashion, obligations from treaties are rarely thought to attach to states. *See* Vienna Convention on the Law of Treaties, *opened for signature* May 23 1969, art. 2, 1155 U.N.T.S. 331, 333 [hereinafter Vienna Convention]. Thus states that are not formally parties to RFOs have not, historically, been subject to the regime.

Nonetheless, the Vienna Convention specifically reserves for individual consideration the inquiry of whether customary law incorporated into a treaty or convention can create both rights and obligations for states which are not parties to the instrument. *See id.* art. 38, 1155 U.N.T.S. at 341. The principles of optimal use management and the duty to conserve found within UNCLOS III, given their *erga omnes* character, would seem likely candidates for such universality.

110. "Free-rider" problems are common to a prisoner's dilemma scenario and its non-defecting actors. *See supra* notes 36-37 and accompanying text. The Straddling Stocks Agreement affirmatively addresses the free-rider problem by creating a duty for states that utilize a fishery to enter into the regional fishery body that manages that resource. *See* discussion *infra* Part III.B.1.

111. Conservation obligations taken upon one's own state, while difficult in domestic political terms, become virtually indefensible when detractors can point to other states' lack of restraint. *See* Miles & Burke, *supra* note 8, at 350. Consequently, one of the chief functions of the RFOs that members consistently pledge to undertake is the entrainment of nonmembers into the principles and limitations of the organizational arrangements. *Cf.* SAND, *supra* note 7, at 281 (comparing NAFO measures directed at nonmembers to those of the North Atlantic Salmon Conservation Organization). A chief focus of the NAFO membership has been to target fishing activities in the regulatory area by nonmembers. *See* U.N. DIV. FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, OFFICE OF LEGAL AFFAIRS, 1990 THE LAW OF THE SEA: ANNUAL REVIEW OF OCEAN AFFAIRS at 211, U.N. Sales No. E.94.V.1 (1993) [hereinafter 1990 ANNUAL REVIEW OF OCEAN AFFAIRS] ("All Contracting Parties should take effective measures to reduce the benefits of any fishing activities undertaken by vessels from non-Contracting Parties in the NAFO Regulatory Area . . . .").

112. *See id.* at 192-93.

hurdle.[113] Irrespective of total allowable catches, though, many RFOs quote straddling and migratory stocks as their most vexatious influence.[114] Protracted campaigns on sundry other issues throughout the management order have occurred as well.[115] Importantly, virtually none of the existent RFOs possess the authority to command dissenting member states in any substantive way.[116]

In the case of NAFO, a further problem existed as certain members of the European Union were chary to accept the minuscule quotas the European Union Fisheries Ministry had negotiated for them.[117] Accordingly, not even *members* of NAFO fully implemented its conservation order.

Finally, these organizations, as mentioned above, attempted to cope with a newly constructed paradigm in international law—that of the EEZ. Scores of new arrangements between states regarding

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113. The International Baltic Sea Fisheries Commission quotes troubles in even establishing its total allowable catches. *See* SAND, *supra* note 7, at 278. The uncertainty regarding the total allowable catch stems from an incomplete scientific understanding of the stocks at issue. *See id.* Attempting to augment the commitment to MSR is another focus in the Straddling Stocks Agreement. *See infra* note 129 and accompanying text.

114. In addition to NAFO, which has suffered a long history of troubles with straddling stocks, *see* Miles & Burke, *supra* note 8, at 344, the International North Pacific Fisheries Commission complains of severe troubles with straddling stocks as does the Permanent Commission on the South Pacific. *See* SAND, *supra* note 7, at 270-73. The Bering Sea configuration of EEZs of Russia and the United States (in the northern-most part of the Pacific) has been a site of historic bilateral straddling stocks dilemmas as well. *See generally* William T. Burke, *Fishing in the Bering Sea Donut: Straddling Stocks and the New International Law of Fisheries*, 16 ECOLOGY L.Q. 285 (1989).

115. The Inter-American Tropical Tuna Commission ("IATTC"), for instance, continues to grapple with the regulation of its stocks (which include tuna as well as other apical predator species, *see Technical Consultation*, *supra* note 14, at 40) in the EEZs of various coastal states. *See* SAND, *supra* note 7, at 264. Prior to the institution of the EEZ regime, the IATTC had established a rather effective stocks maintenance order. *See id.*

116. *See Technical Consultation*, *supra* note 14, at 72. Certain treaties and treaty-based organizations have established decision-making systems that bypass dissenters and proceed occasionally on the basis of a majority vote. *See generally* THOMAS BUERGENTHAL, LAW-MAKING IN THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (1969) (discussing the power of a majority within the International Civil Aviation Organization to adopt measures that are legally binding on all states parties). However, such legal mechanisms do not typically frequent RFOs. *See* SAND, *supra* note 7, at 278, surveying the International Baltic Sea Fisheries Commission ("The entry into force of . . . [recommendations of the International Baltic Sea Fisheries Commission] is subject to an opting-out procedure *preventing a Party from being bound by any recommendation to which it objects*") (emphasis added); *see also id.* at 282 ("Measures adopted by the [NAFO] Commission enter into force [only] after an opting out procedure that prevents any commission member from being bound by a measure to which it objects.").

117. *See* DeMont et al., *supra* note 1, at 11 (stating that, by Canadian estimates, European Union boats in the NAFO regulatory area took but two weeks to catch more than double their quota of turbot).

the exploitation and conservation of fish stocks within the EEZs have been needed.[118]

Together, these two phenomena advanced by the UNCLOS III arrangement substantially alter the emerging legal realities that states presently grapple with in their fisheries policies. This changing landscape of transboundary fisheries law on the international plane, coupled with the downward trends in oceanic production,[119] has created a vacuum of world public order to cope with the perplexing troubles of straddling stocks. Such a vacuum is given to incidents like that on the Grand Banks. Though many of the dimensions of the newly institutionalized EEZs have generated a consensus and are now en route to clarity and concretization, the need for a sound matrix surrounding the utilization of straddling and transboundary fish stocks remains unfulfilled.[120]

B. The Straddling Stocks Agreement

While the international legal order and its actors recognize zones of exclusive economic jurisdiction, marine fauna do not.[121] Many stocks of fish "straddle" these boundaries, living portions of their existence within the zones, and portions on the previously irregulable high seas. Such stocks present a unique juridical dilemma for actors within the international legal order. It is possible to make a clear and material legal claim to these fish while they are within the economic frontiers of a state, as well as to the authority to orchestrate and enforce a management strategy therein; however, such a claim is compromised during the period of the stocks' lifecycle on the high seas where unmitigated exploitation occurs.[122] What legal

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118. *See, e.g.*, Agreement on Fisheries, Dec. 30, 1981, Can.-Eur. Econ. Community, 21 I.L.M. 33 (structuring each nations' respective access to the EEZ of the other).

119. *See* discussion *supra* Part II.A.

120. Thus Professor Burke concluded that the single greatest weakness of the current system is its lack of an adequate compliance-oriented structure. *See* WILLIAM T. BURKE, THE NEW INTERNATIONAL LAW OF FISHERIES 144 (1994). In a preamble to the Straddling Stocks Agreement, the lack of "'effective implementation of the provisions of the United Nations Convention on the Law of the Sea'" in managing migratory and straddling fish stocks is cited as a preambular reason for the Straddling Stocks Agreement. Straddling Stocks Agreement, *supra* note 4, pmbl., 34 I.L.M. at 1542.

121. *See, e.g.*, E.D. BROWN, 1 THE INTERNATIONAL LAW OF THE SEA 417 (1994) ("Fish do not remain in tidy, exclusive fishery zones . . . ").

122. Under Article 116 of UNCLOS III, "[a]ll States have the right for their nationals to engage in fishing on the high seas *subject to* (a) their treaty obligations; (b) the rights and duties as well as the interests of coastal States provided for, *inter alia*, in . . . [UNCLOS III]." UNCLOS III, *supra* note 13, art. 116, 21 I.L.M. at 1290 (emphasis added). Notwithstanding this article, in the absence of some effective multinationally negotiated apparatus, i.e., an RFO that affirmatively regulates, high-seas fishing goes largely unchecked. *See Technical Consultation, supra* note 14, at 59.

rights and duties to these fish exist while they are beyond the EEZs?[123] Thus far, this has been an unanswered question,[124] and the primary destabilizing and frustrating influence of management and conservation attempts.[125]

Straddling stocks have unequivocally been a confounding influence to the negotiations and measures of the RFOs.[126] The international legal order, in other words, continues to evolve around the difficult biological realities of the subject matter in issue.[127] The

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123. While the difficulties were hardly comprehensively addressed by the Third Conference in 1982, the final instrument included a litany of measures which encouraged the establishment of RFOs. *See* UNCLOS III, *supra* note 13, arts. 61-65, 116, 118-119, 21 I.L.M. at 1280-82, 1290-91. Thus Article 64(1) provides:

> *The coastal State and other States whose nationals fish in the region* . . . shall cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall co-operate to establish such an organization and participate in its work.

Id. art. 64(1), 21 I.L.M. at 1282 (emphasis added).

124. *See* Burke, *supra* note 19, at 805 ("At present, the general view is that . . . [UNCLOS III] does not deal with this problem adequately . . . ."). Commentators have posited that the most acute shortfall of UNCLOS III was its manifest lack of dispute resolution procedures, i.e., some apparatus of reference for fisheries disputes. *See id.*

125. Over the course of the last two decades, the need for an objective regime of implementation, i.e., some procedural apparatus to execute the girth of UNCLOS III substantive principles and rules regarding conservation (regional and otherwise), has become manifest. The dilemma has been raised repeatedly throughout the international community. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 53, at 19. The culmination of the debate, of course, was the NAFO incident. The Canadian need to regulate the taking of stocks that had exited the EEZs became a domestic political imperative in the turbot incident. *See, e.g.*, DeMont et al., *supra* note 1, at 10 ("40,000 fishery workers, [who] have been put out of work by moratori[a] to save depleted . . . stocks, [applauded] a tough stance against foreigners who they say have been pillaging fish in Canada's backyard for the past five years.").

126. Various RFOs have undertaken the problem of straddling stocks, only to meet with frustration. NAFO exemplifies the problem:

> The matter has been the subject of dispute in [NAFO] . . . which has jurisdiction under its Convention to set quotas for those stocks in so far as they are found beyond the Canadian 200 mile fishing zone. However, NAFO has not been successful in securing the agreement of all its members on those quotas. The party that disagrees simply sets its own independent quotas for the stocks in question. A further problem is created by States that are not members of NAFO and who thus fish on the . . . Bank in an unregulated way.

HIGH SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 63, at 21-22.

127. The ecological needs of fish species infrequently respect political frontiers. Historically, some states have used this biological reality to challenge the jurisdiction of coastal states over species that trek into an EEZ. *See id.* ¶ 53, at 19. The fishing states would claim high-seas fishing freedoms, *see* UNCLOS III, *supra* note 13, art. 116, 21 I.L.M. at 1290, and simply follow the species into the EEZ. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 53, at 19. Conversely, some species primarily make their habitat within the coastal region but venture out of it during particular parts of their lifecycle. These straddling species, while recognized as a preferential interest of the coastal state, even while they are on the high seas, are also of special economic interest to DWFNs, which have, under the UNCLOS III paradigm,

promulgation of the Straddling Stocks Agreement is the international legal order's response to this confounding influence. The Straddling Stocks Agreement represents a development of the international regime of fisheries management in several dimensions. In several ways,[128] this agreement expands the commitment to management by (i) promoting the accumulation and dissemination of reliable fisheries information and analyses;[129] (ii) increasing the transparency of fisheries management operations;[130] and (iii) harmonizing management practices amongst state parties.[131] The

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been deprived of a great majority of the exploitable resources they once enjoyed. Moreover, it can often be just as vital to a stock that its "associated species" (prey and predators) are not disruptively exploited. *See Technical Consultation, supra* note 14, at 66. Thus a management regime that fails to address the entirety of the natural situation of frontier fisheries is doomed to fail. *See supra* note 69.

128. Compliance mechanisms, the true gravamen of the Straddling Stocks Agreement negotiations, are more thoroughly surveyed below. *See* discussion *infra* Part III.B.1.

129. Several operative provisions of the Straddling Stocks Agreement seek to enhance the MSR capabilities of member states. Most importantly, perhaps, Article 14 structures the MSR commitments of member states' vessels:

> 1. States shall ensure that fishing vessels flying their flag provide such information as may be necessary in order to fulfill their obligations under this Agreement. To this end, States shall . . .
>
> (a) collect and exchange scientific, technical and statistical data with respect to fisheries for straddling fish stocks and highly migratory fish stocks;
>
> (b) ensure that data are collected in sufficient detail to facilitate effective stock assessment and are provided in a timely manner to fulfill the requirements of regional fisheries management organizations or arrangements; and
>
> (c) take appropriate measures to verify the accuracy of such data.
>
> 2. States shall cooperate, either directly, or through subregional or regional fisheries management organizations or arrangements:
>
> (a) to agree on the specification of data and the format in which they are to be provided to such organizations or arrangements . . .
>
> (b) to develop and share analytical techniques and stock assessment Methodologies to improve measures for the conservation and management of straddling fish stocks and highly migratory fish stocks.
>
> 3. Consistent with Part XIII of the [1982] Convention, States shall cooperate, either directly or through competent international organizations, to strengthen scientific research capacity in the field of fisheries and promote scientific research related to the conservation and management of straddling fish stocks and highly migratory fish stocks.

Straddling Stocks Agreement, *supra* note 4, art. 14, 34 I.L.M. at 1557. In addition to the enhanced commitment to MSR, the Straddling Stocks Agreement also creates a duty to harmonize conservation and management measures. *Id.* art. 7, 34 I.L.M. at 1552-53.

130. Transparency of RFO fisheries policies and operations, as addressed in the Straddling Stocks Agreement, represents an avenue of RFO expectation harmonization. *Id.* art. 12, 34 I.L.M. at 1556. Essentially, in providing for "transparency in the decision-making process and other activities" of RFOs, member states allow nonmembers to fully grasp and inspect the validity and fairness of the RFO management and conservation particulars. *Id.* Such an openness reduces the suspicions and doubts which are degenerative to a prisoner's dilemma situation. *See supra* notes 36-37 and accompanying text.

131. "[C]oastal States and States fishing on the high seas have a duty to cooperate for the purpose of achieving compatible measures [of ensuring conservation and promoting the

Straddling Stocks Agreement is clearly an attempt to implement the international community's commitment to rational use management. While general sentiments converging upon such a commitment have historically been present,[132] this agreement represents the first attempt of a multilateral conference to reduce the diffuse to the concrete.

At the heart of this attempt by the Straddling Stocks Agreement lie several crucially important adjustments that will markedly increase the likelihood of successful management by fishing states. The integration of these adjustments into the international legal order of global fisheries presents a revolutionary step in the efforts to manage dwindling and precious oceanic resources.

1. The Devices of Compliance

The first mechanism the Straddling Stocks Agreement deploys is the institution of the "precautionary approach."[133] Analyzed below,[134] the precautionary approach essentially reverses the process of marine scientific research ("MSR") application in the management of straddling and highly migratory fish stocks, allowing states and RFOs to proceed with conservation measures even in the absence of scientific certainty.[135]

The second adjustment of the Straddling Stocks Agreement is the implementation of principles in the management order. The agreement professes a first-ever duty of current nonmember states to join in the necessary RFOs.[136] This new duty, which phases out

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optimum utilization] in respect of such stocks." Straddling Stocks Agreement, *supra* note 4, art. 7(2), 34 I.L.M. at 1552.

132. Provisos on straddling stocks have been offered before. A coalition of states led by Canada introduced a compromise proposal at the final session of UNCLOS III in April 1982, which attempted to link any failure to agree on a coordinate regulatory approach to the compulsory dispute settlement procedures included in UNCLOS III. *See* Miles & Burke, *supra* note 8, at 344. Unsurprisingly, DWFNs strongly opposed the measure, and it was withdrawn by its sponsors. *See id.* Thus disagreements over straddling stocks fisheries were left without the competence of the Law of the Sea Tribunal in the UNCLOS III instrument. *See id.*

133. Straddling Stocks Agreement, *supra* note 4, art. 6, 34 I.L.M. at 1551.

134. *See* discussion *infra* Part IV.B.1.

135. Several opportunities to optimally manage fish stocks in the past have been lost to scientific uncertainties and the practice of delaying conservation programs while MSR developed an understanding. *See* 1990 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 111, at 273. Even with healthy stocks, "[u]nderstanding the respective roles of environment and fishing regime on the probability of stock collapse is . . . critical to determining exploitation strategies that will optimize long term yields and minimize collapse risk." *Id.* A more proactive usage of the fruits of MSR, thus, will help to prevent stock collapse in situations where, perhaps, the historic wait-and-see approach would have failed. *See id.*

136. The Straddling Stocks Agreement stipulates that "[a] State which is not a member of [an RFO] . . . is not discharged from the obligation to cooperate, in accordance with [UNCLOS III duties and the Straddling Stocks Agreement procedures] . . . in the conservation and manage-

unfettered exploitation on the high seas, seeks to address the historic free-rider problem that RFOs have endured.[137] The final, and perhaps most revolutionary, device of the Straddling Stocks Agreement is the creation of a community policing approach to quota and conservation enforcement in RFOs.[138]

Combined, these mechanisms present a solid opportunity for the international community to concretize the management regime of straddling stocks. Their integration into the already established body of fisheries preservation in international law will require the ratifications of at least thirty states.[139]

As international agreements have been characterized as "not . . . a mere collocation of words or signs on a parchment, but rather . . . a continuing process of communication and collaboration between the parties in the shaping and sharing of demanded values,"[140] the mechanisms that the Straddling Stocks Agreement offers would be of bare utility if the international community could not consensualize the demanded values of fisheries management. The building of that consensus is the focus of the next section.

C. MSR and the Synthesis of Consensus

As has been recognized by commentators, marine habitat research and the improvement of the scientific understanding of fisheries are the necessary preconditions to any optimally structured management paradigm.[141] Many nongovenmental organizations,

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ment of the relevant straddling fish stocks and highly migratory fish stocks. *See* Straddling Stocks Agreement, *supra* note 4, art. 17(1), 34 I.L.M. at 1559.

The duty of nonmember states under the Straddling Stocks Agreement is subject to advancement by member states who, "shall take measures consistent with [the Straddling Stocks Agreement] and international law to deter activities of such vessels which undermine the effectiveness of [the RFOs] and [other] management measures." *Id.* art. 17(4), 34 I.L.M. at 1559.

137. *See* 1990 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 111, at 209 (stating that nonmember activity in the regulatory area is of prime concern).

138. Article 21 constructs the right of state parties to board and inspect other state parties' vessels reasonably suspected of violating management rules, "for the purpose of ensuring compliance with conservation and management measures." Straddling Stocks Agreement, *supra* note 4, art. 21(1), 34 I.L.M. at 1563. For further discussion of Article 21, see *infra* Part IV.B.3.

139. The Straddling Stocks Agreement enters into force thirty days after the deposit of the thirtieth instrument of ratification. *See* Straddling Stocks Agreement, *supra* note 4, art. 40, 34 I.L.M. at 1572. Thirty-two nations have deposited signatures, including the United States and Canada, but none has ratified. *See* 30 LAW OF THE SEA BULL. 26 (1996).

140. MYRES S. MCDOUGAL ET AL., THE INTERPRETATION OF INTERNATIONAL AGREEMENTS AND WORLD PUBLIC ORDER at xxiii (2d ed. 1994).

141. *See, e.g.*, Burke, *supra* note 114, at 295 (characterizing MSR as a "necessary" "first step in creating a management regime"). Professor Burke posits the scenario of a coastal state/DWFN dispute arising from an incomplete or conflicting body of MSR:

intergovernmental organizations, and multilateral fora have begun to vocally recognize how pivotal fisheries research, data collection, and the access of all fishing nations to the collected information have become.[142] Beyond mere information-parity concerns, the harmonization of states' MSR capabilities is crucial to the generalization of commitment to conservation.[143] Without such a generalization, states will remain disparately informed and, thus, disparately committed to rational use strategies.[144]

MSR was a central focus of UNCLOS III. The system fabricated by prior conventions and negotiations provided the backdrop for the Third Conference.[145] The final instrument produced therefrom incorporated several crucial developments in the regime of MSR.

> [T]he sufficiency of scientific evidence showing the need for particular conservation restrictions inevitably will be controversial. If a coastal state believes that there is a relationship between [exploitation of a straddling stock on the high seas as to exploitation of that stock within its EEZ] . . . it will advocate conservation measures that are consistent with management goals for the EEZ. Because those measures are unlikely to benefit distant-water fishing states, *at least in the short term*, fundamental disagreements are bound to occur about the weight of scientific evidence sufficient to justify particular actions.

Id. at 296 (emphasis added). While it is perhaps an open question as to the distribution of immediate and future benefits of conservation programs (as between coastal and maritime states), in the aggregate, the desirability of optimal use management is no longer seriously contested. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 470 ("Management is now increasingly conceived and understood not as a constraint upon fuller exploitation but as an essential tool for the sound sustained development of fisheries.").

142. Thus the proliferation of RFOs has been accompanied by a concomitant growth of international organizations devoted to providing the necessary information and analysis to these organizations. For instance, among the participants at the Straddling Stocks Conference were the U.N. FAO, the Intergovernmental Oceanographic Commission, the Organization for Economic Cooperation and Development, and the International Council for the Exploration of the Seas. *See Technical Consultation*, *supra* note 14, at 21.

143. *See supra* note 141 and accompanying text.

144. The Standing Committee on Marine Resource Research and Development of the FAO Indo-Pacific Fishery Commission, for instance, concluded that requiring many developing nations (which lack the resources to do so) to keenly study stocks and develop management programs on their own would be a lengthy process but that a collaborative effort with another, more learned state (typically a developed nation with greater resources), would expedite the consensus and the institution building necessary for effective fisheries management. *See* 1990 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 111, at 274.

145. A substantial portion of the treaty is devoted to the regime of MSR. *See* UNCLOS III, *supra* note 13, pt. XIII, 21 I.L.M. at 1316-20. Part XIII constructs the basic outline of freedoms in the conduct of MSR. However, UNCLOS III was not the first effort to encourage the propagation of that freedom. The scientific and technological advances of the 1950s and 1960s inspired a new economic interest in the potential resources of oceanic exploitation. *See* UNITED NATIONS, LAW OF THE SEA: MARINE SCIENTIFIC RESEARCH—LEGISLATIVE HISTORY OF ARTICLE 246 OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA, at iii (1994) [hereinafter ARTICLE 246: LEGISLATIVE HISTORY]. Throughout the same period, though, coastal states generally sought to extend their maritime jurisdiction, ultimately constructing a regime that required the consent of the coastal state prior to conducting research. *See id.* The Convention on the Continental Shelf supplied the first principal text:

1. Article 246 – MSR and the EEZ

UNCLOS III supplies the international community with a framework for coastal states' regulation of MSR in the EEZs.[146] That framework reflects the contrasting interests of the parties to the Third Conference.[147] In addition to the concern over a widening information gap between industrialized and developing nations,[148] the expressed considerations of the Third Conference surrounded the importance of MSR, its conduct in the EEZ,[149] and the disparity of information that might result from a rule insensitive to coastal states' EEZ rights.[150]

> The consent of the coastal State shall be obtained in respect of any research concerning the continental shelf and undertaken there. Nevertheless the coastal State shall not normally withhold its consent if the request is submitted by a qualified institution with a view to purely scientific research into the physical or biological characteristics of the continental shelf, subject to the proviso that the coastal State shall have the right, if it so desires, to participate or to be represented in the research, and that in any event the results shall be published.

Convention on the Continental Shelf, *supra* note 76, art. 5(8), 15 U.S.T. at 474, 499 U.N.T.S. at 316. This provision was the chassis that the Third Conference eventually built upon.

146. Under Article 246(2), "[m]arine scientific research in the exclusive economic zone and on the continental shelf shall be conducted with the consent of the coastal State." UNCLOS III, *supra* note 13, art. 246(2), 21 I.L.M. at 1317. Article 246 further avers a list of scenarios where the coastal state may, in its discretion, withhold its consent to the conduct of MSR. For instance, the coastal state may withhold its consent, *inter alia*, if that project "is of direct significance for the exploration and exploitation of natural resources, whether living or non-living . . . ." *Id.* art. 246(5)(a), 21 I.L.M. at 1317.

147. Article 246(1) provides "Coastal States, *in the exercise of their jurisdiction*, have the right to regulate, authorize and conduct MSR in their EEZ and on their continental shelf in accordance with the relevant provisions of this Convention." *Id.* art. 246(1), 21 I.L.M. at 1317 (emphasis added). Coastal states dominated the Third Conference negotiations on this point to parlay the EEZ concept into rights of jurisdiction over MSR that are found in UNCLOS III. *See* Barry G. Buzan & Barbara Johnson, *Canada at the Third Law of the Sea Conference: Strategy, Tactics and Policy, in* CANADIAN FOREIGN POLICY AND THE LAW OF THE SEA 255, 258 (Barbara Johnson & Mark W. Zacher eds., 1977).

148. *See* ARTICLE 246: LEGISLATIVE HISTORY, *supra* note 145, at 30 (remarks of the representative from Ethiopia).

149. *See* ATTARD, *supra* note 20, at 112. The disputants—coastal states and DWFNs—centered on the benefits of MSR and their distribution in the coming regime of MSR regulation. Thus

> [t]he drafters . . . [gave] the coastal State discretion to withhold its consent if the proposed project can be of prejudice to EEZ rights . . . . [However, a] system of implied consent . . . [may be] adopted whereby, if the coastal State fails to react within four months of the date of receipt of the project description, the guest State may begin to carry out its project after a [six-month] period . . . .

Id. at 116. Article 249 ensures that the results of MSR projects in the EEZ are made available internationally through appropriate channels as soon as practicable. *See* UNCLOS III, *supra* note 13, art. 249, 21 I.L.M. at 1317. MSR in the EEZs of the world is, of course, the crucial precursor to understanding exploitational limits, given the proportion of marine life and harvesting that is inextricably bound to these areas of the world's oceans.

150. *See* ATTARD, *supra* note 20, at 117. Some coastal states, such as Cuba, Burma, and Colombia, have adopted somewhat restrictive provisions of MSR in the EEZ. *See id.* at 119.

2. *Article 255 – Facilitating MSR*

UNCLOS III also calls upon all states to encourage and facilitate the conduct of MSR generally.[151] In the years preceding the Third Conference, it had been noted that the marine scientists of the world had, increasingly, made important contributions to global oceanic management efforts.[152] While the final draft of UNCLOS III allows for rather protectionist policies in states' allowance of MSR in their coastal regions,[153] Article 255 seeks to balance the rights of coastal states with the needs of unencumbered and robust scientific endeavors of discovery.[154] Typically, thus, the policies of coastal states have been to require the granting of consent, but to operate on a heavy presumption of that grant.[155]

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151. Article 255 provides:

> States shall endeavor to adopt reasonable rules, regulations, and procedures to promote and facilitate marine scientific research conducted in accordance with this Convention beyond their territorial sea and, as appropriate, to facilitate, subject to the provisions of their laws and regulations, access to their harbors and promote assistance for marine scientific research vessels . . . .

UNCLOS III, *supra* note 13, art. 255, 21 I.L.M. at 1319.

152. The representative of the Ukrainian Soviet Socialist Republic stated that

> to resolve effectively some of the problems raised in the exploitation of the world's oceans, whether in regard to navigation, fishing, laying of submarine cables, exploitation of wave and tidal energy desalination [sic] of sea water or exploration for industrial purposes . . . it was first necessary to have at one's disposal a profound knowledge of all the processes which [go] . . . on in the ocean and in the marine environment.

ARTICLE 246: LEGISLATIVE HISTORY, *supra* note 145, at 30. The representative's sentiments are echoed by the *Technical Consultation* to the Straddling Stocks Agreement at length. *See* discussion *supra* Part II.A.

153. *See* ATTARD, *supra* note 20, at 119 n.424 ("Brazilian legislation requires such information as to who is financing the project, biographical data of all personnel, nautical charts illustrating all tacks, routes etc.").

154. The UNCLOS III formula for the conduct of MSR in the EEZ risks not satisfying either the researching or the coastal States. The numerous vague terms attached to the consent principle might, no doubt, inspire . . . controversies. This delicate and intricate approach attempts to achieve a balance between two conflicting interests: "demands for free and untrammeled marine scientific research and the upholding of the notion of absolute consent."

Id. at 122.

155. Canada, for instance, brought to the Third Conference an MSR policy that easily integrated into the UNCLOS product:

> Canada . . . is aware that scientific research in the marine environment can have military and economic implications and that it is difficult to define 'pure' research. Canada would therefore allow such research in the area of jurisdiction of a coastal state, provided that prior to the commencement of the intended research, and in accordance with an enforceable procedure, the researching country has sought and the coastal state has given permission to conduct the research. Coastal states must have the right to participate in research conducted in areas adjacent to their coasts by foreign states and must have access to data and samples collected, through prompt and full reporting of results and their effective dissemination.

Even with this commitment to MSR, knowledge of the regulated stocks remains inchoate.[156] The rational and efficient management of fisheries has been projected to occur only if our scientific understanding of these resources improves, generating a consensus as to needed measures, and if we devise a way to implement those measures within a legal framework.[157] Thus the international legal treatment of MSR in the EEZs of the world is crucial, given the fact that the overwhelming majority of oceanic resources make their habitat (for some part of their existence) in the band of sea adjacent to the continents.[158]

IV. EXPECTATIONS: REGIME EMERGENCE IN GLOBAL FISHERIES

The development of the principles of public international law in the twentieth century has potentialized enormous advances toward a modern world order of cooperation and joint tenancy.[159] In addition to the wealth of principles that has been received from state practice, the international community has begun the laborious

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Buzan & Johnson, *supra* note 147, at 258 (citations omitted). More recently, many states have recognized that the requirements of UNCLOS III may, in some cases, create unwarranted difficulties to science, and thus welcome simplified procedures for research activities where at all possible. *See* PRACTICE AT ENTRY INTO FORCE, *supra* note 84, at 135.

156. *See Technical Consultation, supra* note 14, at 53. The *Technical Consultation* concluded that

> there is a need in the case of straddling demersal stocks to clarify the extent of the stocks, their spawning, juvenile and feeding areas, and their migration routes. The impact of fishing outside the contiguous EEZ on the stocks within the national jurisdiction will need to be evaluated. In order to do this, a mechanism to support research and survey activities outside EEZs is required, leading to a better estimation of sustainable exploitation rates, biomasses and spawning/nursery areas. *Close coordination of these costly data-gathering mechanisms with parallel efforts aimed at global ecosystem monitoring will be needed for cost-effective implementation.*

Id. (emphasis added).

157. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 471.

158. *See supra* notes 15-23 and accompanying text. Harmonizing MSR within the EEZ and in the adjacent high seas is a task squarely within the competence of public international law. *See* HIGH SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶¶ 75-78, at 25-26. In the wake of such harmonization, both coastal states and DWFNs will be better equipped to negotiate measures needed for the management of particular species or particular areas, presumably making the fora of such negotiations better able to accomplish consensus on conservation tactics.

159. Consider, for example, the emergence of the abuse of rights principle and the prevalence of international arbitration thereon. In *Trail Smelter Arbitration (U.S. v. Can.)*, 3 R.I.A.A. 1911 (1941), an international arbitration tribunal patented the principle of *sic utere tuo ut alienum non laedas* ("one should use his own property in such a manner as to not injure that of another"). *See* TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 19 n.26. This principle progressed to the International Court of Justice's pronouncements in *Corfu Channel (U.K. v. Alb.)*, 1949 I.C.J. 4, 20 (Apr. 9) (establishing that "every state has an obligation not to knowingly allow its territory to be used for acts contrary to the rights of other states"). It becomes immediately clear that there exists a substantial girth of principles available for any willing organizations to draw upon in the pacific settlement of various transboundary disputes.

process of negotiating innumerable sets of critical implementing procedures and machineries,[160] the more difficult subject of international negotiations.[161]

The international legal order of fisheries contains the constitutive elements of a crucially important regime.[162] The only factor which remains entirely inchoate is the behavioral component—consistent compliance with the principles, norms, and rules of the regime, as guaranteed by stable and legitimate procedural mechanisms.[163]

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160. The solidification of RFOs and the implementation measures negotiated therein are the "procedures" of fisheries management. RFOs often boast intricate voting schemes, the ability to adopt recommendations directed at EEZ management by state parties, and an independent arm of the organization dedicated to the conduct and coordination of MSR amongst parties, within its own organization, as well as with other RFOs. *See, e.g.*, SAND, *supra* note 7, at 289 (discussing the North-East Atlantic Fisheries Commission ("NEAFC")). NEAFC, in particular, maintains a rather procedural approach to member participation and organizational output:

> NEAFC is authorized to make recommendations related to fisheries in the regulatory area beyond [the Parties' EEZs] by a two-thirds majority vote .... [T]here is in the NEAFC Convention an explicit reference to the regulatory and advisory powers of NEAFC with respect to fisheries within ... [the EEZs] of the Parties. Both recommendations and advice can only take place upon request of a Party to whose ... [EEZ] they relate, and a recommendation must receive ... an affirmative vote of that party ....

Id. at 290. The voting procedures and limitations on competence of NEAFC are typical of many other RFOs. *See id.* It publishes extensively, including its *Technical Conservation Measures Manual, Handbook of Basic Texts*, and various occasional publications. *See id.* at 291. The minutiae of the RFOs represent the vital infrastructure that principles of UNCLOS III require.

161. The dichotomy of negotiating principles and procedures is a classic debate in public international law. *See* TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 53-54 ("States [in the typical 'convention-protocol' approach] first adopt a framework convention that calls for cooperation in achieving broadly-stated ... goals. The parties to the convention then negotiate separate protocols, each containing specific measures designed to achieve those goals.").

162. *See generally* INTERNATIONAL REGIMES (Stephen D. Krasner ed., 1983). For an analysis of the elements of regime, see *infra* Part IV.A. Given the four elements of regime that Krasner supplies (principles, norms, rules, and procedures, *see infra* notes 173-80 and accompanying text), as viewed through the causal variables that necessitate these elements (egoistic self-interest, custom, power, knowledge, *see infra* note 180 and accompanying text), at least three of the elements of a straddling fisheries regime are clearly material today. While a remaining element—effective procedures—is still in need of a significant degree of development, much consensus on its three precursors exists.

The Straddling Stocks Agreement carries twin burdens on this point. While offering an apparatus capable of implementing the constitutive rules, principles, and norms, *see* Straddling Stocks Agreement, *supra* note 4, arts. 19-23, 34 I.L.M. at 1561-67, it is substantially a codification of the generalized principles and norms of straddling fisheries. *Id.* art. 5(h), 34 I.L.M. at 1550.

163. For the regime, the mechanisms that facilitate compliance are no less important than the norms, principles, and rules that define that compliance. For, as has historically been recognized, "[i]nternational regimes derive their legitimacy less from their ability to implement general legal rules than from their capacity to reshape the context within which states conceive their self-interest." *See* TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 46.

These mechanisms are presented in the Straddling Stocks Agreement.[164]

In examining the mechanisms of the Straddling Stocks Agreement, several foundation assumptions of international legal analysis must first be brought to bear. First, it is virtually commonplace that if the international law of fisheries is to be effectively utilized, it will not be under the guise of coercion.[165] Second, while international law is, as an irreducible minimum, a normative system,[166] difficulty often arises in attempting to concretize the norms in a fashion definitive enough to create certainty and reliance amongst international actors, in the absence of coercion.[167] For instance, theories of state liability and a regime that enforces liability judgments have proven to produce more conflict than order.[168] A supranational organization that polices the compliance of international obligations, environmental or otherwise, remains unlikely.[169]

Further, simply attempting to enhance conventions and protocols, without a better understanding of the dynamics of their implementation, has continually proven ineffective.[170] Thus, with

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164. *See* discussion *infra* Part. IV.B.1.

165. *See, e.g.*, LAWRENCE SUSSKIND, ENVIRONMENTAL DIPLOMACY 120 (1993) ("[I]f the threat of force is the only effective [mechanism of ensuring compliance], . . . then environmental treaty making is probably doomed."). The Vienna Convention, similarly, frowns on the use of coercion in the conduct of treaty negotiations, expressly prohibiting "the threat or use of force." Vienna Convention, *supra* note 109, art. 52, 1155 U.N.T.S. at 344. Accordingly, the Straddling Stocks Agreement appropriately limits the discretion that states may exercise over the vessels of another state. *See infra* note 209.

166. Thus "[i]n international relations as in other social relations, the invasion of the legal interest of one subject of the law by another legal person creates responsibility in various forms determined by the particular legal system." BROWNLIE, *supra* note 48, at 431. The normative character of the invasion/responsibility dynamic of which Brownlie speaks would seem to admit of some variability. For instance, "[i]nternational responsibility is commonly considered in relation to states as the normal subjects of the law, but it is in essence a broader question inseparable from that of legal personality in all its forms." *Id.* Put simply, the duties owed to an RFO are as potentially normative as those owed to another state.

167. *See, e.g.*, TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 16 ("[V]ague customary duties communicate no normative expectations or specific commands, and states can claim that almost any conduct comports with international law."). With the crucial additions of the Straddling Stocks Agreement, however, the requisite level of structure and specificity for normative expectations have been presented. *See* discussion *infra* Part. IV.C.2.

168. *See* TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 36 ("A liability regime fosters 'adversary confrontations' that undermine transnational environmental protection."); *see also* IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 287 (3d ed. 1979).

169. *See* ROGER FISHER, IMPROVING COMPLIANCE WITH INTERNATIONAL LAW 59 (1981).

170. *See* SUSSKIND, *supra* note 165, at 30. Professor Susskind deconstructs the "convention-protocol" approach that has dominated the field of international environmental arrangements:

> An initial series of meetings is held to review scientific evidence and draft a framework convention. Then subsequent meetings of the signatories focus on the preparation of detailed protocols . . . . The convention-protocol approach allows

the comparatively advanced stage of fisheries management and the extent of the order already in place,[171] the improvement of global fisheries management seemingly now hinges on the creation or importation of compliance-oriented mechanisms.[172] Regime theory provides the theoretical construct by which the international legal order of straddling fisheries and its needs may be gauged.

A. Modern Regime Theory

Regimes are typically fixed by their constitutive elements.[173] Defined as "social institutions around which actor expectations converge in a given area of international relations,"[174] regimes foster states' expectations of each other. Ultimately, as a collection of socio-political models, regime theory embraces public international law as a mechanism of order creation, maintenance, and adaptation.[175] It seeks to envelope all of the causal variables that determine or inform state behavior, aiming ultimately to explain the dynamics of state cooperation.[176] This construct of explaining state practice is a

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countries to "sign-on" at the outset even if there is no agreement on the specific actions that must be taken.

Id. at 31.

The study goes on to conclude that the approach is often cumbersome and unproductive, frequently encouraging the "lowest-common-denominator" effect. *Id.* at 32. Rather than further complicating this perpetually expanding body of rules and principles, at least one commentary has stated that "[i]nstead of multiplying statements of vague international legal principles and obligations, publicists need to engage in the much more empirical work of identifying common interests and constructing a regime based on them." TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 46.

171. The RFO/UNCLOS III paradigm consumes a tremendous amount of international legal attention, both at the regional and global levels. *See* PRACTICE AT ENTRY INTO FORCE, *supra* note 84, at 19-20. Certain nations are already eager to implement the new RFO/UNCLOS III formulation presented by the Straddling Stocks Agreement. *See* Robert Keith-Reid, *Fishing for a Better Deal to Keep Foreign Boats at Bay*, ISLANDS BUS., Mar. 1996, at 33.

172. Ultimately, of course, there must be better structured, more dynamically formulated arrangements. Understanding international agreements as an entire constitutive process comprised of a multidimensional system of incentives (like those contained in the Straddling Stocks Agreement, i.e., transparency within fisheries operations, the generation of international public opprobrium directed at instances of noncompliance, the de jure exclusion of nonmembers from RFO regulatory areas, etc.) allows public international law its greatest utility. *Cf.* SUSSKIND, *supra* note 165, at 113 ("Policymakers, like private individuals are sensitive to the social opprobrium that accompanies violations of widely accepted behavioral prescriptions.").

173. *See* Stephen D. Krasner, *Structural Causes and Regime Consequences: Regimes as Intervening Variables*, *in* INTERNATIONAL REGIMES (Stephen D. Krasner ed., 1983).

174. *See* John Gerard Ruggie, *International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order*, *in* INTERNATIONAL REGIMES, *supra* note 173, at 195, 196.

175. *See* Robert O. Keohane, *The Demand for International Regimes*, *in* INTERNATIONAL REGIMES, *supra* note 173, at 141, 154.

176. The state behaviors surrounding straddling fisheries management, thus, hinge not just on the principled duties that are (perhaps abstractly) said to exist in some fashion, but rather on the totality of the benefits and burdens of a particular chosen course of action or policy. For

useful tool in diagnosing the problem of straddling stocks and fisheries management.[177]

In an instructive work, Professor Stephen Krasner constructed the constitutive elements of a modern international regime:

> Regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures *around which actors' expectations converge* in a given area of international relations. Principles are beliefs of fact, causation, and rectitude. Norms are standards of behavior defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. Decision-making procedures are prevailing practices for making and implementing collective choice.[178]

For the Krasner construct, it seems, the potential for a regime lie in, among other things, the pertinent public international law. The defining dynamic, then, becomes whether that body of law is susceptible of effective implementation and observation.[179]

While several causal variables are routinely discussed when explaining the emergence of an international regime,[180] the most widely examined variable is typically the egoistic self-interest of the actors involved.[181] Though it is not so remarkable to suppose that the actors of the international community pursue their own self-interests, in transboundary fisheries it is remarkable that so many

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instance, in the RFO/UNCLOS III order, compliance-oriented behavior has both benefits and burdens to the state's reputation and its ability to conduct fisheries negotiations. As Professor Fisher notes:

> Even where a country's immediate interest may seem to violate a standing rule, the difference in reputation that can result from compliance or non-compliance may outweigh any immediate gain .... Routinely complying with a particular kind of obligation gives a government a reputation which it may be able to use to good advantage in the future.

See FISHER, *supra* note 169, at 129.

177. In the sphere of straddling fisheries management, irrespective of the myriad principled international law duties, obligations, and rules, without a successful approach that facilitates compliance, the utility of the system is minimal. *Cf.* TRENDS IN INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 59, at 46 ("The codification of abstract legal norms ... must give way to a focus on the matrix of shared interests attracting the adherence of all.").

178. *See* Krasner, *supra* note 173, at 2 (emphasis added).

179. Any inquiry into the nature of international obligation is, inevitably, an inquiry into the pertinent public international law—even where the agreed-to obligations are tacit. *Cf.* BILDER, *supra* note 33, at 24 (contrasting binding and nonbinding international arrangements).

180. In addition to egoistic self-interest, there are such variables as (i) political power, (ii) preexisting norms and principles, (iii) usage and custom, and (iv) knowledge or information. *See* Krasner, *supra* note 173, at 3.

181. It is typically presupposed when arguing a point juridically in state relations that the actors involved are self-interested. *See, e.g.*, FISHER, *supra* note 169, at 39 (detailing a general theory of deterrence for state behavior structuring).

fishing nations of the world have thus far failed to realize that this self-interest is being ill-served in the present scheme.[182]

Regime-governed state behavior is not based on short-term calculations of self-interest,[183] but rather a sustained benefit outlook that results in maximized possible utility. Thus Professor Krasner likens regime emergence to an egoistic/altruistic push and pull to which individuals are frequently exposed:

> Since regimes encompass principles and norms, the utility function that is being maximized must embody some sense of *general* obligation . . . . This formulation is similar to . . . friendship. "Friendship contains an element of direct mutual exchange and to this extent is akin to private economic good. But it is often much more than that. Over time, the friendship transaction can be presumed, by its permanence, to be a net benefit on both sides. At any moment of time, though, the exchange is very unlikely to be reciprocally balanced." It is the infusion of behavior with principles and norms that distinguishes regime-governed activity in the international system from more conventional activity, guided exclusively by narrow calculations of interest.[184]

Overly narrow calculations of interest, as they would be inimical to an interpersonal friendship, are inimical to an optimally structured international legal order of straddling fisheries as well.[185] This is not to say that maritime states are better "friends" under a

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182. The maintenance of a fishery over a sustained period presents, in the aggregate, the greatest possible benefit for the states depending upon that fishery. The MSR of fisheries has yielded firm evidence that conservation measures are now the best prospect for the continued vitality of many fisheries. Thus from a total net value perspective, even for a DWFN, it may not be as important to secure large quotas from RFO/total-allowable-catch allotments as to ensure well-managed extant stocks.

183. Unconstrained individual decision-making is anathema to the reciprocity and general obligation that regime-oriented behavior depends upon. *See, e.g.*, Arthur A. Stein, *Coordination and Collaboration: Regimes in an Anarchic World*, *in* INTERNATIONAL REGIMES, *supra* note 173, at 115, 116-17 ("An arms race . . . is not a regime, even though each actor's decision is contingent on the other actor's immediately previous decision. As long as international state behavior results from unconstrained and independent decision[s] . . . there is no international regime.").

184. Krasner, *supra* note 173, at 3 (quoting FRED HIRSCH, THE SOCIAL LIMITS TO GROWTH 78 (1976)) (emphasis added).

185. Narrow calculations of self-interest distort the realities of international fisheries management just as they would the realities of a friendship. When this broader process of assessment (of interests) is coupled with the enhanced MSR commitments of the Straddling Stocks Agreement, as well as the potential exposure of noncompliances with Article 2, a different calculus of self-interest is presented to the actor within the new fisheries management paradigm. *See* Straddling Stocks Agreement, *supra* note 4, arts. 5-10, 14, 21, 34 I.L.M. at 1550-56, 1557-58,1563-65; *see also* discussion *infra* Part IV.B.2. Historically, no such factors were present in the calculus. *Cf.* LEE G. ANDERSON ET AL., THE FUTURE OF INTERNATIONAL FISHERIES MANAGEMENT 26 (H. Gary Knight ed., 1975) ("[V]irtually all nations have refused to accept any enforcement mechanisms [of a conservation system] *external to their own national interests.*") (emphasis added).

management order, but rather, that the benefits of a rationally managed fishery which is maintained over the long term clearly inure to all states which depend upon that resource.[186] Quite simply, the narrowly defined interest translates to the antithesis of self-interest: the hastened collapse of the fishery.[187]

1. The Behavioral Component

While many international arrangements possess all of the foregoing elements, congruently expected behaviors fail to materialize, nevertheless. In their recent essay, List and Rittberger expanded the concept of regime to reflect this reality, ultimately including a new component:

> [This] conceptualization of international regimes follows Stephen Krasner's definition but sharpens it somewhat by adding a further behavioural component to the four normative-institutional elements proposed by him. Thus, we would keep principles, norms, rules, and procedures as the four constitutive elements of a regime, but . . . the identification of a regime requires the observation of norm- and rule-guided behaviour, i.e., some minimal effectiveness which can be measured by the degree of rule-compliance.[188]

This conception of regime seems to reflect the factual realities inherent in global fisheries and straddling stocks. A primary purpose of any regime is to solidify an actor's expectations of other actors.[189] Without the behavior component mentioned above, states cannot effectively rely on the compliance of other states with the constitutive elements. More specifically, in a scenario, such as NAFO, where a highly developed international-treaty organization provides the forum for states to negotiate a panoply of principles, rules, and obligations, parties that do not observe the substance of

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186. *See* discussion *supra* Part II.A.

187. Enlightened self-interest has long been a shibboleth in international relations. *See* BILDER, *supra* note 33, at 61 (defining the value of an agreement over the long term is a crucial element of its success); *see also* FISHER, *supra* note 169, at 127 (contrasting matters of automatic self-interest, i.e., rules that are practically self-enforcing, with matters of enlightened self-interest). Fisheries are no exception. *See Technical Consultation*, *supra* note 14, *passim* (detailing the projected long-term benefits of an effective management order and the coordinate pressures of the immediate need to continue overexploiting).

188. *See* Martin List & Volker Rittberger, *Regime Theory and International Environmental Management*, *in* THE INTERNATIONAL POLITICS OF THE ENVIRONMENT, *supra* note 98, at 85, 89 (footnotes omitted).

189. Expectations are the foundations of behavior; actors orient their behaviors according to their *expected* consequences. The structuring of expectations is the formative dynamic of any patterned, regulable set of behaviors. *See* NIKLAS LUHMANN, A SOCIOLOGICAL THEORY OF LAW 26 (Martin Albrow ed. & Elizabeth King & Martin Albrow, trans., 1985). For an analysis of Luhmann's deconstruction of expectations, see *infra* Part IV.B.

the negotiations cast the legitimacy of the entire system in doubt.[190] Indeed, List and Rittberger recognize the distinction between obligation and regime:

> [The] behavioural component of a regime serves to clarify the difference between a treaty and a regime. Whereas a treaty is a legal instrument stipulating rights and obligations, a regime is a social institution wherein stable patterns of behaviour result from compliance with certain norms and rules, whether these are laid down in a legally binding instrument or not.[191]

The List/Rittberger formulation speaks to the identification of a functioning regime.[192] It subsumes the conventions, treaties, and protocols of international law into an overarching web of social interaction. States, instead of individuals, are the actors. International organizations are the fora for the instruments, obligations, and interactions which comprise the functioning regime. Accordingly, the RFOs and the structure they bring to the straddling stocks debate are the foundation of an emergent regime.

B. Structure as a Mechanism of Expected Behavior

In any social system, certain structures arise that regulate the choices the actors make.[193] The more frequented the structures, the

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190. Actors that defect from principled obligations, while occasionally casting the principles themselves in doubt, also preclude the emergence of a functional framework of procedures and rules to concretely define the nature and extent of the obligations at issue. *See* LUHMANN, *supra* note 189, at 42.

> The development of an international legal regime requires a body of substantive norms that *corresponds* to the myriad interests of states. When the norms posit *ideals* much more ambitious than the interests of the states, international law detaches itself from the expectations of its subjects and becomes a utopian vision. The viability of an international . . . system thus hinges on the possibility of promulgating a regime that avoids impractical idealism.

Trends in International Environmental Law, *supra* note 59, at 30 (emphasis added). This complexity riddles the international order of straddling fisheries, i.e., the RFO/UNCLOS III paradigm. Typically, the behaviors preclude the norms and expectations even from being meaningfully patterned. *See* LUHMANN, *supra* note 189, at 48-49 (stating that before expectations may become "law," they must be socially institutionalized, stabilized, and put to the larger community for adoption or abandonment). The Straddling Stocks Agreement presents a potentially revolutionary system to overcome the contingency and complexity of transboundary fisheries. *See* discussion *infra* Part IV.B.

191. List & Rittberger, *supra* note 188, at 90.

192. It does not, however, address the avenues that the actors within the international legal order might utilize to synthesize a working regime. This article deploys a regime theory analysis to clarify the peculiar international legal dilemma of global fisheries/straddling stocks and seeks to chart a system of compliance-oriented structure, i.e., the Straddling Stocks Agreement.

193. *See* LUHMANN, *supra* note 189, at 30. Luhmann's theory of structure-regulated expectations is predicated on the convergence of rules and behaviors:

more capable the system becomes in optimally managing the behaviors.[194] As expectations become increasingly managed, and thus more concrete, actors' behaviors become "congruently generalized."[195] Actors begin to orient themselves according to each other (and the structures, i.e., laws, they negotiate), and subjects' behaviors become efficiently arranged.

There have been quasi-structured approaches suggested in the past for the juridical interface of the coastal states' EEZs and the adjacent high seas.[196] Inefficacy, however, remains. Today, though, there are several compliance-oriented structures for regional fisheries management which are presented by the Straddling Stocks

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> [Structures] make it unnecessary in the normal situation to call into consciousness the interlocking concrete expectations. They act as a kind of symbolic abbreviation for the integration of concrete expectations. The orientation toward the rule makes the orientation toward expectations unnecessary . . . unload[ing] complexity and contingency from consciousness.

Id. at 30. The emergence of the rule in international law is not necessarily akin to expectable behavior, though. As the environment becomes increasingly complex, so too must the structures, i.e., law, to accommodate. Law becomes more independent of the immediate context; it becomes increasingly abstract to accommodate more contingencies and complexities. *See id.* at 125. Eventually, the increased "overproduction of possibilities" demands deliberate law/structure making to preempt destabilizing conflicts. *See id.* at 157. Specificity and proceduralism, though difficult to achieve politically, become crucial to success.

Fisheries are no exception. Deviant behaviors of the past represent opportunities for discovering new and more adaptive mechanisms to be used in the future, *see id.* at 101; hence the emergence of the Straddling Stocks Agreement and its devices of compliance enhancement.

194. The primary function of law, according to Luhmann's thesis, is to provide a predictable environment in which subjects can order their affairs and be assured that when noncompliance occurs (unfulfilled expectations), remedies will be available to redress the losses. *See id.* at 12. Unfulfilled expectations precipitate reactions which tend to affect the structure of the order, i.e., renegotiation, repromulgation, etc. This process is in pursuit of a more optimally configured structure, which in theory is proceeding toward a capacity to cope with the complexities of its environment. *See id.* at 83.

195. *Id.* at 106. Congruently generalized behavioral expectations arise from the optimally structured order. *See id.* In other words, actors efficiently expect other actors' behaviors. *See id.* at 107. The potential for law and structure, therefore, is closely tied to the generalization of expectations.

Luhmann's thesis functions as an evolutionary theory of law. The engine of the evolution is the increasing complexity of the environment. *See id.* As the environment evolves toward greater complexity, with the prevalence of greater stress (because of greater unpredictability), an order that can coordinate that complexity--the differentiated roles and incentives of coastal states, DWFNs, fisheries organizations, etc.--becomes ever more important if conflict is to be avoided. *See* H.L.A. HART, THE CONCEPT OF LAW 116 (1961).

196. *See* Miles & Burke, *supra* note 8, at 350 (suggesting direct bilateral arrangements amongst interested parties to a fishery, under the auspices of UNCLOS III). Indeed, UNCLOS III contains a specifically commanded calculus for the allocation of respective rights and duties even within the EEZ, precipitated by the establishment of exclusive coastal states' rights and the deprivations of DWFNs historically fishing therein. *See* UNCLOS III, *supra* note 13, art. 58, 21 I.L.M. at 1280; *see also* BROWNLIE, *supra* note 48, at 212. Nevertheless, the international community remains reticent to such measures, owing perhaps to the extant complexities (which translate to uncertainties) that attend the current international legal order. *See id.* at 210.

Agreement.[197] Three mechanisms which are particularly critical to the RFO/UNCLOS III paradigm stand out.

1. The Precautionary Approach

The ontology of the precautionary approach best illustrates its relevance.[198] In order that "[t]he absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation or management measures,"[199] Article 6 of the Straddling Stocks Agreement comprehensively structures the modality of MSR utilization that parties to this agreement are to adopt.[200] The Straddling Stocks Agreement extinguishes the anachronism of forcing science to prove a negative in establishing a need for conservation measures:

> 1. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.
>
> 2. States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific

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197. *See* discussion *supra* Part III.B.

198. The unbending tradition in fisheries management has been to forego costly conservation measures unless complete data was available to support the need for them. *See* 1990 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 111, at 193. Thus, in the absence of a scientific certainty, a precious commodity indeed, management measures were often delayed or only incidentally instituted. *See id.* Beginning in the 1990 FAO literature, though, it was suggested that precautionary adoptions of conservation measures were in order. *See id.* In 1992, the UNCED established that "[i]n order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." SUSSKIND, *supra* note 165, at 79.

199. Straddling Stocks Agreement, *supra* note 4, art. 6(2), 34 I.L.M. at 1551.

200. The Straddling Stocks Agreement stipulates that states are to, *inter alia,*

> improve decision-making for fishery resource conservation and management by obtaining and sharing the best scientific information available and implementing improved techniques for dealing with risk and uncertainty; and
>
> ....
>
> [w]here the status of target stocks or non-target or associated or dependent species is of concern, States shall subject such stocks and species to enhanced monitoring in order to review their status and the efficacy of conservation and management measures. They shall revise those measures regularly in the light of new information.

Id. arts. 6(3), (5), 34 I.L.M. at 1551.

This renewed and recombinated commitment to MSR, coupled with the revolutionary precautionary approach, seeks to better equip the management apparatus (the RFO/UNCLOS III system) with the difference needed to effect an optimal management arrangement. The turbot dispute provides ample evidence of UNCLOS III importance.

information shall not be used as a reason for postponing or failing to take conservation and management measures.[201]

Article 6 seeks to preempt the argument that, in the absence of complete scientific consensus, management measures should be delayed. In light of the state of our understanding of marine biology, this argument seems hopelessly out of date. Article 6 would essentially eliminate the contingency of politicized resistance to rational use management efforts, allowing fisheries policies the latitude that complex environments demand of their legal orders.

2. *A Revitalized Commitment to Marine Scientific Research Utilization*

A critical component of the Straddling Stocks Agreement addresses the enhanced role that data collection and research programs are to fulfill in the coming order.[202] Typically, RFOs have suffered from several deficiencies in their MSR capabilities.[203] In the context of straddling stocks, a quite developed understanding of the stocks' biology is a precondition to their proper management.[204] Thus far it has remained a generally unfulfilled precondition. In the absence of firm scientific understanding, states' expectations of the fishery—and of each other—converge less frequently. The Straddling Stocks Agreement seeks to address this problem, as it was illustrated by the turbot incident.[205]

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201. *Id.* arts. 6(1)-(2), 34 I.L.M. at 1551.

202. Article 5, which sets forth the general principles of the Straddling Stocks Agreement, expressly names the accumulation of "best scientific evidence" as being a crucial precondition of multilateral management efforts. *Id.* art. 5, 34 I.L.M. at 1550. The Straddling Stocks Agreement further avers the need for enhancement of MSR capabilities (as well as the widening of states' access to the accumulated data and analyses) in no less than five different articles and twice in the preamble. *See id.* arts. 5-10, 14, 34 I.L.M. at 1550-56, 1557-58.

203. *See* HIGH-SEAS FISHERIES—STATUS AND PROSPECTS, *supra* note 5, ¶ 79-81, at 27. The MSR capabilities of RFOs have historically been deficient in (i) a limited authority and resource base to conduct MSR, (ii) incomplete membership of states engaged in a fishery, but not in the RFO managing that fishery (thereby allowing the catch of that state's vessels to go unaccounted for), and (iii) the historic inutility of MSR, given its limited ability to conclusively establish factual premises. *See id.*

204. *See Technical Consultation, supra* note 14, at 51. Currently, the collection of exploitation figures from both within and beyond the EEZs is a severely underdeveloped faculty of the management orders for straddling stocks. *See id.* For MSR to be of most utility, states must perfect this data-gathering faculty.

205. NAFO was unable to establish a total allowable catch the validity of which all state parties could agree upon. *See* DeMont et al., *supra* note 1, at 12. This lack of consensus predetermined the lack of congruently generalized resolve to manage and conserve the stocks. In the new regime of the Straddling Stocks Agreement, coordinated, collaborative, and transparent RFO research initiatives will generate the consensus and will ultimately submit that consensus to an enforcement order capable of overweighing the historically insuperable incentives for noncompliance.

3. *Article 21 – Exposing Noncompliance*

The chief compliance mechanism that the Straddling Stocks Agreement constructs represents a pivotal evolutionary development of the international legal order of fisheries.[206] By allowing parties to the Straddling Stocks Agreement the right to board and inspect each others' vessels that are reasonably suspected of management/conservation violations (e.g., the use of prohibited gear, the taking of juvenile fish, as was the case in NAFO,[207] or the taking of prohibited quantities of fish), the agreement supplies the element previously unavailable to the fisheries management order: a congruently generalized right to expect compliance from each others' fishing fleets via a legal device that reinforces that expectation. Specifically, Article 21 creates the possibility of international embarrassment and the social opprobrium that accompanies the disclosure of a state's dereliction of its obligations,[208] without attempting to create a tool of coercion.[209]

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206. The contingencies of the global fisheries environment under the RFO/UNCLOS III order necessitated the emergence of Article 21. The core of the provision is that (i) states shall establish procedures for boarding and inspecting fishing vessels flying the flag of another state party to the Straddling Stocks Agreement, "for the purpose of ensuring compliance with conservation and management measures for straddling fish stocks and highly migratory fish stocks"; and (ii) boardings and inspections will commence under the management regiment of the Straddling Stocks Agreement, in pursuit of a thoroughly enforced order of quotas and limitable exploitations. Straddling Stocks Agreement, *supra* note 4, arts. 21, 22, 34 I.L.M. at 1563, 1565.

207. *See* DeMont et al., *supra* note 1, at 13.

208. The sociological underpinnings of the Canadian maneuver were manifest. Since no effective enforcement mechanism was available, the best use of the existent order was to simply demonstrate Spanish ambivalence to its international obligations pursuant to the NAFO arrangements. The embarrassment connected thereto is an obvious disincentive for overfishing in contravention to these arrangements. *See* Edward Gross & Gregory P. Stone, *Embarrassment and the Analysis of Role Requirements, in* SOCIAL INTERACTIONS (Candace Clark & Howard Robboy eds., 1988) (analyzing the normative effects of embarrassment). Governmental decision-makers respond to the same pressures of social opprobrium that individuals do. *See* SUSSKIND, *supra* note 165, at 113.

By publicly displaying the actual net that the Spanish trawler was using, the Government of Canada deliberately set about to generate an outrage directed at the Spanish. *See* Gordon Kent, *Spoils of Turbot War to Hang from the Rafters in Display at Ottawa Exhibition*, EDMONTON J., Aug. 10, 1995, at A2. The outrage was eventually parlayed into a broad base of support for the Canadian actions. *See* Helen Branswell, *Britons Don't Want to Share Fish with Europe*, VANCOUVER SUN, Dec. 9, 1995 at A8 ("[British] fishers . . . flew Canadian flags in last spring's turbot war with Spain . . . .").

209. Article 21(12) stipulates that an "inspecting State shall, at the request of the flag State, *release the vessel to the flag State* along with full information on the progress and outcome of its investigation." Straddling Stocks Agreement, *supra* note 4, art. 21(12), 34 I.L.M. at 1565 (emphasis added). This provision would seem to eviscerate the seizure power of any coercive value. The flag state has a duty after such a release to adequately discharge its duties under the Straddling Stocks Agreement. *See id.* art. 19, 34 I.L.M. at 1561.

Essentially, the new treaty seeks to harmonize the regime's constitutive elements with its behavioral components. The policing-on-the-high-seas power embodied in the Straddling Stocks Agreement will allow the actors of the international legal order to more efficiently rely upon—and thereby strengthen—the regime of fisheries arrangements.[210] Article 21, thus, pierces the veil of ignorance which has previously kept straddling stock problems a prisoner's dilemma. The information and data yielded from MSR will, under the new order, be deployed progressively and cooperatively, and no longer be relegated to a role of proving a negative.[211]

C. *Lessons Learned in the Northwest Atlantic*

1. *Disparate Expectations*

In NAFO, the chasm between the expectations of the Spanish government and those of the Canadian government proved too

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210. By expanding the incentives of compliance in this fashion, it becomes more likely that nations with intense disincentives will nonetheless function within the regime. *Cf.* BILDER, *supra* note 33, at 181 ("[M]any nations—even the most unprincipled, ruthless, or totalitarian—are sensitive to international criticism or condemnation, and turning the spotlight on their violations of an agreement may sometimes cause them to change their behavior.").

The incentive to comply, in turn, provides a greater incentive for other states to rely on the regime. Expectations begin to converge, and compliance becomes self-enforcing. In the absence of such a solidified order, though, coastal states and maritime states remain on uneven ground as to incentives to observe immediate conservation obligations. As commentators observed:

> When these disputes fester, they lead to increasing domestic pressures on coastal states to extend their authority beyond 200 miles to protect the stocks in question. Once these issues reach a high level of salience, governments find it very difficult to resist demands for protective actions by domestic groups, led by their fisheries interests. They may then be forced into choosing policy options that in broader perspective are quite harmful to their larger interests . . . .

Miles & Burke, *supra* note 8, at 350. Consequently, state actions—such as the confrontational tact adopted by Canada in seizing the Spanish trawler—can lead to the degenerative state of relations between coastal states and DWFNs as that following the turbot incident. *See* Charles R. Fletcher, *Greening World Trade: Reconciling GATT and Multilateral Environmental Agreements Within the Existing World Trade Regime*, 5 J. TRANSNAT'L L. & POL'Y 341, 372 (1996); *see also* Margaret Evans, *Spanish Still Gnawing at Fish War with Canada*, MONTREAL GAZETTE, Sept. 30, 1995, at C9.

211. In addition to the enhanced role that MSR clearly plays under the Straddling Stocks Agreement, this agreement also includes the precautionary approach, which amounts essentially to a burden shift:

> [The precautionary approach] concerning the amount of evidence needed for conservation decisions is of an entirely different order and raises a potent future issue . . . .[The] approach reverses the normal burden of proof which calls for adoption of management measures after appraising a body of data about the stocks in question . . . . [If] data are not available at all or are inadequate, the fishery is halted because there is *presumed* to be a risk of depletion or of excessive incidental catches.

1990 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 111, at 193 (emphasis added).

great for the NAFO arrangement to traverse.[212] The regime was precluded from operating because Spain acceded to an obligation—accepting a mere fraction of the European Union quota of turbot—that it was incapable of observing (from a political/economic standpoint). Instead of affording the actors a stable arrangement through which they could order their expectations, i.e., concretely coordinated and expectable fisheries policies, yield anticipations, etc., the flex of NAFO simply contributed to the overall instability. The colorability of both claims persuaded the parties that the other was in the "wrong." If, in order to emerge, the regime must center around the egoistic self-interest of the actors, then the task of negotiators and publicists is to comprehensively and persuasively demonstrate the shared interests in establishing more specific management arrangements (under the auspices of a legitimate international legal framework). Such a demonstration is hardly difficult; the NAFO/turbot dispute is paradigmatic.[213]

2. *The Willingness to Manage*

It might be argued that the international community does not possess the political will to institute conservation measures that ultimately affect annual harvests. Yet, given the evidence that in cases where an EEZ abuts another EEZ, the two adjacent parties

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212. The overt flexibility that inhered in the NAFO arrangement, allowing conflicting policies for the same stocks in different places, ultimately proved catastrophic. *See* 1989 ANNUAL REVIEW OF OCEAN AFFAIRS, *supra* note 40, at 488. The structure/law of the institution admitted of too broad a band of expectations—ultimately proving far too disparate to be congruently generalized.

213. Once the proposition is accepted that better management of stocks is tantamount to prolonged exploitation, it becomes empirically evident that parties with an interest in any particular fishery better serve those interests over that sustained period by establishing, and functioning within, an effective management order. The lack of a reliable and legitimate record of compliance in NAFO precluded any expectations from converging upon its contemplated order. Thus expectable compliance with the negotiated rules and procedures is the behavioral component of RFOs, and it represents the touchstone of a successful regime of regional management.

The hurdle that remains for such compliance is persuading all parties to the fishery to define their interests in a broad enough fashion. The dynamic was once illustrated as follows:

> Self-interest in fulfilling international commitments and in respecting established legal rules may be so strong that even sour relations between the states concerned would not undercut them. One example is the Memorandum of Understanding between the United States and Cuba on Hijacking of Aircraft and Vessels and Other Offenses [1973]. Despite strong and long-lasting political differences between these two countries, it became in the self-interest of both Cuba and the United States to act together to reduce aircraft hijacking.

FISHER, *supra* note 169, at 128-29 (citations omitted). As MSR progresses, the evidence supporting conservation measures in the RFO/UNCLOS III order will become as manifest as the burdens of hijacking did to the United States and Cuba.

have not generally encountered the same difficulties that parties with EEZs adjacent to the high seas have,[214] the complication seems not to stem from the necessity of states to self-sacrifice, but rather from the absence of any concretely defined order.

High seas represent chaotic frontiers—directly adjacent to the well-ordered coastal states' jurisdictions—which have traditionally translated into unconstrained overexploitation of various stocks. As nations of the world become increasingly beholden to threatening political and social realities, i.e., economic decline, unemployment, and undernourishment,[215] the absence of an expanding marine resource base will create an acute need for a strong regime regulating marine/fisheries relations.[216] The evidence is clear: the vacuum currently plaguing the international legal order of this crucial issue must be replaced if (i) the community is to avoid being consigned to an adversarial dynamic in fisheries, and (ii) the most efficient and best use of the oceans' resources is to be made. The turbot war and similar scenarios will continue if the international legal order does not devise a successful mechanism to bridge this rift separating law and reality.

V. CONCLUSION

The international community has adopted an important new treaty that presents a pivotal opportunity to crystallize an effective regime of global fisheries management. To materialize, the regime will require the focus and attention of international legal actors, including RFOs, nongovernmental actors, scientific consultations, and states.

Rational management is not, as was once thought, an obstruction to the utilization of the living resources; it is quickly becoming the anchor of the process. If international law is to properly function, it must structure both acceptable principles and a capable implementation apparatus that most optimally facilitates a sustained fishery.

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214. *See* PRACTICE AT ENTRY INTO FORCE, *supra* note 84, at 11.

215. *See* MYRES S. MCDOUGAL & WILLIAM T. BURKE, THE PUBLIC ORDER OF THE OCEANS, 741 (2d ed. 1987) (stating that FAO research assessing the impact of declining yields is increasingly important to predictions and decisions regarding fleet and landings strategies).

216. *See id.* at 742. While the importance of fish for food purposes varies in great degree throughout the world, estimates of the present dependence of a particular state on certain fisheries do not adequately reveal, necessarily, the future needs of that state, nor the general trends of increasing importance to the world food market. *See* LESTER R. BROWN, WHO WILL FEED CHINA? 15 (1995) (illustrating the economic interdependence of the international community in the global food market and the world-wide ramifications of regional shortages).