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International Fisheries Law in the Year 2010

Jon L. Jacobson

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How long is twenty-five years? Albert Einstein convinced us that, under the laws of physics, time is relative. Most people had already discovered that time is also relative in a psychological sense (I can guarantee any reader more than twenty-five years old that the next twenty-five years will seem to pass more quickly than the last twenty-five years), and in terms of historical events. Some periods of the past seem to contain more significant events than other periods of the same duration.

It is this last context—historical events—that concerns us in this law of the sea symposium. The authors have been asked, essentially, to predict the developments in our specialty fields that will, by the year 2010, have become the historical events of the twenty-five years between now and then, and to describe the law of the sea that these events will create. For some authors' fields, the next quarter-century will undoubtedly be a very busy time; for others, the twenty-five or fifty years of the immediate past may well be the more significant period, with the next twenty-five years rather uneventful. Time is relative.

My own assignment is to forecast the shape of the international law of fisheries management in the year 2010.[1] I undertake this task, as any appointed seer should, with trepidation and the realization that I will usually be wrong. The reasons for this inevitable error are several, and even a clear recognition of these reasons will not eliminate the certainty of at least partial failure.

For example, it seems that the usual predilection of "realist" predictors of coming events is to assume that the present state of affairs,

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1. Incidentally, when 2010 arrives, people will be surprised and amused to learn (or remember) that promoters of the 1984 film "2010" pronounced the title year "two-thousand-and-ten." The correct pronunciation in the next century will certainly be "twenty-ten." This, in any case, is my first prediction.

more or less, will continue into the foreseeable future. After all, how much can happen in a mere twenty-five years? Others, often those who consider themselves professional futurists, frequently err in favor of greater change than will actually occur.[2] For them, the problem might be failure to identify true trends in the mass of current fads and other brief encounters.

Another, nearly universally shared explanation for inaccurate prophesies lies in the understandable inability to foresee singular events or discoveries that will revolutionalize the future in many fields or even across the board. The harnessing of atomic energy is one example from the not-so-distant past. More recently, the surprising invention of the integrated-circuit silicon chip has caused or contributed to vast changes that could not have been reasonably predicted twenty-five years ago.[3]

Finally, it is quite difficult for a specialist in one field, even one with good grasp of trends in his or her specialty, to foresee important future events in other fields that will significantly affect developments in the targeted area. Perhaps it is true that only a generalist can have much chance of painting a reasonably accurate forecast of the future.

Thus daunted, I now approach my topic, the international law of ocean fisheries management in the year 2010. As background, I will first summarily describe recent trends in ocean fishing practices, and will then proceed to address the goals and methods of fisheries management, at least as we now understand them. I will next briefly review the history of the international law of fisheries management, emphasizing (out of a sense of symmetry) the immediate past twenty-five years. With this running start, I will then enter into the prediction phases of the article. The first phase of my analysis will preview the coming quarter century of international fisheries law with and, alternatively, without the fisheries rules of 1982 United Nations Convention on the Law of the Sea (UNCLOS)[4] as the basic legal foundation. This discussion will, however, include my rationale for the prediction that UNCLOS will not provide much more than a historical benchmark on the way to 2010.

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2. Futurists use a scientific approach in their attempts to perceive the future shape of society as a whole. Futurism as a "profession" has really come into its own only within the past 25 years. The great mass of literature that has appeared in that time includes such well known works as Club of Rome, The Limits to Growth (1972) (probably overly pessimistic); H. Kahn, The Coming Boom: Economic, Political and Social (1982) (probably overly optimistic); J. Naisbitt, Megatrends (1982) (popular, but reveals more about the author's values and hopes than about any likely future). For people interested in how wrong prophets can often be, the Smithsonian's current traveling exhibit "Yesterday's Tomorrows: Past Visions of the American Future" is especially enlightening and entertaining.

3. For an entertaining account of the invention of the integrated-circuit chip, see Reid, The Chip, 85 Science 32 (1985).

4. United Nations Convention on the Law of the Sea, opened for signature Dec. 10, 1982, U.N. Doc. A/CONF.62/122 [hereinafter cited as UNCLOS].

I will then address the prospects for regional arrangements. Before concluding, and with one of my earlier admonitions in mind, I will make some relatively uninformed guesses at future developments in relevant non-legal fields that might well cause some adjustments in the legal picture by 2010.

BACKGROUND I: OCEAN FISHING PRACTICES, MANAGEMENT GOALS AND METHODS

The great majority of ocean fishing—that is, the hunting of wild sea creatures by humans—has always occurred within a couple of hundred nautical miles from land.[5] This pattern is due not so much to logistics as to the basic fact that life in the oceans tends to concentrate in nearshore areas.[6] Thus, even in the 1960's and '70's, the heyday of distant-water fleets capable of harvesting the sea's living resources throughout the planet's watery regions, fishing by these "foreigners" and local fishermen alike was most active in nearshore waters. Such highly migratory species as tuna and the great mammals are among the few exceptions that have led a minority of fishermen and whalers to ply their trades at greater distances from shore.[7] In general, though, the broad mid-ocean areas are relative biological deserts.

The fish stocks that inhabit the fruitful nearshore regions are, for our purposes, divisible into the following broad categories: (1) sedentary species, which includes those, such as clams and some shellfish, that are immobile on the sea bottom or move only short distances across the seafloor; (2) those swimming coastal species whose migratory patterns occupy small offshore areas; (3) those species (probably a majority) whose migratory patterns are more extensive in a littoral sense, but are still within the nearshore belt; and (4) those species whose migratory patterns include sea areas more than 200 nautical miles from shore. A listing of fish stock types must also include the anadromous species, exemplified by salmon, which spawn in freshwater, often far inland, and migrate to and widely throughout the open ocean.[8]

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5. See Brewer, The Management Challenges of World Fisheries, in Global Fisheries: Perspectives for the 1980's, at 195, 201 (B. Rothschild ed. 1983).

6. The reasons for this distribution pattern comprise a complex set of factors that affect vertical mixing of deepwater nutrients into sunlit upper areas, causing the growth of phytoplankton, the foundation of the ocean's chain of life. See Our Changing Fisheries 25-29 (S. Shapiro ed. 1971). For a striking visual representation of the distribution of sea life, see Office of the Geographer, Department of State, Phytoplankton Production Map, S12518 1-72 (source of data: UN FAO).

7. For distributions of resources and exploitation patterns, see K. Allen, Conservation and Management of Whales (1980); The Fish Resources of the Ocean (J. Gulland ed. 1971).

8. For a similar functional, but non-scientific classification of harvested species, see G. Knight, Managing the Sea's Living Resources 8-10 (1977).

The traditional practice of ocean fishing can be divided into two basic activities: finding the fish, and capturing the fish.[9] Since World War II, technological developments have considerably enhanced fishermen's capabilities for both these activities. Much of the mystery in locating the prey has been removed in many fisheries by the use of spotting aircraft, the development of echo sounding devices and sonar,[10] remote sensing by satellite,[11] and improved forecasting of weather and sea conditions.[12] At the same time, developments in vessel design and navigation tools have enabled fishermen to range farther asea, and in greater safety in their search for the fish.[13]

The common implements for capture of ocean fishes today are the same basic types of capture devices that fishermen have used for centuries: nets, hooks and lines, traps (or pots), and spears (or harpoons).[14] Again, however, modern technology has enhanced the efficiency of these devices, in some cases almost to the point of nonrecognition. By far the most efficient fish-capture tool today is the otter trawl, a cone-shaped net towed behind a powered vessel.[15] The trawl is usually pulled along the bottom, where it scoops up everything in its path before retrieval and sorting. The recent addition of electronic fish-finding gear attached to the wide mouth of the trawl has made the otter trawl effective in mid-water depths as well.[16] The majority of the total annual harvest of fish from the sea is caught by otter trawls.[17]

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9. See, e.g., Jacobson, Future Fisheries Technology and the Third Law of the Sea Conference, in The Future of International Fisheries Management 51 (G. Knight ed. 1975). See generally W. Royce, Introduction to the Fishery Sciences (1972); Shapiro, supra note 6; and the various volumes of FAO, Modern Fishing Gear of the World.

10. Jacobson, supra note 9, at 61-63; Wilimovsky & Alverson, The Future of Fisheries, in 3 FAO, Modern Fishing Gear of the World 510 (1971).

11. See Laevastu & Johnson, Application of Oceanographic and Meteorological Analyses/Forecasts in Fisheries, in 3 FAO, supra note 10, at 28.

12. See generally Jacobson, supra note 9, at 61; National Oceanic and Atmospheric Administration, Proceedings of Workshop on the Application of Aerospact Remote Sensing to Fisheries Problems (1973); Stevenson & Pastula, Observations on Remote Sensing in Fisheries, Comm'l Fish. Rev. 9 (Sept. 1971).

13. See Jacobson, supra note 9, at 55-56, 75; W. Royce, supra note 9, at 279-80; S. Shapiro, supra note 6, at 423.

14. Jacobson, supra note 9, at 55.

15. Id. at 56-57. The otter trawl gets its name from the kitelike "otter boards" that are attached to the wide mouth of the net to hold it open as the boards and net are pulled through the water. Id. Whether the word "otter" is derived from "outer" or refers to the swimming motion of otters, which the boards might be perceived to imitate, has been lost in the etymological history of the phrase.

16. The "netzsonde" telemeter is a type of echo sounder that not only helps locate the fish at midwater depths but also assists the vessel operator to monitor the trawl's shape and proximity to the bottom. Jacobson, supra note 9, at 58-59. A "thermosonde," or temperature sensor, might also be attached to the trawl to monitor trawl-depth water temperatures. Id. at 59.

17. Id. at 56-57.

Other productive versions of the net include the purse seine, which is used to surround schooling fish before they can escape, and the gill net, which entangles the fish as they swim into it.[18]

Salmon fishermen, in trolling, use lured hooks and lines trailed from moving vessels.[19] Longlining is a method of fishing that employs very long horizontal lines, to which "dropper lines" with baited hooks are attached; the whole array is anchored and buoyed in hopes of attracting such nonschooling fish as sharks and some species of tuna.[20]

Like longlines, traps and pots are stationary capture devices. These are baited to lure bottom-dwelling species—lobsters and crabs, for example—into the traps through small openings.[21] Today, because of powered deck winches, traps can be quite large. Powered deck-mounted lifting gear has also led to the increased size of trawls and seines.[22]

Harpoons, now often with explosive tips and fired from guns, continue to be used by whalers.[23]

Fishing vessels range from small one-fisherman skiffs with no power equipment (other than outboard motors) to extremely sophisticated stern trawlers well in excess of 100 meters in length.[24] The latter can be awesomely efficient fishing platforms, combining computerized satellite navigation gear and seemingly fail-safe electronic fish-finding devices with huge bottom and mid-water trawls assisted by deck-mounted power cranes and winches.[25] Adding onboard or mother-ship catch-processing capabilities resulted in the apex of the surge in distant-water fishing that developed in the years since World War II.[26]

Nevertheless, the majority of the world's ocean fishermen have always been coastal fishermen who operate within a few to a few hundred miles of their home ports in vessels considerably smaller than the "Super Ship" stern trawlers, but with an increasing degree of technological sophistication and consequent efficiency.[27] In the twenty-five years between

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18. Id. at 57.

19. Id.

20. Id. at 57-58.

21. Id. at 58.

22. Id. at 59.

23. K. Allen, Conservation and Management of Whales II (1980). A ban on the use of cold grenade (non-exploding) harpoons is currently in effect, although Brazil, Iceland, Japan, Norway, and the USSR object to this ban in regard to Minke whales. See recommendations of the Technical Committee Working group, Report of the United States Delegation to the 35th Annual Meeting of the International Whaling Commission 6-7 (July 1983).

24. See generally M. Meltzer, The World of the Small Commercial Fisherman: Their Lives and Their Boats (1980); The Stern Trawler (P. Hjul ed. 1972).

25. See The Stern Trawler, supra note 24, at 140-221.

26. Id.

27. See generally C. Idyll, The Sea Against Hunger 162-85 (1978); W. Royce, supra note 9, at 277-90.

1957 and 1982, the total annual harvest from the sea increased from 31,700,000 metric tons to nearly 78,000,000 metric tons.[28]

Fishery management comes into play when overfishing in a fishery threatens or results from the pressures of too many fishermen, or increase fishing efficiency, or both (sometimes in combination with natural phenomena or events).[29] Overfishing is a term usually applied to any level of fishing effort beyond that which would give the particular fishery's maximum sustainable yield (MSY). MSY itself has been defined as "the largest tonnage of fish that can be taken on an indefinitely recurring basis from a given stock of fish."[30]

A principal traditional objective of fishery management, then, is properly characterized as a *conservation* goal, the perpetual maintenance of the fishery's most productive biological yield.[31] Over the years, various methods for targeting this goal—basically, for reducing the total fishing effort or its efficiency—have been devised.[32] These methods include the following:

- Limited fishing seasons
- Area restrictions
- Quotas
- Size limits for individual fish
- Forbidding the capture or retention of female fish
- Gear restrictions, to encourage inefficiency.

The other traditional principal goal or task of fishery management is *allocation* of the total allowable yield among competing groups of fishermen.[33] At the national or local level, the manager of a fishery may be called on to divide the fishery's take between commercial fishermen and recreational fishermen, or between native fishermen and non-native fishermen.[34] At the international level, the allocation will often be between

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28. See Food & Agriculture Organization of the United Nations, 54 Y.B. of Fishery Statistics, Catches and Landings 77 (1982) [hereinafter cited as Y.B. of Fishery Statistics]; 52 Y.B. of Fishery Statistics 41 (1981); 48 Y.B. of Fishery Statistics 45 (1978); 36 Y.B. of Fishery Statistics 4-5 (1974). The figures exclude aquatic plants and marine mammals.

29. A recent example of such events was the return of the El Nino current, which pushes a mass of warm water from the West Pacific along the United States coast. The current raised the ocean temperature six degrees above normal off the coast of Oregon, and the nutrient-poor warm water led to lower survival rates for salmon and steelhead smolts. See 1 Ore. Dep't. of Fish & Wildlife, Salmon News No. 7, at 1 (June, 1983).

30. G. Knight, supra note 8, at 8. See also J. Gulland, The Management of Marine Fisheries 107-08 (1974).

31. G. Knight, supra note 8, at 34-35.

32. See J. Gulland, supra note 30, at 127-55.

33. See Burke, Extended Fisheries Jurisdiction and the New Law of the Sea, in B. Rothschild, supra note 5, at 7, 13-18.

34. Salmon management in the American Pacific Northwest presents a particularly difficult set of allocation problems. See, e.g., Pac. Fishery Mgt. Council, Final Framework Amendment for Managing the Ocean Salmon Fisheries Off the Coasts of Washington, Oregon and California commencing in 1985, at ix-x, 3-34 (Oct. 1984).

local fishermen and distant-water fishermen, or between historical fishermen groups and newer entrants into the fishery.[35]

Other, less traditional management goals have entered the fisheries vocabulary in the last few decades.[36] "Limited entry" is a phrase that has come to be identified with the goal, proposed by resource economists, of "maximum economic rent." Implementing a limited entry management scheme requires changing an open entry fishery, the usual situation in which fish are legally considered common property resources,[37] to a system that limits the number of fishermen or vessels in the fishery. The rules of the fishery can then allow the remaining fishermen to fish over longer seasons and across wider areas, using more efficient technology. In theory, such a system eliminates "excess" capital and labor, and re-channels them to other sectors of society's economic production. Within the fishery itself, the goal is to maximize sustainable economic yield (rather than MSY's biological yield target). Thus the focus is on managing the level or characteristics of fishing effort to achieve and maintain the greatest gap between the total cost of fishing and the total income received for the products of the fishery.[38] According to the proponents of limited entry systems, the traditional focus on MSY, coupled with open entry, usually assures that the fishery will at best break even.[39] A few management entities have instituted limited entry schemes for some fisheries, with varying degrees of success.[40] The concept remains highly controversial.[41]

Another fishery management goal that has achieved greater acceptance, both domestically and internationally, is generally termed "optimum yield" (OY). Unlike MSY and limited entry, which purport to be based on relatively objective standards, OY is a patently subjective concept. It usually has MSY as its core, yet allows adjustments to MSY based on the assessment of an array of economic and social factors. For example, the Regional Fishery Management Councils in the United States are statutorily directed to employ an OY standard defined as follows:

[T]he amount of fish—

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35. See G. Knight, supra note 8, at 41-45.

36. The principal work on limited entry is F. Christy & A. Scott, The Common Wealth in Ocean Fisheries (1965). The seminal article is Gordon, The Economic Theory of a Common-Property Resource: The Fishery, 62 J. Pol. Economy 124 (1954). See also L. Anderson, The Economics of Fisheries Management (1977).

37. See G. Knight, supra note 8, at 2-4.

38. See authorities cited supra note 36.

39. See G. Knight, supra note 8, at 10; see also authorities cited supra note 36.

40. Especially significant have been attempts in Alaskan and British Columbia fisheries. For assessments of these and other attempts at limiting entry, see Limited Entry as a Fishery Management Tool 271-428 (R. Rettig & J. Ginter 1978).

41. Id. at 157-72.

> (A) which will provide the greatest overall benefit to the Nation, with particular reference to food production and recreational opportunities; and
>
> (B) which is prescribed as such on the basis of the maximum sustainable yield from such fishery, as modified by any relevant economic, social, or ecological factors.[42]

Such a standard presumably authorizes the management entity to deviate from the MSY goal in favor of such considerations as preserving traditional ways of life in costal communities, maintaining high employment in the fishery, protecting markets for the catch, or establishing a marine park.[43]

Other secondary, though still important, goals of fishery management include the prevention of conflict, both by enforcement measures and by the promulgation of conservation and allocation rules that participants perceive as fair, preservation of food, fish quality, etc.[44]

All in all, fishery management today is an incredibly difficult task. The conservation goal remains elusive because of the inexact nature of fishery science;[45] the allocation goal is inextricably entangled in politics, often of the no-win variety;[46] and arguments about the goals themselves are apparently unceasing. Nevertheless, management is necessary if the renewable food (and economic) potential of the ocean is to be realized.

BACKGROUND II: THE PAST TWENTY-FIVE YEARS (AND A FEW MORE) IN INTERNATIONAL FISHERIES LAW

Twenty-five years ago: 1960. How long ago is that? In the historical events context of our inquiry for this symposium, it is a very long time indeed. Certainly no other quarter-century in the history of human existence has witnessed a greater number of truly significant—no, transforming—events affecting the international law of the sea. A strong case can be made for the proposition that the laws of the sea concerning the activity of ocean fishing have undergone the greatest transformation.

The year 1960 arrived in the midst of the ratification phase for the package of four treaties that had been adopted in Geneva at the conclusion of the First United Nations Conference on the Law of the Sea

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42. Magnuson Fishery Conservation Management Act, 16 U.S.C. § 1802 (1983).

43. For a discussion of the meaning of OY under the Magnuson Act, see Federal Fisheries Management: A Guidebook to the Magnuson Fishery Conservation and Management Act 17-24 (J. Jacobson, D. Connor, & R. Tozer eds. 1985).

44. See G. Knight, supra note 8, at 33-38. See generally A. Koers, International Regulation of Marine Fisheries 23-76 (1973).

45. See Gulland, Managing Fisheries in an imperfect World, in B. Rothschild, supra note 5, at 179-94.

46. See, e.g., A. Koers, supra note 44, at 63-69. The "no-win" aspect of many allocation tasks is aptly illustrated, on a domestic level, by the almost impossible job of managing Pacific Northwest salmon stocks. See supra note 34.

in 1958. As a group, these four conventions primarily reflected the international rules of ocean use that had come to be recognized as customary international law. Each of the four contained important provisions on ocean fishing:

(1) The Convention on the Territorial Sea and the Contiguous Zone[47] confirmed that each coastal state had, *inter alia*, absolute sovereignty over the living resources within its territorial sea (the maximum offshore width of which was left undetermined).[48]

(2) The Convention on the Continental Shelf[49] recognized the principle, then a recent addition to customary international law, that each coastal state had sovereign rights to the natural resources of its adjacent continental shelf, out to a depth of 200 meters, or beyond, to the limit of exploitability.[50] These resources specifically included sedentary species of sea life.[51]

(3) The High Seas Convention[52] reiterated one of the basic, centuries-old, principles of the international law of the sea, that of freedom of fishing in the high seas beyond the outer limit of the coastal states' territorial seas.[53]

(4) The Convention of Fishing and Conservation of the Living Resources of the High Seas,[54] while not a customary-law codification, would have allowed coastal states limited authority to regulate some fisheries in the high seas beyond their territorial seas.[55] This convention deserves special attention here. Although it was adopted by a two-thirds majority vote in the 1958 Geneva Conference and was eventually ratified by enough states to come into force,[56] it should now be viewed as a

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47. Convention on the Territorial Sea and the Contiguous Zone, opened for signature April 29, 1958, 15 U.S.T. 1606, T.I.A.S. No. 5639, 516 U.N.T.S. 205.

48. Id. art. 1.

49. Convention on the Continental Shelf, opened for signature April 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311.

50. Id. arts. 1-2.

51. The natural resources referred to in these articles consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or subsoil.

Id. art.2(4).

52. Convention on the High Seas, opened for signature April 29, 1958, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82.

53. Id. art 2(2).

54. Convention on Fishing and Conservation of the Living Resources of the High Seas, opened for signature April 29, 1958, 17 U.S.T. 138, T.I.A.S. No. 5969, 559 U.N.T.S. 258 [hereinafter cited as Convention on Fishing].

55. Id. arts. 6-7.

56. Twenty-two ratifications of accessions were required to bring the Fishing Convention into force. Id., art. 18. At last count, 35 states had ratified, U.S. Dep't. of State Treaties in Force, A List of Treaties and Other International Agreements of the United States in Force on January 1, 1984, at 233 [hereinafter cited as 1984 Treaties in Force].

principal failure of that conference. Those unfamiliar with the Fishing Convention can understand how it came about and what it attempted to do only after some further background.

Over hundreds of years, until nearly the mid-20th century, customary international law of the sea came to recognize (with a few minor deviations) the principle that freedom to fish existed everywhere on the high seas, that vast expanse of ocean beyond the narrow belts of territorial sea assigned to coastal states.[57] This freedom, though occasionally challenged,[58] meant that no state had the right to prohibit or regulate fishing by any national or vessel of another state.

When problems did arise, the concerned states might enter into agreements designed to maintain economic interests or to promote conservation or allocation goals in the affected high seas fishery.[59] From the viewpoints of many fishing groups and states, however, international fisheries agreements were unsatisfactory management mechanisms. The eventually perceived reasons for dissatisfaction were several.

(1) The international fishery commissions established by the agreements were given only limited management authority, rarely including the power to do more than conduct scientific studies or recommend fishery regulations to be adopted by the participating governments.[60]

(2) The fishery commissions were never (or rarely)[61] given ultimate enforcement powers; authority for trying and punishing fishermen charged with violating the fishery's management rules almost always lay exclusively with the flag state, whose enforcement zeal was, under the circumstances, suspect (and, in fact, probably often absent).[62]

(3) Because an international fishery agreement binds only the states who are parties to it, fishing vessels from non-party states, in exercise

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57. See, e.g., 1 D. O'Connell, The International Law of the Sea 1-24 (1982); Pardo, The Law of the Sea: Its Past and Its Future, 63 Ore. L. Rev. 7 (1984).

58. See D. O'Connell, supra note 57, at 510-42. Professor O'Connell points out that international fishery disputes were not infrequent, especially between neighbors, during the free seas period, and that the exhaustability of fishery resources was a debating point even in Grotius' time. Id. at 510. The problem for theorists until the 20th century was figuring out how to separate the notion of exclusive fishery jurisdiction from that of territorial sea sovereignty. Id. at 530-31.

59. By 1971 for example, the United States was party to about 30 international agreements concerning fisheries or marine mammals. See Senate Comm. on Commerce, Science, and Transportation, Treaties and Other International Agreements on Fisheries, Oceanographic Resources, and Wildlife Involving the United States, 95th Cong., 1st Sess. (1977) (Comm. Print 1978). See generally A. Koers, supra note 44.

60. See International Convention for the Northwest Atlantic Fisheries, opened for signature February 8, 1949, 1 U.S.T. 477, T.I.A.S. No. 2089, 157 U.N.T.S. 157; see also G. Knight, supra note 8, at 47-48; see generally A. Koers, supra note 44, at 171-219.

61. See A. Koers, supra note 44, at 219-25, where the author discusses some of the rare attempts at mutual or international enforcement, at least in the pre-prosecution phases.

62. See G. Knight, supra note 8, at 48; J. Hammond, Alaska Position on International Fisheries Management 13-15 (1977).

of their freedom to fish, could enter and fish the high seas fishery without regard to regulations established under the agreement.[63]

(4) International arguments over conservation data, allocation fairness, and other management objectives were constant (as they are, undoubtedly, in any limited-resource management system).[64]

The post-World War II development of high-technology distant-water fleets by such states as Japan, the Soviet Union, and (on a more restricted scale) the United States, caused this simmering pot of discontent to boil over into outright frustration. Local fishermen and their governments resented the entry into "their" fishing grounds of large, sophisticated, and *foreign*, fishing vessels.[65] Moreover, because the foreigners were technically fishing on the high seas, though often just beyond the coastal state's narrow (three-to-twelve mile) territorial sea, they could not be regulated by the coastal state in the absence of agreement with the foreign vessels' flag state. Such agreements were, indeed, legion,[66] but they also carried most of the same perceived problems as the international agreements establishing fishery commissions. In addition, because they had to be negotiated and renegotiated, bilateral fisheries agreements were inflexible management devices.[67]

Something had to give. As it has turned out, what eventually gave (or, at least, collapsed into insignificance in the sea's most productive areas) was the centuries-old customary international law principle of freedom to fish the high seas. Although the final collapse did not occur until the 1970's, the movement to greatly restrict the reach of the principle was already under way in 1958, when the First U.N. Conference on the Law of the Sea purported to confirm it by adopting the High Seas Convention.

As early as 1947, Chile and Peru had claimed the first "200-mile-limits."[68] They were soon joined by Ecuador, with whom they officially launched the campaign to legitimize their claims by adopting the Santiago Declaration in 1952. That Declaration asserted the moral and legal right of the coastal states to proclaim 200-mile maritime zones for the purposes

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63. See G. Knight, supra note 8, at 42-43; J. Hammond, supra note 62, at 13-15; A. Koers, supra note 44, at 66-67.

64. See A. Koers, supra note 44, at 45-54, 63-69, 171-219; G. Knight, supra note 8, at 44.

65. See, e.g., Library of Congress Congressional Research Serv., 94th Cong., 2d Sess. (1975), A Legislative History of the Fishery Conservation and Management Act of 1976 *passim* (Comm. Print 1976) [hereinafter cited as Legislative History]; 1 A. Szekely, Latin America and the Development of the Law of the Sea 116-79 (1976).

66. See, e.g., Senate Comm. on Commerce, Science and Transportation, supra note 59, at 695-1175.

67. See J. Hammond, supra note 62, at 14-15.

68. An excellent summary of the background to these 200-mile claims is found in A. Hollick, U.S. Foreign Policy and the Law of the Sea 75-80 (1981); See also R. Eckert, The Enclosure of Ocean Resources 128-33 (1979); The Changing Law of the Sea: Western Hemisphere Perspectives 192-213 (R. Zacklin ed. 1974).

of conserving, protecting, and regulating the use of the natural resources in these areas.[69] Other states, especially those with distant-water fishing capability or naval fleets, chastised the CEP countries (as they were called for some years) for their absurd and patently illegal assertions of such extensive national jurisdiction in the international community's free high seas.[70] The Santiago Declaration nevertheless struck a responsive chord in several coastal states.[71]

By the time the 1958 U.N. Conference on the Law of the Sea convened, there were enough proponents and sympathizers of the movement toward expanded national jurisdiction to prevent the Conference from adopting a narrow, three-mile maximum width for the territorial sea, but not enough to achieve a Conference consensus favoring expanded jurisdiction.[72] As a result, the Convention on the Territorial Sea and Contiguous Zone[73] contained no territorial sea width rule at all,[74] and the Convention on Fishing and Conservation of the Living Resources of the High Seas[75] was adopted in an attempt to placate the expanded-jurisdiction proponents.

Under the provisions of the 1958 Fishing Convention, a coastal state could, following the failure of negotiations by the concerned states, unilaterally declare that a nearshore high seas fishery was in urgent need of management, and adopt non-discriminatory conservation regulations for all of the fishery's participants, including non-nationals;[76] at the same time, however, the affected states would be required by the

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69. Agreements Between Chile, Ecuador and Peru, signed at the First Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific, Santiago, August 18, 1952, reprinted in 1 S. Lay, R. Churchill, & M. Nordquist, New Directions in the Law of the Sea 231-32 (1973).

70. See A. Hollick, supra note 68, at 80-91. Naturally enough, the CEP countries rejected an American proposal to test the legality of the 200-mile claims before the International Court of Justice. Id. at 89; Wolfe, Peruvian-United States Relations over Maritime Fishing: 1945-1969, Occasional Paper No. 4, Law of the Sea Institute 1-8, 14-16 (1970).

71. Various extended-jurisdiction claims "swept through Latin America" in the early 1950's, including an assertion by El Salvador of a 200-mile territorial sea. A. Hollick, supra note 68, at 83.

72. See, e.g., Dean, The Geneva Conference on the Law of the Sea: What Was Accomplished, 52, Am. J. Int'l L. 607 (1958); Jessup, The Geneva Conference on the Law of the Sea: A Study in International Law-Making, 52 Am. J. Int'l L. 730 (1958).

73. Supra note 47.

74. The failure of the 1958 U.N. Conference on the Law of the Sea to establish a maximum limit for the territorial sea led to the Second U.N. Conference on the Law of the Sea in 1960, also in Geneva. The Second Conference almost succeeded in establishing a six-mile territorial sea and an additional six-mile exclusive fishing zone, but that proposal fell one vote shy of receiving the required two-thirds majority. See Dean, The Second Geneva Conference on the Law of the Sea: The Fight for Freedom of the Seas, 54 Am. J. Int'l L. 751, 772-82 (1960).

75. Convention on Fishing, supra note 54.

76. Id. arts. 6-7.

Convention to submit any dispute over the regulations to binding third-party settlement.[77] Only thirty-five states ratified the Fishing Convention[78]—enough to bring it into force for the ratifiers, but it never provided an effective alternative to expanded national jurisdiction because none of the important distant-water fishing nations became parties.[79] For these states, freedom of fishing, now supported by the High Seas Convention, continued as the basic principle for hunting the high seas' living resources.[80]

The international community is always free, however, to change or overturn a rule of customary international law by giving rise to a new consensus or different mutual expectations evidenced by the conduct and words of its members.[81] By the early 1960's—even while many states were ratifying the High Seas Convention—the freedom-to-fish principle was under serious threat in nearshore high seas areas. The reality is that almost all states in the international community have seacoasts and, because most of them have no distant-water fleets, they usually have no perceived short- or long-term interest in supporting a principle designed basically to promote the interests of those few states who do have the technological capabilities to fish far from home. Moreover, the decolonization movement was rapidly adding members to the international community, members who, having no world-ranging fishing vessels, tended to share this lack of concern for preserving a broad freedom-to-fish principle.[82] In addition, overcrowding and the efficient practices of the new distant-water fleets, coupled with the lack of effective management, caused conservation crises and allocation conflicts in several high seas fisheries in the 1960's.[83]

During the 1960's and early '70's, coastal state assertions of extended territorial seas or resource zones proliferated, though most claims remained far less extensive than the 200-mile claims of the CEP countries.[84]

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77. Id. arts. 9-12.

78. 1984 Treaties in Force, supra note 56, at 233.

79. For example, Japan and the Soviet Union, the two dominant distant-water fishing states, refused to become parties to the Fishing Convention. The United States is a party. Id.

80. Japan, the Soviet Union, and 55 other states ratified or acceded to the 1958 High Seas Convention. 1984 Treaties in Force, supra note 56, at 257-58.

81. See, e.g., M. Akehurst, A Modern Introduction to International Law 25-34 (5th ed. 1984); A. D'Amato, The Concept of Custom in International Law (1971); McDougal, The Hydrogen Bomb Tests and the International Law of the Sea, 49 Am. J. Int'l L. 356, 356-58 (1955).

82. See Robertson, Navigation in the Exclusive Economic Zone, 24 Va. J. Int'l L. 865, 868 (1984).

83. See, e.g., F. Christy, & A. Scott, supra note 36, at 182, 188-189.

84. For statistics and citations on the extended jurisdiction claims of this and later periods, see Office of the Special Representative of the Secretary-General for the Law of the Sea, Law of the Sea Bulletin No. 2, (Dec. 1983) [hereinafter cited as LOS No. 2].

A great number of states, including the United States,[85] boosted their offshore fisheries jurisdiction to twelve miles from shore;[86] twelve miles, in fact, became the most popular width for territorial seas.[87] A range of claims between twelve and 200 miles cropped up,[88] and not a few states joined the CEP countries in asserting one sort of 200-mile zone or another.[89] While some of these zones were hardly different from territorial seas, most of the claimants seemed primarily concerned with rights to resources, especially living resources.[90] The seas off the coasts of Latin America witnessed the Tuna Wars[91] and the Lobster War,[92] and the Cod Wars off Iceland resumed.[93]

Still, the majority of states continued to view the ocean beyond territorial seas of narrow or moderate breadth—three to twelve nautical miles—as high seas, where the ancient principle of freedom to fish reigned. Multilateral and bilateral agreements continued to be the favored approaches to conservation and allocation problems in fisheries pressured by increased competition and new fishing techniques.[94] International fisheries management remained suspect, however, because of its usual lack of real rule-making and enforcement teeth. In their campaign for acceptability of the 200-mile notion, Latin American diplomats and academicians put forward various moral, economic, and scientific justifications for extended jurisdiction.[95] It could also be that some sort of "territorial imperative" was at work. Whatever the rationales, the emerging pattern was becoming as clear as a time-speed animated map of the world: The best parts of the ocean were being progressively gobbled up by national jurisdiction. The planet's great international commons was in danger of division into national lakes.

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85. Bartlett Act, 16 U.S.C. § 1081; Pub. L. No. 89-658, 80 Stat. 908 (1966). The Bartlett Act was repealed by § 402(6) of the Fishery Conservation and Management Act of 1976, Pub. L. No. 94-265.

86. See LOS no. 2, supra note 84.

87. There was a virtual explosion of 12-mile territorial sea claims in the 1960's and early 1970's. See U.S. Dep't of State, Limits in the Sea, National Claims to Maritime Jurisdiction, Series A. No. 36 (rev. 1, Mar. 1, 1973).

88. Id.

89. At least a half dozen states made the 200-mile leap in these years. Id.

90. See id.; LOS No. 2, supra note 84.

91. See, e.g., A. Hollick, supra note 68, at 162-63; Burke, supra note 33, at 21.

92. The 1963 "Lobster War" between France and Brazil concerned Brazil's claim that lobsters off its northern coast were "sedentary species" of its continental shelf. France and its lobster fishermen asserted that the lobsters were mobile high seas species. Considerable tension between the two states resulted. See 1 A. Szekely, supra note 65, at 185-87.

93. See e.g., Burke, supra note 33, at 21; Bilder, The Anglo-Icelandic Fisheries Dispute, 1973 Wis. L. Rev. 37 (1973).

94. See e.g., A. Koers, supra note 44.

95. For a summary of some of these attempted justifications, see Hollick, The Origins of 200-mile Offshore Zones, 71 Am. J. Int'l L. 494, 494 n.5 (1977).

This trend naturally raised alarms in the capitals of those states possessing distant-water fishing fleets. It also deeply concerned those nations, especially the United States and the Soviet Union, with world-ranging navies. The naval powers feared that the general tendency toward expanded national jurisdiction would, sooner or later, interfere with traditional high seas freedoms of surface and submarine navigation and of overflight.[96] Consequently, by the late 1960's, the United States and the Soviet Union conferred with each other and actively promoted a new comprehensive international agreement to halt or control the "national lake" movement.[97]

Fortuitously, the same time period saw the rise of a new commercial interest in the vast fields of deep-seabed manganese nodules.[98] In 1970, the United Nations General Assembly declared the seabed beyond national jurisdiction (*i.e.*, beyond the national continental shelves)[99] the "common heritage of mankind."[100] Also in 1970, the General Assembly called for a new International Conference on the Law of the Sea to establish the machinery for managing the mining of the deep seabed and for realizing, on behalf of all mankind, its untold riches, and to consider "a broad range of related issues."[101] A Seabed Committee, established earlier,[102] was instructed to prepare the way for the new Conference.[103]

The deliberations of the Seabed Committee made it clear that a new Law of the Sea Conference was generally acceptable or even quite popular, but for different reasons: the naval and maritime powers eventually saw an opportunity to use fisheries concessions and especially the deep seabed regime as bargaining chips for preserving the freedoms of navigation and overflight; the Latin Americans (and other broad-zone proponents) undoubtedly saw the chance to legitimize the 200-mile limit; the Third World Nations viewed the Conference as yet another arena for promoting the New International Economic Order; and, yes, the Conference would be a chance to devise a mining scheme for the deep

96. See A. Hollick, supra note 68, at 174-75.

97. Id.

98. See id. at 8.

99. For the then generally accepted definition of national continental shelf jurisdiction, see Convention of the Continental Shelf, supra note 49, art. 1.

100. Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and Subsoil Thereof, Beyond the Limits of National Jurisdiction, G.A. Res. 2749, 25 U.N. GAOR Supp. (No. 28), at 24, U.N. Doc.A/8028 (1970).

101. G.A. Res. 2750-A (XXV), 25 U.N. GAOR Supp. (No. 28) at 25 (1970).

102. The official name of the Seabed Committee was "Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction." G.A. Res. 2467 (XXIII), 23 U.N. GAOR Supp. (No. 18) at 15 (1968). The original 42-state membership was expanded to 86 by UN General Assembly Res. 2750-C, supra note 101, at para. 5.

103. Id.

seabed.[104] When the Conference agenda emerged from the Seabed Committee, its eighty-five-or-so items collectively covered nearly every aspect of ocean use.[105] A meeting was being called, apparently, to draft a new constitution for the seventy percent of the planet's surface covered by sea.

As the first substantive session of the Third U.N. Conference on the Law of the Sea opened in Caracas in 1974, it was already clear that the 200-mile resource zone was an idea whose time was imminent.[106] The United States and other maritime powers, while virtually conceding that any new treaty would endorse the 200-mile limit, conditioned their acceptance of 200-mile economic zones on trade-offs related to their navigation interests and other "non-resource" uses of the sea.[107]

In the first year of the Third Conference, the International Court of Justice issued its judgment in the Fisheries Jurisdiction Cases.[108] The Court ruled that Iceland had preferential rights in the fisheries off its coasts, but that it could not assert its new fifty-mile exclusive fishing zone in opposition to the United Kingdom or to the Federal Republic or Germany—both of whom had historically fished in the sea areas claimed by Iceland. But a separate opinion filed by several ICJ judges revealed that the Court could not have been unaware of the expanded jurisdiction trend and its implications for the further development of international law.[109] Perhaps the ultimate significance of the Court's judgment lies in the fact that Iceland, which had declined to appear in the case, not only ignored the Court's order, but soon extended its exclusive jurisdiction zone to 200 miles—and got away with it.[110]

The Third Conference dragged on, moving in 1975 to Geneva.[111] Meanwhile, pressure was building in the United States Congress in favor of a 200-mile fishing zone for the United States. Its proponents were the American fishing industry and others who resented foreigners fishing in "their" waters just beyond the twelve-mile limit.[112] The executive branch, still attempting to negotiate a satisfactory package in the Law of the Sea Conference, resisted this threat to one of its principal bargaining

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104. See R. Anand, Origin and Development of the Law of the Sea 194-224 (1982). The emergence of the "package deal" approach to the new conference is described in A. Hollick, supra note 68, at 234-36.

105. For a listing of the agenda items adopted by the Seabed Committee, see II S. Lay, R. Churchill & M. Nordquist, New Directions in the Law of the Sea 745-49 (1973).

106. See A. Hollick, supra note 68, at 270-71, 294.

107. Id. at 294.

108. Fisheries Jurisdiction (U.K. v. Ice.), 1974 I.C.J. 1.

109. Id. at 45-53.

110. See G. Knight, The Law of the Sea: Cases, Documents, and Readings 12-99 to 12-100 (1980).

111. See Stevenson & Oxman, The Third United Nations Conference on the Law of the Sea: The 1975 Geneva Session, 69 Am. J. Int'l L. 763 (1975).

112. See Legislative History, supra note 65; J. Jacobson, D. Connor & R. Tozer, supra note 53.

positions.[113] Nevertheless, in 1976 Congress passed, and President Ford reluctantly signed into law the Fishery Conservation and Management Act of 1976.[114] As of March 1, 1977,[115] the United States would have exclusive jurisdiction over all living resources (except tuna)[116] in the largest area of 200-mile zone space in the world.[117] At that time, 200-mile zones were claimed by fewer than fifteen states.[118]

Now, however, the floodgates were opened. If the greatest naval power could endorse the 200-mile zone concept, why should the other coastal states hesitate? In a few years, the 200-mile limit went from a minority trend to a majority reality.[119] Surprisingly to some, even the Soviet Union, one of the two dominant distant-water fishing nations, soon followed suit.[120] The other, Japan, joined later, but with clear reluctance.[121] Since 1977, the "200-mile club" has expanded its membership to a total of at least eighty-five.[122]

Years before the Third U.N. Conference on the Law of the Sea concluded its work in 1982, it was a foregone conclusion that it would endorse the principle that each coastal state has the right to a 200-mile economic zone in the sea off its shores. The treaty adopted by the Conference[123]—favorably voted on and now signed by the vast majority of the world's states[124]—contains several fisheries provisions in its

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113. See, e.g., Hearings on H.R. 197 *et al.* Before the Subcomm. on Fisheries and Wildlife Conservation and the Environment of the House Comm. on Merchant Marine and Fisheries, 94th Cong., 1st Sess. 48-50 (1975).

114. 16 U.S.C. §§ 1801-82 (1983); see also Statement by the President upon Signing H.R. 200 into Law, reprinted in Legislative History, supra note 65, at 34.

115. March 1, 1977, was chosen as the effective date to give the Third UN Conference on the Law of the Sea an opportunity to reach an agreement, thus obviating the need for controversial unilateral action. See, e.g., Legislative History, supra note 65, at 600.

116. 16 U.S.C.A. §§ 1802 (6), (14), 1813 (Supp. 1984).

117. The Total area of 200-mile zone space off the coasts of the United States and its possessions has been estimated at nearly 2 1/4 million square miles, or 3.9 billion acres. Congress of the United States, Office of Technology Assessment, Establishing a 200-Mile Fisheries Zone 24 (1977); National Advisory Committee on Oceans and Atmosphere, The Exclusive Economic Zone of the United States: Some Immediate Policy Issues 1 (1984).

118. See LOS No. 2, supra note 84.

119. See id.

120. Decree of the Presidium on Provisional Measures to Conserve Living Resources and Regulate Fishing in the Sea Areas Adjacent to the Coast of the USSR, Dec. 10, 1976, reprinted in 5 New Directions in the Law of the Sea 141-43 (R. Churchill, M. Nordquist & S. Lay eds. 1977).

121. Law on Provisional Measures Relating to the Fishing Zone, Law No. 31, May 2, 1977, reprinted in 7 id., at 128-42. For the Background of this Japanese act, see H. Fukui, How Japan Handled UNCLOS Issues: Does Japan Have an Ocean Policy?, in R. Friedheim, et al., Japan and the New Ocean Regime 21, 44-51 (1984).

122. See LOS No. 2, supra 84, at iii-v.

123. UNCLOS, supra note 4.

124. One hundred thirty delegations to the Third Conference voted in favor of the treaty. See UN Chronicle, vol. 19, no. 6, at 13 (June 1982). During the two-year period which UNCLOS was open for signature, 159 states signed. See infra note 130.

"Exclusive Economic Zone" (EEZ)[125]; these will be reviewed in the next section of this article.

But before going on, I should recount some recent events that will call the 1982 treaty (UNCLOS) into question in the article's prediction phases.

Despite UNCLOS's apparent acceptance by the international community at large, the United States remains adamantly opposed to it. The United States delegation to the Third conference cast one of only four votes against adoption of the treaty.[126] The favorable votes numbered 130; only seventeen states abstained.[127] At the Montego Bay signing ceremony, 119 states signed UNCLOS.[128] The United States refused to sign and was the only delegation there to state that it would never sign or otherwise participate in the Convention.[129] Today, 159 states have signed the treaty.[130] For the treaty to enter into force, however, sixty states must actually ratify or accede to the Convention.[131] To date, more than two years after UNCLOS was opened for signature in Montego Bay, only eighteen states have ratified.[132]

The reasons for the United States' opposition to the 1982 Convention are found almost exclusively in the mass of provisions concerning the deep seabed mining regime.[133] President Reagan and his appointees have made it clear that the remainder of the Convention, including the EEZ and continental shelf provisions, is acceptable.[134] To underscore this position and to emphasize the further United States assertion that the non-seabed parts of UNCLOS reflect customary international law, President Reagan proclaimed a 200-mile Exclusive Economic Zone for the United States on March 10, 1983.[135] The EEZ Proclamation and the accompanying policy statement[136] appear to track the EEZ provisions of the 1982 Convention fairly well.[137] Moreover, statements and studies by

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125. See e.g., UNCLOS, supra note 4, arts. 55-75.

126. See UN Chronicle, supra note 124, at 13.

127. See id.

128. United Nations The Law of the Sea: Official Text of the United Nations Convention on the Law of the Sea with Annexes and Index 190 (1983).

129. See Malone, The United States and the Law of the Sea, 24 Va. J. Int'l L. 785, 785, 798-99 (1984).

130. *See* Office of the Special Representative of the Secretary-General for the Law of the Sea, Law of the Sea Bulletin No. 4, Feb., 1985, pp. 1-8.

131. UNCLOS, supra note 4, art. 308(1).

132. See Citizens for Ocean Law, Oceans Policy News 1 (May 1985).

133. See, e.g., U.S. Dep't. of State, Bureau of Public Affairs, Law of the Sea and Oceans Policy, Current Policy No. 416 (July-Aug. 1982) 1 (Statement of President Reagan, July 9, 1982); Malone, supra note 129, at 788-89.

134. See, e.g., Malone, supra note 129, at 801-02.

135. Proclamation No. 5030, 48 Fed. Reg. 10, 605 (Mar. 14, 1983).

136. Weekly Comp. Pres. Docs., Mar. 14, 1983, at 383.

137. There are, however, some significant differences. See Pierce, Selective Adoption of the New Law of the Sea: The United States Proclaims Its Exclusive Economic Zone, 23 Va. J. Int'l L. 581 (1983).

United States government spokespersons and other, more detached, observers suggest that the basic EEZ provisions of the treaty do reflect the outlines of current customary international law as established by recent state practices.[138]

At the same time, it should be noted that state practice outside UNCLOS is hardly consistent on the detailed aspects of extended jurisdiction.[139] More importantly, we should never forget that customary law established by state practice, unlike a treaty, is a continually evolving animal, constantly adapting—sometimes slowly, sometimes rapidly—to the pressures of the identifiable trends and surprising events of its also-changing environment.

THE NEXT TWENTY-FIVE YEARS: WILL THE 1982 CONVENTION SUCCEED?

In contrast with domestic fisheries law, the international law of fisheries management has been concerned not so much with *whether* or *how* fisheries management occurs as with *who*, if anybody, has the right to manage, and *where*. In the years when the world ocean was divided between the sovereignty of the narrow territorial seas and the freedom of the vast high seas, coastal states could regulate fishing only within their territorial seas, or by their flag vessels on the high seas.[140] High seas fisheries in which vessels of more than one state participated were either unmanaged or could be managed, when the need arose, only through agreement of the concerned states.[141]

Today, with the 200-mile limit an accepted world-wide reality, the fundamental feature of the international law of fisheries management is still the designation of the management entities. Now, however, a fishery's designated manager is, much more often than was true in the pre-200-mile zone age, the nearest coastal state. Global 200-mile zones blanket nearly forty percent of the world ocean, generally including the most biologically productive parts.[142] Within their respective segments of this area, coastal states are generally conceded to have exclusive jurisdiction or "sovereign rights" to manage the harvesting of living marine resources pretty much when and as they see fit.[143]

It must also be noted, though, that current international law does purport to lay down a few rules concerning whether and how the

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138. See, e.g., Malone, supra note 129, at 801-02; Burke, Extended Fisheries Jurisdiction and the New Law of the Sea, in B. Rothschild, supra note 5, at 7.

139. See Burke, supra note 138, *passim*.

140. See Oda, Fisheries Under the United Nations Convention on the Law of the Sea, 77 Am. J. Int'l L. 739, 739-40 (1983).

141. See Burke, supra note 138, at 8.

142. See supra notes 5-7 and accompanying text.

143. See UNCLOS, supra note 4, art. 56(1), which is probably representative of present customary international law.

designated managers carry out their management rule. These rules affect the manager's international responsibilities with respect to the basic conservation goal—whether it must manage a fishery within its jurisdiction and determine the total allowable catch, for example—and the allocation function—whether, and to what extent, foreign fishermen will be allowed to participate in the fishery.[144] The rules also place limits on the geographical extent of coastal state jurisdiction—basically, 200 nautical miles from the territorial sea baseline.[145] This, at least, is the balance between coastal-state and international interests that seems to have been struck in the EEZ provisions of the 1982 Convention on the Law of the Sea. And, according to some informed observers and analysts, this general balance is presently part of customary international law. As the previous review of the recent history of the law of the sea should indicate, however, the international community has been riding a rising wave of rapid change in international fisheries law, and it is not yet clear that the wave crested with the appearance of the 1982 Convention.

Perhaps the major question for a forecaster of the international law of fisheries management over the next twenty-five years, then, is whether the particular present balance of coastal-state rights and responsibilities will continue indefinitely into the future. Subsumed within this broad issue are several other questions also pertinent to the present inquiry: Who will be authorized to regulate fishing (or, in the case of cetaceans, hunting) of highly migratory species, whose migratory routes thread their way through numerous coastal-state jurisdiction zones and across the remaining high seas? Similarly, how are the transboundary stocks—those that visit more than one coastal-state zone or venture beyond such zones into the high seas—to be managed? Will anadromous species, those that spawn in fresh inland streams and then roam widely at sea, be treated specially by the law of the sea? Will marine mammals receive special protection? Will international fisheries law require that coastal-state custodians of offshore living resources share their bounty with landlocked neighbors and the less fortunate coastal states in the region? Will the international law of ocean fisheries include any specific restrictions on the sort of management methods or enforcement rules to be promulgated by the management entities? How will international fisheries dispute be resolved?

The answers to these questions will depend, in large measure, on whether the 1982 Convention on the Law of the Sea succeeds in becoming the accepted legal code of the oceans. As I will explain below, I do not believe that UNCLOS will be the controlling body of international fisheries law in 2010. The 1982 treaty will certainly have had a definable impact on the law as it is then understood, but I seriously doubt that

144. Cf. id. art 62.

145. Cf. id. art 57; see Burke, supra note 136, at 7.

it will be the law twenty-five years hence. Nevertheless, because of UNCLOS's great significance, and because of the distinct possibility that I may be wrong in my prediction, I will first proceed to predict what international fisheries law will be in 2010 on the assumption that the 1982 Convention will then be the treaty source (or detailed reflection) of laws on the subject.

Suppose UNCLOS Succeeds

The 1982 Convention on the Law of the Sea could succeed in establishing the pertinent international rules for ocean fishing in 2010 by different means: (1) The most obvious means would be through acceptance of the treaty in its present form by ratification and accession by virtually all of the concerned states, including the United States and other important ocean states; (2) it is also possible that UNCLOS might be amended within the next decade or so to satisfy United States deep seabed mining concerns, and that the amended treaty, containing the original fisheries provisions, would be widely accepted by the world community, including the United States; (3) by some sort of informal consensus, UNCLOS might come to be recognized as reflecting, in detail, the state of customary international law—at least with respect to fishing or, perhaps all non-seabed aspects—for the indefinite future, including the next twenty-five years.

If any of these scenarios occurs (I think that number (2) is the least unlikely), the international law of fisheries management in 2010 will include the following features:

- Each coastal state will have total and exclusive sovereignty over the living resources within its territorial sea, the maximum width of which will be twelve nautical miles.[146]
- Within a broad offshore Exclusive Economic Zone (EEZ), each coastal state will have "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living," of the water column and the seabed.[147]
- The maximum outer boundary for the EEZ will be 200 nautical miles from the territorial sea baseline.[148]
- Each coastal state will have exclusive, nearly unlimited, rights to promulgate and enforce regulations governing fishing within its EEZ.[149]

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146. UNCLOS, supra note note 4, arts 2-3.

147. Id. art 56(1) (a).

148. Id. art. 57.

149. Id. arts. 55-56, 61-62; see Burke, U.S. Fishery Management and the New Law of the Sea, 76 Am. J. Int'l L. 24 91982) (arguing that the then emerging fisheries rules of the Third Conference negotiations would assign virtually unrestricted management authority to EEZ coastal states, including the United States). In theory, however, the 1982 treaty does impose several international fisheries management duties on EEZ states. See infra notes 150-62 and accompanying text.

- On the other hand, the balance struck in the Third Conference will, by the terms of the 1982 treaty, require each coastal-state EEZ manager to observe certain obligations to the international community:

  (1) It "shall" determine the allowable catch in its EEZ.[150]
  (2) The coastal state will be bound to actively manage to prevent *overfishing—i.e.*, to ensure conservation of the living resources within its jurisdiction[151]—and to abide by an OY-type standard targeting "maximum sustainable yield [MSY], as qualified by relevant environmental and economic factors . . . ."[152]
  (3) After determining its own capacity to harvest its EEZ's living resources, the coastal state, in promotion of "optimum utilization" of these resources, will be obligated to grant foreigners access to any surplus of the allowable catch[153] (although this allocation obligation will be reduced considerably by the treaty language defining it,[154] and by the treaty's weak requirements concerning settlement of fisheries disputes);[155] the coastal state will be authorized to employ, vis-a-vis foreign fishermen, the entire menu of management techniques, including season and area restrictions, size limits, gear regulations, etc.[156]
  (4) In cases of transboundary stocks, the concerned states, whether EEZ "neighbors" or the EEZ state and others fishing the stock seaward of the EEZ, will be obligated to "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."[157]
  (5) The coastal state EEZ manager will be required to cooperate with other affected states in conserving and optimally using highly migratory species that pass through the EEZ,[158] although

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150. UNCLOS, supra note 4, art. 61(1).
151. Id. art. 61(2).
152. Id. art. 61(3).
153. Id. art. 62(2).
154. The coastal State shall determine its capacity to harvest the living resources of the exclusive economic zone. Where the coastal state does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4 [granting the coastal state broad authority to regulate foreign fishing], give other states access to the surplus of the allowable catch . . . . Id.
155. See infra notes 166-68 and accompanying text.
156. Id. art. 62(4).
157. Id. art. 63.
158. Id. art. 64.

the optimum utilization objective need not be applied to marine mammals.[159]

(6) Conservation of marine mammals, especially cetaceans, will be a mandated goal for all states, including EEZ states for their own economic zones.[160]

(7) Landlocked and other "geographically disadvantaged states" in the EEZ manager's region will have certain rights "to participate, on an equitable basis," in the exploitation of the EEZ's living resources.[161]

(8) The coastal state will not generally be allowed to impose certain enforcement measures (*e.g.*, imprisonment) for violation of its fisheries regulations.[162]

- The state of origin will have "primary interest in and responsibility for" anadromous stocks, but will be required to ensure their conservation and to "maintain consultations" with any state that would suffer "economic dislocation" by the treaty's general prohibition on fishing anadromous species seaward of EEZs.[163]
- Each coastal state will have, in addition to its EEZ rights, "sovereign rights" over the sedentary species[164] of its adjacent continental shelf, which, legally speaking, will have a minimum outer boundary of 200 nautical miles from the territorial sea baseline, and a maximum outer boundary that, depending on the physical circumstances of the seabed, might extend considerably farther.[165] The coastal state's rights to these continental shelf species, when contrasted to its hedged EEZ rights, apparently will be undiminished by an international obligations.
- The international obligations of the coastal state EEZ manager, while clearly spelled out in UNCLOS, will have doubtful practical application because of the treaty's weak dispute-settlement requirements.[166] The 1982 Convention allows a coastal state to opt out of compulsory binding settlement procedures in any dispute "relating to its sovereign rights with respect to the living resources in the exclusive economic zone or their exercise . . . ."[167] Compulsory conciliation, a non-biding settlement procedure, will be required, however, where another state alleges either that the EEZ manager

159. Id. art. 65.

160. Id.

161. Id. arts. 69-70. But these obligations do not apply where a coastal state's economy is "overwhelmingly dependent" on its EEZ's living resources. Id. art. 71.

162. Id. art. 73.

163. Id. art. 66.

164. Id. art. 77(4) (incorporating the definition of sedentary species found in the 1958 Convention on the Continental Shelf, art. 2(4), quoted supra note 51).

165. UNCLOS, supra note 4, art. 76.

166. See generally id. arts. 279-99.

167. Id. art. 297(3)(a).

"manifestly failed" to honor its conservation obligations, or that the EEZ manager has "arbitrarily refused" to determine the allowable catch or its own capacity to harvest the stocks in issue, or that the EEZ manager has "arbitrarily refused" to allocate any surplus where required to do so.[168]

- Freedom to fish will continue to be the basic principle for the shrunken high seas that remain beyond the collective EEZ's of the world's coastal states.[169] The letter of the law (UNCLOS) will admonish states whose nationals fish the high seas to cooperate with each other where necessary for the conservation and management of the high seas' living resources.[170] Because of practical necessities, states will indeed make substantial efforts to "cooperate to establish subregional or regional fisheries organizations" to these ends.[171]
- Further, because many or most of the world ocean's hunted species are transboundary species,[172] practical necessities and the obligations of the treaty will combine to induce EEZ neighbors and extra-EEZ fishing states to enter numerous bilateral or regional arrangements for the purpose of conserving and managing affected stocks.[173] Effective management—especially if it attempts such sophisticated concepts as limited entry[174]—will be impossible in such a fishery without single-entity management of the entire fishable range of the stock or stocks.
- Nevertheless, it is predictable that multilateral and bilateral attempts at management will be fraught with the same perceived problems that contributed to the general acceptance of the 200-mile-zone principle as a supposed alternative to management by international agreement.[175]

Such, then will be the general picture of the international law of fisheries management in the year 2010, if the 1982 Convention on the Law of the Sea (or, in any event, its fisheries rules) succeeds as the accepted oceanic code of the next two-and-one-half decades.

Suppose UNCLOS Fails

I believe, and predict that UNCLOS will not succeed. Why not? And what will replace the UNCLOS rules? The answers to these questions

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168. Id. art 297(3)(b)-(d). However, "[i]n no case shall the conciliation commission substitute its discretion for that of the coastal State." Id. art 297(3)(c).

169. Id. art. 87(e).

170. Id. arts. 117-19.

171. Id. art. 118.

172. See FAO, Atlas of the Living Resources of the Seas, 15 FAO Fisheries Series 5-9 (1981); Carroz, Institutional Aspects of Fishery Management Under the New Regime of the Oceans, 21 San Diego L. Rev. 513 (1984).

173. See UNCLOS, supra note 4, art. 63.

174. See supra notes 36-41 and accompanying text.

175. See supra notes 59-64 and accompanying text.

call first for a brief review of the reasons UNCLOS exists; this short digression requires reconsideration of the past twenty-five-or-so years.

The basic lesson learned from a review of law of the sea events of the past quarter-century is that state practice, the foundation of customary international law, has been busy revolutionizing the traditional rules that divided national ocean space from the international commons. The clear trend has been toward a growing expansion of the area within which coastal states have a recognized package of jurisdictional competences to control certain kinds of ocean activities, with 200 nautical miles as the favored geographical limit. Looking back from our 1985 vantage point, we should be able to understand the 1960's and 1970's concern of the maritime powers that this trend might eventually come to establish very broad, perhaps 200-mile, territorial seas (not just resource or "economic" zones) and might encourage a pattern of national claims to authority even beyond 200 miles from shore.[176] In fact, the Third Conference on the Law of the Sea would probably never have materialized in its comprehensive form without this concern of the ocean powers. These states endorsed the Conference as a potential means of keeping the extended jurisdiction trend from evolving (or "creeping") into broad zones of coastal-state sovereignty. Such an eventuality would have seriously interfered with the traditional high seas freedoms of navigation and overflight on which the maritime states had founded the exercise of their global naval might.[177]

If the 1982 Convention were to become the ocean law of the future, the Conference would have largely succeeded in meeting those "creeping jurisdiction" fears of the maritime states: Coastal state jurisdiction, though extensive, would be limited to 200 miles (plus more extensive continental shelf jurisdiction for some states) and, more importantly, would not be allowed to interfere seriously with navigation and overflight beyond a twelve-mile territorial sea, or to interfere seriously with navigation and overflight through international straits.[178]

To obtain these UNCLOS provisions, the maritime states made several concessions, principally concerning the deep seabed mining regime.[179] On the other hand, it should not be forgotten that many non-

176. See A. Hollick, supra note 68, at 173-90; Hollick, United States States Ocean Politics, 10 San Diego L. Rev. 467 (1973); Stevenson, Who Is To Control The Ocean: U.S. Policy and the 1973 Law of the Sea Conference, 6 Int'l Law. 465 (1972).

177. See A. Hollick, supra note 68, at 234-37.

178. UNCLOS, supra note 4, arts. 57 (breadth of EEZ), 76 (definition of continental shelf), 58 (navigation and overflight freedoms within EEZ's), 37-44 (rights of transit passage through international straits), and 46-54 (archipelagic sea lanes passage).

179. In 1976, at a time when the Third Conference was bogged down in seabed mining issues, American Secretary of State Henry Kissinger intervened in the Conference to offer several seabed concessions to Third World interests to enhance the acceptability of a prospective treaty package that included already-negotiated navigation and overflight provisions acceptable to the maritime powers. See A. Hollick, supra note 68, at 355-59. Variations of the Kissinger concessions eventually became part of the treaty. See, e.g., UNCLOS, supra note 4, Ann. III, art. 5, 8-9. Ann. IV, art. 11.

maritime coastal states felt that they too made concessions in the negotiation process. Included in those compromises was the willingness to abandon or forego assertions of even more extensive or inclusive coastal state authority. For example, if Ecuador becomes an UNCLOS party, it will thereby abandon its 200-mile territorial sea claim.[180]

Now, however, the United States, one of the maritime power instigators of the Third Conference, has rejected the treaty produced by the Conference. At the same time, the United States asserts that customary international law currently includes all or nearly all the non-seabed rules set forth in the 1982 Convention.[181] This position conveniently assumes that the overall balance struck in UNCLOS between coastal states' rights, on the one hand, and international community rights and freedoms (including navigation and overflight), on the other, is now part and parcel of customary international law binding all states even without a treaty. Another implicit, and crucial, United States assumption is that this balanced state of customary law has stabilized and will continue into the indefinite future—*i.e.*, that, by some means, the clearly discernible trend toward greater and more inclusive coastal state jurisdiction has been halted. Both assumptions are open to serious challenge.

Many analysts would undoubtedly agree that the basic outline of UNCLOS's non-seabed rules is reflected in (or reflective of) general principles now recognized as customary law. For example, we can accept the notion that coastal states now have something like the rights and jurisdictions set forth in the EEZ and continental shelf provisions of the 1982 treaty. On the other hand, it is probably not true that customary law has incorporated the details of those provisions. Such "details" might include the international obligations of the coastal state to conserve and realize the optimum utilization of its EEZ's living resources.[182] Further, UNCLOS's dispute settlement rules are almost certainly not a part of customary international law.[183] Many other examples could be cited.[184]

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180. See Ecuador Civil Code art. 628, as amended by Decree No. 256-CLP (Feb. 27, 1970), which provides:

> The territorial sea under national jurisdiction shall comprise the adjacent sea to a distance of 200 nautical miles measured from the outermost points of the coast of the Ecuadorian mainland and the outermost points of the outermost islands of the Colon Archipelago and from the low-water mark, using a baseline to be defined by Executive Decree. Quoted in LOS No. 2, supra note 84, at 25. According to the same source, 13 states claim 200-mile territorial seas. Id. at vi.

181. See supra notes 126-38 and accompanying text.

182. UNCLOS, supra note 4, arts. 61-62.

183. For the extremely detailed dispute-settlement provisions of the treaty, see id. arts. 279-299, Annexes V-VIII

184. For example, in a long and scholarly dissenting opinion in the Tunisia-Libya Continental Shelf Boundary Case, Judge Oda suggest that, while the basic notions of coastal-state jurisdiction and rights over adjacent continental shelves and EEZ's are part of customary law, such UNCLOS details as Article 76, on outer boundaries of continental shelves, and the specification of EEZ rights responsibilities found in Article 55-75 are clearly not party of customary law. Continental Shelf Boundary Case (Tunisia-Libyan Arab Jamahiriya), 1982 I.C.J. 143-277 (Oda, J., dissenting).

Even if one could somehow establish that UNCLOS does indeed merely set out the non-seabed rules of customary law in its present incarnation, it does not necessarily follow that customary international law's trend toward even more extensive and inclusive coastal state jurisdiction has been halted or has otherwise reached some sort of plateau. Certainly, the Third Conference itself has been largely responsible not only for initially encouraging the "national lake" movement, by granting a global forum to the 200-mile proponents, but also for slowing some of its more extreme tendencies. And, as noted above, a successful treaty could establish a stable plateau where the treaty's balance between local and international rights might ride well into the next century.

My prediction, however, is that American opposition to UNCLOS will cause the treaty to fail and that, with the recognition of this failure, the trend toward more extensive and inclusive coastal state jurisdiction and rights in the offshore oceans will continue apace for at least the next two decades. I am not foreseeing that the 1982 Convention will fail to garner the sixty ratifications and accessions necessary to bring it into force (although even that is not a sure bet).[185] Rather, I am predicting that the ratifiers and acceders will be insufficient, both in numbers and significance, to provide the widespread acceptance required for the treaty to become the binding code of the seas. Nor do I see the United States succeeding in its campaign to have the non-seabed parts of UNCLOS accepted as a detailed expression of customary international law of the sea.[186] Like the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas,[187] the 1982 convention will be deemed a success only in terms of the favorable vote of adoption and its bare coming into force (if it does in fact come into force); like the Fishing Convention, UNCLOS will eventually be viewed, in part, as an unsuccessful attempt to stem the tide favoring broader, more inclusive coastal state jurisdiction and rights.

The reasoning leading to this prediction is fairly straightforward:

(1) The near assurance that the United States, the world's most important ocean state, will continue to reject the UNCLOS package will cause a significant number of states to realize that the treaty cannot succeed in a meaningful way, and will lead them to re-assess their own Third Conference compromises.

(2) The historical forces that fueled the "national lake" movement are still extant; the vast majority of the coastal states are not maritime powers and have no perceived general interest in qualifying or limiting

185. See Wulf, Comment, in the Law of the Sea—Where Now?, 46 Law & Contemp. Probs. 155-62 (R. Maxwell & H. Robertson eds. Spring 1983).

186. See Jacobson, Law of the Sea—What Now?, 37 Naval War Coll. Rev. 82, 95-96 (1984); Malone, supra note 129, at 799-807.

187. Convention on Fishing, supra note 54.

the extent or nature of their rights in their offshore seas without the set of compromises continued in the UNCLOS "package deal."

(3) Most states will therefore choose not to ratify UNCLOS.

(4) In the absence of UNCLOS, coastal states will resume their pattern of claiming both more inclusive rights, leading eventually to 200 mile zones virtually indistinguishable from territorial seas, and more geographically extensive areas of special jurisdiction, including seabed jurisdiction (because of the failure of UNCLOS's seabed regime) and living resources jurisdiction where important species migrate beyond 200 miles to sea.

(5) Customary international law will evolve to reflect the new practices.[188]

My crystal ball does not provide me with a clear timetable for this process. I suspect it will still be ongoing twenty-five years hence, unless a revised law of the sea treaty intervenes—a prospect I will address below.

What can we assume to be the shape of the international law of fisheries management in 2010 if I am right that evolving customary law will be the principal shaping force? I suggest that under these circumstances, international fisheries law will exhibit the following general features twenty-five years from now:

- Within its twelve-mile territorial sea and a broad offshore zone (probably still called the "Exclusive Economic Zone"), each coastal state will have territorial-sea sovereignty, or its equivalent, over all living resources and all activities connected with their exploitation.[189]
- The maximum outer boundary for the EEZ will be subject to dispute. Most coastal states will still have 200-mile zones, but several states will claim more than 200 miles, at least for such special purposes as managing fisheries that extend beyond 200 miles (and for asserting "sovereign rights" in seabed minerals—but this is not my topic).[190]
- Coastal states will have no recognized international legal obligations to conserve the living resources within their offshore zones or to optimally utilize these resources by allowing foreign access to "sur-

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188. Cf. Oxman, Customary International Law in the Absence of Widespread Ratification of the U.N. Convention on the Law of the Sea, in The 1982 Convention on the Law of the Sea 668 (A. Koers & B. Oxman eds. 1984):

> Without a widely ratified Convention, it will be harder to restrain trends in 20th century state practice that are clearly discernible to anyone who bothers to look:
>
> It will be harder to restrain the tendency to expand coastal state jurisdiction, not only with respect to area, but perhaps more importantly, with respect to the object and degree of untrammeled coastal state discretion; . . . . Id at 678.

189. Cf. supra notes 146-47 and accompanying text.

190. Cf. supra note 148 and accompanying text.

plus" fish;[191] international law will consider that each state has as much sovereign authority over its living marine resources as it does over its land-based resources.

- Where it does permit foreign fishing within its EEZ, a coastal state will be allowed to impose any management methods and enforcement penalties authorized by the general international law on state responsibility for treatment of aliens within its territory (land or water).[192]
- Customary international law may recognize a minimal obligation of each coastal state to make some effort to coordinate with neighbors and other affected states in the conservation and management of highly migratory and transboundary species;[193] this obligation will continue to be cited (but with little enforcement possibility) because of its obvious desirability, and because a state practice of coordinated management will tend to support it.
- Although the customary international law of the sea will impose no general obligation on states to preserve or protect marine mammals found within EEZs, the International Whaling Convention[194] and its Commission will have finally succeeded in discouraging and virtually eliminating the practice of whaling.[195] Coastal states, in the exercise of their EEZ sovereignty, will take differing approaches to other marine mammals within their zones.[196]
- Coastal states with rich offshore living resources will not be legally obligated to share their good fortune with landlocked or other geographically disadvantaged states, or to grant these states access to the resources.[197]
- Despite the continued abstention assertions of about three states (United States, Canada, and the Soviet Union), customary inter-

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191. Cf. supra notes 150-55 and accompanying text.

192. Cf. supra notes 156 & 162 and accompanying text. On the international law of state responsibility, see, e.g., M. Akehurst, supra note 81, at 87-101.

193. Cf. supra notes 157-59 and accompany text.

194. International Convention for the Regulation of Whaling, Dec. 2, 1946, 62 Stat. 1716, T.I.A.S. No. 1849, 161 U.N.T.S. 2124 (entered into force 1948).

195. Cf. supra notes 159-60 and accompanying text. At the 36th Annual Meeting of the International Whaling Commission, the IWC reaffirmed its commitment to the 1982 commercial whaling moratorium. Of the 40 IWC members, only Japan, Norway, and the USSR maintain objections. Interim catch limits, established for member countries as transaction measures, reflect a 30 percent reduction from the prior year's catch limit, and an 85 percent reduction from catch limits set in 1973. See Report of the United States Delegation to the 36th Annual Meeting of the International Whaling Commission 5-6 (1984).

196. The United States currently prohibits virtually all "taking" (a term defined to include harassment) of marine mammals within its 200-mile fisheries zone. Marine Mammal Protection Act, 16 U.S.C. §§ 1362 (12), 1372 (1983).

197. Cf. supra note 161 and accompanying text.

national law will refuse to recognize special state-of-origin rights to anadromous species in ocean areas still viewed as high seas.[198]

- Each coastal state will have absolute sovereignty over the sedentary species of its "continental shelf," an area that accepted norms will define in broadest continental-margin terms.[199]
- There will be no general obligation to submit fisheries disputes to any settlement mechanism—binding, conciliatory, or otherwise.[200]
- The high seas will be further diminished by the continued tendency of coastal states to claim even more extensive zones of jurisdiction; but in the areas recognized as high seas spaces, freedom of fishing will still be the rule. Where appropriate or necessary, affected states will cooperate to conserve and allocate high seas fisheries by international agreements, but there will be no general obligation to do so.[201]
- Similarly, coastal states will continue to enter into bilateral or regional management schemes for transboundary stocks. While the traditional difficulties with management by international agreement will persist,[202] and it is not predictable that good will and mutual trust will abound, some neighbors will experiment with agreed management regimes that include rule promulgation and enforcement by an international body. With single management entities occasionally in charge, we might even see limited entry attempted in a shared fishery or two.[203]

This, then, will be the picture of the international law of fisheries management if UNCLOS fails and customary law takes over, resuming the seemingly inexorable course it has been charting since the 1950's. Will this indeed be the true state of affairs in 2010? If so, how much will it differ, in reality, from the situation that would exist if UNCLOS were to succeed?

The essential difference between a future EEZ fisheries regime based on UNCLOS and one that is not so founded is, of course, that the customary law regime will not display the "balance" of coastal state rights and international-community rights and freedoms now found in UNCLOS's EEZ rules. Without the treaty, coastal states will be virtually sovereign in their EEZ spaces. However, because UNCLOS itself grants such broad fisheries management discretion to EEZ states and, arguably, provides little if any effective means of enforcing the international fisheries obligations imposed on these states by the treaty's language,

198. Cf. supra note 163 and accompanying text. On the so-called "abstention principle," see A. Hollick, supra note 68, at 95-102.

199. Cf. supra notes 164-65 and accompanying text.

200. Cf. supra notes 166-68 and accompanying text.

201. Cf. supra notes 169-71 and accompanying text.

202. See supra notes 60-64 and accompanying text.

203. Cf. supra notes 172-75 and accompanying text.

the practical effect in 2010 might well be little different from that predicted for a non-UNCLOS world. In either situation, coastal states would have nearly unlimited discretion to decide whether and how to manage fishing within their offshore zones. Conservation and optimum use requirements of good management could be ignored at will. Uncoordinated management of transboundary species could be the norm under either set of circumstances. If all these problems come to pass, as clearly they might, even with UNCLOS, the result would be unfortunate. The forever-renewable potential of the ocean to produce food for an increasingly hungry world could well be diminished by the failure of many of the designated fisheries managers to pursue the appropriate conservation and allocation goals that UNCLOS purports to impose.

Nevertheless, I believe that the situation would be somewhat better if UNCLOS were to succeed. The fact that a widely accepted oceanic code would, by its clear terms, mandate conservation, optimum utilization, and intergovernmental coordination could not help but encourage consistent practices more often than would be the case if the code were rejected. Furthermore, the compulsory conciliation procedure required by UNCLOS should be the preferred chart for the future course of ocean fisheries management.

But, as I predicted above, this is highly improbable. United States opposition will, I believe, effectively cause the demise of UNCLOS within the next decade. I also suggested the possibility that a revised UNCLOS, one that would retain the original fisheries code, might emerge in the near future and be accepted by the United States and the rest of the world community. Is this likely? Unfortunately, I think not.

It is, of course, possible that the prospect of UNCLOS's failure for lack of United States support will instigate a move to amend the convention to satisfy American concerns. Such an amendment could come about through negotiations in a new global conference on the law of the sea (the Fourth Conference?) or, assuming UNCLOS gathers enough ratifications to come into force, under the amendment provisions of the treaty itself.[204] While I believe it is probable that one or both of these approaches will be attempted within the next twenty-five years, the effort will be too late to prevent the EEZ from hardening into near-sovereignty before the evolving expansionist trend is successfully halted by a finally acceptable treaty. The amendment process itself could well cause a sudden acceleration of the trend by re-opening the UNCLOS "package deal," with coastal states demanding even more EEZ authority as the price for further concessions on the deep seabed regime. Such demands are more likely to be raised, and acceded to, in any consideration of formal amendment of UNCLOS by the sixty-plus ratifers, because the great majority of the states-parties will almost certainly be Third World coastal

204. UNCLOS, supra note 4, arts. 312-316.

states with little interest in preserving maritime-power rights within their EEZ's while "giving up" common-heritage seabed rights.

In any case, I do not see either amendment procedure completed by 2010, although an attempt could well begin before that year. The Third Conference took almost fifteen years of preparations and negotiations to produce its convention. By the time the reality of the treaty's failure is clear enough to instigate real efforts to correct its acceptability defects, by the additional time that elapses for an amendment process to gear up, and by the even further time required for hammering together an acceptable new package of trade-offs, more than twenty-five years will undoubtedly have passed. And this period will be one that will, I believe, see the global acceptance of absolute sovereignty of coastal states over all resources, and perhaps all activities within 200 nautical miles or more from their coasts. Any UNCLOS amendment—or a brand new treaty, if that is the preferred route—will inevitably simply reflect this reality.

Another possible way the current detailed provisions of UNCLOS, other than those concerning the deep seabed regime, could become the law of the sea for the next twenty-five years was briefly alluded to above: some sort of informal consensus of the global community could develop. Something of this nature is being urged by some ocean law specialists as the best means for keeping the seas calm while we contemplate the future course of the deep seabed.[205] This is indeed a laudable proposition that deserves serious consideration in all the world's capitals. Its success would, however, be an unprecedented achievement in international relations. Essentially, it seems to call for the global adoption of a detailed treaty by customary law methods—that is, by nearly universal approval, through words and conduct (state practice). Despite the clear merit of the suggestion, I find it very difficult to believe that it has much chance of success. Many of the world's states will remain disgruntled and even vocally angry at what they view as the United States' sabotage of the Third Conference's work. They will not be soon persuaded to approve an approach that appears simply to let the United States have its way. In the meantime, the trend toward further expansion of coastal state sovereignty in adjacent seas will have renewed itself.

The upshot under any of the scenarios reviewed is the still-unshaken prediction that by 2010 coastal states will have sovereignty over all living resources within a minimum distance of 200 nautical miles from shore, with some nations claiming even broader zones.

On this somewhat unsteady base of multiple sovereignty, though, regionalism should begin to flourish.

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205. See, e.g., Oxman, supra note 188, at 679-80.

Regionalism

A knowledgeable authority has recently pointed out that no known living resources exist solely in the high seas beyond 200 nautical miles from shore.[206] Even most fishing for tuna, one of the few highly migratory species, is conducted within 200 miles of one coast or another.[207] The vast majority of commercial ocean fishing occurs inside this limit.[208] At the same time, most exploited species refuse to remain conveniently within only one state's 200-mile zone. Migratory patterns tend to overlap neighboring EEZ's or, less frequently, one or more EEZs and the outer high seas.[209]

As a consequence, management cooperation between the two or more states interested in a particular shared species (or set of interrelated species) will continue to be seen as necessary or desirable. Moreover, this will be true whether or not UNCLOS succeeds. Because of the proliferation of expanded near-sovereignty, however, some changes will be necessary. In fact, the adjustment of prior regional arrangements to the new EEZ regime has already begun. A high official of the U.N. Food and Agriculture Organization (FOA) has described the now-ongoing adjustment process:

> Previous arrangements involving a network of intergovernmental fishery commissions responsible for a particular species or for all fishery resources in specific regions no longer are viable. When countries began expanding national jurisdiction over fisheries, the management function and sometimes the membership of the commissions were adapted quickly in several cases. The amended or renegotiated texts of the relevant agreements and conventions generally extinguished the commissions' management powers within national exclusive economic zones or limited the exercise of those powers by requiring the affirmative vote of the coastal States concerned. Coastal States' interests predominated in several amended or renegotiated texts. These texts required regional commissions to consider conservation and management measures adopted by coastal States for waters under national jurisdiction when formulating measures for areas outside the 200-nautical-mile limit.[210]

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206. Carroz, supra note 172, at 514.

207. Id. at 213-14 n.4.

208. Id. at 513.

209. See Kawasaki, The 200-Mile Regime and the Management of the Transboundary and High Seas Stocks, 9 Ocean Mgt., nos. 1, 2, pp. 7-20 (July 1984). See also Castilla & Vicuna, Highly Migratory Species and the Coordination of Fishery Policies Within Certain Exclusive Economic Zones: The South Pacific, id. at 21-33; Gulland, Fisheries: Looking Beyond the Golden Age, 8 Marine Pol., no. 2, at 137-50 (April 1984).

210. Carroz, supra note 172, at 529-30.

The regional arrangements recently amended, renegotiated, or established include the International Commission for the Northwest Atlantic Fisheries (ICNAF),[211] which has been replaced by the Northwest Atlantic Fisheries Organization as a result of the 1978 Ottawa Convention on Future Multilational Cooperation in the Northwest Atlantic Fisheries;[212] the North-East Atlantic Fisheries Commission,[213] which was restructured under the 1980 Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries;[214] the Inter-American Tropical tuna commission,[215] which was left in a shambles by the 200-mile revolution, but which might be replaced through efforts instigated by the 1983 Eastern Pacific Ocean Tuna Fishing Agreement;[216] and many more.[217] An interesting tendency appears to be for groupings of regional coastal or island states to adopt arrangements not only for management cooperation among themselves, but also for presenting a united front to distant-water fishermen seeking access to the waters under national jurisdiction of the regional states. An example is a 1982 agreement among several Pacific island states, who bind themselves to establish uniform terms and conditions for foreign access to their respective zones.[218]

The regional adaptation to the expanded national zone regime has already started and will, I believe, thrive despite (or perhaps because of) the further entrenchment of coastal state rights.[219] The "national lake" movement has never been the best or most rational approach to conserving and allocating the living resources of the sea.[220] If these management goals are important to the world's coastal states, as they supposedly are, regional, subregional, and bilateral cooperation is an

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211. Feb. 8, 1949, 1 U.S.T. 477, T.I.A.S. No. 2089, 157 U.N.T.S. 157.

212. See Carroz, supra note 206, at 520.

213. See North-East Atlantic Fisheries Convention, Jan. 24, 1959, T.I.A.S. No. 7078, 486 U.N.T.S. 158; see also A. Underdal, The Politics of International Fisheries Management: The Case of the Northeast Atlantic (1980).

214. See Carroz, supra note 172, at 521.

215. Established by the convention for the Establishment of an Inter-American Tropical Tuna Commission, May 31, 1949, 1 U.S.T. 230, T.I.A.S. No. 2044, 80 U.N.T.S. 3.

216. See Report of the Expert Consultation on the Conditions of Access to the Fish Resources of the Exclusive Economic Zones, FAO Fisheries Rep. No. 293, at 189-94 (Rome, Apri. 11-15, 1983); Burke, Highly Migratory Species in the New Law of the Sea, 14 Oc. Dev. & Int'l L. 273, 308 (1984).

217. See Carroz, supra note 172, at 519-29.

218. Naura Agreement of Feb. 11, 1982, Concerning Cooperation in the Management of Fisheries of Common Interest, FAO Interest, FAO Fisheries Rep. No. 293, at 206-09 (1983); see also Carroz, supra note 172, at 526.

219. This is not to say that regionalization of fisheries management, either alone or with other ocean activities, will be easy. The problems confronting such a process are immense. See, e.g., Alexander, Regionalism at Sea: Concept and Reality, in Regionalization of the Law of the Sea 3 (D. Johnston ed. 1978); Munro, Extended Fisheries Jurisdiction in the Regional Setting: Problems of Conflicting Goals and Interests, id. at 233.

220. See Jacobson, Bridging the Gap to International Fisheries Management: A Guide for Unilateral Action, 9 San Diego L. Rev. 454 (1972).

inevitable and significant part of the future of ocean fisheries. Perhaps some form of nationalistic release provided by the success of the 200-mile revolution will lead to a high level of international cooperation in fisheries management. As suggested already, true management—regulation and enforcement—directly by international bodies will possibly be common by 2010. Beneath the transparent overlay of regionalism, however, the solid colors of increasingly extensive and inclusive national authority will continue as the dominant feature of ocean maps for at least the next twenty-five years.

Developments in Related Fields

I suppose it is possible for a social scientist to prove that developments in any field of human activity affect in one way or another. To paraphrase John Donne badly, no field is an island. Certain activities have obvious effects on all of us; for example, a nuclear war in the next few years could alter the forecasts in this symposium somewhat. In the absence of a nuclear holocaust (which I do *not* predict for the near future) or some other unexpected natural or man-made global calamity in the next twenty-five years, we can still acknowledge that ongoing events in several non-fisheries fields could very well influence the future course of the international law and practice of fishing the oceans. I do not pretend to be an expert in any of those other fields, but it does seem to me that coming developments in the following areas might be relevant, and I here offer some rather uninformed guesses on these developments:

- Human population. It is easy to predict that the number of people living on our planet will continue to grow rapidly between now and the year 2010. The resulting increased demand for food should exert pressure on managers of ocean fisheries to regulate so as to achieve high levels of sustained food production.[221]
- Land-based agriculture. Food production from land, despite the increased potential from advances in agricultural science and technology, might soon reach its limits. Some of the world's best farmland is apparently suffering signs of exhaustion.[222] Further, the combination of natural climatic change and human meddling seems to be contributing to the desertification of some parts of the planet.[223] If land-based food production indeed falls behind population growth, the demand for food from the sea will intensify even more in the

221. But see Brewer, The Management Challenges of World Fisheries, in B. Rothschild, supra note note 5, at 195, 202 (predicting that population pressures will instead cause managers to overexploit fisheries).

222. The topic of soil depletion has drawn much attention in the last decade. See, e.g., K. Campbell, Food for the Future 34-46 (1979); Future Dimensions of World Food and Population 57-96 (R. Woods ed. 1981), and authorities cited therein.

223. See Gore, An Age Old Challenge Grows, 156 Nat'l Geographic 594 (1979).

next twenty-five years. Effective management of ocean fisheries will consequently become a goal of significant concern the world over. The result, we should hope, will be more effective management by both EEZ managers and regional organizations.

- NIEO. The Third World quest for a New International Economic Order (NIEO) will undoubtedly continue during the next quarter-century.[224] If it comes closer during this time to realizing its goal of achieving a more equitable distribution of global wealth and the means of production, this trend could have important influences on ocean fisheries management. Among the results could be the creation of better methods than now exist for the wider distribution of fishery products to the hungry of the world. Transfer of fisheries technology and management skills will also intensify. International law, both conventional and customary, will come to reflect and support these trends.
- Foreign investment. At the same time, developed and developing states will, in the wake of their mid- and late-20th century estrangement, begin a new pattern of economic cooperation based on the opportunities and mutual respect engendered by the reality of interdependence and the growing sophistication of developing-state negotiators. For ocean fisheries, the results should include the expansion of the current trend toward joint ventures and other cooperative endeavors,[225] and the virtual replacement of distant-water fleets by coastal fleets operated by foreign-local investment partnerships. If this pattern does emerge, it will help to hasten the recognition of full coastal-state resource sovereignty in the EEZs.
- Fishing technology. The 200-mile revolution was in large measure instigated by post-World War II advances in distant-water fishing technology.[226] Although fishing technology will continue to advance in the next twenty-five years, it will probably take a different direction. Coastal fishing will predominate, and technological development will therefore no longer concentrate on world-ranging capabilities. Still, the technology for finding and catching fish will continue to improve, thus further imposing on fishery managers their by-now-classic dilemma: whether to encourage greater fishing efficiency, or to restrict efficiency in the interests of conservation and social goals. Enforcement technology, including on-board transponders and satellite surveillance, will advance and help make management more effective.

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224. For a description of the relationship between the NIEO and the changing law of the sea, see Moore, The Law of the Sea and the New International Economic Order, 3A Pub. L. Forum 13 (1984).

225. See V. Kaczynski & D. LeVieil, International Joint Ventures in World Fisheries (Wash. Sea Grant Technical Rpt. 1980).

226. See Jacobson, supra note 9, at 51-55.

Distant-water fleets will not, however, die out completely. Wide-ranging tuna species will probably continue to attract wide-ranging fishing vessels, although multiple-EEZ licensing of these vessels will be prevalent.[227] In addition, the overwhelming potential in fishing Antarctic krill is even now drawing high-technology fleets to the cold southern waters.[228] This trend is likely to continue whether the marine resources off the Antartic continent remain under international management[229] or a breakdown of the Antarctic Treaty in the 1990's results in the division of Antarctic waters into national EEZs;[230] in either case, the krill fishing and processing vessels will probably be home-ported great distances from the fishing grounds.

- Mariculture. Someday, ocean ranchers and farmers will replace hunters of wild game as the producers of nearly all food from the sea. Indeed, the foundations of this historic shift are already in place. Salmon, which graze and fatten in the open ocean for years and then conveniently return, much larger, to their coastal departure points, are now "ranched" on the North American West Coast.[231] Several species of sea life—ranging from kelp to mussels to shrimp to salmon, and many other species as well—are now "farmed" in coastal and inland waters around the world.[232]

Nevertheless, open-ocean mariculture (sea-based aquaculture), which will potentially interfere with other international uses of the oceans and thus call for new laws of the sea, is not likely to be anywhere near commonplace by 2010.[233] Except for salmon ranching, mariculture will take place only in nearshore areas, well within the sovereign spaces of the EEZs, and consequently will not generate new international rules of

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227. See Carroz, supra note 172, at 526-27.

228. See V. Kaczynski, Distant Water Fisheries and the 200 Mile Economic Zone 35-39 (Law of the Sea Inst. Occ. Paper No. 34, 1983); J. Kaylor & R. Learson, Krill and Its Utilization: A review (NOAA Tech. Rpt. NMFS SSRF 769, July, 1983).

229. In 1982, the United States formally ratified the Convention on the Conservation of Antarctic Marine Living Resources, T.I.A.S. No. 10240 (entered into force April 7, 1982). The treaty calls for international cooperation and the active involvement of all countries engaged in fishing in Antarctic waters. Article VII establishes an international commission whose objective is the conservation of marine resources and is comprised of a representative from each treaty party. Id. at 7.

230. The 1959 Antarctic Treaty T.E.A.S. No. 4780; 12 U.S.T. 794, 402 U.N.T.S. 71 (entered into force June 23, 1961), which put the Antarctic territorial claims of various states in abeyance, comes up for renegotiation in 1991. Id. art. XII. Reassertion of these claims would, under the new law of the sea, undoubtedly include claims to national EEZs in the waters off the coast of the Antarctic continent. See Pardo, The Law of the Sea: Its Past and Its Future, 63 Or. L. Rev. 7, 15 (1984).

231. See, e.g., D. Hornstein, Salmon Ranching in Oregon: State and Federal Regulations (Or. Stat U. Extension Marine Advisory Program Special Rpt. 573, Jan. 1980).

232. See generally C. Idyll, The Sea Against Hunger (1978); P. Milne, Fish and Shellfish Farming in Coastal Waters (1972).

233. See C. Idyll, supra note 232, at 197-204; see generally Open Sea Mariculture (J. Hanson ed. 1974).

ocean usage. If salmon ranching succeeds on a large scale (it is still a risky venture),[234] the next twenty-five years might well see a movement by the ranchers for international recognition of private property rights in the animals they have carefully nurtured and released. The sweeping changes in the international law of fisheries that universal mariculture will demand, however, await the ocean experts of a generation yet unborn.

CONCLUSION

In terms of our historical-events context, the next twenty-five years will almost certainly not be as busy a time for the law of the sea as the past twenty-five years have been. This is not to say that important events will be missing from the next quarter-century—far from it. The law of the sea, including the law of ocean fisheries, will undoubtedly continue to evolve and change. It is simply extremely unlikely that any twenty-five year period of even the next century will witness anything approaching the revolutionary nature of the sea law changes that dominated the twenty-five years immediately behind us.

I do not believe, however, that the recent revolution has yet run its full course. The attempt to use the Third Conference on the Law of the Sea in part to freeze the rampant seaward expansion of coastal-state sovereignty is remarkable for being nearly successful. Hopes are apparently still high that it will yet somehow succeed despite the quandary imposed by United States rejection of the Third Conference's treaty.[235]

In the midst of this quandary, my core prediction is that the trend toward international recognition of more extensive and inclusive coastal state jurisdiction will continue at a slower pace in the years between now and 2010. By or before that year, it is probable that international law will grant to coastal states absolute sovereignty over all resources within 200 nautical miles of territorial sea baselines, with some states claiming even more, in addition to already-recognized continental shelf sovereignty over all seabed resources, including sedentary species, beyond 200 miles to the edge of the geologic continental margin. Moreover, I believe this general direction of events will occur whether or not the 1982 U.N. Conference on the Law of the Sea succeeds in becoming a binding oceanic code. I do predict that the treaty will fail, and that this failure will hasten the customary law process of solidifying coastal state sovereignty in broad, ever-increasing zones of adjacent seas. Greater impacts of this failure will be felt in the rules related to deep seabed

234. See generally McNeil, Salmon Ranching: A Growing Industry in the North Pacific, 27 Oceanus 27 (1984). The author points out that the return of salmon in 1983 was the worst in decades, and the "outlook for 1984 remains dismal." Id. at 31.

235. See, e.g., Koh, Negotiating a New World Order for the Sea, 24 Va. J. Int'l L. 761, 783-84 (1984); Platzoeder, Who Will Ratify the Convention?, in A. Koers & B. Oxman, supra note 188, at 662.

mining (at least a few states will begin claiming seabed zones well beyond 200 miles or the edge of the continental margin), and to navigation and overflight, especially as to military vessels and aircraft (coastal-state jurisdiction *will* tend to "creep" into these activities). But the recognition of full sovereignty over fish and fishing in these broad ocean areas poses possible problems for the future development of the sea's living resources. Absolute sovereignty, tempered by no UNCLOS obligations to conserve and optimally use these resources or to coordinate their management internationally, could well result in significant waste of the ocean's great potential for food production. Lack of effective management by coastal states could lead to failures to develop valuable resources or to overexploitation, and in the many transboundary fisheries, to frustration of management efforts of other states in the region.

I do hope and predict, however, that the next twenty-five years will see the emergence of a pattern of somewhat more successful regional, subregional, and bilateral management efforts for the ocean's living resources. Perhaps the success of these efforts, and other international cooperative arrangements made desirable or necessary by the reality of interdependence, will eventually lead to the dominance of ocean regionalism over ocean nationalism. Admittedly, little in the trends of the present can be found to support such a prediction. By 2010, however, new trends could well be pointing the way to 2035. A new symposium of ocean law specialists might then be appointed to assess, among other things, the prospects for regionalism and the farming of the sea.