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THE ENVIRONMENTAL PROBLEM OF THE OCEANS: AN INTERNATIONAL STEPCHILD OF NATIONAL EGOTISM

*Nancy Ellen Abrams**

INTRODUCTION

The global threat to the ecological balance of the sea affects every nation, whether coastal or land-locked. Intentional discharge of oil by tens of thousands of ships around the world,[1] accidental oil spills which are becoming more frequent and disastrous as the world tanker population increases and capacity of the supertankers grows ever more rapidly,[2] irresponsible exploitation of the living resources of the sea to the point of endangering some species,[3] ocean dumping of vast quantities of garbage and industrial wastes,[4] "disposal" of

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[1] About 1,370,000 tons of oil are discharged into the sea every year during routine operations of tankers and other ships, according to the estimate of the Ocean Affairs Board of the National Academy of Sciences, Washington, 1973. Accidents dump another 350,000 tons. N. MOSTERT, SUPERSHIP 45 (1974) [hereinafter cited as MOSTERT].

[2] At the end of World War II the largest tankers had a deadweight of 18,000 tons. On December 31, 1973 there were 388 tankers of 200,000 tons deadweight or over in service and 493 more under construction or on order. Of these, 119 were in the 260,000 to 280,000 ton class, and 26 were of more than 400,000 tons deadweight. (Deadweight tonnage is the actual weight in tons that a ship can carry before submerging her load line or Plimsoll mark. Gross tonnage would be a measure of enclosed cubic capacity, a useful way to measure passenger ships but not oil tankers.) The entire world tanker fleet at mid-year, 1973, stood at just over 200 million tons deadweight, which accounted for more than half the tonnage afloat. The 45 million tons of supertankers under construction and scheduled for delivery in 1974 alone were the equivalent of the world oil fleet in 1957. *Id.* at 19-22.

[3] *See infra* note 19 and accompanying text.

[4] THE NATIONAL COUNCIL ON MARINE RESOURCES AND ENGINEERING DEVELOPMENT, ANNUAL REPORT 20 (April, 1970) reports that 48 million tons of urban wastes were dumped in 1968 into waters adjacent to United States coastal areas. Ocean dumping sites are listed off New York Harbor (sewage, sludge, mud, stone, cellar dirt and waste acid), Delaware Bay (sewage, sludge), and Boston and Charleston Harbors (dredged materials). THE COUNCIL ON ENVIRONMENTAL QUALITY, OCEAN DUMPING: A NATIONAL POLICY 1, 4 lists 246 ocean dumping sites off United States coasts. Another source claims:

dangerous and sometimes unpredictable substances which no one knows how to destroy,[5] and deep-sea mining, the long-term effects of which are simply unknown,[6] are dangers that confront the oceans today.

Pollution of the sea by oil has been recognized as an international problem since at least 1926,[7] and various international treaties in more recent years have attempted to deal with water pollution and conservation of fish.[8] Not until the 1972 United Nations Conference on the Human Environment in Stockholm, however, was the ecological balance of the oceans — a much larger concern than pollution alone — properly placed in the context of the quality of the international environment. One hundred thirteen States, as well as various governmental and non-governmental organizations, participated in the Conference from June 5-16, 1972, formulating the

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The U.S. Army Corps of Engineers and private contractors also conduct dredging activities which gather up for ultimate ocean dumping such wastes as collected oils and greases, concentrations of phosphorus, nitrogen and iron, and heavy metal accumulations such as cadmium, chromium, lead and nickel. These elements harm or collect in fish and shellfood, later entering the food chain for human consumption.

V. Petaccio, *Water Pollution and the Future Law of the Sea*, 21 INTERNATIONAL AND COMPARATIVE LAW QUARTERLY 15 (1972) [hereinafter cited as Petaccio].

[5] This problem is particularly apparent with nuclear wastes. Although the United States reports that it has not dumped radioactive waste into the sea since 1968, the practice on an international level has by no means stopped. L.F.E. GOLDIE, THE PROTECTION OF THE ENVIRONMENT AND INTERNATIONAL LAW 62 (Hague Academy of International Law, Colloquium, 1973) [hereinafter cited as GOLDIE].

Nuclear fuel from nuclear powered ships, toxins, nerve gases and other sophisticated "weapons" and by-products of weapons research, some of which are covered by the 1971 United Nations *Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxic Weapons and on Their Destruction* (not yet in force) have also been dumped in the sea. The *High Seas Convention (see infra* note 25) calls on signatory states in article 25 to refrain from dumping wastes which would cause nuclear contamination into the ocean, but no enforcement machinery is provided.

[6] Life on the sea floor, which would be interrupted by mining, moves at a very slow pace, maturity and reproduction requiring up to 200 years. The results of discharging large amounts of seabed mud and other sediment into the water column and surface water is unknown. It would not sink rapidly, and might shut out sunlight, preventing photosynthesis and thus oxygen production by plankton, or an artificial upwelling might, on the other hand, provide mineral nutrients for unprecedented growth of plankton. It would probably affect the food chain in the ocean and possibly also tides and beaches. *Manganese Nodule Mining — Where Are We in 1974?* reprinted by the United Nations Association of the U.S.A. for inclusion in the 1974 Law of the Sea packet, from the OCEAN EDUCATION PROJECT, 245 2d St. N.E., Wash. D.C. 20002 [hereinafter cited as OCEAN EDUCATION PROJECT].

[7] The first international treaty on oil pollution was signed June 16, 1926. T.S. No. 736-A(E).

[8] *Convention on the Territorial Sea and Contiguous Zone* (*infra* note 16) art. 24(1); *Convention on Fishing and Conservation of the Living Resources of the High Seas*, art. 7; 1958 *Convention on the Continental Shelf*, art. 5(7) (*infra* note 23); *Convention on the High Seas*, arts. 24, 25 (*infra* note 25).

first thorough set of principles for a new and integrated environmental policy. In its own terms, the Stockholm Declaration of Principles marks the beginning of a world-wide consciousness:

> [a] point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. . . . A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive cooperation among nations and action by international organizations, in the common interest.[9]

The Declaration consists of twenty-six principles, which recite the obligation of all States to conserve the natural resources of the earth, prevent pollution, and work together for the common good of mankind. The principles were also designed, however, as a "realistic attempt to reconcile different views and interests."[10] Some were clearly directed toward the protection of nationalistic or other interests not always consistent with environmental protection.[11] Nevertheless, the Declaration was a significant achievement and will undoubtedly play an important role in any future international cooperation.

The United Nations Environment Program (UNEP), the Environmental Secretariat, and an Environment Fund were established as a result of the Stockholm Conference.[12] In May of 1975 UNEP proposed a program of objectives and strategies which places among environmental needs of highest priority the development of a body of international environmental law. In particular, this program aims toward development of environmental law on national and regional levels, expansion of remedies and streamlining of procedures in the determination of liability and compensation for victims of transnational pollution, and incorporation of the Stockholm principles into developing environmental law. The importance of such objectives is undeniable, but as long as environmental problems are seen as unwanted stepchildren, to be approached as much like other problems as possible, although generally left for last and fed the leftovers, neither UNEP proposals nor any other international efforts can seriously be expected to succeed.

It is the purpose of this article to examine the main international

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[9] Declaration of the United Nations Conference on the Human Environment, U.N. Doc. A/C. 48/14, at 3.

[10] U.N. Doc. A/C. 48/P.C./17, para. 78 (1972).

[11] For an excellent discussion of the negotiations and a commentary on the results of the Conference, see GOLDIE, *supra* note 5, at 110 *et seq.*

[12] G.A. Res. 2997 27 U.N. GAOR Supp. 30, at 43, U.N. Doc. A/8730 (1973).

conventions relating to pollution of the marine environment,[13] especially the newest one now being negotiated at the United Nations Law of the Sea Conference. This examination will attempt to demonstrate not only that the conventions themselves are inadequate, but more importantly that the practice of treating environmental responsibility for the oceans according to traditional notions of State sovereignty and as just one more branch of the "Law of the Sea" constitutes a serious error.

I. Historical Background

Until the Age of Exploration, many of Europe's sea-going powers claimed sovereignty over large areas of the sea and fought bitter wars to vindicate these claims. As men like Columbus, Cabot, Vasco da Gama, Magellan and others began to sail to new continents, an international legal battle developed as to whether the seas were open or closed. In defense of the leading maritime power of the time and, more specifically, the Dutch East India Co., the Dutchman Hugo Grotius articulated the position that became accepted as the doctrine of freedom of the high seas, stating basically that the seas can be possessed by no one but are the common property of all.[14] A nation's sovereignty came to extend also to its territorial sea, a narrow band of coastal waters, usually three miles wide.[15] Some countries with limited maritime access, like Russia, have claimed a territorial sea of up to twelve miles, a practice which has spread. Even countries which do not officially claim a twelve mile territoral sea, like the United States, exercise police powers and certain other controls over a "contiguous zone" extending nine miles beyond the three mile territorial sea.[16] The one critical exception to a State's sovereign rights within the territorial sea and contiguous zone was and has remained the universal obligation to allow foreign ships "innocent passage."[17] This limitation is recognized by all nations as indispensable to world navigation, and is accepted in their own collective interest.[18]

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[13] Conservation of living resources is a critical but very complex aspect of ocean environmental problems, but complete discussion is beyond the scope of this article.

[14] Mare Liberum (1609).

[15] The "mile" referred to throughout this article is a nautical mile, which is 800 feet longer than a land mile.

[16] 1958 *Geneva Convention on the Territorial Sea and Contiguous Zone (adopted* by the United Nations Conference on the Law of the Sea, April 29, 1958; *entered into force* September 10, 1964) part II, art. 24 [hereinafter cited as *Territorial Sea and Contiguous Zone Convention*].

[17] *Id.* at arts. 14-20.

[18] For a general discussion of the genesis and development of the law of the sea, see

Implicit in the doctrine of freedom of the high seas were the assumptions of the inexhaustibility of marine resources and the infinite cleansing capacity of the seas — assumptions which have proved to be untrue. Fishing, if not regulated in accordance with the biological realities of migration and reproduction and with a conscious view toward conservation, may result in diminished productivity and even extinction of some species. Thirty of the most widely caught commercial species of fin fish are thought to be fished now at or beyond maximum sustainable yield. Some formerly important fish stocks, such as haddock on George's Bank, can no longer be considered commercial stock. Others, such as flounder, halibut, ocean perch, and bluefin tuna, are seriously reduced or threatened. Some species of whale are close to extinction. Similarly, reckless pollution of the sea by oil discharge, dumping, and mining of the seabed may lead not only to its degradation but also to extremely serious indirect effects on the food chain which man cannot predict, let alone reverse.[19]

By the Truman Proclamation of September 28, 1945, the United States unilaterally claimed the exclusive right to exploit minerals on its entire continental shelf, a territorial claim which one authoritative international law scholar labelled a set-back of three and a half centuries to the doctrine of the closed sea.[20] The claim set off a worldwide scramble for national control of the seas at the expense of traditional international freedoms.[21] The enlarged assertion of rights by the United States encouraged other countries which had no continental shelf — originally Chile, Ecuador, and Peru — to claim in the Santiago Declaration of August, 1952, an "exclusive economic zone" extending 200 miles off their coasts, giving them exclusive rights not only to minerals but also to the living resources of the sea. The claim was clearly inspired and justified by the American claim. It was later adopted by additional Latin American and

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FRIEDMANN, THE FUTURE OF THE OCEANS, esp. 30F (1971) [hereinafter cited as FRIEDMANN].

[19] Plankton is surface matter. It is the basic life of the sea and consists of phytoplankton, the "grass" of the sea, that generates, through photosynthesis, at least one third of the world's oxygen, and zooplankton, the minute organisms that form the lower animal life of the sea; the phytoplankton convert the water's nutrients into sugars, starches and proteins upon which all sea creatures ultimately depend through their intertwined cycles. Zooplankton feed upon the phytoplankton, and those that feed upon the zooplankton in turn feed others. Seabirds fall from the sky and feed selectively upon this thriving cycle. . . . (A)ll that needs to be done to disrupt the marine cycle fatally is to destroy the phytoplankton, which oil skim so easily does.

MOSTERT, *supra* note 1, at 45-46.

[20] FRIEDMANN, *supra* note 18, at 43-44.

[21] FRIEDMANN, *supra* note 18, at 30-60.

African countries, as well as others.[22] As it became technologically possible to exploit minerals at greater and greater depths, some American interests[23] attempted to enlarge the claim of the continental shelf to include the continental margin as well.[24]

Protection of the marine environment was never considered in the staking out of these zones. Such protection will nevertheless depend on the boundaries of such zones, because responsibility for the environment will tend to be divided up along jurisdictional lines devised for completely different purposes, until such responsibility becomes international.

II. Customary International Law and Existing Multilateral Conventions

Freedom of the high seas has never been absolute in practice. The *1958 Geneva Convention on the High Seas* defined freedom of the high seas as including, *inter alia,* freedom of navigation, fishing, laying submarine cables and pipelines, and flight over the high seas, all of which "shall be exercised by all States with reasonable regard to the interest of other States in their exercise of the freedom of the high seas."[25] The same article specified that these freedoms were to

[22] H.S. Amerisinghe, Permanent Representative of Sri Lanka to the United Nations and president of the Law of the Sea Conference, *The Third U.N. Conference on the Law of the Sea,* 6 UNITAR News 1, 2 (1974).

[23] *E.g.*, the American Petroleum Institute, which represents the interests of the American oil industry. Friedmann, *supra* note 18, at 40. Professor Friedmann considered this interpretation of "continental shelf" to be a "thin legalistic disguise for the unilateral assertion of national claims in violation of an international treaty (*i.e.*, the *Geneva Convention on the Continental Shelf, adopted* April 29, 1958; *entered into force* June 10, 1964)."

[24] The continental shelf consists of "the zone around the continent extending from the low-water line (the edge of the sea at lowest tide) to the depth at which there is usually a marked increase of declivity to greater depth," as defined by the 1969 *Rome Symposium on the International Regime of the Seabed.* The shelf ends at the point where this marked increase occurs. Truman defined the shelf in a press release simultaneous with his Declaration as including "submerged land which is contiguous to the continent and which is covered by no more than one hundred fathoms (600 ft.) of water." The seaward extension of the continental shelf to where the water reaches 1200-3500 m. is called the continental slope. Bordering some continental slopes is the continental rise, a further zone of generally smooth declivity to a depth of 3500-5500 m. The continental shelf, slope, and rise *together* comprise the continental margin, beyond which lies the abyssal plain, the flat area of the deep ocean floor below 5000 m. Friedmann, *supra* note 18, at 9-12. The terms are approximate, and a more precise method of delineation of the seabed on the basis of different types of densities of rock rather than increasing water depths is still being developed.

[25] *Geneva Convention on the High Seas,* art. 2, *adopted* by the United Nations Law of the Sea Conference, April 29, 1958; *entered into force* September 30, 1962. The Convention purports in its preamble to be a codification of "established principles of international law," so that it may be regarded as stating the customary law on the subject [hereinafter cited as *High Seas Convention*].

be exercised "under conditions laid down by these articles and by other rules of international law."[26] One of the most important of those other rules of international law was stated in the 1938 *Trail Smelter Arbitration*. In that case, fumes from Canada had crossed the border into the United States, poisoning the soil, streams and crops. The decision held that "[n]o State has the right to use or permit the use of its territory in such a manner as to cause injury . . . on or to the territory of another or to the properties or persons thereon."[27] Thus the "four freedoms" of the high seas enumerated by the *High Seas Convention* and others which on becoming legitimate uses of the sea would be subsumed under "*inter alia*" have been restricted in customary international law by the responsibility to exercise a reasonable regard for use of the high seas by other States and the obligation not to cause injury to another State's territory.

The *High Seas Convention* also provided that each individual State should draw up regulations against pollution of the sea by oil discharge or exploitation of the seabed and take measures to prevent pollution caused by dumping radioactive or other harmful waste. But the Convention provided no enforcement machinery and no possibility of uniform regulation, since interpretation and implementation of these principles was left to the individual States.[28] The 1958 *Geneva Convention on the Territorial Sea and Contiguous Zone* contained a provision authorizing coastal States to exercise the control necessary in their contiguous zones to prevent or punish infringement of their "sanitary regulations" within their territorial sea or territory.[29]

A series of other conventions concluded under the auspices of the Intergovernmental Maritime Consultative Organization (IMCO)[30] have dealt specifically with pollution of the sea from oil and other sources, establishing several important principles.

Under the 1954 *Convention for Prevention of Pollution of the Seas by Oil*[31] States agreed not to discharge oil from tankers in certain

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[26] *Id.*

[27] Trail Smelter Arbitration (United States v. Canada), 3 U.N.R.I.A.A. 1905, 1938 (1938 & 1941).

[28] *High Seas Convention, supra* note 25, arts. 24, 25.

[29] *Territorial Sea and Contiguous Zone Convention, supra* note 16, art. 24(1)(a).

[30] IMCO was established in 1959 and is the United Nations agency responsible for the conduct of world shipping. It has drawn up several conventions respecting pollution from ships, but pollution is only one of the areas in which it is involved. It is open to all members of the United Nations.

[31] *Convention for the Prevention of Pollution of the Seas by Oil, opened for signature* in

zones,[32] such zones being extended by amendment in 1962, and that discharge from ships other than tankers was to be made as far from land as possible. There were, however, significant exceptions, such as discharge due to "unavoidable leakage."[33] Penalties for violations were to be imposed by the flag State of the ship, and were not to be milder than the corresponding penalty for a similar discharge of oil within the flag State's own territorial waters.[34] Covered ships were to carry an "oil record book" which could be inspected by any contracting government while the ship was in its port. If it discovered a violation, the contracting government would notify the flag State, and would have to wait for the flag State to initiate proceedings under its own law. Violations, proceedings, and results were to be reported to IMCO.[35] But the Convention's limited applicability to certain types of oil, certain vessels, and certain zones, and its failure to address the question of responsibility for damages has made it ineffective in eliminating intentional discharge of oil.[36]

In 1967, the wreck of the oil tanker Torrey Canyon forced England and France to intervene at the scene of the accident to protect their shores. Their emergency action led to two new IMCO conventions in 1969, one establishing the right of States to intervene on the high seas to protect themselves,[37] and one setting up rules and procedures for the determination of liability and compensation.[38]

The *International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties* provides that States may take the measures necessary on the high seas "to prevent, mitigate, or eliminate grave and imminent danger to their coast or related interests from pollution or threat thereof."[39] Before taking

London, May 12, 1954; *entered into force* July 26, 1958. *Amendments adopted* April 4-11, 1962; *entered into force* by June 28, 1967. *Further amendments adopted* by IMCO in 1969 and 1971 have not yet been ratified by the necessary 2/3 of the governments party to the convention. [hereinafter cited as 1954 *Oil Pollution Convention*].

[32] *See* Annex A to the Convention, art. 3, replaced by sec. 14 of the 1962 Amendments.

[33] *Id.*, art. 4(a).

[34] *Id.*, art. 6(2).

[35] *Id.*, arts. 9-12.

[36] HALLMAN, TOWARDS AN ENVIRONMENTALLY SOUND LAW OF THE SEA 80 (International Institute for Environment and Development, 1974) [hereinafter cited as HALLMAN]. For an extraordinary and unforgettable view of the international oil pollution problem and the business of the supertankers, *see generally,* MOSTERT, *supra* note 1.

[37] *International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties* (Brussels), *adopted* November 29, 1969 [hereinafter cited as *Convention on Intervention*]. 9 INTERNATIONAL LEGAL MATERIALS 25 (1970).

[38] *International Convention on Civil Liability for Oil Pollution Damage* (Brussels), *adopted* November 29, 1969 [hereinafter cited as *Civil Liability Convention*]. 9 INTERNATIONAL LEGAL MATERIALS 45 (1970).

[39] *Convention on Intervention, supra* note 37, art. 12.

such measures, however, unless an emergency exists, the endangered State is to consult with other affected States, especially the flag State of the ship causing the danger, notify all States and persons with known interests, and make use of IMCO's experts in choosing the proper measures.[40] Measures taken must be proportionate to the damage, and the *Convention on Intervention* provides criteria for determining proportionality.[41] The ultimate judgment, however, is left to the endangered State, creating the possibility of disputes over proportionality even where measures are taken in the best of faith.[42] Perhaps the most serious inadequacies of this particular convention would arise from its limitation to accidents (casualties), its "grave and imminent" danger standard,[43] and its provision that danger must be "directly" to the "coast or related interests,"[44] *i.e.*, the ports and territorial waters only.[45]

The *International Convention on Civil Liability for Oil Pollution Damage (Civil Liability Convention)* applies only to damages to the territory or territorial seas of a contracting State.[46] With certain exceptions, the owner of a ship is strictly liable for damages caused by the discharge of oil.[47] However, unless he was at fault, his total liability is limited.[48] The 1971 *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention)*[49] was intended to fill this gap and to insure full compensation by means of an international compensation fund with mandatory contributions by shipowners.[50] But both the *Civil Liability* and the *Fund Conventions* are limited to a single pollutant, oil, emanating from a specific source, ships (thus

[40] *Id.*, art. 3(a)-(f).

[41] *Id.*, art. 4.

[42] How such a dispute would be resolved remains to be seen, since the 1969 *Convention on Intervention* is not yet in effect.

[43] *Convention on Intervention, supra* note 37, art. 1(1).

[44] *Id.*

[45] *Id.*, art. 2(4).

[46] *Civil Liability Convention, supra* note 38, art. 2. The principle that only contracting States are bound by an international convention and that a dispute regarding a non-contracting State must be determined on the basis of customary international law was confirmed by the decision of the International Court of Justice in the North Sea Continental Shelf Case, [1969] I.C.J. 3. For a short analysis of the holding, see L.D.M. Nelson, *The North Sea Continental Shelf Cases and Law-Making Conventions*, 35 MODERN LAW REVIEW 52 (1972).

[47] *Civil Liability Convention, supra* note 38, art. 3.

[48] *Id.*, arts. 5-6.

[49] *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage* (Brussels), *adopted* December 18, 1971, 11 INTERNATIONAL LEGAL MATERIALS 284 (1972) [hereinafter cited as *Fund Convention*].

[50] *Id.*, art. 2 (1)(a).

excluding off-shore drilling operations). The limitation of applicability to "territory or territorial seas"[51] means that damage to coastal resources or other interests in areas beyond the territorial seas (including the "economic zone") are not covered. Even under the *Fund Convention*, there is a maximum amount payable per accident,[52] and no payment is required if damages result from war, hostilities, or from oil escaping from a warship or other governmental vessel on non-commercial service.[53] And, like the other conventions, the orientation is remedial, not preventive.

The international efforts following the Stockholm Declaration[54] have tended to be more comprehensive in scope, but each convention has avoided the difficult issues of enforcement and standard-setting powers, sometimes referring these questions to the Law of the Sea Conference. IMCO itself has no power to adopt or enforce control requirements. It can only recommend measures to governments or convene international conferences, and in the words of one environmentalist, "[s]uch advisory or consultative services as it does perform are essentially controlled by major maritime interests. The polluters, in other words, are regulating themselves."[55]

The final, most obvious, inadequacy of the conventions is that, with the exception of the 1954 *Oil Pollution Convention*[56] and its

[51] *Civil Liability Convention, supra* note 38, art. 2; *Fund Convention, supra* note 49 art. 3(1).

[52] 410 million francs. *Fund Convention, supra* note 49, art. 4(4)(a).

[53] *Civil Liability Convention, supra* note 38, art. 11; *Fund Convention, supra* note 49, art. 4(2)(a).

[54] 1972 *Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter*; 1972 (Oslo) *Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft*; 1973 *International Convention for the Prevention of Pollution from Ships (see supra* note 43).

[55] HALLMAN, *supra* note 36, at 53. MOSTERT, *supra* note 1, at 84, gives an example of this control. The world's seas are divided into summer, tropical, and winter load zones. If it is summer in the Northern Hemisphere, a tanker bound for Europe from the Persian Gulf (when the Suez Canal is closed) must pass from a tropical to a winter sea along the coast of South Africa, and rounding the Cape of Good Hope, return to a tropical and then a summer sea in Europe. It is unsafe for a tanker to carry as heavy a load in a winter sea, and IMCO had established a maximum load for each zone. (1966 *International Convention on Load Lines*). Thus, for the few days of the journey through winter seas, a tanker had to load less oil in the Persian Gulf with a consequent reduction in profits. IMCO was asked by the oil companies to reconsider the matter. It did so. The *Load-Line Convention* was amended and tankers were allowed to round the Cape with summer loads. Not only did this decision endanger the lives of the tanker crews for the shipowners' and oil companies' profits, it has been responsible for some of the worst slicks in the area, since the master of a tanker, finding himself in winter seas too rough to handle, would have to discharge the extra oil — possibly thousands of tons — into the sea to lighten the load and save the ship. Hence the terrible toll in wildlife mentioned *supra* at note 15. *Procès-verbal* of rectification of the *International Convention on Load Lines, signed* in London, January 30, 1969 and another on May 5, 1969.

[56] *Supra* note 31.

1962 (but not its 1969 and 1971) amendments, none of them are in effect.[57] There is no guarantee that they will ever come into effect.

Written into the conventions are provisions for ratification which indicate the influence of the major maritime interests on the formulation and nature of the IMCO conventions. The 1973 *IMCO Convention for the Prevention of Pollution from Ships*[58] cannot enter into force unless at least fifteen States "the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant shipping. . ." have become parties to it.[59] The *Civil Liability Convention* cannot enter into force unless ratified by eight States, including five *each* with at least 1 million gross tons of tanker tonnage.[60] The 1971 *Fund Convention* cannot enter into effect until the *Civil Liability Convention* does. The *Fund Convention* must also be ratified by at least eight States, each of which must have ratified the other convention, and the ratifying States must be recipients of substantial specified amounts of oil.[61]

The author contends that the problem of ocean pollution is enormous and extremely difficult to grapple with for at least four reasons: the quantity and variety of pollutants entering the oceans, the widespread and almost innumerable sources of pollution, the vastness of the area to be protected, and the multifaceted clashes of interests and attitudes of the nations responsible. The conventions discussed above are multilateral but far from global.[62] If rati-

[57] The conclusion or signing of an international convention is only the first step in making it a binding rule of international law. The convention as signed specified the number and/or class of countries which must ratify it to bring it into effect. Each of those countries must then comply with its own domestic procedure for the ratification of international treaties. When a convention finally enters into effect, many countries must then enact domestic laws to implement the international rules within their jurisdiction.

[58] *IMCO Convention for the Prevention of Pollution from Ships,* IMCO Doc. MP XIV/8 (1973). This treaty seeks to incorporate the elimination of intentional pollution of the sea by all harmful substances and the minimization of the risk of accidental discharge, thus being IMCO's most ambitious attempt to protect the high seas from pollution by dumping. This treaty has gone into effect as a result of ratification by fifteen States. The ratifying States met in London in December, 1975, to determine how to commence application of the convention. However, *see* GOLDIE, *supra* note 5, at 57, for a discussion of its serious lacunae.

[59] *Id.*, art. 15.

[60] *Civil Liability Convention, supra* note 38, art. 15.

[61] *Fund Convention, supra* note 49, art. 40.

[62] TREATIES IN FORCE OF WHICH THE U.S. IS A PARTY AS OF JAN. 1, 1975, compiled by the TREATY AFFAIRS STAFF, OFFICE OF THE LEGAL ADVISER, DEPT. OF STATE, PUBLICATION # 8798, reports the following numbers of contracting States for the respective treaties:

1954 *Oil Pollution Convention*	50 States
1958 *High Seas Convention*	55 States
1958 *Continental Shelf Convention*	54 States
1958 *Territorial Sea and Continuous Zone Convention*	44 States

fied, they would not solve even the problem of oil pollution. The underlying difficulty is that nations have not recognized how immediate and serious the problem of marine pollution really is. They continue to believe that in the short run — which is all most governments ever take into account — they can get by on great statements of principle without alienating the monied maritime interests or sacrificing any of their own power. In truth, there can be no effective pollution control that does *not* interfere with the shipping industry as it is run today.[63] There can be no effective pollution control that does not require every nation not only to give up a portion of its jurisdiction over its flag ships and coastal waters to the international community but also to fully support the international community in its enforcement efforts. Hopefully the present United Nations Law of the Sea Conference will at least compel recognition of this viewpoint.

III. The Third United Nations Law of the Sea Conference

The most comprehensive attempt to date to codify the rights and obligations of individual States with respect to the sea and to each other's maritime interests has been going on at the United Nations Law of the Sea Conference, which met last in Geneva from March to May of 1975. The issues being dealt with by the 149 participating nations are extremely complex, "preservation of the marine environment" being one of some 25 separate subject areas which are in turn divided into 81 sub-items.[64] No agreements have been reached. To the contrary, regional politics, the lack of international sensitivity, and the proliferation of proposed draft articles on every subject have caused many of those concerned with achieving an international accord to despair of reaching one. Three informal negotiating texts have been prepared by the Chairmen of the three committees of the Conference, however, to "take account of all the formal and

[63] Mostert, *supra* note 1, gives frightening examples of hasty, untested construction of tankers (some of which have had to be recalled, at 75-77, 81-82; untrained and incompetent crews, at 59-60; faulty equipment, especially radar, at 62-63, generally under flags of convenience (*see infra* note 67 and accompanying text), and knowing authorization by the oil companies of dangerous yet profitable practices, at 29-35, 56, 83-84, leading both to loss of human life and devastating oil slicks and spills.

[64] The Conference was set up, basically: to define the breadth of the territorial sea and treatment of international straits falling within it; to define rights of coastal States to use and exploit ocean resources beyond the territorial sea; to define the areas beyond national jurisdiction and establish international machinery to govern exploitation of the seabed in such areas; to regulate the management and conservation of fisheries, the transfer of technology, and scientific research; and to provide for the preservation of the marine environment, including prevention of pollution. G.A. Res. 2750, December 17, 1970.

informal discussions held so far" but not to "prejudice the position of any delegation."[65] The texts were issued May 7, 1975. Although the criteria by which the Chairmen prepared these summaries remain unclear, they are still the best available indication of where the Conference negotiations are heading.

Part I, the summary of Committee I's work, defines as the "Area" the high seas beyond the limits of national jurisdiction, and would establish an International Seabed Authority to manage and control the "Area."[66] Part II provides a scheme for dividing up the coastal seas into various zones in which States may exercise jurisdictional or other rights and establishes the rules for charting these zones with respect to mainlands, archipelagos, islands, enclosed seas, and so forth. Part III presents a blueprint for international environmental protection and for the development and sharing of scientific knowledge with respect to the sea.[67] In covering protection and preservation of the marine environment, marine scientific research, and the development and transfer of technology, Part III is largely advisory, relying to a great extent on compliance by cooperation.[68]

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[65] Note by the President of the Conference, A/C 62/WP.8/ parts I-III.

[66] The decision to institute international management of the high seas and their resources dates back to the 1970 *Declaration of Principles Governing the Seabed and Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jursdiction,* para. 13, G.A. Res. 2749, U.N. GAOR Supp. 17, at 24, U.N. Doc. A/8028 (1970):

The General Assembly . . . [s]olemnly declares that:

1. The sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction (hereinafter referred to as the area), as well as the resources of the area, are the common heritage of mankind.

2. The area shall not be subject to appropriation by any means by States or persons natural or juridical, and no State shall claim or exercise sovereignty or sovereign rights over any part thereof.

3. No State or person, natural or juridical, shall claim, exercise or acquire rights with respect to the area or its resources incompatible with the international regime to be established and the principles of this Declaration.

4. All activities regarding the exploration and exploitation of the resources of the area and other related activities shall be governed by the international regime to be established.

5. The area shall be open to use exclusively for peaceful purposes by all States, whether coastal or landlocked, without discrimination, in accordance with the international regime to be established.

[67] Informal Single Negotiation Texts, A/C 62/WP. 8/ parts I-III. [hereinafter cited as Negotiating Texts].

[68] Labeling of the three sections of Part III was left blank in the text. The author has chosen to use the capital letters "A", "B", and "C". Since Part III is the only Part divided in turn into sections, a slightly different method of citation is used here: the capital letter refers to the main section of Part III, the first number to the article, and any further numbers to paragraphs and subparagraphs. All are in parentheses for the sake of brevity.

In practice the most important part of the Convention from the point of view of protection and preservation of the marine environment will not be Part III, which deals directly with this issue, but rather Parts I and II, which deal with economic, territorial, and other interests which virtually dictate the limits of Part III. The goal of the international management of the seas foreseen by the Conference is not primarily the protection and conservation of the marine environment, but rather the protection of the economic interests of States in the resources off their coasts and the assurance that the developed nations will not be permitted to exploit freely the resources of the high seas to the detriment of the developing countries. Where these goals appear to conflict with the goal of protecting the marine environment, the environment is inevitably subordinated.

The international regime would apply to the "Area," *i.e.*, the sea "beyond the limits of national jurisdiction."[69] National jurisdiction, however, would be simultaneously extended as follows: the breadth of the territorial sea, over which a coastal State may exercise full sovereignty, would be extended from the customary three to twelve miles, to twelve miles in all cases.[70] The contiguous zone would be extended from twelve[71] to twenty-four miles.[72] In addition, an "exclusive economic zone" of up to 200 miles[73] is recognized in which a coastal State may claim:

> (a) *sovereign rights* for the purpose of exploring and exploiting, conserving and managing the natural resources, whether renewable or non-renewable, of the bed and subsoil and superjacent waters;
> (b) *exclusive rights and jurisdiction* with regard to the establishment and use of artificial islands, installations, and structures;
> (c) *exclusive jurisdiction* with regard to:
> (i) other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds; and
> (ii) scientific research;

[69] Negotiating Texts, *supra* note 67, part I, art. 2.

[70] *Id.*, part II, art. 2.

[71] Under the *Territorial Sea and Contiguous Zone Sea and Continguous Zone Convention*, *supra* note 16.

[72] Negotiating Texts, *supra* note 67, part II, art. 33(2).

[73] All the above distances are measured from the low water line, *i.e.*, the zones overlap.

(d) *jurisdiction* with regard to the preservation of the marine environment, including pollution control and abatement;
(e) other rights and duties provided for in the present Convention.[74]

The result of this extension would be the exclusion of 37-40% of the world's oceans[75] from international controls, at least in the vital areas of exploration and exploitation of resources. The lack of the word "exclusive" referring to jurisdiction in subsection (d) above might leave open the possibility of some concurrent system of international supervision of marine pollution control, along with coastal States' efforts, if any, to encourage compliance with the internationally established minimum standards contemplated.[76] It is by no means clear, however, that such international standards, let alone international supervision, will be accepted by the Conference. Many of the developing countries support a double standard:

> In considering whether a State has discharged its obligation under this Convention in respect of preventing, reducing and controlling marine pollution, due regard must be paid to all relevant factors including in particular the economic and financial ability of a State to provide the resources necessary for the discharge of such obligations and the stage of economic development of the State.[77]

A similar double standard with respect to ships has also been suggested, in the form of exemptions from internationally established requirements for their construction, in order to facilitate the building up of national fleets for developing countries.[78] In short, the wide discrepancies which exist between states in terms of their economic development are being used to justify a weaker international obligation on the part of the poorer countries to preserve and protect the marine environment. Their primary and legitimate concern is their economic ability to implement international standards, and, in fact, unless they receive monetary and technical assistance from developed countries, as well as an equitable share of international revenues accruing from the exploitation of the seabed, they will be unable to fulfill the minimum obligation to preserve the marine environment, a situation potentially disastrous for all countries.

Considering the Negotiating Texts as the first drafts of the

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[74] Negotiating Texts, *supra* note 67, part II, art. 45.

[75] STEIN, CRITICAL ENVIRONMENTAL ISSUES ON THE LAW OF THE SEA 9 (International Institute for Environment and Development, 1975) [hereinafter cited as STEIN].

[76] Negotiating Texts, *supra* note 67, part I, art. 12.

[77] U.N. Doc. A/C. 62/C.3/L/15 (Paper No. 11).

[78] See the statements made by the delegates of Chile and Brazil in U.N. Doc. A/C. 62/C.3/SR.6. For a chilling description of the results of the shoddy construction of many of today's supertankers, see MOSTERT, *supra* note 1, at 58-84.

Convention,[79] the International Seabed Authority in extremely simplified form would function in the following manner.

As a first principle, no State could claim rights over, and no person, natural or juridical, could appropriate any of the resources of the "Area." A State or company would apply to the Authority to survey or exploit oceanic areas, and the Authority would determine, according to criteria established by the Convention, whether the applicant was qualified[80] and whether the proposed plan would benefit the Authority.[81] If it approved, the Authority would then enter into a service contract, joint venture, or other form of association "which ensures this direct and effective control at all times over such activities."[82] Title to minerals or processed substances derived

[79] The Negotiating Texts are not the first draft of a final Convention, but they were the starting point for negotiation when the Law of the Sea Conference resumed in New York City in March, 1976. If they are not analysed carefully now, despite their status as work summaries, there may be no other opportunity to do so. By the end of the 1976 session, if no Convention is agreed upon, the whole project may be abandoned because nations will feel compelled to take the unilateral actions they have been postponing in hopes of reaching an international accord. Iceland has already become the first European nation to claim a 200-mile exclusive economic zone for fishing rights (N.Y. Times, October 16, 1975, at 5); in Washington, the Deep Seabed Hard Minerals Bill would avoid international control by licensing United States companies to mine large blocks of the ocean floor (OCEAN EDUCATION PROJECT, *supra*, note 6). Canada, too, is acting unilaterally to protect the fragile ecology of its Arctic waters.

> . . .We are determined to discharge our own responsibilities for the protection of our territory. We are equally determined to act as pioneers in pushing back the frontiers of international law so that the *laissez-faire* regime of the high seas will no longer prevent effective action to deal with a pollution threat of such a magnitude that even the vast seas and oceans of the world may not be able to absorb, dissolve or wash away the discharges deliberately or accidentally poured into them.

In Canada, HOUSE OF COMMONS DEBATES, OFFICIAL REPORT, Vol. 114, Nr. 103, 2d Session, p. 5831, April 16, 1970. Bill C-202, "An Act to prevent pollution of areas of the Arctic waters adjacent to the mainland and islands of the Canadian Arctic" would regulate navigation in pollution safety control zones, ship construction and safety standards, and methods of operation including shore activities of resource development and exploitation. Bill C-203, "An Act to amend the Territorial Sea and Fishing Zones Act," extends the territorial sea to 12 miles and pollution control zones to 100 miles. The United States State Department reaction charged that the Canadian action was an attempt to extend jurisdiction and sovereignty to the exercise "by the United States and other countries of the right to freedom of the seas in large areas of the high seas and would adversely affect our efforts to reach international agreement on the use of the seas." DEPARTMENT OF STATE STATEMENT ON GOVERNMENT OF CANADA'S BILL ON LIMITS OF THE TERRITORIAL SEA, FISHERIES AND POLLUTION, No. 121, April 15, 1970.

It would appear that Canada has sparked concern over future access to the Northwest Passage of supertankers which would be closed by the 12-mile limit. The 1969 IMCO *Convention on Intervention on the High Seas* and art. 24 of the *High Seas Treaty* would seem to support in purpose the Canadian action. *See* Albert Koers, *Canadian Arctic and the Northwest Passage,* OCEAN SCIENCE NEWS, No. 1, June 1970, for a discussion of the Canadian position.

[80] Negotiating Texts, *supra* note 67, annex 1, para. 7.

[81] *Id.*, annex 1, para. 4(b).

[82] *Id.*, part I, art. 22.

from the Area would be in the Authority[83] which would then "offer its products for sale at not less than international market prices," except that it could, however, "sell its products at lower prices to developing countries, particularly the least developed among them."[84]

All States party to the Convention would be equal members of the Authority,[85] which would thus be "the organization through which States Parties shall administer the Area. . . ."[86] The Authority would consist of an Assembly, a Council, a Tribunal, an Enterprise, and a Secretariat, each with specified structure and powers.[87] In the Assembly, each member would have one vote. The Council would consist of 36 members, to be elected by the Assembly. Six would represent the developing countries, six the industrialized countries, and the remaining 24 would represent as equitably as possible the five geographical regions, defined as "Africa, Asia, Eastern Europe (Socialist), Latin America, and 'Western Europe and others.'" The United States and Canada apparently fall into the category of "others."[88] The Tribunal, the adjudicatory arm of the Authority, would exercise exclusive jurisdiction over all disputes arising under the Convention,[89] and its judgments would be enforceable in each member State as if they were judgments of the highest court of that State.[90]

The creation of the Seabed Authority could be a positive step if it fulfills its stated purpose of preventing the indiscriminate and irresponsible exploitation of the ocean's resources and managing the development of those resources for the benefit of mankind with a special view toward aiding developing countries[91] and protecting the marine environment.[92] But the Authority itself is set up in many ways as an entrepreneur. Part I provides that "[n]otwithstanding" the provisions requiring it to carry out activities directly or through States or enterprises directly controlled by them, "in order to pro-

[83] *Id.*, annex 1, para. 2.
[84] *Id.*, para. 4(e).
[85] *Id.*, part I, arts. 20, 21.
[86] *Id.*, art. 21.
[87] *Id.*, arts. 24-41.
[88] *Id.*, art. 27(1)(c).
[89] *Id.*, part I, art. 32.
[90] *Id.*, art. 59.
[91] *See, e.g., id.*, arts. 7, 9, 10.
[92] *Id.*, art. 12. It is certainly preferable to the suggestion that horrified Professor Friedmann of partitioning the whole world's oceans (based on the exploitability clause of the *Geneva Convention on the Continental Shelf*, art. 1; *see supra* note 23.). For a map of such a hypothetical division, *see* FRIEDMANN, *supra* note 18, at 4-5.

mote the earliest possible commencememt of activities in the area" the Authority shall "identify as early as practicable . . . 10 economically viable mining sites" and "enter into joint ventures" with States and enterprises it selects.[93] In the granting of opportunities for such activities, special consideration is to be given to developing nations.[94] Yet another provision requires that the applicant demonstrate "(1) financial standing, (2) technological capability, and (3) past performance and work experience"[95] in order to be deemed qualified. These qualifications can only be met by companies or state enterprises from developed States — and very few of such States.[96]

From the point of view of environmental protection, very serious problems emerge. "Appropriate measures shall be taken," according to article 12,

> to adopt and implement international rules, standards, and procedures for the prevention of pollution and interference with the ecological balance of the marine environment; particular attention will be paid to the need for protection from the consequences of drilling, waste disposal, construction and operation of installations, etc., and to the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.[97]

But no answer is given to the question of how such measures are to be accomplished consistent with the expressed intention of promoting the "earliest possible commencement of activities," given the warnings of environmentalists that with respect to manganese, cobalt, copper and nickel nodules in the deep seabed,

> the principal feature of the problem is our almost complete ignorance of the likely biological effect of mining them. . . . Our knowledge of the ecology of the deep ocean floor is poor. This cold, dark world appears sparsely populated. Its flora and fauna, however, show a great diversity living in a very fragile balance of conditions where life-processes operate in extreme slow-motion (deep sea molluscs take some 200 years to reach sexual maturity). The process of chain-buckets or suction heads used to bring up the nodules is likely to wreak incalculable historic destruction,

[93] Negotiating Texts, *supra* note 67, part I, art. 22.

[94] *Id.*, art. 23.

[95] *Id.*, annex 1, para. 7.

[96] According to the OCEAN EDUCATION PROJECT, *supra* note 6, there are only four companies technologically able to mine the deep sea bed (as of 1974); Howard Hughes' Summa Corp., the most advanced; Kennecott Copper; International Nickel; and Deep Sea Ventures, a subsidiary of Tenneco Corp. Probably France, West Germany and Japan also have companies as advanced as these.

[97] Negotiating Texts, *supra* note 67, part I, art. 12.

> but no evaluation of what and how has been made by scientists, nor, clearly, is it possible to form a comprehensive picture of the scale of damage from large-scale operation until at least some mining has been done on a commercial scale, a development likely to take place before 1977. . . .
>
> The water column and surface effects of mining operations are likely to produce more serious damage. . . a great increase in turbidity (cloudiness) is expected in surface waters. This turbidity is very likely to affect plankton growth, on which marine—and other—life relies for its food and oxygen supply, because less light will penetrate the upper water layers. The ever-moving surface currents of the oceans will spread these effects to far wider areas than the immediate surroundings of mining vessels.[98]

The further dangers of refining the minerals at sea are even less well understood.

The central concerns of Committee I, however, are elsewhere. Some developing countries have expressed misgivings about the interests which may control the Authority and fear that the Authority will either exploit the resources itself or simply license those who are already exploiting.[99] The industrialized countries — particularly the European Economic Community and Japan, whose industry is heavily dependent on an imported supply of raw materials[100] — are maneuvering to assure the free availability of minerals on the market without artificial restraints or price-fixing by the Authority. They fear that a third-world dominated Authority might impose unworkable conditions of exploitation, and that they would have to ratify the scheme before knowing how the mining system would work.[101] Land-based producers are seriously concerned about competition from sea-mined minerals, some of which may be of higher quality than land ore.[102] Consumer countries, on the other hand, fearing politically motivated restrictions in sales by third world countries, as occurred in the Arab oil embargo, would like an alternative source of minerals. In this context, it is unlikely that the Authority, in determining the advisability of proposals by would-be

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[98] STEIN, *supra* note 75, at 32.

[99] Report by UNCTAD Secretary-General, March 5, 1975, to the *Third United Nations Conference on the Law of the Sea.*

[100] M. Hardy, *Regional Approaches to Law of the Sea Problems: The European Community,* 24 INTERNATIONAL AND COMPARATIVE LAW QUARTERLY 336, 345 (April 1975).

[101] Stevenson and Uxman, *The Third United Nations Conference on the Law of the Sea: The 1974 Caracas Session,* 69 AMERICAN JOURNAL OF INTERNATIONAL LAW, No. 1, (January 1975).

[102] Manganese. *See Ocean Education Project, supra* note 6, at 2.

developers, will give environmental considerations the attention which they require.

Part III of the Negotiating Texts, with the international obligation of developed countries to help developing ones as its basic premise, formulates an excellent program. States are to cooperate on a global or regional basis, directly or through competent international organizations, in, among other things:

(a) standard-setting,[103]

(b) notifying other States of dangers to the marine environment,[104]

(c) jointly developing contingency plans,[105]

(d) scientific research studies,[106]

(e) working out scientific criteria for the elaboration of rules, standards, recommended practices and procedures for the prevention of marine pollution,[107]

(f) at least seven kinds of technical assistance programs,[108]

(g) monitoring pollution,[109]

(h) providing assessments to others,[110]

(i) harmonizing national laws,[111]

(j) working together to establish global and regional rules and procedures for

1) determining liability and damages for environmental harm,[112] and

2) controlling pollution from

i) land-based sources,[113]

ii) exploration of marine resources,[114]

iii) dumping,[115] and

iv) vessels and the atmosphere.[116]

States are also to develop programs and research centers in develop-

[103] Negotiating Texts, *supra* note 67, part III (A)(6).
[104] *Id.*, (A)(7).
[105] *Id.*, (A)(8).
[106] *Id.*, (A)(9).
[107] *Id.*, (A)(10).
[108] *Id.*, (A)(11).
[109] *Id.*, (A)(13).
[110] *Id.*, (A)(14).
[111] *Id.*, (A)(16)(2), (A)(17)(2).
[112] *Id.*, (A)(17), (B)(36).
[113] *Id.*, (A)(16).
[114] *Id.*, (A)(17).
[115] *Id.*, (A)(19).
[116] *Id.*, (A)(20).

ing countries "in order to stimulate and advance the conduct of marine scientific research by developing States."[117]

However, the availability of technical assistance, even if achievable, is not sufficient unless all States are both convinced of the need and compelled by law to fulfill the obligations of caring for the environment in their own sovereign waters. Part III has been molded by developing countries into essentially a comprehensive resoluton by "States" to cooperate in all ways mentioned above to further the technical progress of the developing countries. Part III does not really impose any obligation upon coastal States, many of which are developing countries, to meet international standards. To the contrary, the author contends that developing coastal States would have the world recognize an international obligation to make technical assistance available to them without their having to fulfill the corresponding obligation to the international community of meeting the same environmental standards as the developed countries. Only one provision in section A of Part III (dealing with protection and preservation of the marine environment) recognizes a universal obligation: "States have the obligation to protect and preserve all the marine environment."[118] This is followed immediately by the provision that:

> States have the sovereign right to exploit their natural resources pursuant to their environmental policies, and they shall, in accordance with their duty to protect and preserve the marine environment, take into account their economic needs and their programs for economic development.[119]

International environmental protection is compromised from this point on for the sake of individual national interests.

Nothing prevents coastal States from polluting their own waters except the restriction not to let such pollution spread into other States' waters.[120] "Substantial" self-pollution is even contemplated in the section requiring circulation of environmental assessments in such cases to other affected States.[121] Coastal States have, for example, the "exclusive right to permit, regulate, and control . . . dumping," yet Part III obligates coastal States only to require that pro-

[117] *Id.*, (C)(10).
[118] *Id.*, (A)(2).
[119] *Id.*, (A)(3).
[120] *Id.*, (A)(4)(2).
[121] *Id.*, (A)(15).

spective dumpers obtain official permission before dumping.[122] Warships and other vessels on government non-commercial service are exempt from both the standards and enforcement sections,[123] although they certainly possess the same capability of polluting as other ships.

Although Part III directs States to "endeavour" to establish global and regional environmental rules (and in certain cases directs that States "are" to establish them), their primary obligation under that part is to develop national environmental laws until the larger schemes can be achieved.[124] With respect to pollution from vessels and from dumping, such global and regional rules are to be established "to the extent that they are not already in existence."[125] This statement, which makes no distinction between rules in existence which are in effect and those which are not, presumably refers to the IMCO conventions discussed earlier, and possibly also to more limited bi- or multi-lateral treaties. The national laws of coastal and flag States regulating these same activities are to be "no less effective" than the international rules and standards.[126] The limited scope and effectiveness of the IMCO conventions, the majority of which have never gone into effect, have been discussed earlier in this article. If national laws must only be equally effective and need not cope with any areas covered by these conventions, the current Negotiating Text is asking very little.

Furthermore, States are said to have the "right" — not the duty — to enforce laws adopted in accordance with the Convention for land-based sources of pollution[127] and exploitation of the continental shelf.[128] Part III thus invites insufficient enforcement in at least two of the most critical areas, since up to 90% of all ocean pollution has been estimated to come from land-based sources,[129] and the amount that might result from exploitation of the continental shelf once that activity gets underway in earnest is simply unknown.

Only the flag State is required to enforce its own law with respect to its ships, wherever they may be.[130] This enforcement mechanism,

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[122] *Id.*, (A)(19).
[123] *Id.*, (A)(42).
[124] *See, e.g., id.* (A) (16, 17, 19, 20), (B)(35), (C)(6).
[125] *Id.*, (A)(19)(2), (A)(20)(1).
[126] *Id.*, (A)(19)(4), (A)(20)(2).
[127] *Id.*, (A)(22).
[128] *Id.*, (A)(23).
[129] *Wild West Scramble for Control,* TIME MAGAZINE, July 29, 1974, at 51. *See also supra* note 4.
[130] Negotiating Texts *supra* note 67, part III (A)(26).

as proposed by Part III, closely parallels that of the 1954 *Oil Pollution Convention*. Yet such enforcement is the easiest type to escape. Realistically, there may be little incentive for a flag State to punish its own nationals for offenses in foreign waters, since such enforcement might place its ships at a competitive disadvantage unless all States were equally vigilant. A large number of the world's tankers fly a so-called "flag of convenience," which means that they are registered in small, non-seafaring nations such as Liberia, Panama, Costa Rica, Honduras, Lebanon, or Cyprus, whose interest in enforcing international shipping and pollution regulations may be minimal, and whose ports the ship may never have visited or ever intend to.[131]

Consequently, if a coastal State chose to favor its economic advantage at the expense of the environment, Part III would do little to hinder it. If, on the other hand, a coastal State wished to be as vigilant as possible in the protection of its environment, the Convention's choice of priorities would actually present some impediments, as illustrated by the following provision:

> In taking measures to prevent pollution of the marine environment States shall have due regard to the legitimate uses of the marine environment, which are not incompatible with the provisions of this Convention, and shall refrain from unjustifiable interference with such uses.[132]

This provision is essentially repeated with respect to marine research.[133]

Once international rules and standards regulating pollution have been established, a coastal State may enact "more effective" ones only in its territorial sea, and "such laws and regulations must not have the practical effect of hampering innocent passage through the

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[131] Twenty years ago, Britain was the biggest owner and operator of ships. Outside Europe, America and Japan were the only major shipping nations. Liberia now has the world's largest merchant marine. On paper, Liberia and Panama together now own nearly a quarter of all world shipping, with tankers dominating these expatriate fleets. Liberian tonnage is 35-40%. American-owned; an additional 10% is American-financed. MOSTERT, *supra* note 1, at 55-58.

> American users of flags of convenience, and they include Gulf, Esso, Texaco, Getty Oil, Tidewater and Union Oil, have argued that they act not for convenience but out of necessity. Their plea has been that without the flags of convenience the American merchant fleet would have substantially vanished by now, because of costs. They have pleaded in fact that theirs is a patriotic stance. . . .

Id. at 58-59.

Legally, a ship can fly any flag as long as there is a "genuine link" between the ship and the State. 1958 *Geneva Convention on the High Seas, supra* note 25, arts. 5-6.

[132] Negotiating Texts, *supra* note 67, part III (A)(4).

[133] *Id.*, (B)(4).

territorial sea."[134] This restatement of customary international law[135] fails to recognize that passage which traditionally was innocent may also have been polluting. "Innocent" passage needs to be redefined by this Convention to reflect environmental concerns before it is automatically given precedence over possibly desirable environmental measures. In the economic zone a coastal State may not enact more effective laws merely because international standards are inadequate or even non-existent. Only if international standards are non-existent or inadequate to meet *special circumstances, and* the coastal State first makes documented application to the "competent international organization" to be recognized as a "special area," will such measures apparently be proper.[136] The only exceptions to these requirements in the economic zone are measures essential for the protection of navigation or for the prevention of pollution so grave that it threatens "major harm to or irreversible disturbance of the ecological balance."[137]

The concept of the 200-mile economic zone, recognized by the Convention, has been justified by its major Latin American proponents as necessary to the preservation and conservation of the supply of fish on which their people depend. This rationale may be true from the point of view of the supply available to each individual state. But from the environmental or conservation point of view, which seeks to maintain the maximum sustainable yield, zones are not useful devices for the protection of fishing resources. The following observation by former Supreme Court Justice William O. Douglas is illustrative:

> [Atlantic salmon are] harvested without regard to the condition of different runs up the coastal streams where they spawn. High seas fishing for salmon entails the loss of half of the total injured or killed by ocean netting or long-lining but not captured. Limitation of salmon fishing to the mouths of streams and to the streams themselves insures some control of the proper escapement for each run. Though both the United States and Russia approved the proposed [Atlantic salmon] Convention, Denmark and West Germany, later joined by Norway, refused to accept it. The consequences are tragic. For the place off Greenland where the Atlantic salmon congregate after they return to the ocean is now fished without restraint, the experts predicting that this delicacy will soon be extinct.[138]

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[134] *Id.*, (A)(20)(2).

[135] *Territorial Sea and Contiguous Zone Convention, supra* note 16, art. 15(1).

[136] Negotiating Texts, *supra* note 67, part III (A)(20)(4).

[137] *Id.*, (A)(20)(5).

[138] Douglas, *Environmental Problems of the Oceans: The Need for International Controls,*

Only international controls that accord with the biological realities of fish migration and breeding habits can protect the fish and enhance their supply.

The 200-mile economic zone is also irrelevant to the spread of pollution, which respects no political boundaries. If pollution control within the economic zone is left to the coastal States, restricted only by international minimum standards, up to 40% of the world's oceans will be in whatever condition the coastal States believe it is in their interest, always considering their economic positions, to maintain. And jurisdiction in some cases will extend far more than 200 miles because the continental shelf, under this Convention's definition, extends beyond the territorial sea "throughout the natural prolongation of [the coastal State's] land territory to the outer edge of the continental *margin,* or to a distance of 200 nautical miles" from the low water line, *whichever is greater.*[139] And under the Convention, "the coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources."[140] In short, to the full extent of the newly-defined continental shelf, a coastal State would exercise exclusive jurisdiction to exploit resources. The international regime would have no hand in the prevention of resulting pollution except in providing a set of minimum standards which the coastal State itself is supposed to enforce. Although there is considerable discussion among States as to the roles flag, port, and coastal States should play in enforcing vessel-source pollution standards in coastal zones, no one supports international enforcement.[141]

The United Nations Law of the Sea Conference might seem to be the ideal structure in which to develop a global, comprehensive, and far-sighted program of protection for the ocean environment. Unfortunately, the prospects for such a program actually emerging are not good. The other concerns of the participating nations so overshadow environmental ones that, in order to be dealt with in the Law of the Sea context, environmental protection has been trimmed down to the point where little, if anything, is being proposed that might

ENVIRONMENTAL LAW 149, 153 (Spring 1971) [hereinafter cited as Douglas].

[139] Negotiating Texts, *supra* note 67, part II, art. 62.

[140] *Id.*, art. 63.

[141] The United States has proposed "international inspection" in coastal zones, because the coastal State is not the only one which may be damaged or affected by pollution from seabed activities. Statement by John N. Moore, Vice-Chairman of the U.S. Delegation to the Committee on the Peaceful Uses of the Seabed and the Ocean Floor Beyond the Limits of National Jurisdiction, Subcommittee III, July 18, 1973 [hereinafter cited as Statement by John N. Moore].

disturb any nation's priority proposals or constitute an item of controversy requiring compromise or concessions elsewhere. Environmental provisions are not only being limited to avoid interference with other areas, however. They are in some cases actually being structured to serve indirectly those other interests, as the following quotation indicates:

> *The basic goal of the U.S. pollution articles is to protect U.S. navigational interests* by preventing coastal nations from asserting and enforcing vessel pollution standards in their economic zones (emphasis added).[142]

This is not a statement by a critic of United States policy but an extract from the report to the United States Senate by the four senators who advised the United States delegation at the 1974 Caracas session of the Conference. With reference to the United States proposal at Caracas that IMCO set vessel pollution standards and flag and port States enforce them, the senators continue:

> [T]he U.S. position fails to take into consideration the fact that the vast majority of the nations participating in the Conference have little or no real interest in international pollution control, and if forced to vote would grant the coastal state wide jurisdiction over both marine-based and vessel source pollution. The developing nations still believe that they should not be hampered in their efforts to develop by international pollution regulations. To most of the countries at the Conference, pollution control rates low on their list of priorities.
> Within the U.S. draft articles, there are provisions which provide the port state with rights to impose higher standards for vessel source pollution. There are indications that the U.S. delegation may be considering a retreat from these provisions. Consequently within the next year, it is possible that U.S. environmental groups may abandon their support for the U.S. Law of the Sea position, and approach Congress with bills unilaterally extending jurisdiction for pollution control purposes.[143]

The International Seabed Authority offers a structure in which all countries, at least in principle, may direct the management of their common heritage on an equal basis. The Authority could be one of the most promising juridical innovations yet proposed for international environmental protection. But the divisions among nations are sharp, and the economic implications of the Authority are critical for many of them. A country which might in another context

[142] *The Third United Nations Law of the Sea Conference,* Report to the United States Senate by Senators Pell, Muskie, Case, and Stevens, February 5, 1975, at 4.
[143] *Id.*

support environmentally protective measures for the oceans can hardly afford to do so here, where it has so many other interests at stake, each defendable only at a price, and where every country or regional group is fighting for itself. The Authority's jurisdiction is only over the high seas, and no country will sacrifice its own benefit for the sake of the common heritage when the others are not similarly concerned.

Part II's apportionment of rights and jurisdiction by zones may serve the very legitimate purpose of protecting nations' economic interests in the resources off their shores, but in doing so sovereignty over the zones is so jealously guarded that protection of the marine environment — which requires an essentially different approach — has been divided up as if it were a sovereign right. As a right rather than an obligation, it becomes one more piece of currency to be exchanged for some more attractive concession. The following are examples of this problem. With the extension of the territorial sea to 12 miles, 112 international straits less than 24 miles wide will fall completely within the territorial seas of various coastal States.[144] In an all-out effort to have a right of "unimpeded passage" recognized in these straits so that its warships and nuclear submarines may pass independently of coastal States' subjective interpretations of "innocent passage," the United States wants to assure those States as much sovereignty as possible in the territorial sea to convince them to accept this critical limitation. Pollution is thus classified as one of the "legitimate concerns" of a coastal State in the territorial sea.[145] The same problem does not exist in the 200-mile economic zone, however, since the economic zone involves no threat to free passage. The more immediate American concern in that zone is that coastal States not be permitted to set their own construction standards for ships. The United States thus insists that problems of vessel-source pollution are fundamentally different from those raised by land-based sources or seabed resource activities. Both of the latter should be governed, according to the United States position, by the coastal State, while vessel-source pollution should be governed by the flag State. The United States would also make a distinction between jurisdiction to set and jurisdiction to enforce standards. The first type of jurisdiction would rest with IMCO, the second with a combination of the flag, port and coastal States.[146]

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[144] *Id.* at 2.

[145] *Id.*

[146] SPECIAL REPORT: UNITED NATIONS LAW OF THE SEA CONFERENCE 1975, U.S. DEPT. OF STATE PUBLICATION 8764, February 1975, at 6 [hereinafter cited as SPECIAL REPORT].

This is not an irrational position, all things considered. But from the environmental point of view such distinctions make no sense. The waters become polluted whatever the source and whoever happens to have jurisdiction. An intelligent, coordinated environmental policy cannot emerge when environmental concerns are so distorted for the sake of other interests that the United States position outlined above is prefaced as follows:

> The very awareness of the need to protect the marine environment, however, may hold a subtle danger for the law of the sea, unless we are careful to functionally distinguish the differing threats to the marine environment.[147]

This attitude that the law of the sea must be protected from the environmentalists, even at the expense of the sea itself, is the root of the problem. The law of the sea has always been a system of regulating behavior and apportioning rights among nations. What duties there are have been only to other nations or people. The sea itself was a given. But the sea can no longer be considered a given. It can no longer be divided, exploited, and abused by nations who see other nations as the only forces to be reckoned with. Protection and preservation of the sea is not a question of relations among nations, but between nations (or people) and the planet. Preservation of the sea is *prior* to the law of the sea, in urgency as well as logic. The sea is an entity to be reckoned with and the most important, if unrepresented, party at the present negotiations. However legitimate each nation's struggle may be for a fair share of the oceans' wealth, the pie will simply have to be split one more way and a portion reinvested in the preservation of the sea.

An internationalist, as opposed to a nationalist, orientation has represented a seemingly unreachable goal for decades or even centuries. While in earlier times, with respect to problems among people, it might have been an ideal, it has become today, with respect to problems between mankind and the earth, a prerequisite for sur-

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In conjunction with its proposal that IMCO be the international organization to set vessel-source pollution standards, the United States has put forward in the IMCO Council a proposal for changing the IMCO structure to create a new Marine Environmental Protection Committee specifically for dealing with vessel-source pollution. This committee would ensure that IMCO's regulations keep up with technological changes, because it would be empowered to adopt and circulate such regulations to governments without time-consuming review or approval of the IMCO Assembly or Council. The regulations would go into effect automatically unless objected to by a specified number or category of States. The committee would have regional subcommittees to deal with regional problems, and membership on the committee would be open to all concerned States. Statement by John N. Moore, *supra* note 141.

[147] SPECIAL REPORT, *supra* note 146, at 6.

vival. Our destructive powers are greater than our ability to control them. No precautions could shield a single country from ecological catastrophe brought about by others any more than from a nuclear holocaust brought about by others. But even today, the reaction of developing countries in the face of international competition and economic pressures has been to assert their sovereignty and seek protection for their interests by extending and strengthening their control over all of the country's resources. The developed countries, too, assert their sovereignty at the first hint of a threat to the flag ships and overseas investments of their citizens or to the freedom of "their" multinational enterprises. At the same time, both developed and developing countries seem to recognize, as evidenced by the existence of the Conference, that for the benefit of all, precisely the opposite of these divisive nationalistic efforts is required today — progress toward international cooperation and international controls. War can at least be postponed. Ecological destruction of the seas is occurring gradually but inexorably day by day. There is no time to wait.

CONCLUSION

The Law of the Sea Conference may never result in a convention. If it does, the convention may never be ratified. Even were a convention agreed upon and ratified — an undertaking which would require several years at minimum — it would do practically nothing to protect the living resources of the seas or to control pollution of the seas, since most of such pollution is caused by land-based sources,[148] an area the Convention does not attempt to regulate.

Regardless of the economic apportionment of the sea's resources, there is no reason why division of responsibility for environmental controls must be made along the same lines. The problem of the marine environment is immediate and unique, and it is better that its treatment be fast and effective than conceptually symmetrical. Former Justice William O. Douglas has suggested, for example, that *for the purpose of international ecological controls,* the international seas be deemed to start at the low water line. The sovereign rights of states over the territorial sea and economic zone would thus be limited. Such limitation would not be novel, since these rights are already limited by the traditional exception of "innocent passage" through territorial waters, an exception which has not destroyed the

[148] *See supra* note 66 and accompanying text.

historical functions of the concept of a territorial sea. The ecological preservation of the oceans is no less compelling an interest than that of the world need for free movement of ships and would benefit from similar treatment as an exception to customary international law. From another point of view, just as the individual in society is subject to the overriding police power of the community even on his private property, the rights of a coastal State to drill and exploit its resources should be subject to ecological safeguards. This approach would not abridge the coastal State's economic advantage, but would require greater responsibility in the exercise of its economic freedom.[149] Eventually, even inland waterways that run into the sea or between countries will have to be regarded as the common heritage of mankind.[150]

Whatever form the solution takes, protection and preservation of the marine environment must be dealt with directly, immediately, and separately. By tacking environmental issues onto the enormous and politically hair-raising task of re-writing the law of the sea, the Conference has made those enviromental concerns legally and politically dependent upon extremely complex problems whose solutions bear no real relevance to them. Committees I and II cannot escape the major responsibility for environmental protection by placing it upon Committee III, but must accept this responsibility and cooperate with Committee III if any effective environmental measures are to emerge from this Conference. If no Convention is reached, the environmental problem must be dealt with directly, possibly on a more limited, regional basis at first.[151] International protection of the oceans is not an option but a necessity. There is no other way to reverse our present course and prevent the ecological destruction of the oceans.

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[149] Douglas, *supra* note 138, at 162.

[150] Petaccio, *supra* note 4, at 38-39.

[151] The next alternative is to begin a notch lower in the political spectrum by considering the feasibility of a new hybrid form of regional seabed regimes. Pilot seabed regimes organized by region would represent a bridge linking the all-or-nothing conviction of internationalists who support international supervision, and nationalists who accept the need for controls but who also fear a western or big power takeover of marine resource and water-use rights in the name of international action.

Presumptively, a period of pilot seabed regimes would provide the working experience and psychological reassurances requisite to accepting control by the proposed International Seabed Resources Authority. *Id.* at 40.