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JURISDICTIONAL ISSUES IN INTERNATIONAL LAW: KELP FARMING BEYOND THE TERRITORIAL SEA*

INTRODUCTION**

New ocean uses, made possible by technological developments, have rendered the law of the sea conventions currently in force obsolete. The United Nations conventions to which the United States is a party do not recognize the validity of a coastal state's exercise of exclusive jurisdiction over resources in waters beyond the territorial sea.¹ But since vast exploitation of ocean resources has now become feasible, a new legal regime is needed. While the traditional "regime of the high seas was not sufficiently responsive to coastal state interests, . . . the regime of the territorial sea was not sufficiently responsive to navigational and other non-coastal interests."² For these and other reasons, the Third United Nations Conference on the Law of the Sea (UNCLOS III), on April 30, 1982, voted to adopt the Convention negotiated by more than 150 states over a period of eight years.³

** As this Comment was going to press, President Reagan, by Proclamation 5030 on March 10, 1983, expanded the jurisdiction of the United States to an "exclusive economic zone" extending 200 nautical miles from the baseline from which the breadth of the territorial sea is measured. Proclamation No. 5030, 48 Fed. Reg. 10,605 (1983). The Proclamation acknowledges the effectiveness of the economic zone concept in international law. The issues outlined in this Comment are still important, however, since there was no discussion in the Proclamation of the alternatives available or how this particular course of action will affect United States foreign policy.

1. Under the Convention on the High Seas, for example, any state may appropriate the resources of waters beyond the territorial sea, subject to the requirement of "reasonable regard" for the high seas freedoms of other states. Convention on the High Seas, *negotiated at Geneva*, Apr. 29, 1958, art. 2, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82 (entered into force Sept. 30, 1962).

2. Oxman, An Analysis of the Exclusive Economic Zone as Formulated in the Informal Composite Negotiating Text, in LAW OF THE SEA: STATE PRACTICE IN ZONES OF SPECIAL JURISDICTION, 57, 61 (T. Clingan, Jr. ed. 1982).

3. See United Nations Third Conference on the Law of the Sea, U.N. GAOR (182d plen. mtg.), U.N. Doc. A/CONF. 62/SR. 182 (prov. ed. 1982) [hereinafter cited as Third

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The purpose of this Comment is to examine the meaning and legal status of the exclusive economic zone concept in the Convention on the Law of the Sea and in customary international law in order to evaluate the various ways in which the United States may assert jurisdiction⁴ over kelp farming operations in waters beyond the territorial sea. The cultivation and harvesting of kelp for conversion into methane gas promises to be a source of energy in the near future. The United States has an interest in developing kelp farms for energy production, but because it is more practical to locate kelp farms in waters beyond the territorial sea, competing interests in United States ocean policy come into play. The nation's navigational interests require a policy limiting coastal state jurisdiction to a narrow territorial sea, but use of the ocean for fishing and energy production calls for extension of jurisdiction beyond the territorial sea.

I. KELP FARMING AS A USE OF THE OCEAN FOR ENERGY PRODUCTION

A discussion of current research on methods of converting kelp to methane gas will highlight the characteristics of kelp farming operations which are significant under international law. The United States has supported research on kelp farming and conversion of kelp to methane gas as part of the Biomass Energy Systems program under the United States Department of Energy's Solar Energy Program. The primary objective of the program is the development of technology for the production of fuel from biomass in order to reduce the demand for petroleum and natural gas. The program also supports the transfer of technology to private industry.⁶ Although aquaculture, which includes kelp farming, is still in the developmental stage,⁶ it is anticipated that a low cost supply of

6. Fiscal Year 1982, Department of Energy Authorization: Hearings before the Subcommittee on Energy Development and Application of the Committee on Science and

U.N. Conference].

^{4. &}quot;Jurisdiction," as it is used in this Comment, means "exclusive management authority." Cf. 50 C.J.S. Jurisdiction 315 (Supp. 1982) (Jurisdiction is the authority of the sovereign power to govern or legislate; the power or right to exercise authority; control; and it is the extent or range of judicial or other authority). See also State ex rel Dreyer v. Brekke, 75 N.D. 468, 28 N.W.2d 598 (1947).

^{5. 1981} Department of Energy Authorization: Hearings before the Subcommittee on Energy Development and Application of the Committee on Science and Technology, 96th Cong., 2d Sess. 392 (1980) [hereinafter cited as 1981 DOE Authorization Hearings].

feedstock for conversion into fuels may be provided by largescale energy farms by the turn of the century.⁷

The United States Navy installed the first experimental kelp farm in 1974, 60 miles off the coast of California, near San Clemente Island.⁸ Laboratory experiments had shown that the solar energy stored in giant California kelp, Macrocystis pyrifera, could be converted to methane gas by harvesting and processing the kelp. Because large kelp farms in the coastal area could interfere with shipping and other essential sea uses near the shore, it was necessary to locate the farm in water deeper than that of the natural habitat of the kelp. To insure adequate access to light, the young kelp were attached to ropes on a raft-like structure which was held forty feet below the surface and moored to the ocean floor.⁹ Researchers found that the nutrient-rich water near the ocean floor had to be pumped up to the kelp. This upwelling of the ocean-bottom waters enabled the kelp to flourish in the new environment.¹⁰ The upwelling also fostered an increase in the number of fish and other marine animals in the area.¹¹ The only negative impact the kelp farm might have on the environment was the inconvenience which would be caused if large quantities of kelp were to break loose and wash up on the beach after a storm.

Various models for kelp farms have been proposed, ranging in size from a quarter-acre experimental farm to a 100-square-mile farm.¹² The kelp farm structure might include a processing plant and living quarters.¹³ A large kelp farm may be held in position by a propulser rather than by moorings attached to the ocean floor.¹⁴

9. A. GOLDIN, supra note 8, at 100-04.

11. Id. at 107.

- 12. Id. at 108, 111.
- 13. Id. at 110-11.

Technology, 97th Cong., 1st Sess. 1268 (1981) [hereinafter cited as 1982 DOE Fiscal Hearings].

^{7. 1981} DOE Authorization Hearings, supra note 5, at 393.

^{8.} A. GOLDIN, OCEANS OF ENERGY 102 (1980). The Navy withdrew from the project after less than two years and was replaced by Global Marine Development, Inc., and the General Electric Company. *Id.* at 107. The Department of Energy has continued to provide funding for kelp farming experiments. 1982 *DOE Fiscal Hearings, supra* note 6, at 1199.

^{10.} Id. at 106.

^{14.} Id. at 111. At the regional level, New York Sea Grant Institute has been collaborating with the General Electric Company, Gas Research Institute, New York State Energy Research Development Authority, and the New York State Gas Group, on projects relating to kelp or seaweed cultivation for energy production. See New York Sea Grant Institute, ALCHEMY FOR THE 80'S: RICHES FROM OUR COASTAL RESOURCES 10 (1982). It is expected that

Tropical waters as well as those of temperate zones are suitable, but at very great ocean depths, the problems in upwelling nutrientrich water increase. Kelp farming could also be done in conjunction with an ocean thermal energy conversion facility.¹⁵

These research projects and proposals have certain common features which are significant in international law. They involve exclusive occupation of an ocean area beyond the territorial sea and the attachment of young kelp to a raft-like grid structure; they also require upwelling of nutrients from the ocean bottom waters. The potential exists for pollution of the nearby waters or shore by large quantities of kelp which could break off from the kelp farm structure.¹⁶ Finally, the cultivation of kelp serves an economic purpose. These characteristics fit easily within the economic zone provisions of article 56 of the new Law of the Sea Treaty.

II. THE PRESENT EFFECT OF THE ECONOMIC ZONE PROVISIONS

The new Convention grants coastal states exclusive jurisdiction over resources in a zone extending 200 nautical miles from the baseline. Article 56 provides:

I. In the exclusive economic zone, the coastal State has:

(a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

(1) the establishment and use of artificial islands, installations and structures;

(2) marine scientific research;

(3) the protection and preservation of the marine environment;

15. Keith, The International Regulation of Ocean Floating Energy Platforms, in LAW OF THE SEA: NEGLECTED ISSUES 275, 276 (J. Gamble ed. 1979).

16. The question of whether international conventions controlling ocean pollution would apply to kelp farms is beyond the scope of the present inquiry. See SOLAR ENERGY RESEARCH INSTITUTE, SELECTED LEGAL AND INSTITUTIONAL ISSUES RELATED TO OCEAN THER-MAL ENERGY CONVERSION DEVELOPMENT 26-32 (June 1979) [hereinafter cited as Issues Re-LATED TO OCEAN THERMAL ENERGY CONVERSION].

[&]quot;Long Island Lighting Company could get methane equivalent to half the natural gas it needs from a farm 10 miles wide and 38 miles long." *Id.* Sea Grant project engineers envision a kelp farm structure supporting more than one marketable crop, such as seaweed and shellfish or finfish, simultaneously. *Id.* at 13.

(c) other rights and duties provided for in this Convention.

II. In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.

III. The rights set out in this article with respect to the seabed and subsoil shall be exercised in accordance with Part VI.¹⁷

It seems that the economic zone provisions in article 56 of the new Convention would readily sanction kelp farming within 200 miles of the coastal state's baseline. Kelp farming could be viewed within the categories of "exploiting" and "managing" natural resources or as an activity "for the economic exploitation and exploration" of the zone, such as the "production of energy from the water."¹⁸ Although kelp farming uses the water and ocean bottom nutrients, it is the kelp itself which yields up the stored solar energy. Thus, kelp farming is not "production of energy from water," but it is an analogous economic use.

Article 60 provides that "the coastal State shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of . . . installations and structures for the purposes provided for in article 56 and other economic purposes. . . ."¹⁹ The kelp farm structure thus falls within coastal state jurisdiction. Articles 56 and 60 seem to provide the coastal state with the right to jurisdiction and control of sea uses such as that entailed by kelp farming, but the legal status and scope of these provisions remain to be established.

A. The Relationship Between Treaty Law and Customary International Law

The question arises as to the present effect of the Law of the Sea Treaty provisions on the economic zone because of the unique circumstances and method of negotiation of UNCLOS III. Ordinarily, the provisions of a treaty are binding only when the treaty comes into effect and then only upon the parties to the treaty. The Vienna Convention on the Law of Treaties states that "[treaty] provisions do not bind a party in relation to any act or

^{17.} United Nations Convention on the Law of the Sea, art. 56, U.N. Doc. A/CONF. 62/ 122 (1982) [hereinafter cited as LOS Convention].

^{18.} Id. at art. 56(1)(a).

^{19.} Id. at art. 60(1)(b).

fact which took place . . . before the date of the entry into force of the treaty with respect to that party."²⁰ A state which has signed a treaty is under an obligation "to refrain from acts which would defeat the object and purpose of a treaty."²¹ However, the Law of the Sea Treaty opened for signature on December 8, 1982, and, although 119 nations have signed, it has not yet been signed by the United States,²² and thus it cannot be said to be binding upon the United States as treaty law. Nevertheless, some of the provisions of the Law of the Sea Treaty have achieved a legally binding effect as principles of customary international law.

For an understanding of why the economic zone concept has gained status as a new principle of international law, one must consider the negotiating process used by UNCLOS III and the "new dynamic" it has created for the development of customary international law.²³ The elements required for the recognition of the emergence of a new principle of customary international law were formulated in 1950 by Judge Manley O. Hudson as follows:

(a) concordant practice by a number of states with reference to a type of situation falling within the domain of international relations;

(b) continuation or repetition of the practice over a considerable period of time;

(c) conception that the practice is required by, or consistent with, prevailing international law; and

(d) general acquiescence in the practice by other States.²⁴

These criteria have been criticized as raising more questions than they answer since the terms "a number of states," "a considerable period of time," "prevailing international law" and "general acquiescence" are undefined.²⁵ It has been suggested that a new theory of customary international law is required to account for

^{20.} Vienna Convention on the Law of Treaties, negotiated at Vienna, May 23, 1969, art. 28, U.N. Doc. A/CONF. 39/27 (1969), reprinted in 63 Am. J. INT'L L. 875 (1969) (entered into force on January 27, 1980).

^{21.} Id. at 18.

^{22.} Oxman, The New Law of the Sea, 69 A.B.A.J., Feb. 1983, at 156.

^{23.} B. Flemming, Customary International Law and the Law of the Sea: A New Dynamic, in LAW OF THE SEA: STATE PRACTICE IN ZONES OF SPECIAL JURISDICTION 489 (T. Clingan, Jr. ed. 1982).

^{24.} Id. at 491-92 (quoting Statute of the International Law Commission, art. 24, [1950] 2 Y. B. INT'L L. COMM'N 26, U.N. Doc. A/CN.4/16).

^{25.} Cf. id. at 492 (citing A. D'Amato, The Concept of Custom in International Law 7 (1971)).

the phenomena arising out of UNCLOS III.²⁶ UNCLOS III has ushered in a new era for customary international law in relation to treaty law and the economic zone concept is the principal illustration of this new relationship.²⁷

The economic zone concept represents a departure from the centuries-old dichotomy between the high seas doctrine and the territorial sea doctrine. The doctrine of freedom of the high seas was developed by Hugo Grotius (1583-1645) and Cornelius van Bynkershoek (1673-1743) of the Netherlands in the belief that the seas could accommodate all navigational, commercial, fishing and military uses.²⁸ The theoretical basis of the doctrine has been eroded by the achievements of modern technology; the resources of the seas are no longer seen as inexhaustible.²⁹ For example, between 1970 and 1975 it became apparent that fishing resources were subject to depredation.³⁰

General acceptance of the 200-mile economic zone concept at UNCLOS III resulted from the recognition that the coastal state was the most suitable agent to manage and conserve coastal resources, and the "desire of the Third World states to have new economic resources clearly allocated to them by the international community."³¹ A further incentive to agreement on the economic zone concept was the perceived danger that the ocean might be parceled out among the nations. John Selden (1584-1654) of England had argued for national sovereignty over ocean space and in the 1970s Selden's "closed" sea seemed to loom on the horizon as many states made claims to various types of extended jurisdiction. Unilateral claims extending national jurisdiction were and remain a growing concern in the international community. The United States had set the pattern for such claims in the Truman Proclamations of 1945; it spent the next thirty-seven years trying to limit

^{26.} Id. at 498.

^{27.} Id. See also Howard, The Third United Nations Conference on the Law of the Sea and the Treaty/Custom Dichotomy, 16 TEX. INT'L L. J. 321 (1981). The emergence of the twelve-mile limit for the territorial sea is another illustration.

^{28.} F. CHEN, PROCEEDINGS OF THE CONFERENCE ON DEEP SEABED MINING AND FREEDOM OF THE SEAS 1 (1981).

^{29.} Newton, Inexhaustibility as a Law of the Sea Determinant, 16 Tex. INT'L L. J. 369, 410-11 (1981).

^{30.} Flemming, supra note 23, at 499.

^{31.} Id.

jurisdictional claims by other nations.³²

B. State Practice: Unilateral Claims to Extended Jurisdiction before UNCLOS III

The Truman Proclamations, asserting United States jurisdiction and control over the resources of the continental shelf³³ contiguous to the United States and over fisheries resources,³⁴ had been formulated during the Roosevelt administration.³⁵ In a memorandum dated July 1, 1939, to the attorney general and the secretaries of state, navy, and interior, Roosevelt suggested that federal jurisdiction could be exercised as far out as wells could be drilled: " 'inventive genius has moved jurisdiction out to sea to the limit of inventive genius.' "³⁶

The international response to the unilateral action of the United States was adoption by other states of various kinds of zones of jurisdiction.³⁷ Because coastal states saw the benefit to be derived by similar action on their own behalf, Truman's proclamations were uncontested and the coastal state's right of control over resources of the continental shelf soon became a principle of customary international law and was codified in 1958 by the Convention on the Continental Shelf.³⁸

The Truman Proclamation on the Continental Shelf expressly limited United States' jurisdiction to the continental shelf and

^{32.} A. HOLLICK, UNITED STATES FOREIGN POLICY AND THE LAW OF THE SEA 296 (1981).

^{33.} The continental shelf is "the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 meters or beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas." Convention on the Continental Shelf, *negotiated at Geneva*, Apr. 29, 1958, art. 1, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311 (entered into force June 10, 1964).

^{34.} See Proclamation No. 2668, 3 C.F.R. 68 (1943-48 compilation), reprinted in 59 Stat. 885 (1945) (concerning U.S. policy on coastal fisheries in certain areas of the high seas); Proclamation No. 2667, 3 C.F.R. 67 (1943-48 compilation), reprinted in 59 Stat. 884 (1945) (concerning U.S. policy on the natural resources of the subsoil and seabed of the continental shelf).

^{35.} A. HOLLICK, supra note 32, at 18.

^{36.} Id. at 30.

^{37.} For example, by 1955, twenty-two nations had adopted legislation claiming jurisdiction over resources of the continental shelf. See Johnston & Gold, Extended Jurisdiction, in LAW OF THE SEA: STATE PRACTICE IN ZONES OF SPECIAL JURISDICTION 3, 31-34 table 1 (T. Clingan, Jr. ed. 1982).

^{38.} Convention on the Continental Shelf, negotiated at Geneva, Apr. 29, 1958, art. 2, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311 (entered into force June 10, 1964).

maintained that the waters above the shelf retained their character as "high seas."³⁹ The United States' naval and distant-water fishing interests dictated a policy favoring a narrow territorial sea. For these reasons, the United States objected to claims by El Salvador, Argentina, and Mexico to sovereignty over a 200-mile zone which included the waters above the continental shelf. The trilateral declaration in 1952 by Chile, Ecuador, and Peru of a 200-mile "maritime zone" was likewise disputed.⁴⁰

Between 1945 and 1970, 11 states claimed a 200-mile zone and most of these states claimed it as a territorial sea.⁴¹ The significance of labelling the claim "territorial sea" is that a state may exercise sovereignty over its territorial sea and other states have no right to exercise high seas freedoms in the territorial sea.⁴² Sovereignty extends "to the air space over the territorial sea as well as to its bed and subsoil."43 The sovereignty claimed by the coastal state over the territorial sea was similar to that exercised on land, with the traditional exception for "innocent passage."44 The limits of the territorial sea were disputed until UNCLOS III established an outer limit of twelve nautical miles.⁴⁵ The three-mile limit favored by the United States had its origin in the practical limitations upon earlier defense capabilities, when 3 miles was the greatest distance a cannon could fire. Present claims to a territorial sea include 21 countries at 3 miles, 78 countries at 12 miles, and 15 countries at 150-200 miles.⁴⁶ After the Caracas session of UNCLOS III in 1974, 71 additional nations among the 137 coastal states es-

43. Id. at art. 2.

44. Richardson, Law of the Sea: Navigation and Other Traditional National Security Considerations, 19 SAN DIEGO L. REV. 553, 559 (1982).

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^{39. &}quot;The character as high seas of the waters above the continental shelf and the right to their free and unimpeded navigation are in no way thus affected." Proclamations Concerning United States Jurisdiction Over National Resources in Coastal Areas and the High Seas, 13 DEP'T ST. BULL. 485 (1945).

^{40.} For a discussion of the trilateral declaration of Chile, Ecuador and Peru, see D. Johnston & E. Gold, The Economic Zone in the Law of the Sea: Survey, Analysis and Appraisal of Current Trends (1973).

^{41.} Burke, National Legislation on Ocean Authority Zones and the Contemporary Law of the Sea, 9 OCEAN DEV. & INT'L L. J. 289 (1981).

^{42.} Convention on the Territorial Sea and the Contiguous Zone, negotiated at Geneva, Apr. 29, 1958, art. 1, 15 U.S.T. 1606, T.I.A.S. No. 5639, 516 U.N.T.S. 205 (entered into force on Sept. 10, 1964).

^{45.} LOS Convention, supra note 17, at art. 3.

^{46.} Johnston & Gold, supra note 37, at 47-50 table III.

tablished 200-mile zones of various sorts.⁴⁷

Because of the rapid increase in the number of nations extending their jurisdiction as well as the problem that many of them were "friends" of the United States, the United States was not able to challenge effectively the numerous claims.⁴⁸ The costs were simply too high. The resulting "acquiescence" in the practice of many states fostered the development of the economic zone concept in customary international law.⁴⁹

C. UNCLOS III: The Effect of Negotiation by Consensus on the Emergence of the Economic Zone Concept in International Law

Arvid Pardo of Malta had centered attention on the interdependence of nations in 1967 by winning the unanimous support of the United Nations General Assemby for his proposal that the deep seabed minerals be regarded as "the common heritage of mankind":

[Pardo] drew the attention of the Assembly to the vast riches hidden on the deep ocean floor of the world ocean which the technological revolution was rapidly making accessible to exploration and exploitation, and which did not belong to any nation. He pointed to the dangers of a military competition to dominate the deep seas. He saw a race developing to carve up the no-man's land of the ocean floor in the way the black continent had been carved up by the colonial powers in past centuries, which would give rise to acute conflict and pollution. He explained how the old law of the sea, based on the premises of the sovereignty of coastal states over a narrow belt of ocean along the coasts and of the freedom of the seas beyond this, was being eroded. He suggested that a new concept, the common heritage of mankind, must take the place of the old freedom of the sea. He stressed the ecological unity of ocean space and the interactions between all areas and all uses of ocean space.⁵⁰

Pardo's famous speech led to the convening of UNCLOS III.⁵¹

Whereas UNCLOS I (1958) and II (1960) had involved participation by 87 and 88 states respectively, UNCLOS III (1974-1982) involved delegations from more than 150 states. This broad-based participation, as well as the eight-year duration of the Conference, contributed to the impact the UNCLOS III consensus regarding

51. Id. at 6.

^{47.} Id.

^{48.} Richardson, supra note 44, at 554.

^{49.} Howard, supra note 27, at 332.

^{50.} Johnston & Gold, supra note 37, at 53-54 & n.24 (citing The Common Heritage: Selected Papers on Oceans and World Order 1967-1974 11 (E. Borges ed. 1975)).

the economic zone had on customary international law. During the conference process, the basic rules agreed upon became international law and served as the basis for state practice and expectations. The economic zone emerged as positive law from the conference by a process "neither wholly legislative nor wholly customary, but in fact a combination of the two."⁵²

The dynamic interplay between treaty and custom in UN-CLOS III derives from the consensus method used by the Conference. Pre-conference sessions had made it clear that traditional conference procedures would not lead to a treaty that was generally acceptable to all parties. The majority rule method had the disadvantage that it could produce an alienated minority, with the further undesirable result that the treaty provisions might fail to achieve general acceptance. Weighted voting was, of course, politically unacceptable in this type of conference.⁵³ Since all desired an agreed regime, and since sea uses involve a high level of interdependence, the consensus method was appropriate and assured broadly based support.54 Accordingly, Rules 37 through 40 of the conference rules listed procedures to ensure that all efforts at reaching consensus be exhausted before delegates resort to a vote.⁵⁵ These rules were adopted because it was recognized that a "powerful minority with major maritime interests and capabilities" confronted a "weak majority . . . with no major maritime capabilities."56 Ambassador Evenson of Norway described the consensus method of producing a "package deal" which would bring all nations in on the final result:

Bearing in mind that the problems of ocean space are closely interrelated and need to be considered as a whole and the desirability of adopting a Convention on the Law of the Sea which will secure the widest possible acceptance.

The Conference should make every effort to reach agreement on substantive matters by way of consensus and there should be no voting on such matters until all efforts at consensus have been exhausted.

Id. at 348 app. & n.1.

55. Buzan, supra note 53, at 331. 56. Id.

^{52.} Oxman, supra note 2, at 58.

^{53.} Buzan, Negotiating by Consensus, 75 Am. J. INT'L L. 324, 326-27 (1981).

^{54.} Id. at 327. The consensus principle approved by the UN General Assembly at its 2169th meeting on November 16, 1973, was written into the conference rules of procedure after acceptance of the following "Declaration incorporating the 'Gentleman's Agreement' made by the President and endorsed by the Conference at its 19th meeting on 27 June 1974":

We had to proceed from issue to issue, from chapter to chapter. We had to work in main committees, in all types of formal and informal groups in order to build with infinite care, a compromise package comprising the totality. In this stepwise approach we also had to build up confidence based on the selfevident assumption that delegations and states, although not formally bound, would stand by their express or tacit commitments. If one main state or group of states rescind one main element of the package, the whole package would fall apart and the compromise package elaborated with such finesse, perhaps even ingenuity, over the years would collapse like a house of cards. A lack of understanding of this main element of the gentleman's agreement accepted by *all* in 1973, would spell disaster for the consensus principle.⁵⁷

The extension of national jurisdiction over resources in an economic zone extending 200 miles from the baseline was one of the first issues on which consensus was achieved at the first substantive negotiating session of UNCLOS III in Caracas in 1974. Ambassador Aguilar summarized the work of Committee II, which was responsible for preparing treaty articles on offshore jurisdiction for subsequent negotiation:

The idea of a territorial sea of twelve miles and an exclusive economic zone beyond the territorial sea up to a total maximum distance of 200 miles is, at least at this time, the keystone of the compromise solution favoured by the majority of States participating in the Conference...

Acceptance of this idea is, of course, dependent on the satisfactory solution of other issues, especially the issue of passage through straits used for international navigation, the outermost limit of the continental shelf and the actual retention of this concept, and, last but not least, the aspirations of the land-locked countries and other countries which, for one reason or another, consider themselves geographically disadvantaged.

There are, in addition, other problems to be studied and solved in connection with this idea, for example, those relating to archipelagoes and the regime of islands in general.

It is also necessary to go further into the matter of the nature and characteristics of the concept of the exclusive economic zone, a subject on which important differences of opinion still persist.⁵⁸

The United States, the United Kingdom, and the Soviet Union were among the maritime nations which changed their position from opposition to support of the economic zone concept during the Caracas session. For their support, these nations sought concessions on various other issues, but the change in position was

^{57.} Oxman, The Third United Nations Conference on the Law of the Sea: The Tenth Session (1981), 76 AM. J. INT'L L. 1, 4 (1982) (quoting a statement by Ambassador Jens Evensen of Norway, Informal Plenary (Aug. 10, 1981)).

^{58.} A. HOLLICK, supra note 32, at 296-97.

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seen initially as a victory for the Group of 77, who wanted greater control over the ocean resources off their coasts.⁵⁹ The United States changed its position because it preferred international standards to unilateral action.⁶⁰ By 1976, it had become clear that the United States, the United Kingdom, and the Soviet Union, together with Canada, Australia, and Norway, were to be the principal beneficiaries of the economic zone concept.⁶¹ Professor W. Burke also commented that the economic zone benefits the richer nations and although Mexico derives benefit from the economic zone, most third world countries do not.⁶²

The exclusive economic zone was established as a "referent principle" for the Conference during 1974. Following that consensus, more than seventy nations unilaterally claimed an economic zone.⁶³ These unilateral claims tended to establish the concept in customary international law and complemented the conventional law process. The question is whether the consensus achieved at the Conference, together with the practice of states, is sufficient to give the economic zone concept status as customary international law.

There is widespread support for the view that the exclusive economic zone had become customary international law even before the convention was adopted. As early as 1977, Professor Louis Henkin wrote: "It is a foregone conclusion, I believe, that an exclusive economic zone will be written into law if the Conference succeeds; it will emerge as law in fact even if the conference fails."⁶⁴ In May of 1982, Henkin, as chief reporter of the tentative draft of the Restatement of the Foreign Relations Law of the United States, told the annual meeting of the American Law Insti-

60. Martens, Evolution of Coastal State Jurisdiction, 5 Ecology L. Q. 531, 546-47 (1976).

61. A. HOLLICK, supra note 32, at 286.

62. Burke, Commentary, in LAW OF THE SEA: STATE PRACTICE IN ZONES OF SPECIAL JU-RISDICTION 470 (T. Clingan, Jr. ed. 1982).

63. Johnston & Gold, supra note 37, at 47-50 table III.

64. Henkin, The Changing Law of the Sea: Technology, Law and Politics, in MARINE TECHNOLOGY AND LAW 137, 142 (1977).

897.

^{59.} The Group of 77 consists of more than 110 poor or developing states which advocate the new international economic order. The Group of 77 emerged in international politics in 1964, but functioned most effectively in UNCLOS III. See Juda, UNCLOS III and the New International Economic Order, 7 OCEAN DEV. & INT'L L. J. 223 (1979). See also Friedman & Williams, The Group of 77 at the United Nations: An Emergent Force in the Law of the Sea, 16 SAN DIEGO L. REV. 555 (1979); see generally W. BRANDT, NORTH-SOUTH: A PROGRAM FOR SURVIVAL (1980).

tute that proposed section 511 of the Restatement recognized the 200-mile exclusive economic zone. He emphasized that the United States "has recognized the 200-mile zone in principle and . . . is resisting only the idea that this zone is not to be considered 'high seas' for certain purposes."⁶⁵

A representative statement of the view that the economic zone was a principle of international law before the adoption of the convention is that by A. Koers: "The legitimacy of the 200-mile zone is really no longer in doubt even though the new treaty is not even a draft convention."⁶⁶

A more cautious view was expressed by the Soviets who maintained that the status of the economic zone as customary law was open to question and depended on the package deal that was to be worked out.⁶⁷ When the proposal was made at the final negotiating session in April 1982, that the text of the convention as a whole be adopted, the United States insisted that the consensus principle be abandoned. This had the significant consequence of barring speculation that the provisions of the convention might become customary international law upon adoption by consensus.⁶⁸ By forcing a vote, the United States sought to call into question the results of the "package deal." The 4 nations that voted against adoption of the convention⁶⁹ and the 17 that abstained⁷⁰ did not prevent the adoption of the convention, which was carried by a vote of 130 in

66. See also Burke, supra note 41, at 313 n.2; Howard, The Third United Nations Conference on the Law of the Sea and the Treaty/Custom Dichotomy, 16 TEX. INT'L L. J. 321, 332 (1981); Molitor, The U.S. Deep Seabed Mining Regulations: The Legal Basis for an Alternative Regime, 19 SAN DIEGO L. REV. 599, 606 (1982); Morin, Jurisdiction Beyond 200 Miles: A Persistent Problem, 10 CALIF. W. INT'L L. J. 514, 533 (1980); Shyam, The Emerging Fisheries Regime: Implications for India, 8 OCEAN DEV. & INT'L L. J. 35, 35 (1980).

67. Burke, supra note 41, at 315 n.5 (citing Kovalyov, The Economic Zone and its Legal Status, INT'L AFFAIRS (Moscow), Feb. 1979, at 58).

68. Remark by Renate Platzoeder of West Germany, Law of the Sea Institute Conference, at Halifax, Nova Scotia (June 22, 1982).

69. Third U.N. Conference, *supra* note 3, at 9-10 (Israel, Turkey, United States, and Venezuela).

70. Belgium, Bulgaria, Byelorussian Soviet Socialist Republic, Czechoslovakia, German Democratic Republic, Federal Republic of Germany, Hungary, Italy, Luxembourg, Mongolia, Netherlands, Poland, Spain, Thailand, Ukrainian Soviet Socialist Republic, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland. *Id.*

^{65. 50} U.S.L.W 2704 (May 1, 1982). See also Henkin, Restatement of the Foreign Relations Law of the United States (Revised): Tentative Draft No. 3, 76 Am. J. INT'L L. 653, 655 (1982).

favor, but they cast some uncertainty on the status of the convention provisions. The greatest effectiveness of the treaty could only be achieved by the consensus method. Short of consensus on the "package deal," it is not clear what the Conference has accomplished. State practice again becomes vitally important in determining what is the law of the sea and what are the limits of national jurisdiction in the ocean.

III. KELP FARMING AS AN EXERCISE OF AN ECONOMIC ZONE RIGHT OR AS AN EXERCISE OF A HIGH SEAS FREEDOM

The foregoing discussion of the current legal status of the economic zone reveals that the economic zone concept is available to serve as a basis for the extension of jurisdiction over kelp farming operations, should the United States choose to recognize the economic zone concept as a principle of international law. The economic zone concept has been recognized in a limited sense by the United States in its exercise of jurisdiction over deepwater ports located beyond the territorial sea,⁷¹ over fisheries and fishery resources (including almost all marine animal and plant life in the 200-mile zone),⁷² and over ocean thermal energy conversion (OTEC) facilities.⁷³ All these ocean uses are characteristic of an exclusive economic zone. However, the concept has not been used as the basis for jurisdiction. The Deepwater Port Act of 1974 and the OTEC Act of 1980 assert that the exercise of jurisdiction is consistent with the 1958 Convention on the High Seas. The Fisheries Conservation and Management Act does not appeal to either the Convention on the High Seas or to the economic zone concept; it is a broad, unilateral claim to a fishery zone. The United States remains reluctant to enact broader legislation claiming an economic zone, but its position is marked by ambivalence. The nation's navigational interests require a narrow territorial sea and freedom of the high seas: coastal resource interests call for extension of jurisdiction over a 200-mile economic zone.

Ambiguity also haunts the exclusive economic zone provisions of the new Law of the Sea Treaty. The maritime states fought hard

^{71.} Deepwater Port Act of 1974, 33 U.S.C. §§ 1501-1524 (1976).

^{72.} Fisheries Conservation and Management Act of 1976, 16 U.S.C. §§ 1801-1882 (1976).

^{73.} Ocean Thermal Energy Conversion Act of 1980, 42 U.S.C. §§ 9101-9163 (Supp. V 1981).

to keep the economic zone within the "high seas." The Group of 77 wanted the economic zone to be neither "high seas," nor "territorial sea," but "sui generis."⁷⁴ The Conference was unable to resolve the problem and drafted the provisions in an ambiguous manner, to be worked out by state practice and treaty interpretation.⁷⁵

Elliot Richardson has called attention to the qualification of the coastal state's rights in the exclusive economic zone by article 58, which contains a reference to article 87 on "Freedom of the High Seas."⁷⁶ Article 58, adopted after much debate, reads:

Rights and duties of other States in the exclusive economic zone

1. In the exclusive economic zone, all States, whether coastal or landlocked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft, and submarine cables and pipelines, and compatible with the other provisions of this Convention.

2. Articles 88 to 115 and other pertinent rules of international law apply to the exclusive economic zone in so far as they are not incompatible with this Part.

3. In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part.⁷⁷

The objective of this formulation was to allow for the sea uses in the exclusive economic zone traditionally regarded as high-seas freedoms. Article 87 contains a non-exhaustive list of freedoms:

*Freedom of the High Seas

1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, inter alia, both for coastal and land-locked States:

- (a) freedom of navigation;
- (b) freedom of overflight;
- (c) freedom to lay submarine cables and pipelines, subject to Part VI;

(d) freedom to construct artificial islands and other installations permitted under international law, subject to Part VI;

^{74.} A. HOLLICK, supra note 32, at 14.

^{75.} Id. at 14-15.

^{76.} Richardson, supra note 44, at 573.

^{77.} Id.

(e) freedom of fishing, subject to the conditions laid down in section 2;

(f) freedom of scientific research, subject to Parts VI and XIII.

2. These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to \cdot activities in the Area.⁷⁸

The provisions in the high-seas section apply to "all parts of the sea that are not included in the exclusive economic zone, [or] in the territorial sea. . . . [But], this article does not entail any abridgement of the freedoms enjoyed by all States in the exclusive economic zone in accordance with article 58."⁷⁹

Article 56 gives the coastal state rights in the exclusive economic zone which must be exercised with due regard to the high seas freedoms which may be exercised in the coastal state's economic zone by all other nations with due regard to the coastal state's rights. A balancing of interests is called for. The compromise achieved by UNCLOS III does not make clear the limits of permissible uses of the exclusive economic zone by the coastal state and by other states. State practice will complete what the treaty only began.

Therefore, although present international law would not prohibit kelp farming operations by the United States within 200 miles of its baseline, the manner in which the United States chooses to exercise jurisdiction may contribute to the interpretation of the economic zone concept in international law. Whether the economic zone is to be read narrowly or broadly by the international community may be influenced by the approach states take in exercising offshore jurisdiction for new ocean uses. In drafting legislation to extend United States' jurisdiction to deepwater ports, to the 200-mile fisheries zone and to ocean thermal energy conversion facilities beyond the territorial sea, the United States used two different approaches which may serve as alternative models for drafting legislation to protect kelp farm operations.

In claiming its 200-mile fisheries zone, the United States felt it was a "useful drafting technique" to define "fish" to "include all forms of plant and animal life normally found in coastal waters and of interest to the Nation."⁸⁰ Broad jurisdiction over living re-

^{78.} LOS Convention, supra note 17, at art. 87.

^{79.} Id. at art. 86.

^{80.} SENATE COMMITTEE ON COMMERCE AND NATIONAL OCEAN POLICY STUDY, 94TH CONG.,

sources of the zone was sought. At the same time, the jurisdiction was carefully circumscribed by declaring the zone "high seas" with respect to scientific research and other high seas freedoms.⁸¹ Senator Thomas J. McIntyre, reporting in 1975 the discussion of the Committee on Armed Services regarding the proposed legislation for a fishing zone, noted that it was "vitally important that the international community understand that [The Fisheries Conservation and Management Act] applies only to regulation of fishing and fishing conservation and does not indicate an intention or desire by the United States otherwise to extend its jurisdiction."⁸²

It could be argued that, under the broad definition of "fish," that the FCMA provides jurisdiction over kelp farming operations. The legislative history of the FCMA does not indicate why "fish" was defined to include all marine plant life; the sole reference to this definition reads: "[T]his definition is not meant to reflect the biological definition of fish. Combining all such resources in a single term is simply a useful drafting technique."⁸³

The definition would prove useful indeed if it spared Congress from drafting separate legislation to provide jurisdiction over kelp farming. Kelp, as a marine plant, may be protected under the Fisheries Conservation and Management Act, and with it, the facilities used for its cultivation and harvesting.⁸⁴

The kelp farmer, however, might seek greater certainty that his enterprise would be protected. Uncertainty derives from the failure of the Fisheries Conservation and Management Act to be specific as to its intent with regard to marine plants. Marine plants are vital to the fishing industry because the plants provide shelter, food, and breeding grounds for fish. However, the drafters may never have contemplated a kelp farm as being within the Act's scope, and therefore courts might not recognize a kelp farmer's claim under the Act. A simple amendment specifying that the kelp farm is included in the definition of "fish" would clarify the matter.

²D SESS., A LEGISLATIVE HISTORY OF THE FISHERY CONSERVATION AND MANAGEMENT ACT OF 1976, 675, (Comm. Print 1976) [hereinafter cited as LEGISLATIVE HISTORY].

^{81.} Fisheries Conservation and Management Act of 1976, § 3(10), 16 U.S.C. § 1802(10) (1976). See Burke, U.S. Fishery Management and the New Law of the Sea, 76 AM. J. INT'L L. 24, 49 (1982). See also LEGISLATIVE HISTORY, supra note 80, at 663.

^{82.} LEGISLATIVE HISTORY, supra note 80, at 573.

^{83.} Id. at 675.

^{84. 16} U.S.C. § 1812 (1982).

Alternatively, Congress might prefer to limit the Fisheries Conservation and Management Act to purposes directly related to the fishing industry. A different approach to jurisdiction could be taken, following that of the Ocean Thermal Energy Conversion Act of 1980.⁸⁵ There, jurisdiction was declared to be "consistent with the Convention on the High Seas and general principles of international law."⁸⁶ Article 2 of the Convention on the High Seas provides:

The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, *inter alia*, both for coastal and non-coastal States:

- (1) Freedom of navigation;
- (2) Freedom of fishing;
- (3) Freedom to lay submarine cables and pipelines;
- (4) Freedom to fly over the high seas.

These freedoms, and others which are recognized by the general principles of international law, shall be exercised by all States with reasonable regard to the interests of other states in their exercise of the freedom of the high seas.⁸⁷

The appeal to high seas freedoms was based on the theory of "reasonable use." Gary Knight, discussing international legal issues relating to ocean thermal energy conversion facilities before ocean thermal energy conversion legislation was drafted, concluded that the theory of reasonable use was "simply a short term for initiation of customary international law development through unilateral action."⁸⁸

The Ocean Thermal Energy Conversion legislation defines "high seas" as "that part of the oceans lying seaward of the territorial sea of the United States and outside the territorial sea, as recognized by the United States, of any other nation."⁸⁹ This definition draws attention to the United States' position regarding recognition of the economic zones claimed by other nations. How-

^{85. 42} U.S.C. §§,9101-9167 (Supp. V 1981).

^{86.} Id. at § 9101(a)(1).

^{87.} Convention on the High Seas, negotiated at Geneva, Apr. 29, 1958, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82 (entered into force Sept. 30, 1962).

^{88.} Knight, International Jurisdictional Issues Involving OTEC Installations, in OCEAN THERMAL ENERGY CONVERSION: LEGAL POLITICAL AND INTERNATIONAL ASPECTS 57-58 (1977).

^{89. 42} U.S.C. §9102(9), (Supp. V 1981) (emphasis added).

ever, provision is made to bring the legislation into conformity with the Law of the Sea Treaty if it is ratified by the United States.⁹⁰ The Ocean Thermal Energy Conversion Act provides for the initiation of negotiations for international agreements which would "guarantee noninterference" with OTEC facilities.⁹¹ Finally, the jurisdiction asserted over the OTEC facility in the high seas is declared to be like that over "an area of exclusive Federal jurisdiction located within a State."⁹²

Legislation for kelp farming, if modelled upon the Ocean Thermal Energy Conversion Act, would be drafted narrowly to extend only to kelp farming activities and would emphasize the high seas character of the waters beyond the territorial sea. Such legislation would be adequate to protect the interests of the kelp farmer, but if legislation proliferates, extending limited jurisdiction over one use and then several more, it may amount to a claim of a general economic zone. The United States has already extended its jurisdiction beyond the territorial sea for deepwater ports, fisheries, and ocean thermal energy conversion facilities.⁹³

Another alternative has been recommended by Professor Ved Nanda who has suggested that Congress enact legislation creating a 200-mile "Coastal Energy Conservation and Management Zone" which would, among other things, provide jurisdiction over kelpfarming operations.⁹⁴ This proposal, when considered together with the Fisheries Conservation and Management Act, OTEC legislation and the Deepwater Port Act, would seem to bring the United States to the verge of having, in fact, claimed an exclusive economic zone.

The United States has an interest in focusing attention on the essential high seas character of the economic zone. It prefers to view the coastal state's rights in the economic zone as limited exceptions to the fundamental freedom of the high seas. The United States has much to lose if states act to expand the limited jurisdiction provided by the treaty concept of the economic zone.

Bernard Oxman has pointed out that the economic zone concept as developed through the process of customary international

^{90.} Id. at § 9161.

^{91.} Id. at § 9162.

^{92.} Id. at § 9163.

^{93.} See supra notes 80 & 84.

^{94.} Issues Related to Ocean Thermal Conversion, supra note 16, at 31.

law is necessarily less precise than that formulated in the treaty, which cross-references many elements of the text in order to establish the concept in all its negotiated complexity. Oxman compares the difference between the customary law concept and the treaty law concept to the difference between a round of Frère Jacques and a Bach fugue.⁹⁵

In order to avoid promoting the development of the customary international law economic zone concept, which might broaden to the detriment of the United States' navigational interests, and in order to maintain credibility in arguing for a narrow reading of the economic zone provisions of the treaty, the United States should claim an economic zone and draft the legislation to reflect the economic zone provisions of the new treaty. By emphasizing that the economic uses of the zone are exceptions to the character of the zone as high seas, the United States could move forward in developing economic uses of the zone while at the same time reaffirming the high seas freedoms required for United States' navigational interests. Support of the economic zone provisions of the new treaty would enable the United States to claim the fine distinctions negotiated at UNCLOS III as to the high seas character of the zone.

The bill proposed to the House by Representative Breaux would accomplish these objectives. H.R. 7225 would establish a 200-mile economic zone in which the United States would assert "national rights" to control and manage the use of all resources.⁹⁶ The "highly migratory species" of fish and scientific research are excluded from the scope of control asserted in the zone.⁹⁷ The bill reaffirms the recognition of the "freedoms of the high seas pertaining to navigation, overflight, and the laying and maintenance of submarine cables and pipelines."⁹⁸ This legislative approach would ensure that the interests of kelp farmers would be protected and it would thereby encourage the development of kelp farming for the production of energy.

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^{95.} Oxman, supra note 2, at 78.

^{96.} H.R. 7225, 97th Cong., 2d Sess. (1982).

^{97.} Id. at §§ 102, 104.

^{98.} Id. at § 103.

CONCLUSION

The choice as to which approach the United States should use in extending jurisdiction to kelp farming operations in waters beyond the territorial sea is a policy decision. This Comment has outlined considerations which should influence that choice.

The Fisheries Conservation and Management Act provides jurisdiction over all marine plant life in the 200-mile zone. This may be sufficient to protect the interests of the kelp farmers. If Congress is slow to act on more specific legislation for the benefit of kelp farmers, or if conflicts in United States' policy forestall congressional action, kelp farmers may proceed on the basis of the FCMA provisions as they now stand, or as amended to refer specifically to kelp farming.

If it appears that the economic zone as adopted in states' practice unduly restricts the United States navigational interests, the United States may choose not to claim a general economic zone and to challenge the claims of other nations. Under these circumstances, legislation for kelp farming would be drafted narrowly, claiming that kelp farming is a "reasonable use" of the high seas. This approach has the disadvantage of following several other legislative acts claiming various economic uses as "reasonable uses." At some point, these claims may amount to a claim of an economic zone as this is understood in international law, in spite of the rationale proposed by the United States for labelling these uses as high seas freedoms.

Alternatively, the United States could enact legislation claiming an energy resources conservation and management zone. Again, taken together with the fisheries zone and other legislation, this approach may amount to a general economic zone claim.

Finally, the United States may choose to affirm the validity of the economic zone provisions of the new Law of the Sea Treaty, as is done implicitly in the Breaux bill, H.R. 7225.⁹⁹ Because the treaty provisions cross reference high seas freedoms and economic zone rights and duties, this approach would best enable the United States to develop energy production through kelp farming while at the same time safeguarding its navigational interests within the economic zones of other nations. Support of the economic zone provisions of the treaty by the United States would serve to enhance

^{99.} See supra note 96.

the viability of the compromises achieved in the provisions. Failure to support the economic zone treaty provisions might encourage other states to disregard the treaty provisions as to the character of the economic zone and foster the development of claims to greater coastal state control over the economic zone. Taking the economic zone provisions of the new treaty as the basis of legislation for kelp farming operations would promote development of this promising new ocean use without sacrificing the principle of the freedom of the high seas.

Gea Tung

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