THE COMMUNITY INTEREST IN A NARROW TERRITORIAL SEA: INCLUSIVE VERSUS EXCLUSIVE COMPETENCE OVER THE OCEANS

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In modern times the over-riding policy of the international law of the sea is commonly regarded as that of establishing and maintaining a public order in the shared use of, and shared competence over, the oceans, appropriately balancing the inclusive interests of all states and the unique, exclusive interests of particular states in the greatest production of values for all mankind.[1] The broad outlines of both the highest level

† See Contributors' Section, Masthead, p. 347, for biographical data.

1 See U.N. Secretariat, Memorandum on the Regime of the High Seas 10 (U.N. Doc. No. A/CN.4/32) (1950); Lauterpacht, "Sovereignty over Submarine Areas," 27 Brit. Yb. Int'l L. 376, 407 (1950); Smith, The Law and Custom of the Sea (3rd ed. 1959); Jessup, The Law of Territorial Waters and Maritime Jurisdiction (1927); Dickinson, "Jurisdiction at the Maritime Frontier," 40 Harv. L. Rev. 1 (1926).

complementary principles and the more detailed specific prescriptions, embodying such contraposed inclusive and exclusive interests, by which the authoritative decision-makers of the general community seek to secure such economic balance, are the common knowledge both of scholarly observers and of participants in the processes of use, claim, and decision by which the oceans are exploited and regulated.[2] The necessity, in the rational application of broad principles and detailed prescriptions, for a comprehensive, informed, and contextual approach, considering every specific problem in terms of all the factors in the context relevant to rational choice between alternatives in decision, seems, however, to have achieved somewhat less recognition.[3] Thus, while officials and scholarly observers frequently appear to concur upon the general inclusive and exclusive interests at stake in particular problems, they also commonly appear either to neglect entirely the specific factors uniquely revelant to particular policy problems or to attempt to reach decision without adequate investigation of the appropriate weight to be accorded the relevant factors. Efforts to resolve the perennial problem of the permissible width of the territorial sea, which has recently provoked a spate of the most diverse and potentially harmful claims and has thus far proved refractory to explicit multilateral agreement, seem notably to have been affected by a disregard of certain special environmental factors particularly relevant to a rational policy choice. Because of the great importance of this problem to the whole public order of the oceans, it may not be inappropriate to suggest both a brief examination of the general context which establishes the importance of the problem and a more comprehensive, detailed scrutiny of the special factors which ought to be taken into account by decision makers.

From both historical and contemporary perspectives, the oceans, alone of all the physical features of the planet earth, may be seen to be open, under shared competence, to the widest common use by all who possess the initiative, imagination and resources required for the sometimes

[2] For a systematic exposition see McDougal and Burke, "Crisis in the Law of the Sea: Community Perspectives versus National Egoism," 67 Yale L.J. 539, 550-67 (1958); McDougal and Schlei, "The Hydrogen Bomb Tests in Perspective: Lawful Measures for Security," 64 Yale L.J. 648, 655-74 (1955).

[3] This, of course, is the consequence of a general orientation which regards international law as predominantly a "body of rules" divorced from the fabric of human interaction. For an illustration in the present context see the statement of the delegate of Belgium at the 1958 Conference on the law of the sea rejecting, as a "basis for international law," an "argument" derived from "economic and technical considerations." U.N. Conference on the Law of the Sea, Official Records, Vol. V, Third Committee (High Seas: Fishing: Conservation of Living Resources) p. 13, para. 34 (U.N. Doc. A/Conf. 13/41) (1958). (The official records of this Conference will hereinafter be cited as Official Records with appropriate volume number.)

Feliciano, Book Review, 68 Yale L.J. 1039 (1959) offers a concise and effective introduction to the need for a different approach.

formidable tasks of such use. The most important and enduring of the many productive uses of the vast ocean areas consist, of course, of the movement and communication which have made possible the efficient interchange of goods, services and information among peoples of all parts of the globe.[4] The oceans serve, in high degree, as avenues of communication and transmission between territories and cultures and, conversely, on occasion, as barriers for shielding and isolating certain territorial communities from the effects of drastic redistributions of power in other communities.[5] Scarcely less significant than this important service to communication and transportation, the oceans today function as a huge renewable reservoir of food providing important regions and populations with much of their subsistence, and promising even greater yields in the future if the conditions of cooperative development are permitted to come to fulfillment.[6] Parts of the immense oceanic floor have already been tapped for access to important reserves of fossil fuel and geologists report rich possibilities in future exploitation for other minerals.[7] Most recently, intensified efforts have been made in cooperative activity to gain further enlightenment about fundamental natural processes through research into the major portion of the globe which lies concealed under the oceans.[8] Another ocean benefit, indirect but no less important, consists of the continuing historical experience which confirms that cooperative effort and coordinated restraint, may, and do, offer more promise of greatest advantage for all participants than do rigidly conceived, exclusive compartmentalization of sharable resources.[9]

In protecting their numerous, and often conflicting, particular objectives in the use of the oceans, states traditionally have made claims against each other for authority—that is, for competence to prescribe and apply policy—of many differing degrees of exclusiveness and inclusive-

[4] The ocean-going vessel is still the primary method of carrying goods, and in its relation to other forms of transportation is likely to remain the most economical instrument for moving important bulk commodities. See McDowell and Gibbs, Ocean Transportation 2-3 (1954); Woytinsky and Woytinsky, World Comerce and Governments 429 (1955).

[5] McDowell and Gibbs, op. cit. supra note 4 at 4-32; Fayle, A Short History of the World's Shipping Industry 21-32 (1933).

[6] For a comprehensive account of significant features of fishing activity from global and regional perspectives, see Morgan, World Sea Fisheries (1956); Tressler and Lemon, Marine Products of Commerce (2d Rev. ed. 1951).

[7] Salient facts and references to recent literature are in Reiff, The United States and the Treaty Law of the Sea 53-57 (1959).

[8] Marshack, The World in Space (1958), reviews the scientific aspects of the International Geophysical Year; Sullivan, The International Geophysical Year 259 (Int'l Conc. Pamphlet, No. 521, Jan. 1959), reviews preparations for the IGY and emphasizes its political aspects.

[9] U.N. Dep't of Public Information, "A Chart for All the Oceans—International Cooperation," 2 U.N. Rev. March, 1956, p. 28, April, 1956, p. 28; UNESCO Secretariat, Scientific Considerations Relating to the Continental Shelf" (U.N. Doc. No. A/Conf. 13/2) (1957) in 1 Official Records 39, 45, para. 51 (1958); McDougal and Burke, note 2, supra at 588-89.

ness. The most comprehensive exclusive claims, the claims which limit most the participation in decision by other states, are, of course, the claims to protect the more intense concentrations of coastal interests in the immediately adjacent waters described as "internal" and "territorial." The most inclusive claims, the claims which, in reciprocity, promise a concurrent or comparable competence to other interested states, are the claims relating to events beyond these areas upon the high seas.[10] In recognition of their common interest in shared use and shared competence over the oceans, states have traditionally claimed, irrespective of changes over the centuries in particular objectives, only a relatively narrow strip of immediately adjacent water as territorial sea over which comprehensive exclusive authority is exercised and honored. In practically all instances, the width, historically, has been limited to three or four miles, with a very few isolated claims to six and twelve miles.

In response to these claims and counterclaims advanced by particular states for gaining control of the particular events which comprise the process of shared use of the oceans, the general community of states, through its established processes of authoritative decision, seeks both to protect the inclusive interests of all states and the exclusive interests of particular states and to establish the most appropriate balance between these two types of accepted interests.[11] From the most comprehensive perspective, over a considerable period of time, it is evident that the general community has sought to establish this reasonable protection and balance in respect of the territorial sea by honoring the claims of states to only a relatively narrow strip of water immediately adjoining the land mass. This has meant, in practice, that the coastal state is authorized upon unilateral demand to exercise almost complete authority over vessels and persons within a narrow body of water adjacent to the shore, including competence to deny all passage, authority to exclude passage under certain conditions, authority over events occurring aboard the vessel, authority over the vessel itself, authority to regulate navigation, and most significantly, authority to exclude foreigners from fishery exploitation. Beyond this narrow strip of territorial sea, in the waters of what are called contignous areas, the general community permits the

[10] General categorization of these claims, explicitly noting the relationship between the varying concentrations of interests and the degree of comprehensiveness in exclusiveness, is in McDougal and Burke, note 2, supra at 550-555. A more comprehensive listing of claims is in McDougal, Burke, and Vlasic, The Maintenance of Public Order at Sea and the Nationality of ships. 54 Am. J. Int'l Law 25 (1960).

[11] McDougal and Burke, note 2, supra 567-89. For a more general statement and discussion of this policy problem in relation to world social processes see McDougal, "The Impact of International Law upon National Law: A Policy-Oriented Perspective," 4 S.D.L. Rev. 25 (1959).

coastal state a diminishing, much less comprehensive, competence for special, limited purposes to protect local value processes from external threat and deprivation. In terms of inclusive interests, the concession of comprehensive authority only within narrow geographical confines means that in practical effects in the vast areas beyond immediately adjacent waters the ships of all states are largely subjected only to the authority of the state of the national character of a vessel, that the ocean is open to unhindered use by all for transportation, communication, research, and other purposes, and that the immense food reserves of the oceans are available to all who seek to exploit them, subject to community-sanctioned limitations for preserving future yields at desirable levels or for otherwise regulating effort.[12]

The success of this traditional accommodation of inclusive and exclusive interests, readily apparent in the concrete accomplishments of the past, includes an immense production and wide sharing of all values —most especially, power, wealth, enlightenment and skill—and scarcely needs new documentation here. More immediate manifestation of the viability of the historic balance, favoring inclusive claims to the widest possible productive access to the oceans, is in the fact that not until very recently have states attempted seriously to make claims to enlarge the territorial sea. Today, however, a few states have begun to make claims which threaten to reverse the traditional presumption and priority in favor of inclusive use and to endanger that cooperative exploitation which is indispensable if the community is to gain the full measure of potential benefits from a very rich concentration of resources. The most exaggerated of these claims to widen the territorial sea have emanated from some few South American states, claiming the right to sell what has previously been regarded as common patrimony. Yet a number of other states, perhaps not always with the same objectives, have also sought radical extensions of the area subject to exclusive coastal access and com-

12 This is a rather capsule version of the way in which the community has established a protection and balance of inclusive and exclusive interests. See McDougal and Burke, note 2, supra at 558-67. The 1958 Conference on the law of the sea may have both undesirable and preferred effects upon this general accommodation. See, among a growing body of literature on the results of that conference, Sorensen, The Law of the Sea (Int'l Conc. Pamphlet No. 520, 1958); Jessup, "The United Nations Conference on the Law of the Sea," 59 Colum. L. Rev. 234 (1959); Dean, "The Geneva Conference on the Law of the Sea: What Was Accomplished," 52 Am. J. Int'l L. 607 (1958); Tunkin, The Geneva Conference on the Law of the Sea, International Affairs (Moscow) 47 (1958); Garcia-Amador, The Exploitation and Conservation of the Resources of the Sea (2d ed. 1959), Jessup, "The Geneva Conference on the Law of the Sea: A Study in International Law-Making," 52 Am. J. Int'l L. 730 (1958); Whiteman, "Conference of the Law of the Sea: Convention on the Continental Shelf," 52 Am. J. Int'l L. 629 (1958); Petren, "Reflections on the Conference at Geneva on the Law of the Sea," in Egyptian Society of International Law, Lectures on Topics of International Law and Economic Developments 51 (1959); Nikolic, "U.N. Conference on the Law of the Sea," 5 Jugoslovenska Revija Za Medunarodno Provo 72 (1958).

petence. So strong suddenly has this demand become for satisfaction of short-term exclusive interests at the expense of wider community and long-term exclusive interests that it both blocked efforts, at the 1958 Geneva Conference on the law of the sea, to achieve explicit agreement on the issue and succeeded in securing, in proposed compromise formulations, very substantial, and perhaps uneconomic, concessions to exclusive demand. As is well known, the two strongest adherents to a three mile territorial sea, the United States and the United Kingdom, conditionally abandoned their traditional views at the 1958 Conference, and, as compromise moves, supported a six-mile territorial sea coupled with a further six-mile zone to which the coastal state would have exclusive access to fishing resources subject to certain prior rights of other states. This proposal commanded wide support but did not attract sufficient backing to be included in the Convention on the Territorial Sea.[13]

Thus, although the outcome of the Geneva Conference manifested an apparent accord on a number of issues of substantial potential importance for the productive and rational use of the oceans and their many resources,[14] agreement on the most important issue of all, that of the width of the territorial sea, proved to be impossible. The failure to resolve this issue is widely considered to be especially unfortunate both because of its vital relationship to the scope of shared competence and use, which of course becomes more restricted as the territorial sea is widened, and because of the harmful friction and tension an unresolved issue of such importance is capable of creating, and does create, even between otherwise friendly states. The great desirability of reaching explicit agreement, expressing a rational community policy on this issue, and of achieving a consensus which would remove a potent source of controversy between states is so widely acknowledged that new proposals to these ends are to be discussed at an international conference to be convened by the United Nations early in 1960.[15]

If a greater measure of success, rather than new frustration, in the clarification of a rational policy in the general community interest, is to be achieved at the approaching new conference, it would seem important that any decisions taken should be based upon that background of available information which alone will permit full awareness of the costs and gains of various alternative prescriptions for the breadth of the territorial sea. More specifically, attention might profitably be

[13] The evolution in state claims on this issue and community response are reviewed infra at pp. 236-45.

[14] See sources cited note 12 supra for early appraisals both by participants in the Conference and by qualified observers.

[15] U.N. Doc. No. A/RES/1307 (XIII) (1958), U.N. Gen. Ass. Off. Rec. 13th Sess. Supp. No. 18, at 54-55 (A/4090) (1958).

focused by planners for the Conference and by commentators upon factors relevant to the two major demands most often asserted by states in justification of their proposals for establishing a territorial sea wider than states have traditionally claimed: the needs of security in the light of modern military technology, which allegedly require extension of all components of exclusive authority, and the needs in allocation and preservation of fishery resources in the light of improved fishing gear and technique and expanding populations, which allegedly necessitate greater exclusive access than claimed in the past.[16] The effects of over-expanded comprehensive exclusive authority over the oceans upon continued efficient use of the oceans for transportation and communication must also be assayed by criteria which embrace both inclusive and long-term exclusive interests. It will be abundantly clear, we suggest, that the width of the territorial sea is wholly irrelevant for major security purposes, that enlarging exclusive access of coastal states to fishery resources by this method, or by any other, is far more likely to impede development and conservation than to assist in achieving greater present production or maintaining future yields, and that the undesirable effects upon efficient transportation and communication, whatever their magnitude and however measured, are not compensated by gain in inclusive or exclusive interests and are, therefore, wholly undesirable from either community or more particular perspectives. For purposes of documenting these appraisals we now turn, first, to a systematic examination of the factual background revelant to the issue of the width of the territorial sea; then, to the clarification of a desirable community policy with respect to the different claims to establish a width for the territorial sea; next, to an examination of trends in past decisions and to future probabilities; and finally, to an appraisal of trends and the recommendation of alternatives.

I. Background Relevant to Community Policy

Events of the past three decades have made it manifest to all that it is a concern for access to fisheries and for control over access of warships which have engendered the considerable, often bitter and violent, controversy over claims, and opposition to claims, to extend the breadth of the territorial sea.

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16 These demands form a consistent theme both in the extended deliberations of the International Law Commission and in the discussions in the Committee on the Territorial Sea at the Geneva Conference. See pp. 233-45 infra. The assumed relevance of the territorial sea for fishing purposes is ancient. See Riesenfeld, The Protection of Coastal Fisheries Under International Law 3 (1942).

A. Fisheries and the Territorial Sea

In demanding either exclusive rights of exploitation or exclusive competence to prescribe conservation measures, both of which are permissible components of coastal authority within the territorial sea,[17] states frequently allege that adjacent fisheries are not adequate to support both local and foreign exploitation either because of biological limits operating upon the fish population in its environment, or because of cost and income factors, or for both reasons.[18] It is urged, accordingly, that the territorial sea must be widened in order that local fishermen may have exclusive access to a larger ocean area or so that the coastal state may be permitted exclusively to prescribe measures for preserving the future yield, including, presumably, the authority to determine the allocation of shares in the catch if any foreign fishing is to be allowed at all.

In this context the essential facts for background are those which states consider to be important in support of their claims to widen the territorial sea. These include, in general terms, the amount of available resources, the general world effort to exploit such resources, and, of most vital importance, the relationship between the intensity of fishing effort and the future availability of fish. Accordingly, after initial reference to factors affecting the desirability of increasing fish production, we focus attention, with respect to the aggregate of fishery resources, upon the location of commercial fisheries, information concerning the size and productivity of the resources, and the difficulty and complexity of securing such intelligence. Reference is then made, in relation to the fishing effort, to the intensity of fishing around the globe and to the factors affecting the extent of effort by particular states. Finally, in assessing the impact of fishing intensity upon future resources, we examine briefly the realism in the frequently mentioned possibility of complete extinction or destruction of a fishery resource, diverse conceptions of overfishing a particular resource, the level and kind of information necessary to a determination that a resource will not support the presently exerted fishing effort or future increase in that effort, and, finally, some domestic and international economic features of fishery exploitation.

Insofar as population growth and the need for food are concerned it is not proposed here to engage in theoretical estimates of the so-called car-

[17] Jessup, op. cit. note 1, supra at xxxiii-xxxiv, 115-208 (1927); Riesenfeld, op. cit. note 16, supra at 277-82.

[18] This allegation is quite common. It should be noted, however, that some demands put forward for "conservation" of fishing resources are, in fact, demands for assuring a more satisfactory rate of profit to local fishermen. Thus, the Icelandic claim for wider fishing limits, which is commonly made in terms of the necessity of maintaining the fish stocks around the island, seems to be primarily an effort to improve the profitableness of fishing operations. See Iceland Ministry for Foreign Affairs, The Icelandic Fishery Limits (April 1959).

rying capacity of the earth,[19] but to emphasize that whatever this capacity may be it is not even now efficiently employed to satisfy the needs of the present population. In 1946 it was estimated that, for a period before World War II, the food supplies in areas occupied by one-half of the world's population were not adequate to furnish the minimum caloric requirements of the average individual—it is to be emphasized that the reference is to "food supplies" and not to actual caloric intake.[20] The latter is very probably much lower than the value of the supplies. Six years later, the FAO concluded that in comparison to the pre-war period ". . . not only has there been an appreciable fall in the average caloric supply for the world as a whole but also the large gaps between the better and worse fed nations have widened."[21] More importantly, for present purposes, about four-fifths of the population receive inadequate amounts of "protective foods," those which furnish minerals, vitamins and proteins.[22] In respect to proteins, meat is one of its most important sources and, for this purpose, fish is the equivalent of meat.[23]

Some commentators have asserted that population growth is the most important condition affecting the problem of providing peaceful access for all peoples to widely demanded values,[24] *e.g.*, power, wealth and well-being. This priority derives substantially from the fact that food is

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19 There are numerous, widely divergent estimates of future population totals and carrying capacity. See U.N. Dep't of Economic and Social Affairs, The Determinants and Consequences of Population Trends 185-86 (U.N. Doc. No. ST/SOA/SER. A/17) (1953) for a number of estimates of the carrying capacity and a critical appraisal of them. The subject has also been widely discussed in more popular form: Osborn, The Limits of the Earth (1953); Osborn, Our Plundered Planet (1948); Vogt, The Road to Survival (1948). There seems to be considerable question about the usefulness of these projections of carrying capacity. See U.N. Dep't of Economic and Social Affairs, The Future Growth of World Population 21-22 (U.N. Doc. No. ST/SOA/SER.A/28) (1958); Bennett, The World's Food 50-53 (1954).

20 FAO, World Food Survey 6-7 (1946).

21 FAO, Second World Food Survey 11 (1952).

22 Id. at 11-15; Woytinsky and Woytinsky, World Population and Production 303-04 (1953). The nutritional quality of food is also most important for health; a recent FAO study states that "[R]equirements for protein have been extensively studied and it is established that a protein intake below certain levels is incompatible with health or with life itself." FAO, Calorie Requirements—Report of the Second Committee on Calorie Requirements 2 (1957).

23 FAO, World Food Survey 12 (1946); U.N. Interim Comm'n on Food and Agriculture, Five Technical Reports on Food and Agriculture 179 (1945).

For a criticism of the FAO and an argument that this agency ". . . has tended to paint the picture of the world food situation in the most somber colors, whether or not in precise reflection of the facts. . . .," see Bennett, op. cit. note 19, supra at 189 et seq. Professor Bennett contends that the data from the two World Food Surveys "afford no credible evidence of persisting calorie shortage anywhere during the period 1934-38." Id. at 200.

24 The rate of growth for the world as a whole "appears to be more rapid now than it has been at any earlier time." U.N. Dep't of Economic and Social Affairs, Determinants and Consequences of Population Trends, op. cit. note 19, supra at 3. This U.N. study presumably was projected because information regarding the factors affecting population trends and economic and social effects of population increases was considered especially important at a time when the rate of population increase was so high.

chronically unavailable to the greater part of mankind in sufficient quantity or quality to avert hunger and to maintain adequate nutrition. The facts of population growth are more significantly viewed, however, in terms of the areas experiencing, or about to experience, the greatest relative growth. Although estimates on this subject are notoriously inaccurate, and usually err by being too conservative,[25] it does seem to be agreed that the rate of population increase tends to be highest in areas already lacking in food supplies or the capital necessary to produce goods which can be exchanged either for food or for the means to produce food for more people.[26] Even in areas where the rate of increase is not high the absolute increase may be such as to place a great strain on available supplies because of an inability to accelerate production sufficiently to offset the increase. In either of these instances the problem of securing enough food to meet local requirements is tied to the more general problem of economic development, and when fishing resources are available, these may figure prominently in general development schemes.[27]

Since agricultural exploitation, and the distribution of the products thereof, has failed to meet world food needs, some have urged greater effort at exploiting what appear to be huge and available quantities of ocean resources.[28] It is quite common to read that, after all, the ocean occupies about 70% of the earth's surface and receives much the greater part of the sunlight which is the basic source of energy from which man derives all his food. Consequently, it is beyond question that the ocean contains incredible amounts of matter, organic and inorganic, which is converted into the flesh of equally incredible numbers of fish. It is

25 Dramatic evidence of the margin of error on a world scale is furnished by a 1957 U.N. population projection which notes sharp upward revisions of estimates of 1980 population from estimates made only a few years before. See U.N. Dep't of Economic and Social Affairs, The Future Growth of World Population, note 19, supra at vii-viii. It is noted that estimates for individual states have a "low order of reliability," id. at 1, but the usefulness of population models is defended. Id. at 39.

26 FAO, Second World Food Survey 26-27 (1952); U.N. Economic and Social Council, Population Commission Report, p. 3, Off. Rec. 27th Sess., Supp. No. 3 (E/3207/Rev. 1) (E/CN. 9/156/Rev. 1) (1959).

Such areas would include much of Asia, Africa and Latin America, but the figures on population for these areas are in many respects incomplete or lacking and estimates are subject to substantial qualification. U.N. Dep't of Economic and Social Affairs, The Determinants and Consequences of Population Trends, op. cit. note 19, supra at 10-20. Areas categorized by one observer as in the demographic stage of "high growth potential" include "Egypt, Central Africa, much of the Near East, virtually all of Asia outside the Soviet Union and Japan, the islands of the Pacific and the Caribbean and much of Central and South America." The categorization by Notestein, is referred to in Woytinsky and Woytinsky, op. cit. note 22, supra at 257-58. See also U.N. Dep't of Economic and Social Affairs, Population Growth and the Standard of Living in Underdeveloped Countries (U.N. Doc. No. ST/SOA/SER. A/20) (1954).

27 FAO, Second World Survey 26 (1952).

28 FAO Fisheries Division, "Improving the Fisheries Contribution to World Food Supplies," 6 FAO Fisheries Bull. 159 (1953); U.N. Interim Commission on Food and Agriculture, op. cit. note 23, supra at 179; Smith and Chapin, The Sun, The Sea and Tomorrow (1954).

estimated that the ocean contains 90% of the "possible food material" of the world and that each year the ocean produces one billion tons of fish.[29] But despite this theoretical abundance, and although total meat production falls far short of meeting the world's protein requirements, somewhat less than 30 million tons of fish are now caught each year[30] and it is estimated that fish comprise only about 10% of the world supply of animal protein.[31] While this relative failure to exploit a very rich source of food seems amazing, it may be remembered that exploitation of land for agricultural purposes is also wholly inadequate in many parts of the world, and is certainly an easier task than seeking to exploit fish in the sea. Nevertheless, the facts are that the food may be found in the ocean and that the major barrier to increasing the supply from that source is not essentially biological but that of creating new human arrangements, including research, for properly exploiting the oceans.[32] Even if, for the world as a whole, an expanded agricultural production could increase food supplies very substantially, there are parts of the world in which the fish in the sea are very important for meeting future protein needs.[33]

The most important factors accounting for the location of fisheries are those relating to favorable environmental conditions. For the most part the combination of light, temperature, nutrient elements and other factors is most favorable in the relatively shallow waters adjacent to the great continental land masses of the world and it is in these areas that the great fisheries are chiefly located.[34] While it is important to note that fish are most commonly found in commercial quantities in the relatively restricted areas above the continental shelf, and therefore in some

[29] Id. at 37, 56. Some idea of the astronomical figures involved is indicated by the further estimate that "fish production is less than one-tenth of one per cent of the total plant production in the sea." Id. at 35.

[30] 1958 United Nations Statistical Yearbook, 88 (1958) gives figures on total world catch which include inland fisheries. Statistics on the catch from ocean fisheries for the years 1953-1956 are set out in FAO Memorandum, The Economic Importance of the Sea Fisheries in Different Countries (U.N. Doc. No. A/Conf. 13/16) (1957) in 1 Official Records 245.

[31] FAO, Second World Food Survey 30 (1952). When the annual world catch was established at 20 million tons it was estimated that only one million tons became available as protein. World consumption of meat was then estimated at 50 million tons annually. Smith and Chapin, op. cit. note 28, supra at 39-40. See also Woytinsky and Woytinsky, op. cit. note 22, supra at 746.

[32] FAO Fisheries Division, note 28, supra at 159. For reference to factors limiting or deterring needed increases, see id. at 180.

[33] One reason is that the problem of distributing the produce of agriculture exploitation is very difficult and the areas lacking in protein are likely to be the last to benefit from greater production. Increased fish production in adjacent sea areas is, on the other hand, definitely possible and would be needed as a source of protein even as world supply from other sources is increased.

[34] Sverdrup, Johnson and Fleming, The Oceans—Their Physics, Chemistry and General Biology 279 (1942); U.N. Interim Commission on Food and Agriculture, op. cit. note 23, supra at 181; Von Bonde, "Latent Fishery Resources and Means for their Development," 7 U.N. Scientific Conference on the Conservation and Utilization of Resources 35 (1951) (hereinafter cited as UNSCCUR); Sea Fisheries 34 (Graham ed. 1956).

proximity to a particular state, this does not establish a particularly precise location of the place fish are caught in relation to the adjoining land mass. The world's continental shelves vary greatly in width off the different coasts around the globe.[35] Furthermore, it is very doubtful that, except in certain very limited instances, there is a reliable estimate on the catch at varying distances from shore. Fishermen are not likely to make such calculations while in the process of fishing, even if it were possible to do so; in any event, they are primarily interested in searching for, and finding, fish in sufficient density and quantity to repay the effort to catch them.[35a]

One of the most important facts about fish, which alone would make it virtually impossible to establish a conservation program, or to claim meaningful exclusive access within a fixed zone of a specific width, is that even the relatively sedentary type may range rather widely within the confines of the continental shelves, and pelagic species move over vast expanses of water.[36] Fish move horizontally, that is roam from one place to another, and vertically, at different depths, and no uniform width for the territorial sea could encompass the range within which fish move in all their life phases.[37] Not only do fish move in and out of territorial seas, even those of rather exaggerated width, such as twelve miles, but they move laterally along coasts and where a coast is divided into several sovereign states the fish may move through waters

[35] For a relatively detailed description of shelf areas, including width, see Shepard, Submarine Geology 107-44 (1948); UNESCO Secretariat, Scientific Considerations Relating to the Continental Shelf (U.N. Doc. No. A/Conf. 13/2) (1957), 1 Official Records 39, 40-1 (1958); Morgan, op.cit. note 6, supra at 19-22 (1956).

[35a] We wish to be very explicit in noting that we exclude from this discussion, and have no intent to refer to, anadromous species, i.e., those which live in the sea but spawn in fresh water. Salmon are the most valuable of this species and, perhaps, of any commercial fish. A population of this kind could probably be completely destroyed since it would be possible to prevent their return to spawning grounds. The restraints adopted by coastal states on the catch of salmon are designed to maintain future yields; the relationship between these restraints and such yields are obvious. When, therefore, non-coastal fishermen exploit such fish on the high seas the effect upon coastal fishermen is evident and direct, and explains the problems which, too frequently, plague relations between Japan and the United States and Japan and Russia with reference to the salmon fishing of the North Pacific. See, for a comprehensive study of this industry in the United States, Gregory and Barnes, North Pacific Fisheries (1939).

For an appraisal of the continuing difficulties between the states concerned, see N.Y. Times, Aug. 16, 1959, p. 82. It should be noted that this newspaper story appears to have been derived from the Japan Report, published by the Japanese Information Office in New York.

[36] Referring to the instance in which the movement of fish within the exploited area is "strictly localized," it has been observed that "this situation is probably rare in major fisheries, though an approximation to it might be found in fisheries based on species restricting their distribution to a specific type of habitat which occurs only in isolated localities." Beverton and Holt, On The Dynamics of Exploited Fish Populations 135-36 (1957). Apart from migrations of whole populations there ". . . are the more local movements of individual fish which are responsible for the continual interchange of fish between adjacent areas within the general habitat, whether the population as a whole is moving or is static." Id. at 136. See also Morgan, op. cit., note 6, supra, passim.

[37] Bottemanne, Principles of Fisheries Development 23-25 (1959).

under the exclusive competence of several states.[38] No unilaterally conceived and implemented program of conservation or exploitation could make sense under such circumstances.[38a]

Even where it is known that conditions are generally favorable for concentrations of fish, it is most important to secure reliable estimates of the abundance and productivity of the fish stock or stocks capable of exploitation if resources are to be rationally allocated to this capability. One comprehensive study observes that, while other techniques might later be developed, the "best test" now available for determining fishery possibilities consists of actually fishing an area on a commercial scale.[39] So little of this experimental work has been done, however, that this same observer concludes that "[f]or many fishing grounds in the Pacific, Indian Ocean, and South Atlantic there are insufficient data for a satisfactory estimate to be made of the possible optimum production."[40]

The relevance of information about the abundance and productivity of fish stocks extends beyond appraisals of latent fishing grounds to well-known fishing areas. Here, too, such information would appear to be most vital for appraising the desirability of claims both to exclusive exploitation and to conservation.[41] Fortunately, fishery scientists have placed the greatest emphasis upon population studies. Thus, one expert's recent observation indicates the importance and dimension of the problem: "It is, of course, of the utmost importance to determine the magnitude of the population constituting the resource, in relation to the amount being harvested, in order to determine whether or not the current rate of fishing is too large or small, and thus to have a basis for judging whether any conservation action is required."[42] Another expert has offered a slightly different estimate of the urgency of the task, in the following terms:

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[38] Netherlands Economic Institute, The Development of Offshore Fisheries and the Economics of Choice 25 (1958). Emphasis on this fact was used at the 1958 Geneva Conference to oppose attempts to secure international recognition of the "special interest" of coastal states in maintaining productivity of adjacent fishery resources. 5 Official Records 10-11, para. 6.

[38a] Notes 41-44, infra.

[39] Morgan, op. cit. note 6, supra at 14-17.

[40] Id. at 17.

[41] Claims to exclusive exploitation appear to rest most frequently upon the premise that the fish available are not sufficient to satisfy all current demands and maintenance of future yields. Customarily, conservation is said to rest on the notion that some type of regulation must he imposed if the future yield is to be maintained at the maximum sustainable. Claims so presented, whether for exploitation or conservation, require certain basic information concerning the size of the population and the effects of fishing. See note 42, infra. And see Van Cleve, The Economic and Scientific Basis of the Principle of Abstention (U.N. Doc. No. A/Conf. 13/3) (1957), 1 Official Records 47, 60 (1958).

[42] Schaefer, "The Scientific Basis for a Conservation Programme," Papers Presented at the International Technical Conference on the Conservation of the Living Resources of the Sea 14, 23 (Rome, 18 April—10 May 1955) (U.N. Doc. A/Conf. 10/7) (1956) (hereinafter cited as 1955 Rome Papers).

> The greatest and most comprehensive need towards that understanding of the living resources of the sea which is indispensable to their rational utilization and consequently to the formulation of scientifically sound measures of conservation in respect of any given species, or group of species, would seem to be systematic and, in particular regions, intensive and detailed observation of those characteristics of the sea—its movements, its conservative and non-conservative properties—which have obvious and profound influences on fishes and other marine creatures on which fishes depend. The great problem of discovering the causes of natural fluctuations in the incidence, abundance, and quality of fish stocks seems fundamentally to depend for its solution on such observation. . . .
>
> Conjointly, and with the same problem in view, there is almost equally great need on the biological side for accurate, quantitative assessments of local and regional fish stocks, the age composition of each and the aunual recruitment thereto; of predator species; of the abundance and composition of fish food as well as of inimically non-fish-food organisms; of the exact nature of the contribution of the former to the development, growth, and maintenance of fishes under varying physical conditions, and, on a uniform basis of intercomparability, of the intensities and magnitudes of man's predatory activities towards economically valuable food fish stocks.[43]

A comprehensive statement of the scientific information needed for conservation purposes (and for certain exploitative claims), as agreed upon by experts in international conference, includes:

a. Extent of separation of the fishery resource into independent or semi-independent populations; . . .
b. Magnitude and geographical range of the populations constituting the resource; . . .
c. Pertinent facts respecting the life history (such as growth, mortality rates, migration, recruitment, etc.) ecology, behaviour, and population dynamics of the species constituting the resource. . . .
d. Effects of the amount, manner and kind of fishing on the resource and on the quantity and quality of the sustainable average catch to be obtained from it . . . and
e. Relationships of the same resource to other species which are members of the same ecological community and are being expoited simultaneously by the same fishing equipment.[44]

Gathering all this information is an immensely complicated, difficult and time-consuming task, one which, not infrequently, takes years to complete.[45] It has been estimated, for instance, that statistics concerning the "best-known and most studied fishery in the world" have not been "entirely adequate" in view of the experience with international

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[43] Tait, "Outstanding Questions," 1955 Rome Papers 81, 81-2, note 42, supra.
[44] Report of the International Technical Conference on the Conservation of the Living Resources of the Sea 3 (U.N. Doc. A/Conf. 10/6) (1955).
[45] Id. at para. 22.

regulation which has relied on them.[46] The same observer concludes that "one of the most important essentials for any fishery is the compilation from its origin of those statistics (catch, date, place, effort, and so on, all to the required detail) which alone make assessment and then prediction possible."[47] Some measure of the difficulties involved is indicated by the appraisal, in one recent study, that in the United States "[l]ack of adequate understanding of the occurrence, behavior and potential harvest of fish and other marine organisms serves as a serious barrier to extensive economic development and utilization of marine biological resources."[48] Finally, it has been indicated that even where relatively complete statistical details have become available there are formidable difficulties in interpreting them.[49]

It may be added that the proposals for dividing the oceans into large areas open only to the nationals of one state could greatly complicate the task of acquiring greater information about fisheries. Restrictions on the freedom of movement of fishermen and investigators might severely handicap highly useful inquiry.[50]

Although the great fisheries of the world are mostly located within relatively short distances from the coasts of continents and islands, and thus within the range of economic exploitation, it appears that some of them have not been exploited fully and effectively. For example, it is estimated that 98% of the world's catch comes from fisheries located in the northern hemisphere.[51] The great fisheries in this half of the globe have been fished for many years, and even centuries in some cases; yet observers have nevertheless declared that certain fisheries are still not being exploited to their full potential and that some fisheries in this

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[46] The full passage reads:

> It is a matter of history that, for the best-known and most studied fishery in the world, it has taken approximately fifty years to introduce its first international regulation, only to find that there are still many problems to solve. What is important, however, is that it is now possible to foresee some of the dangers as well as to predict with some certainty the prospective benefits. This is only because there are now available long series of statistics, steadily improving in precision for conservation purposes, albeit still not entirely adequate.

Lucas, "Regulation of North Sea Fisheries under the Convention of 1946." 1955 Rome Papers, 167, 177, note 42, supra.

[47] Ibid.

[48] National Academy of Sciences—National Research Council, Oceanography 1960 to 1970 22 (1959) (First chapter of a report in progress by the Committee on Oceanography.)

[49] Burkenroad, "Fluctuation in Abundance of Pacific Halibut," 11 Bull. Bing. Ocean. Coll. 81 (1948); Burkenroad, "Theory and Practice of Marine Fishery Management," 18 J. du Conseil Permanent International pour L'Exploration de la Mer 300 (1953); Beverton and Holt, op. cit. note 36, supra at 24-26.

[50] FAO, Millions Still Go Hungry 64-5 (1957) (12th Report of the Director General).

[51] LeGall, The Present World Problem of Sea Fisheries, 7 UNSCCUR 11, 12; Thompson, Latent Fishery Resources and Means for Their Development, 7 UNSCCUR 28.

hemisphere are not fished at all.[52] The southern hemisphere, which contains the greater part of the world's waters and is 80% ocean, furnishes only 2% of the world's catch and is apparently capable of greatly increased production. While observers differ greatly in their estimates of the possibilities of exploitation in the southern oceans, very general assessments indicate that the latent resources are most extensive.[53] As indicated above, detailed surveys of fishery resources have not, for the most part, been made.[54] Progress is very slow when dependent solely upon the initiative and skills of the individual states, chiefly because of the lack of personnel capable of the necessary scientific work and the absence of capital for investing in the equipment for exploitation.[55] However, advances are now being made in cooperation with the Food and Agricultural Organization and its various regional organizations for fisheries.[56] There seems to be little ground for pessimism on the potentialities of these waters, particularly in view of the results of research which indicate that warmer waters are not so unfavorable to the development of marine organisms as has customarily been thought,[57] and as still asserted in

[52] As is usual in this field, the estimates are contradictory. LeGall, note 51, supra at 12, declares that "[t]he possibilities of developing sea fishing in the northern hemisphere are at present very limited." But Thompson offers evidence to the contrary. The herring fisheries furnish about 15% of the total world production, an enormous quantity of fish, yet "show no signs of depletion, and, indeed are capable of expansion." Thompson, note 51, supra at 29. Furthermore, there are a number of species not now marketed but which might be caught in commercial quantities. Id. at 30. See also Graham, ed., op. cit. supra note 34, at 49.

[53] LeGall declares that in the southern hemisphere exploration "has shown vast possibilities, certainly superior to the northern hemisphere. . . ." LeGall, note 51, supra at 12. For a fairly detailed assessment of these possibilities see Thompson, note 51, supra at 30-33; Von Bonde, note 34, supra at 36. Morgan, op. cit. supra note 6, assesses the possibilities of expansion in a detailed regional survey.

[54] See, generally, the papers on Developing Fishery Resources in 7 UNSCCUR 27 et. seq., containing numerous references to the need for surveys in the area; Morgan, op. cit. note 6, supra at 14-18.

[55] Some of the difficulties are indicated in the following description of the type of survey work required:

> . . . the work must be planned and sustained over a considerable period of years in order to be carried to completion, discover the short and long-range fluctuations of fish occurrences and the natural causes therefor, and to interest the necessary personnel [which will consist of experienced marine biologists and skilled fishing and technical personnel], together with crews recruited, for climatic and economic reasons, from the regions concerned. Owing to the peculiar difficulties associated with developing new fisheries in warmer waters, private enterprise is unlikely to undertake the survey work, which must be financed and prosecuted by Governments, up to the stage where more promising prospects are revealed.

Thompson, note 51 supra at 34. Even the determination of when to conduct a survey may be a most complex decision.

[56] The Fisheries Bulletin formerly published by the FAO periodically carried details of the work being done. Publications of the regional groups, such as the Indo-Pacific Fisheries Council, furnish similar information. The FAO is now engaged in the evaluation of world fishery resources, a task apparently not to be completed for some time. For a description of the project, see 8 FAO Fisheries Bull. 197-202 (1955).

[57] "The position has been quite widely held, that the warm seas are inherently less fertile than the cold ones, because of a lower content of nutrient substance for plant-growth. However, recent studies have suggested that this is a superficial distinction only

some quarters for political reasons.[58]

The capacity of states to exploit adjacent fisheries is another factor of considerable importance and includes both the potential for investment in fishing and processing equipment and the availability of markets. The lack of capital for investment in fishery exploitation and the absence of a market for consumption of an expanded fishery production often constitute considerable barriers to the effective use of adjacent resources.[59] Unfortunately, these barriers appear to be most formidable in the very states which could most benefit from the use of marine resources. The states facing the most serious nutrition problems generally lack the capital to permit the effective use of fish in the nearby ocean and, because of their low economic level, the population may not provide an adequate market for the fish which could be caught if the necessary capital were made available.[60] The market problem is considerably complicated also because of the peculiar demands upon the transportation, preservative and storage industries by a perishable commodity such as fish. Furthermore, while it is clear that the underdeveloped states face many serious problems because of the lack of investment capital, this has particular

and that questions of the rate of turnover of the crop of plankton . . . etc., are involved which greatly complicate the theoretical calculations of basic productivity". Martin O. Burkenroad writing in the Far Eastern Quarterly, 1946, as quoted in DeVries and Bottemanne, "Latent Fishery Resources and Means for Their Development," 7 UNSCCUR 39. Elsewhere, Bottemanne declares: "Nevertheless the general notion that tropical seas are poor is, as a general statement, no longer considered true." Bottemanne, op. cit. supra note 37, at 22.

[58] The previous footnote suggests that there is considerable doubt about the accuracy of the statement made by Mexico during the discussion in the Third Committee in reference to tropical countries: "The waters off their coasts were tepid or warm and poor in fishing resources, and the recuperative process in those seas was infinitely slower." 5 Official Records 31-32 (1958). Further doubt arises from the evidence concerning tropical tuna, a most valuable fishery in the Pacific, which suggests to one expert observer that "growth and turnover of population therefore appears to be very rapid." Schaefer, "Scientific Investigation of the Tropical Tuna Resources of the Eastern Pacific," 1955 Rome Papers 194, 207, note 42, supra.

[59] Comparing the environment in which future increases in fishing production must occur with that in which past increases have taken place the FAO observes:

> In other parts of the Northern Hemisphere and in the Southern Hemisphere, not only are the relations between land and water masses entirely different . . . but the expansions and technical changes must be of such novelty that often they will be beyond the capacity of the present industries. Moreover, the potential demand, albeit tremendous when measured by the need, is still latent, dormant or frustrated by poverty; and production to the level of the theoretical total demand, and even to intermediate levels, is quite beyond the capacity of the independent limited activities of ill-equipped fishing populations.

FAO, Fisheries Division, "Improving the Fisheries Contribution to World Food Supplies," 6 FAO Fisheries Bull. 159, 168 (1953). For an emphasis on market problems see FAO, Millions Still Go Hungry 24-27, 50-53 (12th Rep. of the Director-General, 1957); U.N. Technical Assistance Program, The Economic and Social Development of Libya 49-54 (U.N. Doc. No. ST/JAA/K/Libya/3) (1953); Government of India Planning Commission, The New India 222-24 (1958); FAO Memorandum, "The Economic Importance of the Sea Fisheries in Different Countries" (U.N. Doc. A/Conf. 13/16) (1957) 1 Official Records 245, 249 (1958); Szczepanik, "Problems of Fish Marketing in the Indo-Pacific Region," 9 FAO Fisheries Bull. 85 (1956).

[60] Sources cited in note 59, supra.

importance for fishermen because the nature of the industry increases the difficulty of obtaining credit.[61] Assuming private funds were at all available, the problems of securing a loan are great because the fisherman has no land to mortgage and, in a hazardous occupation, "their boats are often uninsured because of very high insurance costs and thus cannot be used as collateral."[62] Moreover, with respect to government aid, the fishing industry in most of the states is a highly individualistic one, perhaps located in innumerable small communities along a coastline of hundreds or thousands of miles, and the problem of administering aid to an industry of this nature is most complicated indeed. As a result of these various factors, marine resources in many areas would be completely wasted if their exploitation were left solely to an adjacent state.

Since the depletion of a fishery from "overfishing" and the alleged "extinction" or "destruction" of certain species have been advanced as bases for exclusive and comprehensive claims to authority, both to exploitation and conservation,[63] more particular attention may be given to the extent of the scientific knowledge of these matters. The charge of "extinction" is most frequently made in political contexts, and, although some writers also use this term, it appears to have no basis in informed opinion.[64] That this allegation has no substance rests, in part, on the fact that a fish population is an open ended biological system which replenishes itself from the effects of losses. One qualified observer declares that:

> Over a reasonably long period of time the losses from the population must be balanced by accessions to the population, otherwise it would become extinct. When, however, the percentage rate of loss is increased, by whatever means, the percentage rate of accession to the population changes also, so that the population again tends to come into balance. . . . . It is the compensatory reaction of the fish population to the mortality produced by fishing which makes a fishery possible, so that the population comes into balance under the environmental conditions which include this predation by man. It is theoretically possible to impose so much fishing on a population as to drive it down below the magnitude at which such compensatory reaction can bring it into balance again—to drive it below its threshold magnitude for survival. I know, however, of no instance where this has been accomplished in a purely marine fishery. It appears that the threshold magnitude is almost always well below the population size to which it is economically possible to fish.[65]

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[61] FAO Fisheries Division, note 59, supra at 184-185.

[62] Woytinsky and Woytinsky, World Population and Production 724 (1955).

[63] For an illustration, see 3 Official Records 52, 154, 167-68 (1958) (Canada); 5 Official Records 6 (1958) (Peru), 11 (Monaco), 18 (Ecuador), 20 (Korea).

[64] "It may be agreed that for nearly all populations of organisms in the sea there need not be concern with protecting them against being driven to such low levels that they can never recover." Schaefer, note 42, supra at 16.

[65] Id. at 15.

Another expert put it even more categorically: "It appears to be impossible to exterminate a species or a fishery for profit, since the profit disappears before the fish is exterminated."[66] For practical purposes, there seems to be no gain in speaking of the extinction of a species of fish; the problem of overfishing arises long before extinction is a possibility.

Apart from the fact that scientists agree that it is wholly impractical to consider establishing a conservation program for an area of territorial sea, which as we have seen does not coincide with the range of movement of fish populations,[67] it is also pertinent, in further appraisal of the relevant facts, to inquire into the various conceptions of the goals of conservation and, accordingly, to consider what is known of the fluctuations in fish species in response to fishing. It will be seen that there are very substantial disagreements between marine biologists on this important point, and that some even question whether it is meaningful to formulate conservation objectives in terms of a biological limit upon the yield of a fish species. Thus, some scientists, possibly a majority, adopt the notion of "maximum sustainable yield" as the goal of conservation efforts and put forward biological criteria for determining such a yield.[68] Other scientists, however, deny that maximum sustainable yield can be, in a number of important instances, a realistic objective and assert, instead, that the desirable yield is an optimum one which is determined primarily by economic and social criteria. It is obvious that if scientists are still in such substantial disagreement on the biological bases of conservation

[66] Taylor, Survey of Marine Fisheries of North Carolina 319 (1951).

[67] "It may be presumed that neither conservation regulations nor the principle of abstention would be effective if applied to only parts of stocks of fish." van Cleve, note 41, supra at 50.

[68] The Convention on Fishing and Conservation of the Living Resources of the High Seas, adopted by the 1958 Geneva Conference, provides in Article 2:

> As employed in this convention, the expression "conservation of the living resources of the high seas" means the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products.

2 Official Records 139 (1958). Mr. Garcia-Amador, who participated in the 1955 Rome Conference on conservation, in the International Law Commission discussions, and in the 1958 Conference, assumes that "optimum sustainable yield" was intended to mean the same as "maximum sustainable yield." Garcia-Amador, The Exploitation and Conservation of the Living Resources of the Sea 140-143, 195 (1959). It is probable that this was the intended reference since the Report of the 1955 Rome Conference, from which the Convention derived the definition of conservation, makes no reference to factors other than biological. See Report of the International Technical Conference, note 44, supra. See also Opsahl, "Towards the Rule of International Law in High Seas Fisheries", 27 Nordisk Tidsskrift for International Ret 265, 286 (1957).

Possible alternatives did not go unrecognized in the preparatory papers for the Rome Conference. Although putting greatest emphasis on "maximum sustainable yield," which might sometimes require modification for economic considerations at least temporarily, Schaefer notes that some observers "assert" or "imply" that "it may be more desirable to maximize the net economic yield, rather than the sustainable total production." Schaefer, note 42, supra at 16-17.

there is little likelihood that non-scientists assembled in political conference would succeed in clarifying policy in the general community interest. In view of the importance of this point, not only because it casts further doubt on the usefulness of the territorial sea for conservation purposes but also because it raises questions about any fishery conservation program formulated solely in terms of biological criteria, various conceptions of overfishing may be reviewed in some detail.

A decline in catch per unit of effort has been advanced as one meaning of overfishing. However, despite its importance to those actually engaged in fishing, it is not usually adopted by scientists as an accurate index for the reason that a decline begins even with the very initial stage of exploitation and normally continues with any increase in intensity of fishing whatever the absolute level of intensity.[69]

Another, more frequently used, concept of overfishing relates to the notion of a fish population in equilibrium with its environment, including fishing mortality. In this sense the size of the catch in one year (C) may be equal to, or more than, or less than, a quantity representing the gain in the stock from recruitment (reproduction) (A) plus the growth in the stock (G), less the natural mortality (M). If the catch exceeds this quantity ($C > A + G - M$) then the stock available for the succeeding year is decreased; if the catch is less than this quantity ($C < A + G - M$) then the stock is increased; and if the catch is equal ($C = A + G - M$) then there is no change in the stock. If $C = A + G - M$, the catch "may be called the equilibrium catch, because it is the size of the catch when the population is in equilibrium with its environment, including predation by fishing."

> It is clear that under the same environmental conditions, except for the amount of fishing, equilibrium may be established at various levels of stock. Indeed it may be established at any level of stock between the maximum possible stock (when there is no fishing) and the threshold level for survival. The problem, then, is reduced to estimating A + G — M, the rate of natural increase (which equals the equilibrium catch) for various values of P [P signifies the weight of catchable stock] (and corresponding values of fishing intensity). Since the several terms are interconnected biologically, and some or all of them are determined by the density-connected controlling elements of the environment, there will, in general, be some maximum value for the equilibrium catch, the establishment of which is the primary objective of fishery conservation.
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> Although the estimation of the fishing intensity which will produce the maximum equilibrium catch is a central objective, a somewhat lesser

[69] Beverton and Holt, op. cit. supra note 36, at 390; Graham, "Concepts of Conservation", 1955 Rome Papers 1, 8-12, note 42 supra; van Cleve, note 41, supra at 53.

> objective may be more easily attained and may be of great immediate importance, that is, the determination of whether the intensity of fishing is above or below the level corresponding to maximum equilibrium catch. This does not necessitate estimating the equilibrium catch over a wide range of fishing intensities, but only determining whether an increase from the existing intensity will result in a decrease or an increase in the equilibrium catch. In the latter case, the population is being underfished (so far as maximum sustainable yield is concerned), while in the former it is being overfished, and conservation action is indicated.[70]

Another conception of overfishing has emerged which appears to differ fundamentally and radically from the preceding and to have extremely significant policy consequences. In order to avoid a lengthy explanation of an extremely complex topic, perhaps largely unfamiliar to lawyers, a brief quotation from a recent comprehensive study by Beverton and Holt will indicate both the major outlines of the new theory and the consequences of it:

> To summarize, we suggest that the concept of eumetric fishing provides a rational basis for the mutual adjustment of the two biological characteristics of fishing activity that can be varied by regulation, namely the fishing mortality coefficient F and the age of fish $t_{p'}$ at which that mortality first becomes effective. It leads to the eumetric yield curve as the generalised yield-intensity curve of a fishery, in which the value of $t_{p'}$ is not constant but is varied by changing the selectivity of the gear in such a way that it is eumetric (well balanced) with any value in F. For a single species, everything points to the conclusion that such yield curves have no maximum—not, at least, within the working range of F—but as $F \rightarrow \infty$ tend asymptotically towards a limit which is the greatest possible yield obtainable from the population.
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> . . . .
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> It is now possible to see the significance of the conclusion reached above that a eumetric yield curve for a single species almost certainly has no maximum at any finite value of F. It means that there is no biological criterion that can be used as a guide to where it would be best for a fishery to operate. Thus the maximum possible yield, i.e., the asymptote of the eumetric yield curve, can be attained only with an infinitely high fishing intensity and hence at a correspondingly high cost; it is therefore a totally unreal objective for regulation—not for any biological reason but on purely economic grounds. It seems that some sacrifice of yield must be made in order to reduce the cost of fishing to a level at which it is a reasonably profitable undertaking, and it is partly in terms of factors such as these—factors that we refer to, broadly, as economic and social—that the objectives of fishery regulation must be framed.[71]

It is thus observed that this theory of fishing differs fundamentally from the preceding one because it denies that maximum sustainable yield

[70] Schaefer, note 42, supra at 35-36. See also Graham, ed. op. cit. supra note 34, at 262; van Cleve, note 41, supra.

[71] Beverton and Holt, op. cit. note 36, supra at 376-77.

is a realistic biological criterion for determining the regulation of fishing effort.[72] Under the eumetric fishing theory the criteria for limiting fishing effort are economic, social and political, rather than biological.

It is not suggested that since no meaningful biological limit on yield exists there need be no regulation of fishing intensity. Indeed the recommendation is quite the opposite, because fishing, even on the eumetric curve, may lead to economic consequences as undesirable as those flowing from diseumetric fishing. Thus, while Beverton and Holt conclude that a maximum catch is a "totally unreal objective for regulation,"[73]

> . . . there is, nevertheless, a greatest yield that is economically possible to obtain, and it is instructive to consider for a moment what would happen if it were taken as the objective of regulation. For this strictly conservative purpose, regulation would be limited to ensuring that the selective properties of the gear were always eumetric with whatever fishing intensity was being exerted. The latter would not be regulated, and economic incentive would cause it to increase until a point on the eumetric yield curve was reached at which the profit margin was so low that the incentive no longer existed. This steady state would differ from that reached in the absence of regulation of any kind only in that the yield would be rather larger because the mesh size would be eumetric—it would in fact be the largest that could be obtained by economically independent industry. While such procedure would result in a greater supply of fish to the consumer, economic conditions in the fishing industry would, in other respects, be indistinguishable from those in an unregulated fishery. Conversely, it is well enough realised that the greatest catch per unit effort—and, roughly, the greatest rate of profit—is obtained by one ship alone exploiting the stocks, but of course, the total yield in such circumstances is minimal.
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> Thus we reach the conclusion that with a rationally adjusted fishing activity, i.e. with eumetric fishing, not only is it impossible to maximise both yield and working efficiency together, but if one is maximised the other is automatically minimised: it is difficult to visualise a situation in which either extreme would be acceptable as an objective for regulation, either to the industry or to society. We can find no peculiar virtue in conservation for its own sake, and believe that as a general principle it is misleading to regard conservation and economic management as two separate and independent functions of regulation, especially as to do so apparently leads, as we have shown, either to the former being regarded as obligatory and the latter voluntary, or, at least, to the former being assigned the greater weight on principle. Rather we would suggest that fishery regulation should be conceived on a broad enough basis to embrace biological, economic and social factors on, a priori, equal terms; it should have as its general objective the adjustment of these factors so that in each particular case the best balance is achieved between the benefits on the one hand to the producer, in the form of profit to the fish-

[72] Previous conceptions of overfishing are discussed in relation to that just mentioned in the text, id. at 389-92.

[73] Id. at 377.

> ing industry and a good living for fishermen, and on the other to the consumer, as a large and steady supply of fish at a reasonable price. This best balance we shall call a state of optimum fishing. . . .[74]

While it is possible to construct a curve that will indicate, "for any given cost of fishing, the mesh required to produce a yield of the greatest total value"[75] and to figure the optimum level of fishing for achieving "the best balance between the benefits to the producer and consumer components of the system to be regulated,"[76] this is not necessarily the level of effort which will give the best over-all results to a particular state interested in the fishing. As Beverton and Holt indicate, the need for food, or the necessities of the employment situation, or "the desire" to provide a reserve of ships and seamen "may call for a fishing intensity greater than that required for maximum profit."[77]

Certain limitations upon the eumetric fishing theory must be mentioned. In the first place it is constructed upon the basis of observation of two types of fish, the plaice and the haddock, caught with gear which can be manipulated to alter the age at which fish can be caught, and the theory is worked out on the basis of a single fleet fishing a single species using gear of the same selective properties. In practice the fisheries are likely to be very different but the eumetric theorists still believe it is possible to base their regulation upon eumetric theory even though the results may not be as great because additional factors require deviations from the eumetric theory. It appears that if gear selectivity may not be manipulated so as to control the age of fish at entry into the exploited phase there is no basis at all for an application of the eumetric theory.[78]

The foregoing discussion would seem to indicate grounds for considerable doubt about the value of conservation programs which assume that maximum sustainable yield, according to biological criteria, is a meaningful goal. Nevertheless, it is commonly taken as a desirable conservation objective, and it is, therefore, relevant to consider opinions about

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74 Id. at 377-78.

75 Id. at 383-84.

76 Id. at 385.

77 Id. at 386. If the fisbery to be regulated is one in which "profit per vessel rather than total profit is the critical factor" it is one which "presents the essentials of the differences between biological conservation and economic management in their simplest form. There are, in fact, only four primary factors involved in the regulation of such a fishery, (a) the quantity of fish supplied to the consumer, (b) its price, (c) the number of fishermen and vessels engaged, and (d) the profit to the individual owner-fisherman. Apart from maintaining eumetric fishing, regulation in this case involves ultimately, adjustment of the number of vessels so that the most acceptable compromise is obtained between these four inter-related factors, and no general statement can be made about where the optimum lies." Ibid.

78 The theory of eumetric fishing in terms of regulation is discussed in detail, id. at 370-418, and given practical application to North Sea demersal fisheries, id. at 419-36. The limitations mentioned in the text are fully acknowledged in this discussion.

the kind and level of information required for a determination that a fishery is being overfished. It has been asserted that the conclusion that a population is being overfished may be reached "in many cases" without reference to detailed information concerning recruitment, growth and natural mortality.[79] Indeed, certain international regulations have been instituted with favorable results, without actually having this information. Schaefer notes that at the "first level of the investigation" of a fishery one may, for a period of years, obtain information as to "measurements of fishing intensity, size and composition of the catch, and, on the basis of these, inferences as to the effects of fishing on the stock and catch, and an estimate of the current status of the fishery in comparison with the condition corresponding to maximum sustainable yield"[80] and that "the simple examination of such time series, is, in many cases, adequate to indicate whether a stock is underfished or overfished. . . ."[81] The primary illustration given is that of the Pacific halibut fishery, the regulation of which consisted of the reduction of effort through a catch limit and which was followed by increases in total catch and in catch per unit effort.[82] Nevertheless, there has been considerable controversy about whether this increase in catch results from reduction in effort or from natural fluctuations in the halibut population.[83] Beverton and Holt apparently subscribe to the former opinion, but declare, nonetheless, that "the controversy is instructive in that it demonstrated that nothing short of a detailed analytical study of the factors responsible for the behavior of an exploited population can provide a sound basis for regulation or a means of ascertaining conclusively its true effects."[84]

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79 Schaefer, note 42, supra at 38.

80 Id. at 37.

81 Id. at 38.

82 Ibid.

83 Burkenroad, "Fluctuation in Abundance of Pacific Halibut" in A Symposium on Fish Populations, 11 Bull. Bing. Ocean. Coll. 81 (1948) contends that natural fluctuations were most important in accounting for the decline in catch per unit effort in the halibut fishery. Since the Pacific halibut conservation program has been regarded as the pre-eminent instance of a successful conservation program with respect to a high seas fishery, the implications of this study have been accorded considerable import; see Graham, ed., op. cit. supra note 34, at 264 and 412-13; Beverton and Holt, op. cit. supra note 36, at 24-26.

Burkenroad suggests that ". . . there is evidence that the abundance of various marine animals is much more strongly influenced by natural events than by man, cf. Huntsman, Prospects for More Fish, Canadian Fishermen (Feb. 1944). Therefore, too ready a resort to analogy with the case of the Pacific halibut would be undesirable even if this classical example of over-exploitation were unquestionable." 11 Bull. Bing. Ocean. Coll. 81, 83 (1948). More recently another observer states that "[t]he conclusions to be drawn from the Pacific halibut experiment remain quite uncertain and the validity of the theory of fishing to account for the facts is still in doubt." Huntsman, "Fishery Management and Research," 19 Journal du Conseil Permanent International Pour L'Exploration de la Mer 44, 51 (1953).

84 Graham, ed., op. cit. supra note 34, at 413. In a later publication these authors stated: ". . . Burkenroad is concerned rather with longer-term fishery-independent (i.e. 'natural') trends or oscillations. If the possibility of the occurrence of these be admitted, as we think it must be, it is equally true that great caution must be exercised in the interpretation of events during the experimental management phase; but even so, the

This latter point is of fundamental importance for it may be crucial to a policy determination. Of the various factors which affect fluctuations in fish population, man has control over only one, his own fishing effort.[85] If that effort has such an important influence on fluctuation that the total yield decreases with increased effort, there may be some point in regulating effort in some way; but if it is the natural factors which are decisive,[86] then there may be a positive loss in regulating effort since a reduction of effort could waste fish.[87] Certainly, the effort put into restricting the catch would be a great waste. In terms of biological problems, the scientific disagreement appears to center not only on whether biological criteria are meaningful but also, assuming fishing should be controlled for biological reasons, on the scope of information which should be gathered before the conclusion is reached that fishing has become that important. Either choice, whether of the simpler level of investigation referred to by Schaefer or the more complex one encompassing information on recruitment, growth and natural mortality, might result in a waste of fish. If fishing is excluded or restricted without adequate investigation of the natural factors affecting population fluctuations, the regulation may actually be premature and prevent a greater, but still rational, catch; if controls are delayed until the more complete investigation is completed it may be discovered that overfishing has in fact occurred and that the same catch could have been obtained with lesser effort if controls had been instituted.

A more general waste of resources is caused by measures which limit the efficiency of fishing vessels and thereby increase the cost of landing fish. Fishermen working in waters near a coast may, for effective fishing, have to proceed shoreward,[88] yet there may encounter the prohibitions of the coastal state rigorously enforcing exclusion from an area claimed as its territorial sea.[89] The result may be grossly inefficient

temporal coincidence of fishery limitation and a sudden change in the stocks in a favourable direction—and one, furthermore, which could not have been in any way foreseen by scrutiny of previous statistics—must be regarded, a priori, as unlikely. . . ." Beverton and Holt, op. cit. supra note 36, at 25.

85 Herrington and Kask, "International Conservation Problems, and Solutions in Existing Conventions," 1955 Rome Papers 145, 145-46, note 42, supra; Graham, "Over-fishing," 7 USCCUR 20-24.

86 Schaefer, note 42, supra at 23: "Where the degree of predation by man [in relation to magnitude of populations constituting the resource] is so low that the losses from the stock of commercial sizes due to fishing are small in relation to the losses due to natural causes, there is no need for conservation measures."

87 Poulsen, "Conservation Problems in the Northwestern Atlantic," 1955 Rome Papers 183, 183-84, note 42, supra; Kesteven and Holt, "Classification of International Conservation Problems" 1955 Rome Papers 350, 356, note 42, supra.

88 For detailed analysis of fishing methods and units see Bottemanne, op. cit. supra note 37, at 45-108.

89 For the fishermen the deprivation may be total, i.e., confiscation of vessel, gear and catch—and this is a common penalty.

since the fleet or fishing vessel must confine the search for fish or the actual fishing activity to areas in which fish are not so heavily concentrated.[90] This inefficiency may be increased if a fleet is unable to take advantage of recent developments indicating the "particular distribution the fleet must take up in order to obtain the greatest catch that is possible in the circumstances."[91] The requirement here is that the vessels are all located in a certain manner with respect to the density of the fish in the area being fished. Inability to disperse a fleet in this fashion could result in a much less productive use of available ships, gear and men.

Serious economic study of fisheries has only begun during the past few years; hence, it is not surprising that the knowledge needed to achieve a rational allocation of resources to fishery activity is not highly developed.[92] On the one hand, little or nothing is known regarding the capacity of states to divert resources from fishing to other areas of endeavour, although this is considered directly relevant to the appropriate allocation of fishery resources to particular states, if this be a desirable goal.[93] On the other hand, there has been some preliminary work with respect to the conditions required for securing the optimum economic yield from a particular fishery or fishing ground.[94] The desirable objective of fishery regulation according to economists, whose conclusions are in this respect quite similar to those of some biologists, is that of maximizing the net economic yield from a fishery.[95] The chief difficulty said to be

[90] ". . . [I]n practice vessels spend an appreciable amount of their time in searching for the highest concentrations of fish, especially in fisheries based on highly migratory species." Graham, ed., op. cit. supra note 34, at 438. See also Bottemanne, op. cit. supra note 37, at 73-108.

[91] Id. at 439; Holt, "Exploratory and Experimental Fishing," 9 FAO Fisheries Bull. 1, 15 (1956).

[92] 8 FAO Fisheries Bull. 226-28 (1955) indicates the need for more intensive work. And see Gordon, "The Economic Theory of a Common-Property Resource: The Fishery," 62 J. Pol. Econ. 124-25 (1954).

[93] It is clear from these examples alone that in order to assess the effect on national economies of most of the changes likely to occur in a fishery, one would need information on what is technically known as the mobility of factors, i.e., the costs involved in diverting capital, labour and other factors of production to other uses (and vice versa) and on the elasticity of demand. Hardly any such information is available and it is certain that much research would be needed to obtain it.
FAO Memorandum, "The Economic Importance of the Sea Fisheries in Different Countries" (U.N. Doc. A/Conf. 13/16) (1957) 1 Official Records 245, 249 (1958).

[94] The most ambitious effort with respect to an international fishery is that of Beverton and Holt, On the Dynamics of Exploited Fish Population 419-36 (1957), in application of the eumetric fishing theory. The authors note in such a fishery there are "matters of policy and administration to be considered in formulating a detailed plan of regulations" which are outside the scope of their discussion. Id. at 419.

[95] From the perspective of the economist "the optimum degree of utilization of any particular fishing ground . . . [is] that which maximizes the net economic yield, the difference between total cost, on the one hand, and total receipts (or total value production), on the other." Gordon, note 92, supra at 129. Beverton and Holt recommend as the "general objective" of fishing regulation" the best balance . . . between the benefits on the one hand to the producer, in the form of profit to the fishing industry

in the way of achieving this objective is that fishery resources are, for the most part, common property. One commentator observes that "[t]he core of the 'overfishing' problem inheres in the fact that the basic resource is incapable of ownership in any meaningful sense."[96] It is said that "most of the problems associated with the words 'conservation' or 'depletion' or 'over-exploitation' in the fishery are, in reality, manifestations of the fact that the natural resources of the sea yield no economic rent."[97] The solution suggested is that fisheries must be the object of sole ownership if the optimum economic yield is to be obtained.[98] Thus, "[i]n the case of fisheries like the North Sea or the continental shelf and the New England states, no other conclusion seems possible but that the fishery resource must be considered as the property of a general governmental authority. Such an authority must be able to regulate its exploitation in such a manner as to achieve desired objectives."[99]

It is perhaps inevitable that if some type of sole ownership of the resource is desirable for achieving economic objectives, the economists would look to the extension of the territorial sea as one way of simplifying very complex problems. This possibility has, in fact, been mentioned in a most tentative and exploratory fashion:

> We will probably encounter these [economic] questions first in the shape of the territorial waters issue. A great extension of territorial waters recognized in international law would convert international fisheries into national ones and to that extent it would ease some of the practical problems of fisheries management. Such a solution has many difficulties, however, especially for a region such as the North Sea, and it is by no means certain that in the long run it would be the best solution of the problem.[100]

As we have seen, the extension of the territorial sea would have to be "great" indeed if this were to convert entire fisheries from inclusive to exclusive access.

As already mentioned, some marine biologists also emphasize the relevance and decisiveness of economic and social factors in regard to

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and a good living for fishermen, and on the other to the consumer, as a large and steady supply of fish at a reasonable price." Beverton and Holt, op. cit. note 94, supra at 378.

[96] Crutchfield, "Common Property Resources and Factor Allocation," 22 Can. J. of Econ. and Pol. Science 292 (1956); Scott, Natural Resources: The Economics of Conservation 62-4 (1955).

[97] Gordon, note 92, supra at 124. For a later expression of Professor Gordon's views see Gordon, Obstacles to Agreement on Control in the Fishing Industry, in Turvey and Wiseman, The Economics of Fisheries 65 (Proceedings of a Round Table organized by the International Economic Association and held in Rome in September, 1956, sponsored by the FAO.)

[98] Gordon, note 92, supra at 135; Scott, op. cit. note 96, supra at 126; Scott, "The Fishery: The Objectives of Sole Ownership," 63 J. Pol. Econ. 116, 124 (1955).

[99] Gordon, note 97, supra at 66.

[100] Id. at 72.

appropriate conservation criteria. Thus, Beverton has noted with respect to eumetric fishing, in which intensity and mesh size are coordinated:

> The point on the eumetric yield curve at which it is best for the fishery to operate—the optimum fishing intensity—does not correspond to the maximum yield nor is it determined by any particular biological criterion, but must be decided purely with reference to economic factors and administrative policy.[101]

Nevertheless, it is evident that a majority of conservationists, and apparently the representatives of states, are still preoccupied with maximum sustained use as the appropriate goal of regulating a fishery.[102]

It deserves reemphasis that there is a seeming consensus among economists that the goal of "maximum sustained yield" postulated by the conservationists is not necessarily economically sound. Professor Ciriacy-Wantrup focuses the problem sharply:

> In the high seas fisheries, maximum sustained use is a meaningful economic objective only under the following three assumptions: First, there is a maximum harvest (use) which can be taken periodically without affecting the natural flow. Second, it is not economical to increase or stabilize . . . the natural flow and the corresponding harvest by inputs . . . Third, costs for harvesting and demand for products are such that it is not economical to take less than the maximum harvest under natural flow conditions.
>
> It is conceivable, though not likely, that these assumptions may be fulfilled in reality.[103]

As we have seen in the foregoing analysis of the various and divergent conceptions of overfishing, the first of Professor Ciriacy-Wantrup's assumptions may be valid from a biological perspective. The third assumption apparently has very little foundation. Professor Gordon, who has "pioneered" in the subject of fishery economics, declares:

> It is my belief that most conservation policies that are now in operation fail to achieve a rational economic objective and many of them are detrimental to the progress of the fishing industry, the incomes of fishermen, and the welfare of society.
>
> The most important reasons, I think, why even carefully designed conservation policies have often failed to achieve rational economic objectives is due to the failure to appreciate the nature of economic objectives and to see the significance of the common property nature

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101 Beverton, "Some Observations on the Principles of Fishery Regulation," 19 J. du Conseil Permanent International pour L'Exploration de la Mer 56, 67 (1953). One economist refers to the following publications by biologists as "remarkable efforts" in extending "thought into the economic sphere": Nesbit, Fishery Management, U.S. Fish and Wildlife Service, Special Scientific Reports No. 18 (1943); Taylor, Survey of Marine Fisheries of North Carolina (1951); Beverton, supra; Burkenroad, "Some Principles of Marine Fishery Biology," 2 Publications of the Institute of Marine Science No. 1 (1951); Gordon, note 92, supra at 124 and note 3.

102 See the criticism of Prof. Gordon quoted in note infra 104 and accompanying text.

103 Ciriacy-Wantrup, Resource Conservation—Economics and Policies 60-1 (1952).

> of fishery resources. No strong argument can be made for the point of view, widely held by biologists, that the objective of fishery conservation policy is the maintenance of the maximum sustained physical yield from the resource. Such an objective neglects altogether the fact that in order to catch fish we must use up other valuable goods and services.[104]

When the costs of obtaining the maximum sustained yield are considered, it is likely that all participants would be better off by taking a lesser yield.

B. The Territorial Sea and Security

The military implications of the territorial sea must be viewed in a more impressionistic fashion than those regarding fisheries, since the subject has received less general inquiry. Perhaps the most important considerations relate to the evolution of modern weapons of naval warfare and to the degrees of intensity in the expectations of violence.

The most striking characteristics of modern naval weapons are the scope and intensity of destruction attainable and the range from which that destruction may be inflicted. The first of these stems from the development of nuclear weapons; no other destructive device used in the past even remotely compares to the comprehensivness of the damage obtainable by fission and fusion devices. The contrast with traditional naval power is spectacular:

> Indeed, on a single modern carrier, in the space of a few steps, one could walk about and pat the lethal warheads of weapons whose destructive power exceeded all the ordnance the U.S. Navy had exploded in its entire history.[105]

This tremendous destruction may be inflicted at great distances from the ships carrying the weapons. Modern jet aircraft, operating from aircraft carriers, extend the threat of naval vessels for hundreds of miles. Moreover, even aircraft of supersonic speed provide only a rough measure of the speed and range of modern naval weapons since aircraft are rapidly disappearing as a weapons system and will be progressively replaced by missiles with ranges in the thousands of miles, moving with fantastic speed. The deadliness of naval warfare is

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[104] Gordon, note 97, supra at 68. In giving substance to his strictures Prof. Gordon continues:

> Neglect of the cost side of the question has had the result that certain conservation programmes are regarded as successful by biologists when from the economic point of view they are palpable failures. The most conspicuous case in point is, I think, the Pacific halibut programme. This programme has been hailed many times as the outstanding case of successful fisheries conservation policy, yet I feel quite certain that it must go down in the economic annals as one of the clearest cases of failure.

Id. at 69. See Crutchfield, note 96, supra who also contends that the effect of conservation measures in the Pacific halibut industry has been wasteful in a measurable degree.

[105] Cagle, "A Philosophy for Naval Atomic Warfare," 83 U.S. Naval Institute Proceedings No. 3, 249, 251 (1957).

heightened even further by the use of missile-firing vessels which are virtually undetectable. Submarines used for missile-firing may operate wholly under water for substantial periods of time and can fire missiles while submerged. The value of this combination of destructive device and delivery systems is clearly seen in the emphasis on submarines as a component of Soviet naval strength,[106] and in the recent stress in the United States Navy both upon improved measures of anti-submarine warfare and upon missile-firing subs.[107]

These revolutionary developments in weapons and delivery systems are incredibly expensive and only a few states have the resources, technological capacity and skills required to evolve naval power with such speed, destructive capacity and range. For the vast majority of states the conventional weapons of traditional naval power continue to comprise the major components of national naval strength.

The level of intensity in the expectations of violence is often said to be a relevant factor for considering the breadth of the territorial sea. It appears to be widely assumed that agreement on a particular width during times of "peace," when expectations of comprehensive violence are relatively low, would be observed also in wartime when violence is imminent or actually being employed.[108] If such an assumption is valid, and it has been for the most part in the past, it means that belligerents must abstain from hostile acts in the territorial sea of neutrals and must not seek to use such waters in order to gain an advantage over an opponent. The neutral's duty, on the other hand, is to attempt to prohibit the participants from so using the territorial sea.[109] It has been thought that the wider the territorial sea the more easily an unscrupulous participant can abuse the neutrality of the non-participant and the more difficult the task of the non-participant to prevent such abuse. It is said, further, that the scrupulous participant, who feels bound to observe the amenities of neutrality, would be placed at a grave disadvantage by

106 Macintyre, The Soviet Submarine Threat, The Soviet Navy 168-86 (Saunders, ed., 1958); Garthoff, Soviet Strategy in the Nuclear Age 202-05 (1958); N.Y. Times, March 15, 1959, p. 65, col. 1.

107 Brinkloe, "Missile Navy," 84 U.S. Naval Institute Proceedings No. 2, 23 (1958). See also Brodie, A Guide to Naval Strategy 16-73 (4th ed. 1958) for review of the impact of technological changes since World War II.

108 Concern about neutrality problems was evident in the deliberations of the 1930 Codification Conference and apparently played a part in the inability of the participants to reach agreement on the width problem. See Conference for the Codification of International Law, Report of the Second Commission (Territorial Waters) p. 123 (L.N. Pub. No. C.230. M. 117. 1930. V).

109 The scope of neutral authority and obligations is examined in MacChesney, "The Altmark Incident and Modern Warfare—'Innocent Passage' in Wartime and the Right of Belligerents to Use Force to Redress Neutrality Violations," 52 Nw. U.L. Rev. 320 (1957) and Tucker, The Law of War and Neutrality at Sea 218-42, U.S. Naval War College, International Law Studies, 1955) (1957).

a self-imposed restriction on taking action against an opponent seeking to secure an advantage in using the waters within the territorial sea of the neutral.[110]

One further fact of importance consists of the general expectation that a participant is authorized to take action against an enemy vessel, within the neutral territorial sea and using that area for non-permissible purposes, if the neutral is unwilling or is unable effectively to perform its duty to prevent that use.[111]

C. Ocean Transportation and the Territorial Sea.

For purposes of considering the effects upon economy in communication and transportation, it would finally be pertinent to know the location of the major maritime routes of the world. The important point is, of course, determining the distance from the coast at which ships move while in transit between foreign points. Statements have been made that a territorial sea of twelve miles would include many such routes at one point or another.[112] So far as is known no detailed study of this matter, except of a few areas, has been made and published, and it is probably possible to say that certain routes, at least, do normally pass within such a distance from shore.[113] This is of importance both to ordinary merchant vessels and to warships, but it has more significance in respect to the latter since there is a considerable body of opinion that this type of vessel has no right of passage through the territorial sea.[114] The effects of varying breadths of the territorial sea in terms of air travel would similarly be relevant, as it is universally conceded that, apart from agreement, planes have no right of access to the air space over the territorial sea.[115]

110 Dean, "The Geneva Conference on the Law of the Sea: What Was Accomplished," 52 Am. J. Int'l L. 607, 610-11 (1958); Dean, "Freedom of the Seas," 37 Foreign Affairs 83, 86 (1958).

111 See sources cited note 109, supra.

112 One member of the International Law Commission estimated that an extension of the territorial sea to twelve miles "would result in most of the maritime highways of the world falling within territorial waters." Statement of Faris Bey el-Khouri, 1 Yearbook of the International Law Commission 213 (1956).

113 At the 1958 Conference the United Kingdom is reported to have distributed charts indicating that a twelve-mile territorial sea in some parts of the world would include a "great number of important sea lanes. . . ." Sorensen, The Law of the Sea 195, 245 (Int'l Conc. Pamphlet No. 520) (1958). The effect of an extension to twelve miles would be especially felt in areas of complex water-land relationships, as in the Aegean and Adriatic Seas. It is understood that in the Mediterranean a twelve-mile territorial sea would reduce by over 50% the number of high seas passages between land masses.

114 It may be recalled that the International Law Commission had recommended a right of innocent passage for all ships, but had also recommended, in Article 24, that coastal states should have a right to require previous authorization or notification from warships seeking to pass through the territorial sea not within straits. The First Committee of the 1958 Conference adopted the Commission's recommendations but in Plenary Session the words "authorization or" were deleted, with 45 voting in favor of deletion, 27 against, and 6 abstentions. Subsequently, Article 24, as amended, failed to receive the two-thirds majority required for adoption by the Conference. See 2 Official Records 66-68 (1958).

115 U.S. Dep't of State, Pub. No. 2282, International Civil Aviation Conference 59

II. The Pattern of Controversy: Claims and Counterclaims to Authority

The major claims advanced by states with respect to the width of the territorial sea, over which they demand comprehensive and exclusive authority, concern both the competence by which a lawful width may be determined[116] and the particular widths claimed.[117]

Of the claims relating to competence, the most far-reaching assertion is that each state is free, by its own exclusive decision, to fix the limit of its territorial sea at whatever width it deems necessary for accommodating its local needs, as it conceives such needs. This view, promoted most vigorously by the Soviet Union and the states in the Soviet bloc,[118] as well as by some South American states,[119] would, if generally accepted, make international law largely irrelevant; the function of international law would thus be exhausted by authorizing each state to determine its own boundaries, and other states, as representatives of the general community, would be required, in the modality of rubber stamps, simply to accept such determination. In opposition, the great majority of states insist that the width of the territorial sea, like other important problems affecting the common interest, must ultimately be determined by general community consensus and that, whatever width may ultimately be accepted, particular states are not free to appropriate a hitherto common resource without the consent of the other states to which this resource belongs.[120].

The claims relating to a particular width for the territorial sea commonly assert either that some particular width is required or permitted by customary international law, or that some such width ought now to be accepted by all states in explicit, multilateral agreement.[121] The range of these claims, historically, has been quite limited in the width

(Articles 1 and 2 of the Convention on International Civil Aviation, 1944); 9 Hudson, International Legislation 168, 169 (1950); Lissitzyn, International Air Transport and National Policy 365 (1942); 3 Official Records 90-1, 104, 137 (1958).

116 See sources cited notes 133-139, infra for instances of these claims.

117 The most complete summary of these claims is that produced by the U.N. Secretariat The basis document, apparently not reproduced in the Official Records, is U.N. Doc. No. A/Conf. 13/C.1/L.11/Rev. 1 (1958) with later corrections. Sorensen, note 113, supra at 244, contains a table derived from this document.

118 Specific illustration of this perspective is in International Law Commission, Summary Records (U.N. Doc. No. A/C.N.4/S.R.166/p.3) (1952); further illustration may be found throughout the Commission deliberations in the statements of Mr. Krylov and Mr. Zourek.

119 Pan American Union, Final Act of the Third Meeting of the Inter-American Council of Jurists 50-59 (1956).

120 For a concise statement see the remarks of Mr. Lauterpacht in I.L.C. Summary Records (U.N. Doc. No. A/CN.4/SR.166/p.7) (1952).

121 The records of the 1930 Codification Conference, the International Law Commission, the 1958 Conference and the notes from foreign office to foreign office are replete with instances of this claim.

demanded and the width most frequently insisted upon has been three miles.[122] Wider limits such as four, six, and in a very few instances, twelve miles, have, however, on occasion been claimed.[123] More recently, the principal controversy has been between those states asserting that international law permits no more than three miles and states contending that three miles is not an authoritatively accepted maximum limit. The latter have not, however, been able to agree upon a particular wider limit. The various proposals they have made have centered most frequently about six and twelve mile widths, but some have sought to establish a prescription of merely a minimum and a maximum width, with each state authorized to set a national limit within these figures.

In the efforts to achieve explicit agreement on a particular width for the territorial sea, claims relating to a recommended width are frequently accompanied by proposals which would make use of the historic safety valve function of the contiguous zone to provide for certain limited authority, primarily for fishing purposes, beyond the territorial sea. The object of such proposals is, of course, to satisfy the most pressing demand offered in justification of an enlarged territorial sea, by permitting extension of coastal authority for that particular purpose and, thus, preserving a narrow width for the territorial sea over which all-embracing coastal authority is exercised. Both states which propose the three mile limit and those which suggest a six mile limit have recommended that beyond these areas the coastal state should be authorized to extend exclusive access to fishing. For purposes of access to fisheries, the coastal state would be given a special exclusive authority beyond the territorial sea, thus limiting the extension of such authority over the passage of vessels but permitting greater control over fishing.

III. Community Policies at Stake

The most general problem in community policy may be recapitulated as that of achieving, through shared competence, an economic balance in effective protection of the inclusive interests of all states and the exclusive interests of particular states.[124] In seeking this accommodation, the

122 Among the many historical surveys see Riesenfeld, Protection of Coastal Fisheries under International Law 125-263 (1942); Jessup, The Law of Territorial Waters and Maritime Jurisdiction 3-66 (1927); Meyer, The Extent of Jurisdiction in Coastal Waters, passim (1937).

123 With particular reference to the relationship between the three and four-mile claims see Walker, "Territorial Waters: The Cannon Shot Rule," 22 Brit. YB. Int'l L. 210 (1945) and Kent, "The Historical Origins of the Three-Mile Limit," 48 Am. J. Int'l L. 537 (1954). For the historical development of United States claims to 1958 see Brief for the United States, United States v. Louisiana, — U.S. — (——) (No. 11, 1958 term; renumbered No. 10, 1959 term).

124 McDougal and Burke, "Crisis in the Law of the Sea: Community Perspectives versus National Egoism," 67 Yale L.J. 539, 567-70 (1958).

over-riding goal, as we have seen, is that of achieving the greatest possible production and widest distribution of values from the use of the oceans. The cumulative experience of several centuries clearly indicates that an optimum balance for achieving this over-riding goal must be heavily weighted in favor of inclusive competence and use and, accordingly, that the area of comprehensive exclusive authority should be confined within the narrowest possible limits. Realistic observation of relevant factors in contemporary context serves equally to confirm the probability that the greatest productivity is to be achieved by continuing to maintain the broadest possible inclusive use and competence. In view of current military technology and likely future developments in weaponry, it is clear that for security purposes the territorial sea is wholly irrelevant to exclusive interest. For fisheries the greatest need, from both inclusive and exclusive perspectives, is to increase productivity, but the indispensable bases for such an increase, the acquisition and wide distribution of scientific knowledge and skills, would be obstructed in a serious degree if states successfully assert demands for enlargement of the territorial sea. It seems beyond reasonable dispute, therefore, that the most promising strategy for protecting and fulfilling both inclusive and exclusive interests is by a narrow territorial sea. In support of this recommendation, we turn now to a detailed consideration of the factors relevant to a policy determination and the decisional trends concerning the two specific claims by states with respect to the territorial sea, dealing first with the claim to exclusive competence and then with the claim to establish a specific width.

IV. The Claim to Discretionary Authority to Fix the Width of the Territorial Sea

A. Relevant Policy Factors

The claim that each state is exclusively competent to determine for itself what area of territorial sea it needs for protecting its own exclusively determined interests would of course, if generally accepted, result in a complete disintegration of community authority. A state could justify its claimed width as lawful, irrespective of how exorbitant that width might be in terms of its consequence for others, solely by reference to its own egoistical views, realistic or unrealistic, of its exclusive interests. The chief difficulty with this conception is, of course, that such exclusive determination fixes not only the scope and content of local, exclusive interests, but also both the inclusive and exclusive interests of other states. Thus, for an illustration of the potential conflict of exclusive interest with exclusive interest, if two or more states make claim to the

same area of the ocean as within their territorial sea and if each state claims to be competent to decide what will satisfy its own interests, there is no possibility of ever achieving a resolution of the dispute short of a trial of strength.[125] Other conflicts, short of these most comprehensively incompatible claims, may be imagined which would produce similar difficulties in solution. If conflicts are not to be decided by relative strength, states must seek an accommodation of such conflicting interests; this, of course, is precisely what is sought by efforts to reach explicit consensus on the limits of the territorial sea. Hence, when the proposal for complete unilateral discretion is made in the context of just such efforts, as it has been, its latent effect, if not manifest purpose, must be that of completely destroying the question in issue. The end result of its acceptance could only be complete exclusive monopolization of the common resources of the ocean by states capable of the most effective grab. There can be little difficulty, therefore, in concluding that a desirable policy must reject the notion of an exclusive, unreviewable competence to determine the width of the territorial sea.

B. Trend of Decision

One of the few certain statements one can make about perspectives of authority relating to the width of the territorial sea is that there has never been a consensus to the effect that each state is free to determine a lawful width for itself, irrespective of the interests of other states. Some writers, but relatively very few, have taken a position honoring such exclusive competence.[126] States which have insisted upon complete exclusive discretion are a distinct minority and, indeed, the fact that two international conferences have considered this question within a thirty year period indicates the degree of consensus on the existence of some limit upon state discretion. The failure of these conferences to agree upon an explicit limit hardly demonstrates that states are generally believed to be completely free to adopt whatever width they please. This is evident because the notion of complete freedom is commonly put forward as a separate claim to authority on this problem and, just as commonly, rejected even though no prescription as to specific width is otherwise adopted. States replying to the questionnaire of the Preparatory Committee for the 1930 Conference made no statements indicating any belief in the desirability of unrestricted competence to determine

125 Id. at 565 n. 102 for a fuller statement.

126 Riesenfeld, op. cit. note 122, supra, surveys the views of writers back to 1800. Excerpts of the writings of the most noted commentators of the 19th and early 20th centuries are compiled in Crocker, The Extent of the Marginal Sea (1919).

the width of the terriorial sea.[127] Such declarations as did suggest emphasis on local needs were in every case qualified by a standard of reasonableness or by a reference to respect for the rights of other states. At the conference itself, only Spain spoke out for unrestricted freedom; all other states accepted the notion of an internationally established limit upon the breadth of the territorial sea.[128]

One of the most authoritative rejections of the claim that a state has exclusive competence to determine the width of the territorial sea is, of course, that of the International Court of Justice in the *Norwegian Fisheries* case.[129] It will be recalled that in their argument in this case the British suggested a whole series of very precise rules as applicable for determining the validity of the Norwegian system of straight baselines from which its territorial sea was to be delimited.[130] All these the Court rejected as expressions of authoritative international prescription; but the Court carefully and immediately added that this did not mean that the validity of the Norwegian delimitation was "not subject to certain principles."[131] In a statement notable for its generality of reference, the Court categorically stated:

> The delimitation of sea areas has always an international aspect; it cannot be dependent merely upon the will of the coastal state as expressed in its municipal law. Although it is true that the act of delimitation is necessarily a unilateral act, because only the coastal State is competent to undertake it, the validity of the delimitation with regard to other States depends upon international law.[132]

Nothing in the context remotely suggests that this declaration would not be regarded as relevant also to a claimed determination of the width of the territorial sea. The all-inclusive term "sea areas" would seem comprehensive enough.

Despite this unequivocal and authoritative declaration from highest authority, some states and certain members of the International Law Commission have continued to urge the view that the individual state is free to set whatever limit for the territorial sea it desires. At the very first meeting of the International Law Commission during which this issue was discussed several members declared that every state, in its discretion, was competent to fix the breadth of the territorial sea at whatever distance was felt to meet local needs.[133] The member from the

127 Conference for the Codification of International Law, Bases of Discussion 22-33 (League of Nations Pub. No. C.74. M. 39. 1929. V)
128 Id., Minutes of the Second Committee 27 (League of Nations Pub. No. C.351 (b). M. 145 (b). 1930. V)
129 Fisheries Case, Judgment of December 18th, 1951: [1951] I.C.J. Rep. 116.
130 Id. at 119-23.
131 Id. at 132.
132 Ibid.
133 I.L.C. Summary Records (U.N. Doc. No. A/CN.4/SR. 166/) (1952).

Soviet Union took the position, maintained consistently in one form or another throughout the Commission deliberations, and urged vigorously by the Soviet Union at the 1958 Conference, that it was a "sovereign right" of each state exclusively to determine the breadth of the territorial sea and that both "international practice" and "national legislation" recognized this.[134] In general, all states politically associated with the Soviet Union, with the possible exception of Poland, urged the same notion in all subsequent consideration of the issue. In the Commission, Professor Scelle appeared to be the only other member, at the fourth session, subscribing to this conception, stating that the only cognizable rule was that the territorial sea was the area which at any given time a state felt that it needed and that it could effectively defend.[135] All other members either contended that some specific limit was established in international law or that international law did not authorize exclusive determination by the coastal state.

Events elsewhere apparently had some impact upon later Commission discussion of this issue. The primary drive for an extensive enlargement of the territorial sea came from Chile, Ecuador and Peru,[136] and this issue became of very considerable interest and concern generally to American states. The Organization of American States, therefore, recommended the holding of a special conference of these states to consider the "System of Territorial Waters and Related Questions" and, pursuant to this goal, included this subject on the agenda of the Third Meeting of the Inter-American Council of Jurists which was held in Mexico City early in 1956.[137] In Resolution XIII, adopted with but one dissenting vote (the United States) and several abstentions, the Council "recognizes as the expression of the juridical conscience of the Continent," that "[e]ach State is competent to establish its territorial waters within reasonable limits, taking into account geographical, geological, and biological factors, as well as the economic needs of its population, and its security and

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134 Id., S.R. 168, 11.

135 Id., S.R. 166, 14.

136 For the text of national prescriptions, see U.N. Legislative Series, Laws and Regulations on the Regime of the Territorial Sea 4 (Chile), 13-14 (Ecuador), 38-9 (Peru). For the text of agreements between Chile, Ecuador and Peru concerning the extension of national sovereignty, see U.S. Naval War College, International Law Situation and Documents 1956, 264-79 (1957). The history and extent of these, and other Latin American, claims is given detailed treatment in Oda, "New Trends in the Regime of the Seas," 18 Zeitschrift für Ausländisches Öffentlisches Recht und Völkerrecht 61, 65-73 (1957). See also Garaioca, "The Continental Shelf and the Extension of the Territorial Sea," 10 U. Miami L.Q. 490 (1956). For a somewhat colorable account of legislation adopted by various Latin American states, see Pan American Union, Department of International Law, Background Material on the Activities in the Organization of American States Relating to the Law of the Sea 39-47 (1957).

137 An account of the organized regional consideration of this issue is given, id. at 2-12.

defense."[138] This was generally interpreted to mean, despite the reference to "reasonable limits," that the coastal state was exclusively competent to set its own limits for the territorial sea.[139] The United States made an express "declaration and reservation" to this resolution, noting that there had been "virtually no study, analysis, or discussion of the substantive aspects of the Resolution" and that "much of the Resolution is contrary to international law."[140]

The Inter-American Specialized Conference on "Conservation of Natural Resources: The Continental Shelf and Marine Waters," for which the Mexico City meeting was supposedly preparatory, was held in March of 1956 at Ciudad Trujillo. Its final resolution differed considerably from that adopted in Mexico City in the preceding month.[141] Among other issues about which disagreement was recorded, the Conference Resolution expressly mentioned that "[t]here exists a diversity of positions among the states represented at this Conference with respect to the breadth of the territorial sea."[142] The Resolution concluded with the statement that the "[C]onference does not express an opinion concerning the position of the various participating states on the matters on which agreement has not been reached," and with the recommendation "that the American States continue diligently with the consideration" of the question of the breadth of the territorial sea.[143] The effect of this Resolution is to emphasize that Resolution XIII of the Mexico City meeting did not express a consensus among the American States; the Resolution also prompted a number of interpretative statements by various states. Mexico declared that the Principles of Mexico correctly stated the right of each state to determine the width of the territorial sea, while Costa Rica, Chile, Ecuador, and Peru stated that their affirmative votes on the Resolution were not understood to alter their domestic prescriptions.[144] In view of these statements the United States and Cuba declared that, in their view, the coastal state was not exclusively competent to determine the breadth of the territorial sea.[145]

At the 8th session of the International Law Commission the views of the American states such as Mexico, Peru, Ecuador and Chile appeared

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138 Pan American Union, Final Act of the Third Meeting of the Inter-American Council of Jurists 36 (1956).

139 Id. at 50-59 contains the texts of reservations to the above resolution, several of which indicate the prevalence of this interpretation.

140 Id. at 58.

141 1955-57 Inter-American Juridical Yearbook 261.

142 Ibid.

143 Id. at 261-62.

144 Id. at 262-63.

145 Id. at 265-66. For a general assessment of these conferences see Oda, note 136, supra at 87-91; Rieff, The United States and the Treaty Law of the Sea 309-15 (1959).

to find representation in the proposal by Mr. Zourek, of Czechoslovakia, that ". . . each coastal state was free to fix the breadth of its territorial sea according to its own needs. That was the principle he had formulated in paragraph 1 of his proposal, which he hoped would be accepted as a constructive solution to the problem."[146] Since this was the only proposal for complete freedom in the coastal state, it is desirable to refer to it in full:

> 1. Every coastal state, in the exercise of its sovereign powers, has the right to fix the breadth of its territorial sea.
> 2. Since the power of the coastal state to fix the limits of the territorial sea is limited by the principle of the freedom of the high seas, in order to conform with international law, the breadth of the territorial sea must not infringe that principle.
> 3. In all cases where its delimitation of the territorial sea is justified by the real needs of the coastal state, the breadth of the territorial sea is in conformity with international law. This applies, in particular, to those states which have fixed the breadth of their territorial sea at between three and twelve miles.[147]

Obviously, paragraphs 1 and 3 contained the crucial provisions and both were defeated.[148] The article in its entirety was rejected by 8 votes to 3, with 3 abstentions.[149] That the proposal as a whole was intended, despite the mention of a limit in paragraph 2, to permit exercise of exclusive coastal discretion by each state was made evident when its sponsor, Mr. Zourek, declared that he had voted against the proposal as a whole because the rejection of paragraph 1 meant that the "sense of the proposal was completely destroyed."[150] Mr. Padilla-Nervo, of Mexico, explained his affirmative vote with the curious remark that it "placed no limit on the territorial sea beyond what it was reasonable to claim;"[151] the proposal, of course, neither mentioned explicitly the standard of reasonableness nor, in any case, did it furnish any criteria for applying such a standard. It was certainly not intended that the "real needs" which "justified" a particular claim would be subject to review. In any event, the rejection of Mr. Zourek's article ended the effort to obtain Commission approval of an exclusive competence in the coastal state to fix the width of the territorial sea. The Commission's final recommendation on this, whatever its other deficiencies, constituted an unequivocal determination that coastal competence was definitely limited by international law.[152]

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146 1 Yearbook of the International Law Commission 163 (1956).
147 Id. at 162.
148 Id. at 181.
149 Ibid.
150 Ibid.
151 Ibid.
152 International Law Commission, Report, Article 3 and Commentary, U.N. Gen. Ass.

Two major proposals, only one of which was permitted to come to a vote, were made at the 1958 Conference with the apparent objective of permitting unlimited discretion in the coastal state.[153] The Peruvian recommendation was largely adopted from the Principles of Mexico and was represented as having the "support of an important regional body,"[154] a statement another delegate refuted by referring to the Resolution later adopted at Ciudad Trujillo.[155] The proposal read:

> Each State is competent to fix its territorial sea within reasonable limits, taking into account geographical, geological and biological factors, as well as the economic needs of its population, and its security and defence. The States shall endeavour to fix the breadth of the territorial sea preferably by regional agreements.

There was very little debate on this proposal, or even mention of it, and it is not unlikely that the great majority at the Conference shared the opinion of the United Arab Republic delegate who classified the Peruvian article as "extreme."[156] The Peruvian delegate, while purporting to discern a general agreement among the states upon exclusive coastal competence, remarked that many proposals provided for specific limits on the territorial sea, and added that if the coastal state was competent to fix its own territorial sea it was "absurd" to require the concurrence of other states.[157] Since the really serious discussion at the Conference dealt with attempts to reach agreement on relatively specific limits for the territorial sea, quite clearly manifesting expectation of a requirement for obtaining the concurrence of other states, the "absurd" position, if the term is appropriate at all, was that of those who sought to establish the lawfulness of a unilateral determination of the territorial sea. Ultimately the trend of opinion became clear and Peru withdrew its suggested article, offering as an explanation that the Conference "had failed to study adequately the technical, biological and economic aspects of the law of the sea."[158] It is most doubtful that making good this failure would have gained any greater support for the major policy underlying the Peruvian article.

The Soviet Union recommendation had the benefit of more skillful

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Off. Rec.,11th Sess., Supp. No. 9, at 12-13 (A/3159) (1956) (hereinafter cited as 1956 Report)

153 3 Official Records 247, 233 (1958).

154 3 Official Records 151 (1958).

155 3 Official Records 37, 66 (1958). The Colombian delegate also pointed out that, in fact, only one-half the delegations at the Mexico City meeting had approved Resolution XIII as it pertained to determination of the teritorial sea. 3 Official Records 110 (1958).

156 3 Official Records 137 (1958).

157 3 Official Records 166 (1958). Naturally, if this was an "absurd" requirement there could be no operational meaning to the supposed condition relating to "reasonable limits."

158 3 Official Records 176 (1958).

drafting than that of Peru but fared little better and at no time seemed to be regarded as a serious alternative. The Soviet proposal read:

> Each State shall determine the breadth of its territorial waters in accordance with established practice within the limits, as a rule, of three to twelve miles, having regard to historical and geographical conditions, economic interests, the interests of the security of the coastal state and the interests of international navigation.

The crucial phrase here, obviously, is "as a rule." The Soviet delegate, when questioned, declared that it was "inserted . . . in order to allow for the possibility of making exceptions in special circumstances."[159] It thus became clear, despite the reference to three and twelve miles, that no limit was being suggested; this was confirmed in the statement by the Soviet Union, in answer to the inquiry as to who would be the judge as to the "special circumstances," that "there was no compulsory jurisdiction under international law."[160] In the Soviet view the appropriate procedure was that of "peaceful settlement according to article 33 of the United Nations Charter."[161] In short, the Soviet proposal meant that each state was to have exclusive competence to determine the breadth of the territorial sea. In view of the general concern for agreeing upon a relatively specific limit it is not surprising that this Soviet proposal was decisively rejected by the First Committee (44 against, 29 for, 9 abstentions).[162] Of the affirmative votes about one-third were from members of the Soviet bloc.[163] The same article was even more overwhelmingly defeated in the plenary session by a 47 to 21 vote, with 17 abstentions; about one-half of the favorable votes were from the Soviet bloc.[164]

C. Appraisal and Recommendation

The outcome of the 1958 Conference constitutes a clear rejection of the proposition that international law places no limit on state freedom to determine the width of the territorial sea, and this result appears completely sound from a policy perspective. The consequence is to focus

159 3 Official Records 108 (1958).
160 3 Official Records 169 (1958).
161 3 Official Records 169 (1958).
162 3 Official Records 177-78 (1958).
163 The Soviet bloc is here considered to include nine states—Albania, Bulgaria, Byelorussian S.S.R., Czechoslovakia, Hungary, Poland, Romania, Ukrainian S.S.R., and the U.S.S.R.

Not a single European state outside Eastern Europe supported the Soviet proposal. All of the remaining twenty affirmative votes came from five Latin American states, thirteen Afro-Asian (including Arab) states, plus Yugoslavia and Iceland.
164 Of the Latin American states only Chile, Ecuador and Peru maintained their adamant position upholding exclusive coastal competence. Only two Asian states (Burma and Indonesia) and five Arab states (Morocco, Saudi Arabia, Tunisia, U.A.R., and Iraq) supported the Soviet proposal. Yugoslavia and Iceland again voted for it. 2 Official Records 40 (1958).

attention even more intensely upon the extent of agreement upon variously mentioned explicit limits for the territorial sea. As will be seen, the Conference requirement for a two-thirds majority was not attained with respect to any particular limit, but this, in view of the votes upon the Soviet proposals, does not suggest the conclusion that states are therefore considered free to fix the limit of their exclusive authority. This appears as the major significance of the heavy majorities against the Soviet proposals.[164a]

V. The Claim to a Particular Width for the Territorial Sea

A. Relevant Policy Factors

The most important policy question arising from contemporary controversy is whether the rapidly growing need for food and for general economic development in particular states is, or could be, served by any specific, generally applicable width for the territorial sea.[165] There is, as has been seen, no question as to the necessity for remedying chronic food shortages in populous parts of the world, nor is there much doubt that fishing resources might be developed to aid in alleviating these shortages. Similarly, the necessity for growth in the economies of a great number of states is widely accepted. The question remains, however, whether some agreed-upon width for the territorial sea could be made to contribute to achieving a greater production of food from the sea or a more effective economic development. This question must be faced, even though an area for exclusive fishing exploitation could be created by honoring a new "contiguous zone" rather than by extension of the territorial sea, because a considerable number of states have

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164a The Soviet Union nevertheless continues to insist it is a "rule of international law" that the coastal state is exclusively competent to determine its own limits. In the discussion of the Sixth Committee of the General Assembly, concerning the convening of another conference to attempt to agree upon the width issue, the Soviet delegate declared:

> The proposal for a six-mile limit, as also the proposal for a three-mile limit, disregarded the basic and well-known principle of international law acording to which each State determined the breadth of its territorial waters, having regard to historical, and geographical conditions, economic interests, the interests of the security of the coastal state and the interests of international navigation.
>
> The fact that no decision had been reached at Geneva regarding the breadth of territorial waters in no way signified, as some had tried to contend in the Committee, that a state of juridical vacuum had been created. The principle of international law to which he had referred, which had been supported at Geneva by the Soviet Union and other States, already constituted a rule of international law, whether some Powers liked it or not."

U.N. Gen. Ass. Off. Rec., 13th Sess., Sixth Committee (Legal Committee) 164 (U.N. Doc. No. A/C.6/SR. 583/Rev. 1) (1958).

The Soviet delegate added that, in his government's view, certain Powers had attempted to "impose" a six-mile territorial sea at Geneva.

165 Many arguments for a twelve-mile limit invoke these necessities as primary justification. See notes 255-257, infra and accompanying text.

demanded a wider territorial sea than was formerly claimed, for the express purpose of securing greater exclusive access to offshore fishing. Opposition to these claims has rested upon two primary bases: first, that the establishment of larger exclusive fishing areas is not desirable, and, second, that even if such establishment might be desirable, there are more economic ways of accomplishing it than by an extension of the territorial sea. We shall discuss these grounds in opposition seriatim.

For the most part all the limits suggested for the width of the territorial sea have been in terms of specific distance in miles, ranging from three to twelve.[166] The expansive limit of 200 miles claimed by Chile, Ecuador, and Peru, has, as will be indicated later, failed to gain acceptance. The difficulty with all the specific limits proposed from time to time is that none of them bears any relationship, except in certain very limited instances, to the range within which fish stocks move in adjacent waters.[167] The difficulties this poses will be examined in more detail below, but it may be noted here that only one determinable limit appears to have such a relationship, and even this limit does not hold for all species of fish. The most important food fish are commonly found, as has been indicated, in the relatively shallow waters above the continental shelf. Hence, if the territorial sea were to be demarcated as the outer limit of the shelf, it would encompass a substantial part of the presently exploited fish populations of the world.[168] There have been unsuccessful efforts within countries to secure adoption of legislation to this effect, as with respect to certain waters off the Alaskan coast.[169]

The solution of employing the outer edge of the shelf as the boundary of an exclusive fishing area or of the territorial sea would, however, appear wholly inadvisable. Among the many reasons for this is the major one that it would most likely result in a greatly reduced production of fish

[166] Of all the proposals submitted to the 1958 Conference only two, those of Peru and the Soviet Union, would have sanctioned greater distances. The method proposed, that of recognizing an exclusive discretion in the coastal state, was rejected, as we have just indicated.

[167] This statement is true both in the sense that fish move laterally along a coast from the waters adjacent to one state to waters adjacent to another state and in the sense that the outer limit of the territorial sea does not mark the outer limit of the range within which fish move. See sources in notes 37-38a, supra and accompanying text. See also United States, Memorandum on Certain Aspects of United States Policy Regarding the Conservation of the Resources of the Continental Shelf and Marine Waters 6 (Doc. No. 31, Inter-American Specialized Conference on Conservation of Natural Resources: Continental Shelf and Marine Waters) (19 Mar. 1956); Sette, Living Resources of the Continental Shelf and Their Utilization and Conservation 3 (1956).

[168] Of course, even this is relatively meaningless since fish also move laterally. Furthermore, every important pelagic species, such as tuna, roam over vast areas of the ocean. See Schaefer, "The Scientific Basis for a Conservation Programme," 1955 Rome Papers 14, 23, note 42, supra.

[169] Oda, note 136, supra at 62-5; Leonard, International Regulation of Fisheries 121 (1944).

if it could be enforced.[170] It is not likely that very many coastal states either have the capacity to exploit such an area effectively or could dispose of the fish economically, if a full and rational catch could be made by each state. There is also grave doubt that any single state, with very few exceptions, ought to seek, in the economic allocation of its total resources, to devote such resources to fishing on the scale that would be required effectively to exploit the fish stocks of the continental shelves.

One of the arguments most frequently made for the various suggested widths of the territorial sea is that exclusion of foreign fishing vessels, operating with modern and efficient gear, will prevent "destruction," "extinction," "depletion," or "over-fishing" of adjacent fish stocks.[171] Apart from the fact that these allegations are very seldom accompanied by any semblance of evidence supporting the conclusion of overexploitation[172] (other than a showing of a possible decline in catch per unit effort, which scientists do not accept as decisive proof of overfishing),[173] the claimed width for the territorial sea, whether six, nine, or twelve miles, offers no solution to the problem which is alleged. The reason for this is

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170 Another scarcely less important factor, which needs explicit mention, consists of the requirements of investigation for scientific purposes. See FAO, Millions Still Go Hungry 65 (12th Report of the Director General, 1957).

171 Destruction is mentioned by numerous commentators. See, e.g., Riesenfeld, Protection of Coastal Fisheries under International Law 282 (1942); Leonard, op. cit. note 169, supra at 1; Rieff, op. cit. note 145, supra at 30. The latter also refers to the possibilities of "irreparable damage" to "invaluable resources." Id. at 45.

There seems little doubt that biological opinion would not support these conclusions except, perhaps, in regard to salmon, which is anadromous and not comparable to other species. Schaefer states:

> It may be agreed that for nearly all populations of organisms in the sea there need not be concern with protecting them against being driven to such low levels that they can never recover.

Schaefer, note 168, supra at 16.

The degree of realism in fears of "destruction" or "extinction" is perhaps more clearly indicated by the FAO prediction: ". . . it seems unlikely that production from any of the existing fisheries need fall substantially and permanently below their present level of production," and where elements of overfishing are noted, ". . . even these could . . . be held at present levels by appropriate adjustments of the fishing effort." FAO Fisheries Division, "Improving the Fisheries Contribution to World Food Supplies," 6 FAO Fisheries Bull. 159, 170 (1953).

"Depletion" and "overfishing" are, on the other hand, accepted as biological possibilities, and some fisheries are thought to display symptoms of overfishing. Graham, ed., Sea Fisheries 50 (1956); Beverton and Holt, On the Dynamics of Exploited Fish Populations 24-5 (1957).

172 With respect to the most vigorous complaints, i.e., those of some Latin American states, the United States noted at the Ciudad Trujillo Conference in 1956 (the Inter-American Specialized Conference) that:

> It has been alleged that the activities of commercial fishing interests are bringing about the destruction of fishery resources. But is there any substantiating evidence to show that any of the major stocks of fish of international interest off the coasts of the Americas have actually suffered depletion as a result of fishing activities by vessels of countries not adjacent to those waters. If such evidence exists it should be brought forward.

United States, Memorandum, note 167, supra at 6.

173 This is not considered a reliable indicator by itself. See Beverton and Holt, op. cit. note 171, supra at 390; Graham, "Overfishing," 7 UNSCCUR 20, 21-22 (1951); Graham, op. cit. note 171, supra at 262-63.

that the area which would be included within the territorial sea so expanded would still not include the whole area within which the exploited stock or stocks range. It is probable that there are only a very few areas in which fish are concentrated so close to shore and do not migrate beyond such limits or beyond the lateral boundaries of the state. Insofar as has been discovered, biological studies have all centered upon particular species and upon the area inhabited by such species, and not upon a given area which might coincide with the preferred limits for the territorial sea. No scientific suggestions for the control of exploitation have been formulated in terms of specific zones without regard to pertinent biological facts pertaining to the species in question.[174] It is abundantly clear that no effort at control could succeed which asserted exclusive exploitation over only a part of an area within which an exploited species moves, leaving the remainder of the area in which the fish are found open to intensive, unregulated use.[175] A rational plan for controlled use could hardly be constructed in such a piecemeal fashion. By itself, therefore, no width of the territorial sea, or exclusive fishing zone, in terms of specific arbitrary distances in miles, can be said to serve a community policy directed at prevention of a waste of resources due to overexploitation.

This conclusion is not altered by the testimony of the few economists who have studied the economics of fisheries and who have testified that "sole ownership" or a "unified management" is the first step in dealing with the problem of overfishing.[176] It will be recalled that these economists have stated that the only possible way to achieve rational exploitation is to establish control over all of the fishery so that the benefits of conserving use will accrue to those who practice it rather than being dissipated by additional, uncontrolled fishing. But, again, this sole control is not achieved, or achievable, by establishing an exclusive fishing area

[174] Obviously, there have been suggestions which have purported to discover a relationship between biological systems and a particular limit for the territorial sea or exclusive fishing area. The best known of these, no doubt, is that of Chile, Ecuador and Peru, urging the existence of an ecological system embracing both the adjacent ocean area within 200 miles of shore and the bordering population and land masses. This was the scientific basis for the CEP claims. The United States refused to recognize the validity of such a concept. For the statement of opposing positions, see U.S. Department of State, Santiago Negotiations on Fishery Conservation Problems, 30-33, 36-41 (1955). Rieff, op. cit. note 145, supra at 307-09, summarizes these views.

The principle of abstention urged by the United States makes reference to exploitation of a stock of fish and not to the boundaries determined irrespective of factors related to the range of the particular species to which the principle would be applicable. See van Cleve, "The Economic and Scientific Basis of the Principle of Abstention" (U.N. Doc. A/Conf. 13/3) (1957) 1 Official Records 47 (1958).

[175] "It must be understood that both the scientific investigations and the subsequent management measures need to be extended over whatever area of the sea corresponds to the range of the populations in question." Schaefer, note 168, supra at 22.

[176] See notes 92-104, supra and accompanying text.

which does not correspond with the area occupied by the exploited species, and this is what would occur in most cases in fixing a three, six or twelve mile limit for the territorial sea. Economists suggesting that certain states have already taken this step by extending internal waters or territorial sea are for this reason incorrect.[177]

In any event the requirement that a fishery be subjected to a unified management by no means necessarily supports an argument that such management must be exercised by a single state for its own benefit; economists have been careful to point out that exclusively local, or coastal, control is not the only alternative.[178] If it is determined that the condition of a fishery required conservative use, it may be more economical to establish a management which, although unified, is nevertheless shared by several states fishing in an area; other factors obviously reinforce this desirability of shared competence and use. This seems substantially the purport of President Truman's proclamation in 1945[179] and seems to be the most fruitful method, if conservation is otherwise desirable. However this may be, it is nevertheless clear that any specified limits for the territorial sea are not necessarily justified by the necessity of single ownership or control in the sense urged by the fishery economists.

A final relevant point in this connection is that it may be undesirable from an over-all community perspective to undertake the organization of a nnified management of a given fishery or to establish a conservatory regime, even if it could be established through extensions of the limits of the territorial sea. There have been strong suggestions that the conservation measures promulgated to maintain the yield of the Pacific halibut fishery have resulted in a waste of resources,[180] and it has been

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177 Scott, Natural Resources: The Economics of Conservation 126 (1955) suggests that "appropriation of the fishery," which, as indicated in the text, is sometimes recommended as the first step in dealing with the overfishing problem, was the objective of certain "unilateral actions of Russia, Norway, Iceland and the United States, in declaring that certain offshore waters, formerly believed to be accessible to all nations, are in fact national property." Although the areas claimed are not specified it is very doubtful if they encompassed the whole of a fishery. Insofar as is known the United States has not claimed any waters beyond the territorial sea as "national property."

178 Id. at 126-27; Scott, "The Fishery: The Objectives of Sole Ownership," 63 J. Pol. Econ. 116 (1955). Professor Gordon's proposal regarding extension of the territorial sea as a method of easing the "practical problems of fisheries management" seems to have been intended primarily to promote discussion of possible alternatives and not as a considered solution. Gordon, Obstacles to Areement on Control in the Fishing Industry, in Turvey and Wiseman, The Economics of Fisheries 65, 72 (1957).

179 As will be recalled, the United States there offered to cooperate with other states in establishing conservation zones in areas contiguous to the United States where both American and foreign fishermen jointly engaged in fishing on a substantial scale. 59 Stat. 885-86 (1945), 16 U.S.C. § 741 (1958).

180 The major detailed attack by economists is that of Crutchfield, "Common Property Resources and Factor Allocation," 22 Canadian J. Econ. & Pol. Science 292 (1956) who enumerates what he regards as elements of waste in the halibut industry

further suggested that there is no "clear-cut evidence that halibut fishermen were made relatively more prosperous by the control measures."[181] Of more general significance is the assertion of Professor Scott that

> [s]ome assets, such as oil fields, fisheries and watersheds, occur on an immense scale, and it is a very real problem to know whether the efficiency gained from unified management provides a social gain sufficient to offset the possible dangers of the creation of some immense sole-ownership organization (such as a cooperative, a government board, a private corporation, or an international authority).[182]

The same general point was made by Burkenroad from a somewhat different perspective:

> Reduction of a stock below the level for maximum equilibrium yield thus has results which are clearly definable in terms of wasted effort. However, the social benefits of saving this effort by management are not so easy to demonstrate, . . .[183]

In other words, wholly unregulated exploitation may be more desirable in certain circumstances, or less undesirable, than attempts at planned use.

Perhaps the most important argument made for the extension of the territorial sea to a particular distance is that the coastal state needs to produce more food or employ more people or produce more savings (either from the fishing activity itself or from the land freed from agricultural production because of increased fish production), and that exclusion of foreign exploitation is necessary for this end. The assumptions underlying this argument, requiring examination, are several: that there

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and concludes that another result has been "a high amount of over-capacity in the entire Pacific Coast fishing industry." Id. at 295.

See also, for an appraisal of the Pacific halibut experience in terms of regulation for optimum fishing, Beverton and Holt, op. cit. note 171, supra at 394-95.

[181] Gordon, "The Economic Theory of a Common-Property Resource: The Fishery." 62 J. Pol. Econ. 124, 133 (1954). See especially note 104, supra. The general criticism of conservation measures on economic grounds seems even more cogent if the biological bases for conservation are subject to dispute and, as we have shown, there seem to be grounds for such dispute.

[182] Scott, note 178, supra at 116.

[183] Burkenroad, "Theory and Practice of Marine Fishery Management," 18 J. du Conseil Permanent International pour L'exploration de la Mer 300, 301 (1953). He sees one of the more significant disadvantages of management in the removal of initiative to develop fisheries in little-used stocks. Id. at 302.

Beverton and Holt disagree that management may not provide sufficient returns to justify the effort. They observe:

> There can be no reasonable doubt that management costs in the North Sea would be negligible compared with the benefit to the industry and to the community. Whilst agreeing that one important benefit would be an improvement in our knowledge of the interaction between man and his environment, we cannot concur with Burkenroad's belief that the net material gains would be small; on the contrary, though we do not hold out much hope of a greatly increased demersal yield, the landings would certainly be maintained with far less than the present effort. In this way not ouly would the demersal catch be made at much reduced cost, but ships and men would be released to intensify exploitation of the stocks of underfished species.

Beverton and Holt, op. cit. supra note 171, at 25-26. But see id. at 394-95.

are not, in the particular instance, enough fish to provide for local needs and the heavy demands of foreign fishermen, that exclusion of foreign fishermen would increase local production or employment, that local food production ought to be increased, or labor absorbed, through greater fishery activity in preference to investment in other local projects, and that foreign exploitation ought to be reduced to benefit local fishermen.

The first of these assumptions, that the supply of fish is not adequate, is all too often no more than a bare assumption, for there is very little indication that states claiming a widened territorial sea in order to obtain more fish or employment opportunities have ever made the studies and analyses necessary to establish either the identity of the exploitable fish populations in adjacent waters, or their probable size, or that the current or prospective level of fishing intensity is too great for the maintenance of a maximum yield.[184] Yet without investigations of this type, sometimes of a very complex character and extending over a considerable period of years, it is not possible to conclude that the maximum sustainable yield from the available resources is not great enough to satisfy present and future local and foreign fishermen. The complexity of the research required, and the time necessary for observation, are such that it is most improbable that even a sizeable minority of coastal states have made investigations of the character required.[185]

The same assumption appears further questionable, as a general proposition, because of the many difficulties previously mentioned concerning the determination of the effect of fishing on a particular stock or stocks.[186] Thus even if the required studies were made it might not be possible to conclude that fishing intensity was too high.[187] Apart from the difficulties of assessing the factors determining fish population it may be recalled that the possibility of cyclical variations in population size,

[184] There is no compilation or collection of information about the world's fisheries which would include an indication that, for particular fisheries, the available information was or was not sufficient for instituting conservation measures. The FAO is apparently engaged in such a compilation, but completion was reported in 1955 to be "several years" away. Kesteven and Holt, "Classification of International Conservation Problems," 1955 Rome Papers 350, 359. The major basis for the declaration in the text is that the intensive study required to develop significant biological information relating to these problems seems to have been pursued in only a few parts of the world.

It should be added that the economic data for determining the desirability of reducing the fishing intensity of certain vessels is probably nonexistent.

[185] For an indication of the possible time period involved and complexities in fisheries research see Foerster, "Prospects for Managing Our Fisheries," 11 Bull Bing. Ocean. Coll. 213, 216 (1948) and Merriman and Warfel, Studies on the Marine Resources of Southern New England VII. Analysis of a Fish Population, Id. at 131, 132.

[186] "The truth of the matter is that most of the major issues in fishing biology are still highly controversial. For example, there is no unanimity of opinion as to demonstrable instances of overfishing. We know only a modicum about the causes of fluctuations in abundance." Id. See also notes 39-49, supra and accompanying text.

[187] Some difficulties in drawing conclusions from data are summarized in Burkenroad, note 183, supra at 304-09. And see Graham, "Overfishing," 7 UNSCCUR 20 (1951).

over very long periods, have led some biologists to discount the effect of fishing as an important determinant of available fish stocks.[188] Moreover, it would seem to be of very considerable importance that, with respect to some demersal species, it may no longer be valid to conclude that there is a particular yield which is all the stock will bear.[189] If the eumetric theory could be applied, it might be that with appropriate adjustments in mesh size the fishery could produce even greater yields at current fishing intensity or even bear the burden of greater intensity. In the light of the eumetric theory, the argument that there is an inadequate supply of fish would be extremely difficult to support, and the coastal state would be required, instead, explicitly to face the problem of considering the economic, social and political factors which are relevant to the determination of how much effort should be exerted, and by whom, in fishing.

The assumption that the exclusion of foreign fishermen from an expanded territorial sea would increase local production or employment is somewhat more difficult to assess, but appears to be equally devoid of supporting evidence. The major point appears to be that preventing intensive fishing activity within an area where fish may be found in relatively dense concentrations results in a better catch by local fishermen or in encouraging the entry into fishing by nationals of the coastal state. Since exclusion does not by itself change the quantity and density of the fish in the area, the argument appears to be that by reducing the opportunity for use of the foreign, more efficient, gear, the catch of local fishermen may be increased, while effort remains constant, and costs thereby reduced. Exclusion of this kind perhaps does result in less intensive fishing when the more efficient foreign vessels and gear are prevented from operating in the most favorable fishing area which exists at a given time. Thus, the fishing vessel searching for the densest concentration of fish is hindered when this concentration appears to lie within an area from which it is excluded. The result is that during such a time period the vessel must continue to search beyond the territorial sea and to fish under what then may be the less favorable conditions. Despite many advances in method, finding fish in many areas is, to a considerable degree, a matter of hunting or chance, and exclusion of foreign fishermen lengthens the odds against a good find by relatively more efficient gear.

[188] The complexity of all the interdependent factors involved may also include long-term changes which might be of such magnitude as to invalidate any conclusions drawn about changes in the short run. Burkenroad, "Fluctuation in Abundance of Pacific Halibut," 11 Bull. Bing. Ocean Coll. 81 (1948), concluded that there was a "bare possibility . . . that fluctuation in the population of halibut on the western banks might be of a regular cyclical sort with a period of around thirty-four years." Id. at 120-21.

[189] Beverton and Holt, op. cit. supra note 171, 389-92.

Local fishermen, on the other hand, have the advantage of being able to search for and find fish wherever they occur in the best concentration; the chances of finding a good catch are increased when better gear is not competing on equal terms. As a result of the less intensive fishing effort it is possible that local fishermen might obtain a greater catch per unit of effort, resulting in less time away from port and a reduction of the cost of fishing. This may have several beneficial ramifications, such as reducing prices and increasing demand and, because of increased profits, encouraging more fishing by a greater number of fishermen.

If the handicap imposed upon foreign fishing does reduce fishing effort and permit good catches by local fishermen in areas relatively close to shore it may also have the important consequence of permitting use of less powerful and smaller boats. This might allow the expansion of local fishing since it reduces the investment required for equipment, including the necessity for refrigeration or for other methods of preserving fish.

There may be some situations in which all or most of a fishery is located within a territorial sea of twelve miles or less but these are probably far from common. In such instances, it is clear that coastal fishermen would have a relatively assured catch and foreign fishermen would be cut off altogether from fishing the stocks in question. The potential advantage to the coastal state is as obvious as is the deprivation to foreign fishermen accustomed to exploiting the area. Nevertheless, these instances are not numerous and they hardly constitute persuasive argument for a general extension of the territorial sea.

The major difficulty with this analysis relating to the increased local production or employment is that there is no assurance that any such increase will take place or even that it ought to take place from either local or general community perspectives. It is quite possible that no reduction in cost may ensue because the gear used by local fishermen is too inefficient to take advantage of the better opportunities, if indeed there are any; or the reduction may not reach such a magnitude that it has any effect in increasing local activity and production. Further, the fact that increased supplies are available does not mean that the fish will be caught—the market may not be such as to permit increased consumption.[190] In any of these events the major effect of exclusion would be to raise costs to foreign fishermen and, perhaps, reduce the total

190 Great significance is attached to the availability of a market. The FAO Fisheries Division refers to the "over-riding" importance of this factor as a deterrent to increased fishing exploitation. FAO Fisheries Division, "Improving the Fisheries Contribution to World Food Supplies," 6 FAO Fisheries Bull. 159, 182 (1953). See also Kirby and Szczepanik, Special Problems of Fisheries in Poor Countries in The Economics of Fisheries 83, 88 (Turvey and Wiseman eds. 1957), for an estimate attributing lesser significance to this factor.

production of food. In fact, if gear and boat efficiencies are different, the advantages given local fishermen may mean a waste of fish.[191]

Perhaps the most significant defect in the assumption under question is that, even if increased production or employment might be possible from a given case of exclusion, it does not at all follow that the coastal state ought to devote more resources to fishing or that these resources ought to be allocated to the particular fishery in question. Determining what type of productive activity a state should invest in is obviously a most complicated decision; it is here necessary only to note that the quantity of fish available is but one factor in such a determination. Similarly, the decisions as to what type of fishery should be developed and with what type of vessels and gear involve a series of complex factors.[192] It is significant, too, that in one study of factors relevant to this type of decision it was concluded:

> Political boundaries largely belong to the harmful institutional factors. By analogy with geographical obstacles, they may hamper the development of fisheries, because they cut markets and fishing grounds off from communities of fishermen and also hamper the spread of technical information and of entrepreneurial and organizational abilities. Fisheries in many South American states experience these and similar handicaps, due to the division of that continent into a large number of national units.[193]

Clearly, extensions of the territorial sea which provoke similar action by neighboring states may produce a net disadvantage. The conclusions from inquiries of this type would be expected to vary from state to state, depending upon a variety of value judgments and upon conclusions regarding the weight to be given the many factors involved. In general, however, in this as in many comparable situations, a policy of exclusive appropriation serves one state only so long as other states do not engage in a similar policy; the benefits to coastal states from increased production of fish or from greater employment are not necessarily to be expected merely from an enlargement of the territorial sea which excludes foreign fishermen from accustomed fishing grounds.

Even if it were desirable, from immediate coastal perspectives, that

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191 In particular instances, it is true, reduced production may be the price of better distribution and the latter may be a more appropriate community goal. Our point here is that universally applicable, enlarged exclusive fishing areas may lead to significantly less production for ultimate distribution. The possibility that in specific instances decreased production is desirable to obtain better distribution does not invalidate the major point. We would accommodate these specific situations where enlarged fishing limits seemed urgently required by recognition of limited exclusive authority in zones specially created for that purpose. See pp. 224-26, infra.

192 For a survey of factors, see Netherlands Economic Institute, The Development of Offshore Fisheries and the Economics of Choice (1958). For a more comprehensive treatment, see Bottemanne, Principles of Fisheries Development (1959).

193 Netherlands Economic Institute, The Development of Offshore Fisheries and the Economics of Choice 25 (1958).

local resources be invested in increased fishing activity, the result may be a net loss to the community and, in the long run, to the particular state. The question of the allocation of resources as between states, as it is here presented, is crucial when the issue is whether the fishing effort of one state ought to be displaced by that of another. If a decision of this type is to be rational, from general community perspectives, it must take into account the costs of diverting the resources of one state either into another fishery or another kind of productive activity relative to the gain anticipated by replacing such resources with those of another state. The relevance, and need for, this type of information has been emphasized in a study by the Secretariat of the Food and Agriculture Organization:

> It is clear from these examples alone that in order to assess the effect on national economies of most of the changes likely to occur in a fishery, one would need information on what is technically known as the mobility of factors, i.e., the costs involved in diverting capital, labour and other factors of production to other uses (and vice versa) and on the elasticity of demand. Hardly any such information is available and it is certain that much research would be needed to obtain it. If economic considerations were to be taken into account objectively in determining legal questions connected with the sea fisheries or in regulating these fisheries, there would be need for much greater knowledge of the relevant economic factors and consequently for a very great deal of economic investigations.[194]

It thus seems impossible to demonstrate, under current conditions, that local exploitation is more economic in either exclusive or inclusive interest than foreign, and there seems to be little reason that *a priori* assumptions should be accepted as guides to community policy.

The policy implications of this discussion may, accordingly, be briefly summarized. Because of the migratory nature of fish, it appears to be fact that no width for the territorial sea can make any particular contribution to the prevention of possible overexploitation of a particular fishery. Arrangements which are not coextensive with the range of the exploited stock or stocks cannot be expected to have predictable effects. If, further, a regime of unified management should be considered desirable, it is apparent that the region to be included cannot be effectively defined in terms of an area within a particular distance from one coastal state. These facts make it clear that no practicable, generally applied, breadth for the territorial sea can be designed which will promote a rationally planned exploitation—that is, an exploitation which secures a

194 FAO Memorandum, "The Economic Importance of Sea Fisheries in Different Countries" (U.N. Doc. A/Conf. 13/16) (1957) 1 Official Records 245, 249; see also Van Cleve, "The Economic and Scientific Bases of the Principle of Abstention" (U.N. Doc. A/Conf. 13/3) (1957) 1 Official Records 47, 55-56 (1958).

regulated yield with a view to maintenance of future benefits—of fishery resources of the oceans.

The question is, then, whether any generally applied width would permit community desired benefits to particular coastal states, although admittedly not as part of a planned, rational scheme, which would offset the losses, similarly of concern to the general community, to other states fishing in affected areas. Thus, the query is whether increased production of fish or increased employment in certain states is a desirable, and sufficiently likely, return in exchange for universally applicable restrictions upon the fishing activities of other states, and the consequent deprivation of inclusive and exclusive interests. With respect to desirability, it is very much open to question whether coastal states in general have attempted the kind of planning which would warrant the conclusion that increased production of fish or increased employment in fisheries represent well-considered priorities for allocation of available resources. Finally, concerning the possibility of rationally determining the efforts particular states should put forth with respect to particular fisheries, the present lack of information concerning the mobility of the factors of production makes it impossible to conclude that a particular instance of allocation is or is not economic. In this state of ignorance it is certainly permissible to doubt that the alleged benefits to coastal states will actually accrue in any substantial number of instances. Because of this lack of evidence demonstrating that the deprivations of other states and the general community is to be outweighed by the alleged gains for the coastal states, it seems reasonable to conclude that establishing a particular width, greater than the minimum all agree upon, for the territorial sea as a means of promoting increased fish production or greater use of labor in fisheries, is not a desirable community policy. From the perspective of fisheries, at least, maintenance of the oceans as accessible to the most open inclusive use, perhaps conditioned by agreed upon limitations on intensity where appropriate criteria so indicate, would appear, in the vast majority of instances, to promise more both in production of fish and employment than would restricting such area in any great degree. It bears emphasis again that division of the ocean into areas of exclusive use is a positive handicap to rational present and future uses since it obstructs the basic research work and experimental fishing which must be preliminary to development and, hence, may inhibit desirable development of the fishery when this stage is reached. It goes without saying, admitting the complexities involved, that where scientific studies so indicate and economic and social criteria approved by the community are in accord, appropriate conservation measures ought to be agreed upon.

While it is perhaps not a probable development, it might be wise community policy to establish procedures through which the area of exclusive access for fishing could be varied to take into account the needs of those few states which can justifiably demand a larger area than others. The problem here is in providing for a method of assessing the factors, by now familiar, relevant for determining the desirability of recognizing an enlarged exclusive area, including information as to the identity and size of the exploitable fish populations in adjacent waters, the effects of fishing, the likelihood of increases in production or employment, the elasticity of the primary market, the effects on foreign fishing, alternative fishing grounds, and so forth.[195] One way of establishing appropriate procedures might be to employ regional arrangements, consisting of the states interested in fishing particular ocean areas —a device already in use for promulgating conservation measures. Regionally organized groups, which have already in some instances begun to collect the relevant scientific and other information, and the possibility of extending this type of cooperative activity would appear far more likely to promote broad community goals than any universally applicable limit for the territorial sea which can have no rational relationship and may do possible harm to general community interests.[196]

It is not suggested that any selective extensions of authority for fishing purposes must be, or should be, accomplished through expansion of the territorial sea, for it is clear that other techniques, more conservative of inclusive use, are available for this purpose. Many suggestions have been made that justifiable demands for special treatment could be accommodated by recognition of a right of exclusive exploitation in a "contiguous zone" beyond the narrow territorial sea. From a policy perspective this alternative would appear eminently preferable, since there is no need for extending all aspects of exclusive authority further out to sea merely in order to accomplish the protection of a single interest. If

195 The goal is to provide for those states for whom adjacent fish resources may be of the most vital consequence, such as Iceland, Greenland, and the Faeroe Islands. Other areas may also be entitled to this concern. The above factors would be among those relevant to a determination of allocation of effort and catch in these areas. For a reference to the complexities of the general problem see Gordon, note 178, supra.

196 It seems unlikely that more than a few coastal states need special protection of this kind. For another survey of the possibilities of meeting this problem, see Leonard, International Regulation of Fisheries 163-86 (1944).

Professor Katzenbach has suggested that he "would infinitely prefer a subsidy to Iceland to help her fishermen than a resolution which excludes foreigners and encourages inefficient use of bloc resources." Katzenbach, "Sharable and Strategic Resources; Outer Space, Polar Areas and the Oceans," Proc. Am. Soc'y Int'l L. 206, 211 (1959). This of course, assumes that in the specific situation exclusive fishing would be inefficient. As we have indicated, the most difficult problem is that of identifying efficient use. From community perspectives it may be, for example, much more efficient to export Icelandic "fishing unemployment to the United Kingdom." Whether or not this is so depends upon calculations of a kind the economists are only beginning to make.

needed variations in exclusive fishing areas could be taken care of by contiguous zones, then the establishment of the narrowest possible territorial sea would most clearly appear as the most rational solution.

It is unfortunate that the focussing of excessive attention upon the politically explosive issue of the width of the territorial sea has diverted concern from the measures immediately needed for the development of fishery resources, both for production of food and increased employment. What is required is undoubtedly a more intensive program of scientific and practical investigation, at local, regional, and world levels, not only of presently exploited resources but also of those which are potentially exploitable. The latter are of special importance because individual states, and their private groups, often have neither the necessary skills nor capital for financing such exploratory work, and because the new opportunities for fishermen which might be opened could perhaps ease the way toward a more rational distribution of effort among all fishermen. At the same time biologic and economic studies could provide basic information for planning programs of rational exploitation, including both criteria for conserving use and identification of the factors relevant for determining the best distribution of activity in, and rewards from, such use. Important work along these lines is being done by the Food and Agricultural Organization, its regional groups, and individuals in states especially concerned with fisheries; but the effort could be amplified and greater benefits obtained even with moderate increases in expenditures of time and money.[197]

Finally, planners seeking to recommend and implement schemes for a general economic improvement in the underdeveloped states should be assured of the assistance required for the fullest, rational use of available fish. It is clear that the development of marine resources cannot be considered apart from the general problem of economic development,[198] and if it is dealt with in this context, the result will be a more rational exploitation and greater attention to the economic allocation of local and global resources than could be obtained through exclusive use, or non-use.

In summary—from a community perspective embracing both the inclusive and exclusive interests of states—the most desirable policy with respect to fisheries must be to maintain the largest possible ocean areas open to rational exploitation by all, and to leave the enlargement of

[197] The possibilities, obstacles, and direction of future effort are outlined in FAO, Fisheries Division, "Improving the Fisheries Contribution to World Food Supplies," 6 FAO Fisheries Bull. 159 (1953). Nothing whatsoever is said in this FAO appraisal of any need for enlarged areas of exclusive exploitation—it seems clear that the establishment of such area promises little or nothing in assistance for increasing productivity.

[198] Kirby and Szczepanik, note 190, supra at 88. Some general considerations in this respect are outlined in Netherlands Economic Institute, note 192, supra.

exclusive fishing areas, by use of contiguous zones especially adopted for this particular purpose, to negotiation between the states most particularly interested in the adjacent fisheries. This possibility of accommodating claims by negotiation, as will be suggested later, is not without promise of peaceful settlement of disputes.

The alleged requirements of military security, turning to the other relevant factors, are perhaps second in importance only to claims about fisheries among contemporary arguments for an expansive width of territorial sea. In fact the two issues are sometimes joined in the claim that the presence of fishing vessels may be a menace to adjacent states.[199] In this view, the asserted economic interests in a larger exclusive fishing area, and the alleged needs to exclude foreigu fishing and other vessels on the grounds of security, are made to combine in a more general justification of an alleged necessity for a wider territorial sea.

It may easily be observed that any claimed width for the territorial sea, with a chance of acceptance by the general community of states, has very little relevance to security, especially in a time when even relatively weak states may maintain weapons systems of very considerable range and speed.[200] When one considers the giant powers, the irrelevance of the territorial sea for security purposes is further intensified, for the threat these states pose for each other, or for lesser endowed states, reaches literally about the globe. The transformation of naval weapons underlines this point clearly: the submarine is no longer merely a commerce-destroyer or a weapon of great efficiency in naval engagements, but a delivery system for land-directed destruction which may operate undetected for long periods and range over vast portions of the earth, ready to fire weapons of the greatest destructiveness at distances of hundreds of miles from the intended target. For such weapons, as well as for aircraft moving at speeds far above that of sound, a territorial sea of five hundred miles is just as irrelevant as one of three.

Under some conditions, most especially when expectations of violence are not high but sufficiently intense not entirely to be discounted, it is of course conceivable that security considerations, such as the prevention

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199 Korea justified its claim to "national sovereignty" over an extensive ocean area partly in terms of national defense, and seemed to be particularly concerned about the use of small vessels to infiltrate enemy agents into South Korea.

See Oda, note 136, supra at 74-7; see also I.L.C. Summary Records, (U.N. Doc. No. A/CN.4/SR. 309/16) (1955) (Statement of Mr. Hsu).

Several states have expressed concern about the presence of foreign fishing vessels near their coasts. See N.Y. Times, June 2, 1958, p. 1, col. 3; June 8, 1958, p. 15, col 1 and p. 20, col 3.

200 This point was made forcefully in the I.L.C. discussions. See 1 Yearbook, International Law Commission 169 (1956) (statement of Mr. Pal); 1 Verbatim Record of the Debate in the 6th Committee of the General Assembly 238-39 (Statement of Sir Gerald Fitzmaurice) (U.N. Doc. No. A/Conf. 13/19) (1957).

of surveillance from ships at sea or preventing reconnaissance of water approaches to landing sites, may reasonably warrant the exercise of coastal authority over adjacent vessels. Precautionary measures against smuggling and illegal immigration could also call for coastal intervention. Occasions for assertions of authority such as these are, however, likely to be infrequent, and, if experience is any guide, not of grave importance.[201] It hardly seems necessary, therefore, that the most comprehensive authority permissible over the territorial sea must be, in entirety, extended seaward merely to authorize coastal states to guard against these rather occasional and exceptional possibilities. As was observed with respect to fisheries, it would seem much more economical and more consistent with the most productive use of the oceans for all purposes, that the necessary authority for these specific purposes be claimed and honored only through the recognition of contiguous zones. Confining the most comprehensive coastal authority to narrow limits definitely appears more likely to promote efficient transportation and communication, while permission to extend limited authority for security and wealth purposes appears to assure adequate authority for the protection of legitimate, but exclusive and particular, interests. It may be admitted, of course, that a coastal state seeking to harass the shipping of another state might do so through abuse of its limited authority in a contiguous zone as through assertion of authority over the territorial sea, but this does not seem to be a very likely possibility. Generally speaking, the seas have been rather effectively used in the past, without such interference, and the mutual interest of states in continuing this state of affairs makes it unlikely that such authority would be abused. There are, in any event, a wide variety of sanctions available for responding to such harassment, not depending necessarily upon retaliation in the assertion of similar authority, insuring that the nuisance value of this kind of interference is not likely to be high.

The argument is often made that the recognition of a variety of contiguous zones for different purposes is no improvement over an extension of the territorial sea to include all such zones since the same authority is being recognized, so it is asserted, under different labels.[202] Limited

201 Certainly, there have been instances of considerable disagreement over the protection of various interests other than fishing. It is equally certain that these differences have never occurred with such frequency and seriousness that any disruption of the use of the ocean has ever been threatened.

202 This seems to be the purport of Professor Baxter's declaration that "the contiguous zone and sweeping claims regarding the width of the territorial sea are interchangeable devices for achieving the same result." Baxter, The Territorial Sea, 1956 Proc. Am. Soc'y Int'l L. 116, 122. This view has also been expressed in the International Law Commission. See ILC, Summary Records, (U.N. Doc. No. A/CN.4/SR. 166/ p. 15) (1952) (Statement of Mr. Scelle).

authority for specific purposes is not, however, the same as comprehensive authority for all purposes. States do frequently have particular objectives which they seek by extending limited authority seaward, such as in the control over fisheries, smuggling of guns, customs surveillance, and prevention of other undesirable activities, and both their concern for limited objectives only and their reciprocal claims for limited authority are very often completely genuine. Recognition by the general community of particular contiguous zones for particular purposes is not, therefore, tantamount to an invitation to states to create comprehensive zones for all purposes. Maximization of values is not necessarily promoted by meaningless assertions of authority and, in fact, both community sanction and self-interest may be counted upon to preclude empty gestures.[203] The expansion of the territorial sea would extend many more incidences of authority and would array community sanction in support of, rather than in opposition to, such incidences.

There are, therefore, strong grounds for believing that the traditional narrow limit of the territorial sea best serves the common interests, both inclusive and exclusive, of states under modern conditions. The "shock absorber" of the contiguous zone device seems entirely adequate to cushion the impact of developments in modern science and technology, when these in fact demand the extension seaward of some particular aspects of coastal authority.

It is not inconceivable, however—despite the fact that rational grounds cannot be invoked to demonstrate that a territorial sea wider than the traditional three and four miles is desirable community policy—that continued insistence upon such a limit may prove more costly than agreement upon some modest extension in that width. A rather considerable number of states have recently claimed and insisted upon a variety of widths greater than these traditional ones.[204] However irrational the bases for these claims might seem in the great majority of instances, the strength with which they are presented indicates that it may be more desirable for the general community to agree upon a somewhat broader limit than to permit to continue the wrangling and disputes which, all too frequently, erupt in violence and in any event involve cost in disputation and continued controversy. If a substantial number of states could be persuaded definitely to subscribe to a six-mile limit for the territorial sea,

[203] In the past states have made unmistakable distinctions between a territorial sea and a contiguous zone. Not a single state in the world is known to claim contiguous zones for all components of authority honored within the territorial sea. See U.N. Conference on the Law of the Sea, Draft Synoptical Table, (U.N. Doc. No. A/Conf. 13/C.1/L.11/ Rev. 1 and Corr. 1 and 2) (1958) (Mimeographed).

[204] The Draft Synoptical Table, ibid., gives the dates for legislation establishing particular widths for the territorial sea, a great many of which are later than 1950.

the gains from avoidance of costly disputes might well outweigh the losses to the general community and to certain states whose nationals might be precluded from fishing on part of their accustomed fishing grounds. A limit wider than six miles would, on the other hand, have a much more substantial impact on such fishing, with little promise of general benefit to coastal states, and, additionally, might inflict grave deprivation upon international transportation and communication. From these various perspectives, which it is not pretended can be demonstrated in anything approaching certainty, a six-mile territorial sea would appear to preserve a very considerable productive use of the ocean and at the same time offer some prospect of more harmonious use.

B. Trend of Decisions

It would be pointless here to repeat the detailed state by state surveys which numerous writers have made of the practice of states since the beginning of the 19th century,[205] or to engage in new analyses of the views of the early Romans or of the great classic writers of the 17th and 18th centuries.[206] For our present purposes the important point to be noted is that, though states, writers' and experts' associations, have held very different opinions on the extent of the area that has been, will be, and ought to be considered to be within the territorial sea, until very recently, that is within the last three decades, the range of claims actually made by states to comprehensive authority over ocean areas has been remarkably limited. During the 19th century the predominant demand by states was for a limit measured by cannon range or by a three-mile limit, and the two formulae were very frequently considered to be equivalents, even as there was very insistent clamoring for an extension of this to six miles and sometimes even more. Some states claimed a four-mile territorial sea while a very few states sought to claim a territorial sea of six miles but were usually resisted by Great Britain with varying degrees of success. A large number of commentators during this period were still endorsing the cannon-shot limit, a substantial group supported the three-mile limit while a comparative few thought that the limit should be varied according to the interests at stake.[207]

Toward the end of the 19th century the various experts' groups began to consider the breadth question particularly as it related to fishing, and

205 For some sources see note 122, supra. For a description of state claims immediately prior to the Geneva Conference see Heinzen, "The Three-Mile Limit: Preserving the Freedom of the Seas," 11 Stan. L. Rev. 597, 641-51 (1959).

206 See Fenn, The Origin of the Right of Fishery in Territorial Waters (1926); Riesenfeld, op. cit. supra note 122, at 7-28.

207 Professor Riesenfeld has compiled the views of over two hundred writers and, noting a necessity for caution at such a procedure, gives a statistical breakdown of their positions. Id. at 279-80.

in 1894 and 1895 both the Institut de Droit International[208] and the International Law Association[209] adopted recommendations for a territorial sea of six miles. The Institut noted explicitly that three miles was the limit "most generally adopted" but thought that "it has been recognized as insufficient for the protection of coastal fisheries." In 1926 the Association, after intervening debates, changed its position and proposed a three-mile limit.[210] Within the Institut there was considerable controversy about the appropriate limit, primarily because of the fisheries question, but it was not until 1928 that the Institut again formulated recommendations and endorsed, by a narrow vote, the three mile limit.[211] This change was, however, accompanied by a recommendation of a contiguous zone beyond the territorial sea, but not to exceed 9 miles, in which "the coastal state may take the measures necessary for its safety, in respect to its neutrality, and in respect to its sanitary, customs, and fishing police. It possessed jurisdiction to adjudicate violations of the laws and regulations pertaining to these matters in this supplemental zone."[212]

Among other groups, the Harvard Research[213] and the Japanese Branch of the International Law Association[214] expressed approval of a three-mile territorial sea, while the American Institute of International Law refrained from suggesting any limit.[215]

The Schucking Report, a part of the preparatory work for the 1930 Codification Conference produced for the Subcommittee of the Committee of Experts for the Progressive Development of International Law, and the documents accompanying it, are of interest primarily for the divergence of views and reasoning expressed within the Subcommittee.[216] The Report itself declared that "the theory most widely accepted accords to the riparian State the right to extend the limit of its territorial sea to the range of coastal guns by unilateral acts," but added that this "positive rule of international law" would lead "to quite inadmissible results, which would restrict the freedom of the sea to an intolerable extent."[217] This situation being undesirable, Dr. Schucking recommended a limit to the territorial sea of six miles provided the rights of other states were

208 Scott, Resolutions of the Institute of International Law 113 (1916).
209 Transactions of the International Law Association 1873-1924, 223-25 (1925).
210 Harvard Research in International Law, Draft Convention on Territorial Waters, Appendix No. 6, 373 (1929).
211 Id., Appendix No.2, at 368.
212 Id. at 369.
213 Id. at 250.
214 Id., Appendix No.7, at 376.
215 Id., Appendix No.3, at 370.
216 Committee of Experts for the Progressive Codification of International Law, Report to the Council of the League of Nations, p. 29, League of Nations Pub. No. C. 196. M.70. 1927. V.
217 Id. at 36.

still recognized even if they had been exercised in what would now be regarded as part of the territorial sea.[218] For the most part, the bases for this recommendation were found in what were considered to be legal considerations: that the three-mile limit was not generally accepted "according to the doctrine and practice of international law," that a state was entitled to "extend its dominion to the range of the coastal guns," and that the codification projects adopted the six-mile limit (here citing the 1894 and 1895 actions of the Institut and the International Law Association, both of which were altered subsequent to this report to provide for a three-mile limit).[219]

Another member of the Subcommittee, M. Magalhaes of Portugal, was unable to read the Schucking Report before it was printed and appended thereto "observations" of particular interest since they focus attention upon the factual conditions which, he argued, justify a territorial sea of 12 miles rather than six.[220] These conditions were asserted to require "exclusive utilization of vegetable or mineral products, and, more particularly, the maintenance of exclusive fishing rights."[221] Noting that most fish are found over the adjacent continental shelves and alleging that the supply was no longer enough for both coastal and foreigu fishermen, M. Magalhaes thought that a territorial sea which did not coincide with the area in which fish are concentrated would not actually assure fishermen of exclusive access nor would it foster protection of the fish resources.[222] Because the continental shelf off Portugal is relatively narrow, a twelve mile limit for the territorial sea was recommended as extensive enough for these purposes.[223] While nothing was said about the adequacy of such a limit for the numerous states in which the shelf was much wider than 12 miles, M. Magalhaes argued that increasing the extent of the territorial sea would have the "general advantage" of making protection of species more effective because it could be done by each state in its own territorial waters rather than by an international organization assigned the task by convention.[224]

While the conclusions drawn are highly debatable, the Magalhaes observations do bear some relationship to environmental conditions relevant to the territorial sea question,[225] in contrast to both the Schuck-

218 Ibid.
219 Id. at 36-7.
220 Id. at 60.
221 Id. at 63.
222 Id. at 63-4.
223 Id. at 65.
224 Ibid.
225 The notion that edible fish do not stray beyond the continental shelf is erroneous, as is the assumption that they do not move beyond state boundaries which extend from land into the sea. These considerations lead to an entirely different conclusion from that

ing Report and Mr. Wickersham's observations[226] upon M. Magalhaes' comments. Dr. Schucking and Mr. Wickersham placed the greatest emphasis on certain legal considerations, including the contents of certain treaties, and apparently with these factors most heavily weighted, the Draft Convention ultimately recommended provided for a territorial sea of three miles.[227]

If one views the replies of governments to the questionnaire circulated by the Preparatory Committee for the 1930 Conference[228] in terms of the various perspectives made explicit in the questions, it is clear that in describing their past practice the vast majority of states replying adhered to a three or four-mile territorial sea and that a smaller number, but still a majority, preferred explicit provision for a three-mile limit, if a convention were adopted. Other suggested limits ranged from six to eighteen miles. Some urging the three-mile limit as well as those suggesting six miles also recommended recognition of limited authority beyond that area. The widest territorial sea then claimed, and for only part of its coastline, was that of twelve miles by the Soviet Union.

The Preparatory Committee, summarizing the replies, noted that the three mile width appeared to have the support of a majority of states and therefore suggested a basis of discussion providing for such a width.[229] Apparently the time-honored Scandinavian claims of four miles, and perhaps others, created some disquiet about so definite a provision. Another basis of discussion was designed to put before the forthcoming conference the possibility that particular states might be able to justify a territorial sea wider than three miles.[230] A final basis of discussion connected with the width issue provided for a contignous zone of twelve miles for security, customs and sanitary purposes.[231]

There is scarcely need to recall that the Committee on Territorial Waters of the 1930 Conference was unable to agree upon any width for the territorial sea. It was quite obvious that some states were unprepared to accept a three-mile territorial sea even if accompanied by a contiguous zone. On the other hand, sentiment at the Conference was strongest in

reached by M. Magalhaes. Of course, nothing in his observations establishes the usefulness of a twelve-mile territorial sea for conservation purposes.

226 Note 216, supra at 68.

227 Id. at 72. Dr. Schucking's notes on the Amended Draft Convention, id. at 74, inject a note of realism in terms of the conditions affecting claims to exclusive fishing.

228 Conference for the Codification of International Law, Bases of Discussion 22-23 (League of Nations Pub. No. C. 74. M. 39. 1929. V); Supplement to Volume II, Replies of Canada 2 (League of Nations Pub. No. C. 74(a). M. 39(a). 1929. V); Supplement to Volume II, Reply of the Soviet Union 2 (League of Nations Pub. No. C. 74(b). M. 39(b). 1929. V).

229 Conference for the Codification of International Law, note 228, supra at 33.

230 Id. at 34.

231 Ibid.

favor of a three-mile width, if provision were made for honoring limited authority beyond that. States seeking the wider territorial sea invoked various reasons, including fisheries, security, and neutrality problems, for extending authority, while those opposed to extensions placed greatest explicit emphasis on freedom of navigation and the difficulties wartime neutrals might face of policing a large territorial sea.[232] In view of the very substantial interests involved, and the emotional attachment to the various attitudes expressed, little would have been gained at the 1930 Conference in seeking to adopt a majority view in a formal convention. It would have been difficult, in any case, to have agreed on the three-mile limit since proponents of this width were also divided about the exercise of special authority in contiguous zones, some insisting upon a three-mile limit plus a contiguous zone and others rigidly demanding only a three-mile territorial sea.[233]

Despite the variety of opinions expressed at the Conference, it is noteworthy that the limits proposed, beyond three miles, were essentially modest. The Portuguese proposal for a six-mile territorial sea, coupled with a six-mile contiguous zone which would include exclusive fishing rights, seems to have been the most extreme and, as the Italian delegate remarked, solutions other than three, four or six miles had "very limited support."[234]

One result of the 1930 Conference was, however, to cast a degree of doubt upon the notion that states could not lawfully claim a territorial sea broader than three miles. While it is, or ought to be, clear that unanimity is not necessarily an indispensable characteristic of the consensus that is often termed a prerequisite of customary international law, the potential seriousness of the differences about the width of the territorial sea (including belligerent-neutral disputes during wartime) magnified the importance of the minority views on this point and contributed to a growing feeling that the degree of consensus on the three-mile rule was not sufficiently marked to warrant its definitive categorization as part of customary international law. In any event, the doubt inspired by the 1930 Conference about the three-mile rule eventually became converted, as later events were to show, into widespread allegations that a wider limit was lawful.

An attitude of uncertainty was the predominant characteristic of the International Law Commission discussions on the width of the territorial

232 The fullest statement of the various positions may be found in Conference for the Codification of International Law, Minutes of the Second Committee 133-46 League of Nations Pub. No. C. 351(b). M. 145(b). 1930. V.)

233 Acts of the Conference for the Codification of International Law, Plenary Meetings, Annex 10, 123-24 League of Nations Pub. No. C. 351. M. 145. 1930. V).

234 Conference for the Codification of International Law, note 232, supra at 148.

sea, but, in the final analysis, the Commission's performance was not wholly devoid of elements of clarification. It was not without importance that the Commission firmly declined to approve the notion that, because no one limit could be specified to which a substantial majority of states agreed, each state, in its discretion, was therefore free to set its own limits.[235] Furthermore, the Commission, equally firmly, rejected the extreme claims recently advanced by South American states, and in its final formulation, recorded the opinion that claims beyond twelve miles were impermissible.[236]

Perhaps the major shortcoming of the work of the Commission arose out of the emphasis upon disagreement about the doctrinal content of international law, much time being spent in fruitless attempts to prove that this or that proposition was the only one firmly enshrined as binding upon all states,[237] and the failure to take into account the factual variables, seemingly upon the ground that recourse to such facts was not within its authority, relevant to a conclusion about what the width of the territorial sea ought to be.[238] When facts were on occasion mentioned, the conclusions drawn were not infrequently irrelevant. Thus, although the Commission had already in its third and subsequent sessions devoted attention to the conservation problem with a view to recommendations on that specific issue, the discussion on the territorial sea is replete with allegations about a felt need, on the part of some states, for a wider territorial sea in order to prevent depletion of fishery resources.[239] Yet, by

235 The rejection of the proposal of Mr. Zourek particularly signified this disapproval. See pp. 208-09 supra. The importance of such a decision was suitably emphasized by Sir Gerald Fitzmaurice during discussion at the 7th Session. ILC Summary Records, (U.N. Doc. No. A/CN.4/S.R. 309/10) (1955).

236 1956 Report, Article 3(2), 12, note 152, supra.

237 Illustrative of these sterile debates are those during the 166th, 167th, 168th and 309th meetings.

238 One member expressed the opinion that the question of width was a "strictly legal question" and that it would create "an extremely bad impression" to propose that a diplomatic conference decide such a question. ILC Sumary Records, (U.N. Doc. No. A/CN. 4/SR. 168/13) (Yepes) (1952).

239 For example:

> Before taking a final decision about the limit of the teritorial sea, it might be wise for the Commission to obtain the views of governments on those draft articles (on conservation of fisheries), in order to ascertain whether the recognition of certain rights of coastal states would satisfy those governments which were claiming an extensive territorial sea. At the present moment, when conservation measures became necessary, coastal states had no other alternative but to extend their territorial sea, and consequently their sovereign rights.

ILC Summary Records, (U.N. Doc. No. A/CN.4/SR. 308/18) (1955). The point here is that an extension of the territorial sea could not accomplish conservation objectives, except in a very few possible instances, and such an extension could not, in fact, constitute an "alternative" to real conservation measures.

It would probably be more accurate to conclude that the more extensive claims to the territorial sea stemmed from the possibility that conservation measures might be put into effect. This would be one way to secure as great a share as possible of the total catch permitted under such a program. But cf. Opsahl, "Towards The Rule of International Law in High Seas Fisheries," 27 Nordisk Tidsskrift for International Ret 265, 269-70 (1957).

the time the seventh session of the Commission convened in 1955 it had the benefit of the Rome Conference (and of the papers submitted at that Conference); there was then no realistic basis for believing that the territorial sea had anything to do with conservation.[240] Furthermore, if some members were disabused of this idea, as they surely ought to have been, one could reasonably have expected some clarification of the effect of various widths in terms of the alleged benefits accruing to coastal states. But this is conspicuously lacking. Again, while the need for food for mankind and an alleged dependence of coastal states upon adjacent fishery resources are mentioned frequently, there was no attempt to discover and explain what an extension of the territorial sea might do to relieve the food situation. Nor was anything specific said to support the conception of an alleged great dependence of many coastal states upon marine resources that was inconsistent with exploitation by foreign fishermen.

Similarly, while the problem of security was often deemed important for determining the breadth of the territorial sea, no effort was made to indicate what specific problems were involved and why they could not be handled through recognition of less comprehensive authority than that usually honored in the territorial sea. It does not, in short, appear unfair to say that for the most part the Commission worked without regard to relevant factual context and, to the extent facts were invoked, without reference to the more important policy considerations.

Thus, from the perspective of meaningful clarification the situation in the Commission was virtually hopeless, and the outcome, with the above-mentioned important qualifications, reflects that fact. Although a number of proposals were made in the various sessions with respect to specific limits, none commanded majority support and the Commission finally agreed upon the following article:

> 1. The Commision recognizes that international practice is not uniform as regards the delimitation of the territorial sea.
>
> 2. The Commision considers that international law does not permit an extension of the territorial sea beyond twelve miles.
>
> 3. The Commission, without taking any decision as to the breadth of the territorial sea up to that limit, notes, on the one hand, that many states have fixed a breadth greater than three miles and, on the other hand, that many states do not recognize such a breadth when that of of their own territorial sea is less.
>
> 4. The Commission considers that the breadth of the territorial sea should be fixed by an international conference.[241]

[240] The conclusions of this Conference with respect to information required for a conservation program are formulated in terms which practically preclude any possible relevance in a specific width of the territorial sea. See Report of the International Technical Conference on the Conservation of the Living Resources of the Sea 3 (U.N. Doc. No. A/Conf. 10/6) (1955).

[241] 1956 Report, Article 3, 12, note 152, supra.

The manner in which this article was formulated created considerable confusion, with some states and commentators understanding it to mean that an extension to twelve miles was in accord with international law, and others regarding it as an invitation, at the least, for extensions to that limit. The Commission, through its Rapporteur and some members, insisted on subsequent occasions that the Commission did not intend to confer its blessing upon the twelve-mile width.[242]

In a related action, significant here because of later events at the 1958 Conference, the Commission adopted an article providing for authority in a zone contiguous to the territorial sea. Article 66 read as follows:

> 1. In a zone of the high seas contiguous to its territorial sea, the coastal state may exercise the control necessary to
>
> (a) Prevent infringement of its customs, fiscal or sanitary regulations within its territory or territorial sea;
>
> (b) Punish infringement of the above regulations committed within its territory or territorial sea.
>
> 2. The contiguous zone may not extend beyond twelve miles from the baseline from which the breadth of the territorial sea is measured.[243]

The noteworthy element in this provision consists of paragraph two, which would have been largely, but not completely, meaningless if the Commission had intended to sanction a twelve-mile territorial sea, and in the omission of both security measures and exclusive fishing as components of state authority in the contiguous zone.[244]

Certainly, the most siguificant development at the 1958 Conference was the shift of the major supporters of the three-mile limit, the United States and the United Kingdom, to sponsorship and support of a territorial sea of six miles, coupled with the extension of certain limited exclusive fishing rights to twelve miles, a shift whose permanence was expressly declared to be contingent upon achieving agreement at the Conference.[245] It apparently became clear as the Conference progressed,

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242 McDougal and Burke, "Crisis in the Law of the Sea: Community Perspectives versus National Egoism," 67 Yale L.J. 539, 577 and n.129. On the eve of the 1958 Conference, Saudi Arabia and Egypt announced the extension to twelve miles, and since the Conference ended other states have done the same, e.g., Iraq and Panama. Iceland has claimed a twelve-mile limit for fishing, about which a current dispute centers. For the bases of this claim see Iceland Ministry for Foreign Affairs, The Icelandic Fishery Limits (April 1959). In Iceland it is apparently thought that this limit will be formally accepted at the forthcoming Geneva Confence. See N.Y. Times, Nov. 8, 1959, p. 12, col. 1.

243 1956 Report, note 152, supra at 39.

244 McDougal and Burke, note 242, supra at 581-85.

245 Both the United Kingdom and the United States argued strongly for the three-mile limit in the opening general debate in the First Committee (3 Official Records 8, 25 [1958]) and when, as a compromise, the United Kingdom proposed a six-mile belt with certain limitations in the outer three miles (3 Official Records 103 [1958]), the United States expressed its "keenest regret" (3 Official Records 105 [1958]). But two weeks later the United States proposed a territorial sea up to six miles coupled with limited exclusive fishing rights to twelve miles (3 Official Records 153 [1958]), and the United Kingdom

that no article making provision for a three-mile territorial sea had any real possibility of adoption, no matter what added authority was given over fisheries beyond such an area, and all of the proposals stipulating a three-mile limit, or having that effect, were withdrawn before the final votes were taken.[246] The major proposals which did reach a vote were sponsored by Canada, the United States, and jointly by Mexico and India. The Colombian and Swedish proposals, providing for unqualified extensions to twelve and six miles, respectively, also were voted upon, but major controversy appeared to center upon the former three. None of these suggested articles was accepted, as a whole, in the First Committee and no proposal received the necessary two-thirds majority in the plenary session of the Conference for inclusion in the final Convention.

The Canadian measure called for a territorial sea up to six miles in width and in an area extending twelve miles from the baseline, the coastal state was to have "the same rights in respect of fishing and the exploitation of the living resources of the sea as it has in its territorial sea."[247] In justification of these proposals Canada referred to the general undesirability of extending the territorial sea to twelve miles, when the main goal of most states in urging such a width was to secure control over exploitation of fishery resources in that area.[248] On the more positive side it was alleged that Canada, and other states, needed to protect dependent coastal populations by excluding foreign competition, and that the exclusive fishing area would also protect coastal fisheries from over-exploitation.[249]

The joint proposal of Mexico and India would have permitted extension of the territorial sea up to twelve miles, and made no explicit reference to additional authority beyond that limit.[250] But in introducing that proposal during the first Committee debate the Mexican representative stated

"reluctantly decided to support it." 3 Official Records 163 (1958). The United States noted that its proposal "constituted an important departure from a historic principle. But it was only a proposed departure. It contemplated that others would also yield to some extent on the demands with which they had come to the Conference." 3 Official Records 167 (1958).

In plenary session the United States stated that its "attempted compromise had been rejected, the United States delegation had reverted to its belief that the three-mile limit was the correct one and that everything beyond that limit was part of the high seas." 2 Official Records 69 (1958). In a similar declaration the United Kingdom also announced that it must "resume its original position as a supporter of the three-mile limit." 2 Official Records 76 (1958).

246 Report of the First Committee, 2 Official Records 115-16 (1958). This includes the United Kingdom proposal for a six-mile width which amounted, in practical effect, to a three-mile territorial sea and a three-mile contiguous zone for fisheries.

247 The Canadian proposal finally voted upon was that in U.N. Doc. No. A/Conf. 13/C.1/L. 77/Rev. 3 (1958), 3 Official Records 232 (1958).

248 3 Official Records 167-68 (1958). Originally Canada had proposed a three mile territorial sea plus exclusive fishing rights to twelve.

249 3 Official Records 167-68 (1958).

250 U.N. Doc. No. A/Conf. 13/C.1/L.79, 3 Official Records 233 (1958).

that "sovereign," "exclusive," or "special" rights would have to be recognized even further from the coast in "exceptional cases."[251] The principal feature distinguishing the India-Mexico proposal from that of Canada was that the latter sought to take into account the general interest in transportation (both air and sea) by limiting the territorial sea to six miles though exclusive fishing was permitted in another six miles, while the former would have permitted extension to twelve miles of the entire range of coastal authority over the territorial sea.

The final American proposal also sought to achieve the transportation and communication objectives of the Canadian proposal, but it went further and attempted to protect those states whose fishermen were accustomed to fishing in "distant" waters, seemingly close to the shore of coastal states.[252] The main thrust of the American proposal would have been to benefit the fishermen of England, the Netherlands, Germany, Portugal, and others who fished in the various coastal waters of the North Atlantic from Canada to Norway. Japan, too, would have received protection from severe disruption of its far-flung activities.[253] In concrete terms the provision called for a territorial sea of six miles and, in a zone twelve miles from the same baseline, for the same rights with respect to fishing as in the territorial sea. These rights were subject, however, "to the right of the vessels of any State whose vessels have fished regnlarly in that portion of the zone having a continuous baseline and located in the same major body of water for the period of five years immediately preceding the signature of this convention, to fish in the outer six miles of that portion of the zone, under obligation to observe therein such conservation regulations as are consistent with the rules of international law," as well as to past or future treaty rights entered into by a coastal state.[254]

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251 Apparently Mexico had in mind states already claiming a territorial sea of more than twelve miles, so that this appears to be a suggestion that such states would be accommodated by recognition of a contiguous zone beyond twelve miles. 3 Official Records 91 (1958).

252 The major difference at the Conference on this point was between states whose fishing fleets range widely and states regarding their coastal waters as under heavy exploitation by such fleets. Canada and Iceland were prominent states in the latter group, and the Umited Kingdom, the United States, Western Germany, the Netherlands, Portugal and Japan were leading states in the former group. An interesting point here, and perhaps instructive for some states making extensive claims, is that through time the state's interest in fisheries may change completely. At the 1930 Codification Conference, Portugal considered it necessary to seek a wider territorial sea to protect its adjacent fisheries. In the 1958 Conference, Portugal argued vigorously against efforts to exclude its fishermen from distant waters. 3 Official Records 150 (1958).

253 The effect on Japan of exclusion from a twelve-mile territorial sea might not be as intense as commonly supposed. Apparently the greater part of Japanese fish production comes from its coastal waters. FAO Fisheries Division, "Improving the Fisheries Contribution to World Food Supplies." 6 FAO Fisheries Bull. 159, 167 (1953). See Sorensen, Law of the Sea 195, 248 (Int'l Conc. Pamphlet 520) (1958).

254 U.N. Doc. No. A/Conf. 13/C.1/L.159/Rev. 2, 3 Official Records 253 (1958). Some

There was, of course, the usual, excessive amount of doctrinal disputation, with almost every delegation defending some proposed limit as the content of some explicit principle of customary international law or as in accord with some general criterion of reasonableness, which allegedly supported one limit and no other. Apart from these sterile exercises, resurrecting all the minutiae of divergent state practices for the past centuries, the principal themes of the discussion on these various proposals centered about fisheries and security considerations. The major argument with respect to the former, put forward by Canada in defense of its contiguous zone for fisheries, and also by states urging a twelve-mile territorial sea, was that an exclusive fishing area of this width was required both to protect coastal fishermen and to promote conservation of the adjacent fisheries.[255] Variations on this theme were cast in terms of the great desirability of protecting the "smaller" states and of giving assistance to underdeveloped areas. Failure to establish a twelve-mile exclusive fishing area, or territorial sea, would allegedly "deny" resources to states in desperate need of them.[256] Supporters of the India-Mexico proposal for the twelve-mile belt, in the words of the Mexican representative, rejected "the idea that the peoples of the smaller nations must be disowned and prevented from enjoying the living resources of the seas adjacent to their coasts for the benefit of private interests in foreign countries thousands of miles away."[257] It was unfortunate that so many speakers were content to unleash highly general, emotive arguments, so carefully unsullied by reference to actual capacity to fish, or to knowledge of available resources, or to known or likely effects of fishing intensity.

The counter arguments put forward by supporters of the American proposal to permit some foreign fishing within the exclusive fishing area between six and twelve miles from the coast emphasized the disastrous effect of complete exclusion of fishermen from this area. This theme was given particular attention by the United Kingdom, Germany, the Netherlands, Portugal, and by New Zealand and Pakistan.[258] It was further stressed, with respect to the alleged relationship between a twelve-mile exclusive fishing zone or territorial sea and conservation, that conservation measures were also being adopted by the Conference to deal with the overfishing problem so that no state need extend exclusive ex-

of the language seems needlessly vague. The reference to a "continuous baseline and located in the same major body of water" is hardly self-explanatory.

255 The major Canadian arguments are at 3 Official Records 89-91, 154-55, 167-68.

256 Illustrative of this kind of contention are the statements of India (3 Official Records 155 [1958]), Mexico (165), Saudi Arabia (135), and Peru (166).

257 3 Official Records 165 (1958).

258 3 Official Records 163, 169-72 (1958), includes illustrative passages.

ploitation rights for such a purpose. In the words of the French representative, "[t]he United States' proposal meant that, so long as there were fish for everyone, those at present fishing could continue to do so in peace; if any danger of depletion arose, regulation would be introduced by negotiation or arbitration."[259]

Since the Canadian proposal would have met the demands of practically all the coastal states alleging a need to protect local resources and fishermen, it is evident that the latent aim of the Indian-Mexican proposal was elsewhere. And this fundamental objective was put forward in terms of security needs. Thus, the representative of the United Arab Republic noted that American and Canadian proposals (he referred to versions calling for a territorial sea of three miles and exclusive fishing in an additional nine) "rightly recognized economic needs of coastal states"[260] but they failed to provide for "security requirements," and Lebanon observed that under "prevailing international conditions" a twelve-mile territorial sea "would afford surer guarantees to coastal states."[261] The Soviet concern for this interest is manifest in the fact that, alone of all the states in the First Committee, the nine Soviet bloc members voted against the twelve-mile exclusive fishing zone in the Canadian proposal and for the twelve mile territorial sea of the Indian-Mexican provision. All other states either voted for both or for the former and against the latter. The Soviet Union obviously was not interested merely in seeking exclusive fishing authority in an adjacent twelve-mile belt. It should be remembered of course, that the Soviet Union had long claimed a twelve-mile territorial sea for part of its coast, but none of the eight states invariably voting with the Soviet Union enjoyed that historic position.[262]

The opposition to the twelve-mile territorial sea invoked not only the arguments about fisheries outlined above but also referred vigorously to the general needs of international transportation and communication and to some of the security implications of a twelve-mile belt. The United States declared itself concerned with the effect of a twelve-mile territorial sea during wartime and alleged that a territorial sea of this width would greatly increase the burden of neutral states responsible

259 3 Official Records 171 (1958).
260 3 Official Records 137 (1958).
261 3 Official Records 139 (1958).
262 Sweden took care to point out that the Russian twelve-mile claim in the Baltic was still disputed. 3 Official Records 169 (1958). See U.S. Naval War College, International Law Situation and Documents 1956, 495-500 (1957); Schapiro, "The Limits of Russian Territorial Waters in the Baltic," 27 Brit. Yb. Int'l L. 439 (1950). The Swedish protests have apparently been unavailing and Swedish vessels are still penalized when found within the twelve-mile limit claimed by the Soviet Union. N.Y. Times, May 22, 1959. p. 14, col. 7.

for preventing use of their territory for belligerent advantage.[263] Since the Soviet Union was known to have a very considerable number of submarines, the United States was apparently specifically concerned over the possibility that a twelve-mile territorial sea would more readily lend itself to use by belligerent submarines for escaping detection than would the shallower waters within a narrower limit.[264] The United Kingdom, as well as the United States, Canada and others, stressed the potential effect upon transportation and declared that "the effect of a twelve mile limit would be to make it impossible for ships or aircraft to proceed from one place to another without constantly passing through, and indeed having to use as a channel of communication the territorial waters of other countries."[265] This was considered undesirable, despite the right of innocent passage, because coastal states still have a considerable measure of authority over vessels passing in that area. A final point, made by Canada and others, was that in the modern world of warfare and state coercion, security needs could not be protected in a territorial sea, no matter how wide.[266]

Among other factors which may be said to have had a more or less general influence and significance for determining the positions of the various states, it seems to be clear that a general aversion to the three-mile limit as an alleged reminder of colonial domination was important. It is true that, traditionally, the strongest supporter of the three-mile limit has been the United Kingdom, followed closely by the United States, and that, generally speaking, all of the western European states have been associated with the creation of this limit in the past. Opposition to such a limit, and to the new positions adopted by these states, was thus in part regarded as an expression of a rejection of the colonial past of many of the newly established states present at the 1958 Conference and as a forceful way of asserting recently won independence.[267] It was perhaps not undue exaggeration to remark, as did the Saudi Arabian representative, that the "crucial change" since the 1930 Conference was that the number of sovereign States had almost doubled and that

263 3 Official Records 26 (1958).

264 The summary records do not indicate that this consideration was made explicit during Committee debate. However, contemporary news reports indicated United States concern on this ground. N.Y. Times, April 2, 1958, p. 1, col. 1. Since the Conference the comments of Mr. Arthur H. Dean, head of the United States delegation, have given prominent attention to this point. See Dean, "Freedom of the Seas," 37 Foreign Affairs 83, 90 (1958); Dean, "The Geneva Conference on the Law of the Sea: What Was Accomplished," 52 Am. J. Int'l L. 607, 610-11 (1958); Dean, "Achievements at the Law of the Sea Conference," 1959 Proc. Am. Soc'y Int'l L. 186, 192.

265 3 Official Records 104 (1958).

266 3 Official Records 52, 167 (1958).

267 Sorensen, note 253, supra at 245.

"ancient peoples which had now acquired statehood had become masters over their coasts and fisheries."[268]

One of the more curious arguments urged in support of a twelve-mile territorial sea was that "many" states had claimed a limit greater than six miles and had exercised authority over a territorial sea of this width for a "long time."[269] It is a matter of record that in 1930 there was but one state—the Soviet Union—making a claim to twelve miles. Practically all of the remainder of the twelve-mile claims have been advanced since World War II; a number of them were made just prior to the 1958 Conference.[270] But the more paradoxical characteristic of this contention is that it was made at the same time as its proponents were rejecting as wholly irrelevant the fact that a twelve mile territorial sea would exclude foreign fishermen from areas which had been fished by their national predecessors for centuries. If history were to be made so decisive as the former argument suggests, there could be little doubt of the comparative persuasiveness of these contentions.

Various regional influences were clearly at work. The rivalry between Israel and neighboring Arab states no doubt affected the latter's uniform voting response and vigorous support for a twelve-mile territorial sea. In Asia it is not unlikely that fears of competition, whatever this might be thought to mean, from highly skilled and efficient Japanese fishermen, was responsible for the considerable support of states from this area for a twelve-mile excusive fishing area or territorial sea. Legacies of wartime experience may also have had some effects in this instance. In Latin and South America, on the other hand, it apparently was the concern for United States fishing activities, among other conditions, which was important. It is probable that many other local and topical factors were at work and no doubt proved decisive in particular instances in determining voting.[271]

There was, further, an obvious tendency toward bloc voting, largely determined on regional lines. With occasional deviations, the Latin American, Afro-Asian (including the Arab) and Soviet states tended to vote as a group.[272] For example, Iraq, Jordan, Lebanon, the United

[268] 3 Official Records 134 (1958).

[269] 3 Official Records 165 (1958) [(India: "the twelve mile limit had been applied by certain powers for a considerable time"); 167 (Canada: "several countries had long claimed a territorial sea in excess of six miles"); 173 (Ceylon: "some had exercised that right unopposed for many years").]

[270] Synoptical table, U.N. Doc. A/Conf. 13/C.1/L.11/Rev. 1 and Corr. 1 and 2 (1958).

[271] The heads of the United States and Danish delegations have since published comments on the conference which furnish some insight into the influential factors. Dean, note 264, supra; Sorensen, note 253, supra.

[272] For purposes of this discussion these regional groups have been assigned the following compositions: Soviet, see note 163, supra; Latin-America: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador,

Arab Republic, Saudi Arabia, Morocco, Tunisia, and Libya had practically identical voting records.[273] With a slight discrepancy in the Polish response in plenary session, the votes of Albania, Bulgaria, Byelorussian S.S.R., Czechoslovakia, Hungary, Poland, Romania, Ukranian S.S.R. and the U.S.S.R. were identical. A substantial number of Latin American states were generally united in their responses, while there was a considerable identity in a bloc of Afro-Asian states. Finally, a very large group of identical votes was recorded by a number of states, widely separated geographically, but united in support of the American proposal, including Australia, Belgium, Brazil, Cuba, Dominican Republic, France, Germany, Luxembourg, Monaco, the Netherlands, New Zealand, the Union of South Africa, the United Kingdom, and the United States. But for abstention on certain votes, another seventeen states voted in substantial agreement with this group.

The fate of the various proposals before the First Committee may be briefly noted, along with an indication of their major opponents and proponents.

The Canadian proposal for a six-mile territorial sea and an additional six-mile exclusive fishing area had been presented for consideration as a single measure, but the two provisions were voted separately. The former provision received a relatively unique vote since almost all factions joined in emphatic rejection, 48 against, 11 for, and 23 abstentions. The second aspect of this proposal, on the other hand, was the only provision dealing with fishing adopted by the First Committee, receiving 37 favorable and 35 negative votes, with 9 abstentions. Practically all of the support for this came from Afro-Asian (22) and the Latin American (10) states, the other five votes coming from Iceland, Canada, Norway, Yugoslavia and Ireland. The former three states are, of course, vitally interested in marine fishing and the waters near their coasts are those in which various other states prosecute "distant" water fishing. Opposition to this article came primarily from the Soviet bloc, interested in a territorial sea of twelve miles for "security" purposes and for possible embarrassment to its political opponents in the West, and the western European states who would be most detrimentally affected by exclusion from distant fishing areas.

Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela (Total: 20); Afro-Asia: Afghanistan, Burma, Cambodia, Ceylon, China, India, Indonesia, Iran, Iraq, Japan, Jordan, Korea, Laos, Lebanon, Malaya, Nepal, Pakistan, Philippines, Saudi Arabia, Thailand, United Arab Republic, Vietnam, Ghana, Liberia, Morocco, Tunisia, Turkey (Total: 28). Yemen has been excluded because it did not vote at all.

273 For purposes of comparison, votes on the following seven proposals were included: First Committee: the proposals of Canada, Mexico-India, Colombia, and the United States; Plenary Session: Article 3 adopted by the First Committee, the U.S. proposal, and the Eight-Power proposal.

The Mexican-Indian proposal for a territorial sea up to twelve miles was rejected, but only by a tie vote, 35 to 35 with 12 abstentions. All of the support came from the Soviet bloc (9), Yugoslavia, the Afro-Asian states (18) and a surprisingly small number of Latin American states (7). The opposition again came chiefly from the states associated with the western bloc, including a handful of Asian (6) and Latin American states (6).

The Colombian proposal differed from the one submitted by Mexico and India by flatly prescribing a twelve-mile territorial sea. Again, all the support, 33 with 42 opposing, came from Yugoslavia, the Soviet (9), Latin American (8), and Afro-Asian (15) states.

The final proposal (American) considered in the First Committee was rejected by a 38 to 36 vote, with 9 abstaining. The opposition came almost wholly from the Soviet bloc (9), Yugoslavia, Latin America (10), and Asia-Africa (16). Iceland and Canada, the two states perceiving the greatest impact of the proviso for foreign fishing in the outer six miles of otherwise exclusive fishing area, joined in voting against this recommended article.

The provision adopted by the First Committee, which was reported to the plenary session for final voting, read:

> A State has a fishing zone contiguous to its territorial sea extending to a limit twelve nautical miles from the baseline from which the breadth of its territorial sea is measured in which it has the same rights in respect of fishing and the exploitation of the living resources of the sea as it has in its territorial sea.[274]

In the plenary session of the Conference three main proposals were submitted to a vote: Article 3 above quoted, the American proposal,[275] and a revision of the Mexican-Indian proposal sponsored by eight states not including India.[276] The latter now consisted of a provision for a territorial sea up to twelve miles plus provision for an exclusive fishing area of twelve miles measured from the same baseline.

Of the three suggested articles, that of the United States received much the greatest support, attracting 45 votes, but still was far short of the required two-thirds majority. Of the 33 negative votes, the Soviet bloc accounted for nine, the Latin American states eleven and the Afro-Asian states ten; Canada, Iceland and Yugoslavia also voted in the negative. The eight-Power proposal also received a marginal approval—39 for, 38 against, and 8 abstaining. Twenty-nine of the approving states were LatinAmerican (12) and Afro-Asian (17), with a Soviet bloc of eight

274 Article 3, 3 Official Records 258 (1958).
275 U.N. Doc. No. A/Conf. 13/L. 29, 2 Official Records 125 (1958).
276 U.N. Doc. No. A/Conf. 13/L. 34, 2 Official Records 128 (1958).

(Poland abstained), Yugoslavia and Iceland accounting for the remainder. The 35 states voting for Article 3, adopted in the First Committee, were composed of 31 states in the Asian-African (18) and Latin American blocs (13), plus Yugoslavia, Canada, Iceland and Ireland.[276a]

C. Appraisal and Recommendation

Because the general level of discussion at the 1958 Conference, at least as revealed in summary records, tended to be hortatory rather than clarifying, and indicative, on the part of many states seeking to extend exclusive control, of a failure to understand the irrelevance and actual disadvantages of such extended control for fishery purposes, it is not surprising that none of the proposals actually voted upon, including that of the United States, can be considered to be in accord with desirable community policy The United States proposal certainly must be considered to be the least undesirable since, in the face of a determined, ill-informed opposition, it sought to maintain the area of free, but not unregulated, use in a domain as large as possible. Perhaps the suggestion for a six-mile territorial sea may be justified as a rational compromise under contemporary conditions for reasons previously indicated, but a general and universal provision for an additional six-mile exclusive fishing area can scarcely be regarded as supported by any available evidence of a scientific nature, either biological or economic. Even this limited type of exclusive control will serve to hamper biological investigation where it is most needed, i.e. in states which have fishing industries thus far relatively undeveloped and a population which might be able to take advantage of an untapped food supply. The proviso, permitting non-national access under certain conditions, attached to the outer exclusive area of six miles would be beneficial as avoiding an apportionment of resources that had little relation to the capacity to exploit, promoting continued high production of fish, and preventing, in some degree, uneconomic disruption in the fishing effort of certain states without ascertainable benefits to coastal states.

It is quite clear that, in a numerical sense, there was at the 1958 Conference a very considerable demand for a territorial sea of twelve miles or, at least, for an area of exclusive fishing of twelve miles, if a coastal state wished to claim less for the territorial sea. From the

[276a] Assuming knowledge of both the width of the territorial sea and the base points, from which the territorial sea is to be projected, there is one final claim which we have omitted from this discussion because of its relative unimportance, i.e., the claim to the manner of drawing the outer limit of the territorial sea. The "arcs of circles" method is generally regarded as the most desirable technique for laying down the outer limit of the territorial sea; this is the method prescribed in Article 6 of the Convention on the Territorial Sea and Contiguous Zone.

standpoint of fisheries, most of these demands, whether for conservation or for exploitation purposes, have little to commend them. In this respect the most surprising development consisted of the arguments of Canada, which included both allegations that an exclusive fishing area was relevant to fishery conservation, and arguments, somehow intended to persuade, that Canada needed to protect its fishermen from foreign competition and that many other states faced a similar necessity. If there were such a necessity, either for states generally or for Canada in particular, it was never made evident in the Canadian presentation at Geneva or in that of any other state. In terms of conservation, neither the evidence available from biologists nor that of the economists, including those from Canada, remotely suggests that a twelve-mile exclusive fishing zone would be of any assistance at all. Indeed, even the Canadian spokesman vacillated on the supposed requirement for conservation, at times suggesting there was no present conservation need, and in practically the same breath, contending for an exclusive fishing area for conservation purposes.[277]

If Canada, where fisheries research is particularly advanced, was unable to make a case for a large exclusive fishing zone, it is not likely that many other states could muster better arguments. For the most part, the contribution of states arguing for a twelve-mile territorial sea consisted of such unsupported exhortations as that of the representative of Saudi Arabia when he declared that the United Kingdom "argument that a twelve-mile limit would adversely affect the food supply available for the population and his country's balance of payments was indeed a weighty one which, in fact, supported the proposal for the twelve-mile limit, since other coastal states emerging from a condition of poverty in Asia, Africa and Latin America also had to feed many millions and to balance their economies; they, surely, had prior rights to exclusive fishing off their coasts."[278] The implication that, without a twelve-mile territorial sea, coastal states could not gain access to adjacent fishery resources and make adequate catches is wholly without foundation. There is no assurance, and probably no likelihood, that recoguition of a twelve-mile territorial sea would create the necessary capacity in many of the states concerned for promoting the local exploitation of such resources. Indeed, the creation of such exclusive zones might hamper these possibilities by making it difficult, if not impossible, to conduct the

277 A major argument made by Canada against the United States proviso for permitting certain foreign fishing between six and twelve miles off the coast was that use of efficient vessels and gear would "bring about an ultimately dangerous diminution in the world's fish supply." 3 Official Records 154 (1958). This is far from asserting a present need for conservation but it does assume that an exclusive area is relevant for that purpose.

278 3 Official Records 135 (1958).

investigation necessary to increased exploitation. Furthermore, and of greatest importance, even if exploitation by local fishermen might be increased, none of the states claiming a twelve-mile territorial sea, or exclusive fishing zone, offered evidence that there were not enough fish to support this increased activity along with foreign exploitation. Among a considerable number of statements representing as high a degree of exaggeration as that of Saudi Arabia, reference may be made to those of Mexico, India, Chile, Canada and Yugoslavia.[279]

In this connection, an illustration of the gap between the allegations made at the Conference and actual conditions, in one concrete instance, is revealing, if not necessarily typical. Libya, which joined in the insistence upon a twelve-mile territorial sea, declared during early debate in the Committee that:

> Libya had a long seacoast, its Fisheries were of great importance as a source of food; fish and sponges constituted, in addition, valuable Libyan exports. His country had therefore a great interest in the question.
>
> Under the Federal law of Libya, the breadth of the territorial sea was twelve miles. Libya was constantly faced with the problem of foreign fishermen who were wrongfully exploiting the resources of its territorial sea."[280]

In sharp contrast with these statements are two reports on economic conditions in Libya prepared through the United Nations Technical Assistance program.[281] With respect to the place of fish in the Libyan food supply, alleged to be of "great importance," a team of experts reported in 1953 that "[t]here is practically no inshore fishing in Libya, despite the length of the coastline and abundance of fish."[282] They added:

> One of the factors which hinder the development of the fishing industry is the very low consumer demand. The per capita consumption of fish in Tripoli is only 2 kilogrammes a year. Catches could easily be increased, since fish are abundant, but any increase is systematically and forcibly opposed by the local fishermen, because it would lead to lower prices.[283]

Other enlightening observations include:

> The Libyan sea constitutes an important source of revenue which is insufficiently exploited. . . . To develop fishing in Libya, however, several serious problems must be overcome: the lack of skilled manpower; limitations of local demand; the shortage of boats, ship-building yards, and technicians capable of carrying out ordinary repairs; lack of raw material

279 3 Official Records 165 (1958) [(Mexico), 155 (India and Chile), 184 (Yugoslavia), 184-85 (Canada).]

280 3 Official Records 53 (1958).

281 U.N. Technical Assistance Program, A General Economic Appraisal of Libya (U.N. Doc. No. St/TAA/K/Libya/1) (1952); U.N. Technical Assistance Programme, The Economic and Social Development of Libya (U.N. Doc. No. ST/TAA/K/Libya/3) (1953).

282 Id. at 51.

283 Ibid.

for ropes and nets and other fishing equipment; lack of sufficient harbors and equipment; and the inadequate facilities for preserving fish."[284]

The reference to fish and sponges as valuable exports, and the alleged wrongful exploitation by foreign fishermen appear similarly unrealistic. It is true that fish exports are valuable to Libya—the United Nations team estimated that "[i]n the years 1949-1950, the value of tunny and sardine exports has ranged from seven per cent to thirteen per cent of the total export trade."[285] What was ignored by the Libyan speaker at the 1958 Conference, in referring to these valuable exports and wrongful foreign exploitation, was the disclosure that, for the most part, the fishing installations, including fishing equipment and factories ashore, responsible for this export trade are owned by foreigners, mostly Italian and Greek. Judging from the problems noted in the United Nations report, it is highly unlikely that these exports would have been made at all if foreign fishermen had not exploited the resources off the Libyan coast. The evidence demonstrates, in short, that the contentions made by Libya regarding its need for a twelve-mile territorial sea reflected a factual disorientation sufficient to create a thriving but fictional local fishing industry in Libya.

One other illustration of this lack of realistic orientation might be cited. Among the Latin American states demanding a twelve-mile territorial sea was Venezuela. It may be, though it is doubtful, that conditions have changed in Venezuela since 1957, but that year the FAO reported that a biologist had been assigned to Venezuela "to carry out an appraisal of fisheries possibilities with a view to permitting the expansion of certain operations."[286] The biologist made the survey and submitted a "useful" report,

> [b]ut when it came to appraising the possibilities for development, he was unable to advise the Government because the actual statistics of existing production and of marketing possibilities, on which such an appraisal would be based, were lacking. In fact, it became evident that the survey was done too soon and attempted too high a scientific level.[287]

Chile, another state seeking a larger exclusive fishing area, sought FAO aid. A biologist was assigned

> . . . to design a fisheries resources survey, and to establish a program for its operation. He made a competent study but on a purely biological basis; he recommended a program again for biological research. But there the matter rests. The funds for the suggested survey were not available, nor were there facilities or funds for implementing the program he had laid down.[288]

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284 Id. at 49.
285 Id. at 52.
286 FAO, Millions Still Go Hungry 66 (12th Report of the Director General, 1957).
287 Ibid.
288 Ibid.

The point of these illustrations is, clearly enough, that simple availability of fish does not determine exploitability, and that a great many factors are influential in affecting the extent of coastal exploitation. The presence of particular legal arrangements, according a monopolistic access to local fishermen, is probably in most cases notably insignificant as a factor for increased production and may, in fact, create many difficulties for such fishermen. In this sense the insistence of Latin American states for a twelve-mile territorial sea, primarily for fishery purposes, is particularly to be regretted. Economists and biologists studying the economics of fisheries have emphasized that political boundaries, cutting off both fishing grounds and markets and obstructing "the spread of technical information and of entrepreneurial and organizational abilities," are harmful from the perspective of fishery development.[289]

The situation of Iceland, almost wholly dependent upon fishing for a viable economy and national existence, attracted considerable sympathy at the Conference, partly because the Icelandic position is patently unique, and perhaps also because its case was presented more moderately than that of other states. In a resolution directed at the positions of Iceland, Greeuland, and the Faeroe Islands, the Conference recommended, without a dissenting vote, that where a catch limit is instituted as a conservation measure, "any other states fishing in that area should collaborate with the coastal state to secure just treatment of such situation, by establishing agreed measures which shall recognize any preferential requirements of the coastal state resulting from its dependence upon the fishery concerned while having regard to the interests of the other states. . . ."[290] A more limited prescription, directed almost solely at Iceland, for incorporation in the conservation convention did not receive a sufficient majority vote and failed of adoption.[291]

289 Netherlands Economic Institute, The Development of Offshore Fisheries and the Economics of Choice 25 (1958).

290 Resolution on Special Situations Relating to Coastal Fisheries, 2 Official Records 144 (1958). The Resolution was directed at two categories of states: Those "whose people are overwhelmingly dependent upon coastal fisheries for their livelihood or economic development" and those "whose coastal population depends primarily on coastal fisheries for the animal protein of its diet and whose fishing methods are mainly limited to local fishing from small boats." The Resolution declared that these situations were of "limited scope and exceptional nature."

291 This was Article 60A, adopted by the Third Committee (High Seas: Fishing: Conservation of Living Resources). It read:

> Where a people is overwhelmingly dependent upon its coastal fisheries for its livelihood or economic development and it becomes necessary to limit the total catch of a stock or stocks of fish in areas adjacent to the coastal fisheries zone, the coastal State shall have preferential rights under such limitations to the extent rendered necessary by its dependence on the fishery.
>
> In the case of disagreement any interested State may initiate the procedure provided for in Article 57.

5 Official Records 161 (1958). For the discussion and vote in plenary session, see 2 Official Records 43-46 (1958).

It is not easy to appraise the prospects of further attempts to achieve explicit agreement on the width of the territorial sea. The American proposal received much heavier support at the Conference than any other, and, although the most desirable alternative would be the adoption of a three mile territorial sea coupled with procedures for establishing contiguous zones for exclusive fishing where urgently needed, future efforts are not likely to deviate from its fundamental provisions.[292] In surveying possible future aliguments, attention must naturally focus upon states which demanded a twelve mile territorial sea. Of the thirty-nine states supporting the eight-Power proposal for a territorial sea up to twelve miles, it may be noted that six of them would have been willing to accept the American article, having voted for the eight-Power proposal ouly after voting for the American recommendation which failed of a two-thirds majority. The Soviet bloc accounted for 8 of the remaining 33 states and, though Poland abstained on the eight-Power proposal and claims only a three-mile territorial sea, it is not likely to throw support to an American initiative.

Perhaps a slight majority of the remainder of the states, including eleven from Latin America and Iceland, were most specifically concerned with fishery problems, while those in the Afro-Asian group, apart from Nepal and Afghanistan both of which are landlocked, appear to have been affected by alleged security needs. Persuasive efforts to seek a change of position should therefore be directed at both these problems. The general irrelevance of the territorial sea for security purposes and fishery exploitation naturally needs clear emphasis; presentations should be appropriately related to any unique conditions prevailing with respect to each state.

The potentialities of agreement on the breadth of the territorial sea may be seriously affected by the passage of time and the continued emergence of new bodies politic. In the 1958 Conference it was quite clear that the new states were prone to urge a wider territorial sea, and the establishment of new states in greater numbers in the forseeable future

[292] Sorensen, note 253, supra at 251, declares that "future negotiations are bound to start where the deliberations of the Conference ended—that is, by accepting the maximum breadth of six miles, combined with certain exclusive fishing rights beyond that limit." The United States proposal seems to have been adopted by Great Britain and Denmark in resolving their disagreement about fisheries off the Faeroe Islands. There, it was agreed that the exclusive fishing area should extend to twelve miles but that British trawlers could fish up to six miles because they had traditionally fished in these waters. It is reported that the agreement is to remain in force pending emergence of a general solution to the problem of fishing limits from the 1960 Conference on the Law of the Sea. See N.Y. Times, Feb. 25, 1959, p. 12, col. 3.

Apparently Great Britain has also suggested this formula to Iceland as, at least, a temporary solution. It is reported that another solution suggested by Great Britain would have made reference to the maximum sustainable yield of the demersal fisheries over the Icelandic continental shelf. See Heinzen, "The Three-Mile Limit: Preserving the Freedom of the Seas," 11 Stan. L. Rev. 597, 662 (1959).

may thus add another substantial barrier to the achievement of explicit agreement.

The most beneficial long-term strategy—that offering the greatest promise of eventual agreement on a narrow territorial sea and other necessary measures for increasing the productive use of the oceans—would appear to consist of a more intense assault on the scientific, technological and economic problems connected with the exploitation of sea resources. Certainly one of the most potent obstacles to a rational consideration of these problems is a simple lack of information stemming both from the faulty distribution of knowledge and from a relative lack of concern for the development of ocean resources. The knowledge required is not, of course, simple. Rather, it is most complex and difficult to obtain without very considerable cooperative effort. Certainly, increased oceanographic research on a national, regional and global scale is a necessity if potential resources are to be made available in fullest measure for optimum exploitation. Part of this research, and a significant proportion, must be concerned with the practical problems connected with fishery exploitation.

Not the least of the effort required is in increased and concentrated study of the economics of fisheries. It is not too much to hope that adequate study of this kind would alone contribute substantially to correcting many of the emotional, ill-considered notions widely held concerning fishery resources. Of equal importance, economic investigation, including the study of existing markets and market development, as well as an inquiry into other factors important for investment decisions from local and global perspectives, is required if a modicum of rational planning is to be employed as a method of increasing the well-being of peoples. Without increased cooperative activity along these lines, aimed particularly at aiding impoverished states to plan and promote appropriate exploitation of fishery resources, no agreement upon verbal formulae for delimiting the scope of state authority over adjacent ocean areas is likely to have any relevance, unless a most unfortunate relevance, for meeting the food problems of the world.

VI. The Common Interest in Preserving Inclusive Use and Competence

The problem confronting the states of the world in agreeing upon an authoritative determination of the width of the territorial sea, as we have posed it, requires a choice between protecting the common interests, including both inclusive interests and long-term exclusive interests, of all states, and attempting to protect the short-term exclusive interests of a few states. It has, however, been objected by distinguished authority

that it is "an over-simplification" to state contemporary problems of the law of the sea in terms of a "conflict between wider community interests and narrow national self-interest."[293] In support of this charge of over-simplification, it is insisted that "a wide measure of freedom may very well serve the interests of one group or category of states, whereas the opposite tendency may serve the interests of others"; that particular states, whether principal powers or "small states with meager resources," may "in some circumstances, but in some only, legitimately identify their interests with those of the international community at large"; and that the "very concept of community interests is ambiguous because the function of law is to strike an acceptable balance between divergent interests."[294] This blunt denial of community interest, in favor of exaggerated emphasis upon exclusive national interest, is based, we suggest in conclusion, upon profound and dangerous misconceptions. On the one hand, it underestimates the interdependences of states and does not take into adequate account the most comprehensive long-term interests of all states. Conversely, it overemphasizes the divergences and conflicts between states and does not recognize the potentialities of genuine integrative solutions in which all gain and none lose.

The reality of the world arena today is that all states, great and small, are irrevocably locked in processes of interdetermination with respect to all values, and, hence, that the public order which any particular state can achieve is inescapably a function of a global public order, however rent with dissensions that order may be. It is this comprehensive, global public order which determines and secures both the inclusive and exclusive interests of particular states. The collective experience of several centuries has established that it is by shared use and shared competence, with a minimum of monopolization of either use or authority, that the states of the world in their exploitation of the oceans can create the greatest net gains both in the indivisible value of general security and the divisible values of wealth, enlightenment, well-being, and so on. This same experience has established, further, that the best hope for a fair and just division among the peoples of the world of the net gains from their cooperative exploitation of the oceans must be found, not in exclusive dictation, however benevolent, but in shared competence. The historic function of the international law of the sea has been not merely that of balancing "divergent interests," but of clarifying and securing, by shared reciprocity and mutual restraint, the common interests of all states in this greatest possible production and widest possible distribution of values from the great sharable resource of the oceans. In

293 Sorensen, note 253, supra at 199.
294 Ibid.

this endeavor, states of all sizes and strengths have not irrationally or unreasonably identified their comprehensive and long-term national interests with the interests of the "international community at large." It must, of course, be recognized that a state may, on occasion, be able to secure unique advantages from the oceans by a policy of exclusive grab and arbitrary assertion of authority; but its continued enjoyment of such advantages is entirely dependent upon other states not embarking upon similar policies or other retaliations. Once the restraints of law are abandoned for naked power, the greatest gains—if anybody gains—can only go to the most ruthless and the most powerful.

The balance between the common interests of all states and the putative, exclusive interests of particular states is, as has been indicated at length above, most directly and immediately at stake in the contemporary demands by some states to expand the width of the territorial sea. The issue is whether several million square miles of the oceans, long regarded as the common patrimony of all mankind, will remain open and free for shared use and competence or will be closed for monopolistic exploitation and control. It has not in fact been demonstrated that an expansion of the territorial sea will serve any realistic, exclusive interest of particular states: the testimony of scientists and economists is, rather, that the important objectives of increased fish production and a more profitable fishing industry would be better served by increased international cooperation. It certainly has not been established that an expansion of the territorial sea will serve the inclusive interests of states: general security, efficiency in transporation and communication, and increased total production of food are not likely to be advanced by enlargements of the domain of exclusive authority. The dangers to both the realistic exclusive interests and the inclusive interests of states which inhere in an expansion of the territorial sea, in contrast, seem both evident and certain. The expansion of exclusive competence to interfere with navigation, fishing, and scientific inquiry is but an unnecessary invitation to the exercise of such competence. It is, for example, beyond any doubt that the yield from fisheries cannot be advanced to the maximum sustainable level or an optimum level if the information which is indispensable to such achievement is not acquired or is made very difficult to acquire. Yet these latter consequences must most certainly ensue from an extension of the territorial sea or an exclusive fishing area. Considering all our contemporary ignorance and interdependence, the most rational course for the general community, and for particular states genuinely concerned for their long-term interests, would appear to be to abide by the wisdom of Grotius, as confirmed by experience and as promising the greatest common gains for all mankind.