On the eve of the third United Nations Conference on the Law of the Sea, an internationalist can only anticipate the outcome with a mixture of hope and trepidation. The hope springs from several declarations and actions of the United Nations and a number of States and groups of States which seem to display the same kind of "enlightened self-interest" which produced the Antarctic Treaty and the outer space treaties, timid but useful steps toward restraining the fervid nationalism of the third quarter of the twentieth century. The trepidation arises from the repeated attacks upon and dilution of the historic 1967 proposal of Ambassador Pardo of an international regime for the seabed for the common benefit of mankind and in particular the poor, or developing, countries.

The late Professor Friedmann expressed the fear of many when he said,

In our overcrowded world, navigation, as well as the exploitation of the living and mineral resources of the sea, must be the subject of planning and regulation for the common benefit of mankind. But an unholy alliance of governments, interest groups, and lawyers is working toward nothing less than the partition of the
seabed and therefore, inevitably, of the oceans themselves. To remain silent or passive toward such a development is to participate in the destruction of the principal achievements of international law in the last few centuries and to accept the preparation of an Orwellian nightmare.\(^1\)

It is possible that Friedmann overstated his case somewhat, possibly for literary effect, but his thesis seems quite valid. And for this observer also, at the moment the trepidation overshadows the hope.

This article is an attempt to focus a beam of light on a relatively obscure facet of the seabed question, one which illustrates clearly the validity of Friedmann's thesis.\(^2\) In a comprehensive discussion of the transit trade of developing land-locked states, first written in the Fall of 1967, the present writer raised a question which could not be addressed at the time because it really constituted a separate study:

The question is, if the sea is in fact \textit{res communis}, the common property of all, and if even land-locked states have the right to transit freely to and from it and navigate freely upon it (and both concepts are by now well embedded in international law), why should land-locked states not also share in the resources of the sea? . . . Surely some formula can be found which would enable the land-locked states to share equitably in the wealth of the sea.\(^3\)

It seems appropriate to pursue the quest for such a formula now.

**THE NATURE OF THE PROBLEM**

There are in the world today some 26 land-locked States, in addition to a number of land-locked microstates, dependencies and other political entities. Of these States, all but the five in Europe are poor, at least in economic terms, and may be considered "developing." These countries, then, suffer in the modern world from the double handicap of lacking a seacoast and being poor and weak. In addition, of the 21 developing land-locked States, 15 are among the 25 States designated by the United Nations as "the hard-core least developed countries."\(^4\) So severe are the development problems of these countries that for nearly 20 years they have been given special attention by the United Nations and its affiliates and specialized agencies. One of the fruits of such attention is the

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\(^2\) A good useful survey is Note, The Interests of Land-Locked States in Law of the Seas, 9 San Diego L. Rev. 701 (1972).


\(^4\) Afghanistan, Bhutan, Botswana, Burundi, Chad, Laos, Lesotho, Malawi, Mali, Nepal, Niger, Rwanda, Sikkim, Uganda and Upper Volta. TD/B/429/Add.1.
1965 Convention on Transit Trade of Land-locked States. While efforts to improve their access to the sea continue, they have not been entirely forgotten in the preparatory discussions for the Caracas Law of the Sea Conference dealing with the sea itself and its resources.

In its Resolution 2749 (XXV), Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof Beyond the Limits of National Jurisdiction, the General Assembly of the United Nations on December 17, 1970, declared, inter alia,

5. The area shall be open to use exclusively for peaceful purposes by all States whether coastal or land-locked, without discrimination, in accordance with the international regime to be established. . . .5 (emphasis supplied)

On the same day, the General Assembly passed Resolution 2750 (XXV), the basic resolution on the seabed which authorized a new U.N. conference on the Law of the Sea. Section B is devoted to "the special problems of land-locked countries" and requests the Secretary-General to report on the subject to the Seabed Committee. The subject was subsequently divided in the Seabed Committee into eight subitems to be discussed in Caracas this summer. This paper deals with three of them:

9.2.3: Free access to the international sea-bed area beyond national jurisdiction;
9.2.4: Participation in the international regime, including the machinery and the equitable sharing in the benefits of the area;
9.3: Particular interests and needs of developing land-locked countries in the international regime.

Many of the other subjects dealt with by the Seabed Committee and to be discussed in Caracas are of direct interest to land-locked states, such as an exclusive economic zone beyond the territorial sea itself, development and transfer of technology, regional arrangements, freedom of transit on the high seas and through straits, preservation of the marine environment, scientific research and peaceful settlement of disputes. These shall be referred to only in passing, while concentrating on the primary topic.

The first and perhaps most difficult problem to solve is the size of the area to come under the authority of an international seabed

regime, from which the land-locked states may be expected to de-
river the most long-term benefits. Effectively, this means deter-
mining the boundary between national and international jurisdi-
tions on the seabed, or, in the parlance of the United Nations, “the
limits of national jurisdiction.”

THE LIMITS OF NATIONAL JURISDICTION

The trend since World War II has been for coastal States to ex-
and their national territories by annexing portions of the sea,
as through World War II they expanded their national territories
through the annexation of areas of land, adjacent to them or half
a world away. Beyond the annexed areas, they have claimed areas
of “national jurisdiction” for special purposes. The “great sea
rush” anticipated apprehensively by many has already begun. Pol-
ticians, geologists, diplomats, economists and lawyers have mar-
shalled ingenious arguments backed by volumes of statistics and
precedents, all designed to prove that it is “natural” and “legiti-
mate” for coastal states to acquire as much of the sea and sea-
bed as they feel can be of value to them into the immediate future,
while laying the foundations for more extensive claims later on.

Have we forgotten so soon the German “geopoliticians” of the
1930’s who produced enormous quantities of books, maps, articles
and speeches to justify German expansionism on the grounds of
“natural rights”, the “organic state” theory, and so on? While it
seems to have been generally accepted in recent years that the
World Ocean shall not be entirely parcelled out among the coastal
and insular states, the area to be reserved for international juris-
diction; i.e., “the common heritage of mankind,” is in the pro-
cess of being defined as “what is left over after every coastal and in-
sular state takes whatever it thinks might be of use to it in
the foreseeable future.” How different is this in practice from
Germany of the 1930’s?

Rather than bickering over the precise definition of the phrase
“common heritage of mankind” and debating whether or not it
has precise legal antecedents, as is being done now to an almost
absurd degree, let us accept it as a welcome addition to the gen-
erally dull and uninspired lexicon of international law; a phrase
which truly articulates the aspirations of the peoples of the world.
Let us begin with the premise that the entire sea, right up to

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6. For one of the less irrational discussions of this matter, see Gorove,
The Concept of “Common Heritage of Mankind”: A Political, Moral or
the mean high tide line, belongs to all the peoples of the world, with only a narrow coastal strip being allocated to the coastal and insular states for their legitimate and urgent needs. As Elisabeth Mann Borgese has so succinctly stated: "Ocean Space is an indivisible ecological whole."

Accepting the necessity for boundaries in the sea, both between adjacent national sea areas and, more important, between the national and international areas, we must consider where this latter boundary shall be. Ideally, the international agency should have title to and complete jurisdiction over the "indivisible ecological whole" of the sea, the airspace above it and the earth beneath it. The agency, operating on behalf of all mankind, could then regulate in a rational manner the exploration and exploitation of more than 70% of the earth's surface so as to derive from it the maximum benefits for all the peoples of the earth consistent with the maintenance of the integrity of the marine environment. Such an ideal solution, however, is simply impossible to attain in this age of fervent nationalism, a malady suffered by rich and poor alike; the poor countries have no monopoly on virtue and the rich countries have no monopoly on avarice.

We must therefore settle for a regime which comes as close as possible to this ideal. There are several approaches to defining the breadth of the area of national jurisdiction. Here we shall consider only the three most commonly presented:

1) One internationally agreed vertical line drawn through air, sea and seabed, separating the zone of national sovereignty, extending a specified distance out to sea from the shore, from the international zone. Such a line would be relatively easy to locate, mark on maps and administer. It would include all elements of the physical environment within each zone and would facilitate rational planning and development within each zone with appropriate differences in treatment of the airspace, water column and

8. For an elaboration of this theme and a fine review of the seabed negotiations to date, see Note, The Politics of the Ocean, 47 Va. Q. Rev. 505 (1971).
seabed. This assumes that a spirit of cooperation exists between each coastal state and the international agency, as well as cooperation among and between the zones.

The difficult question to answer is whether the boundary should create a broad or a narrow zone of national sovereignty over the resources therein. Varying distances from shore have been suggested, ranging out to 200 miles or even beyond in some places to the outer edge of the continental margin. A broad belt of national sovereignty would reduce the area left for management by an international regime, perhaps to a meaningless factor, would make comprehensive conservation programs very difficult to plan and carry out, and would push the land-locked States even farther back from the resources of the sea than they are now. On the other hand, a narrow national zone, e.g., 30 miles in breadth, would mitigate some of these problems but leave others, such as national sovereignty extending as territorial sea out to the 30-mile line. This could create difficulties for fishing, navigation and other activities hitherto unrestricted on the high seas.

2) The present system (or more properly, lack of system) whereby each state determines for itself its own limits in the sea. This system provides no satisfactory guidelines for seaward boundaries; even the 1958 Convention on the Continental Shelf contains no precise formula which would restrict unilateral claims. Despite the vigor with which this system has been advanced, particularly by some developing countries, it is a formula for international anarchy.

The idea that every state may fix its national jurisdiction within reasonable limits is being put forth by its proponents as a panacea for developing countries. This is particularly unfortunate. Since any state with good lawyers at its disposal can make out a reasonable argument for virtually any limit, the ultimate result would be unlimited extensions of national jurisdiction. . . .

For every interest a coastal state conceives, it can invent another limited jurisdiction or contiguous zone thesis; each time there is a longer list of precedents for another type of unilateral claim.10

This approach places not only the land-locked, but also the shelf-locked and sea-locked States at a distinct disadvantage, leaving only a relative handful of States which, because of history or geo-

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graphical location, are able to expand outward theoretically to the median line of each ocean basin. Clearly, the trend toward legally unrestricted territorial expansion in the sea must be arrested and, if possible, reversed.

3) The establishment of multiple boundary lines in the sea by international agreement, with national jurisdiction extending outward from the coast (or straight baseline) for varying distances for various functions. As a minimum there would be a territorial sea with its superadjacent airspace, and sovereignty (or at least jurisdiction) over the continental shelf and subsoil thereof, with agreed limits. It is also suggested that there be separate national zones for fishing, pollution control, defense and other functions. This seems to be the trend at the present time, the approach favored by most of the States on the Seabed Committee and the one most likely to be adopted in Caracas. It might result in a multitude of boundaries, some difficult to locate and many difficult to administer, but it does have the advantage of flexibility and would require a minimum of retreats on the part of States which have already extended limited jurisdiction for various purposes far out to sea.

For the land-locked States, this approach has no inherent advantages or handicaps. Hopefully, as each boundary is established, adequate provision will be made for these countries to function on equitable terms both within and beyond the respective national zones, perhaps on a regional basis. If the land-locked States are left to negotiate access to the resources of the sea with individual coastal states on a bilateral basis, they will be no better off than they are now with respect to access to the sea itself.

A consensus seems to be emerging on a twelve-mile territorial sea; if adequate provision is made for free passage through interna-

11. Land-locked States are those such as Paraguay, Chad and Mongolia which have no sea coast whatever; shelf-locked States have sea coasts but share the continental shelf with States opposite them, or must cross another State's continental shelf to reach the deep seabed, such as the States surrounding the North Sea and the Persian Gulf; sea-locked States such as Haiti cannot extend their territorial seas or continental shelves because of the proximity of other States. To this group may be added those with very short coastlines, such as Zaire and Jordan; and those facing on semi-enclosed seas, such as both Koreas and Italy, which are also disadvantaged in this respect.
tional straits for ships which carry cargo to and from land-locked as well as coastal States, and for innocent passage through the territorial waters, then this should be quite acceptable to the land-locked States. It also appears likely that some type of “economic zone” or “patrimonial sea” will be established at Caracas which will give coastal States jurisdiction of some kind over at least the living resources of the sea for some distance beyond the territorial sea. If this zone is not too broad and if the land-locked States can somehow share in the profits to be made from the resources therein, then this can be acceptable also. However, the 200-mile claim advanced by several Latin American States in Santo Domingo in June 1972 and supported in essence by many African States in Addis Ababa in May, 1973,\(^{12}\) seems to be based more on narrow economic and political considerations than on the alleged need for conservation of fish stocks.\(^{13}\) Separate analysis could be made of each of the function-based boundaries suggested, but we are specifically concerned here with the boundary between national and international zones on the seabed.

The terms “seabed,” “ocean floor” and “continental margin” are used extensively in the literature and by diplomats debating various questions of the Law of the Sea. Definitions vary, however, often according to the goal desired by the user. For example,

The term “seabed” refers specifically to the sediment fill at the bottom of the marginal, semi-enclosed seas which is very closely related in its origin, source and deposition to the continental land mass surrounding it. The term “ocean floor” and its oceanic sediments refers to the great oceanic basins related to the oceanic crust which includes midoceanic ridges, valleys, troughs and abyssal plains and canyons.\(^{14}\)

This is a clear attempt to use “science” to justify a political objective; i.e., the recognition of the world's semi-enclosed seas as “dif-

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\(^{13}\) W.S. Wooster points out, for example, that for a thousand miles along the coast of Peru, the 200 meter isobath lies from 30 km to 130 km offshore, averaging about 75 km, and that the area of less than 200 meters water depth, which may be considered “continental shelf,” is estimated at about 87,000 square kilometers, larger than the similar area of 83 states. Peru's claim that she needs a 200-mile “patrimonial sea” to compensate for an excessively narrow shelf would thus seem to have a very weak foundation. Wooster systematically demolishes other arguments supporting a 200-mile exclusive fisheries zone in his article, Scientific Aspects of Maritime Sovereignty Claims, 1 OCEAN DEV. & INT'L L.J. 13 (1973).

different” from the rest of the ocean and therefore not appropriate for inclusion in an international zone. Even if the semi-enclosed seas were to be managed by regional organizations of the littoral States (rather unlikely for some time in many cases because of the mutual hostility of littoral States), the developing land-locked States would be left out almost entirely since only one of them, Laos, has its major maritime connection with a semi-enclosed sea. The reason for this “maritime enclosure movement” is also quite clear: “I suggest that these marginal semi-enclosed sea basins constitute some of the most promising areas in the world for petroleum accumulation.”

Petroleum companies have, in fact, been among the most vigorous proponents of “science” to justify the establishment of a “natural” boundary between national and international zones. This “natural” boundary is commonly given as the outermost edge of the continental slope. But this is no more a “natural” boundary than the edge of the continental shelf, the mean low tide line or the mean high tide line. Hedberg and others have marshalled much impressive geological evidence to prove the logic of the outermost of these “natural” boundaries. But since “the true edge of the continent is generally somewhat seaward from the base of the slope because of the overlap of the slope by sediments of the rise,”

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this overlap of sediments makes it exceedingly difficult to locate the precise outer edge of the shelf; therefore, the actual boundary would have to be “safely within the limits of a broad and admittedly only roughly defined zone adjacent to the base of the slope . . . .” The breadth of the zone could be adjusted to enclose almost anything deemed of value to the coastal States beyond the slope edge, and the boundary drawn as close as possible to the outermost edge of the zone; i.e., placing part of the actual ocean floor or abyssal plain under coastal state jurisdiction!\[16\] Hedberg then suggests 100 km “as the minimum technically practical width of the boundary zone” but then departs from the “natural

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17. Id. at 7.
boundary" concept when he admits that "some international political considerations might favor a much broader zone, perhaps 200, 300 or even 400 km."\(^{18}\)

Another marine geologist, who is unconnected with the petroleum industry, has observed,

... it is not surprising that there have been a number of proposals to redefine the continental shelf so as to extend it seaward to whatever distance and to whatever depth are necessary to give a nation access to the resources presumably lying or hidden there.\(^{19}\)

He goes on to point out that "on a global basis the edge of the continental shelf ranges in depth from 20 to 550 meters, with an average of 133 meters; the shelf ranges in width from zero to 1,500 kilometers, with an average of 78 km."\(^{20}\)

Thus, even the tentative legal definition of the continental shelf as being the 200 meter isobath, appearing in the Continental Shelf Convention, is most generous. Advocates of a broad shelf definition point to the judgement of the International Court of Justice in the North Sea Continental Shelf Cases which refers to the shelf as a "natural prolongation" of the continent, but they ignore the test of adjacency which must also be applied. "The Court has observed that by no stretch of the imagination can a point, for example, 100 miles off a coast be regarded as adjacent in the normal sense, but unfortunately, did not indicate what areas of the sea do come within the adjacency concept ...."\(^{21}\)

Because of this imprecision, The National Petroleum Council and others have tried to distort the meaning of "continental shelf" so as to justify inclusion of the entire continental margin—shelf, slope and rise—within the national territory of the coastal State. This kind of distortion of meanings is both unjustified and dangerous. Its effect on land-locked States would be to exclude them completely from any portion of the continental margin without even a formal international agreement to that effect.

The whole concept of "natural boundaries" is both ancient and popular, but not necessarily valid. Extracts from two of the classic statements on boundaries may illustrate this point.

The adjective "natural" is unfortunate. Simply because a line is marked by nature does not necessarily imply that it is a "natura-

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18. Id. at 9.
20. Id.
thing to utilize it for boundary purposes or that it may constitute a desirable or "natural" line of separation between neighboring peoples. A political scientist has remarked that a "natural boundary" becomes simply that natural feature somewhere beyond a state's present political boundary to which its leaders would like to expand.22

First of all, we must realize that all international boundaries are, in the final analysis, political phenomena; that is, they are drawn by man to delimit the sphere of state authority. Most boundaries are, therefore, an expression of power. . . . What seems natural to one person or group may appear very unnatural to his adversary, and what is accepted as natural in one era may be considered a queer aberration by the next one. . . .

We must therefore reject the word "natural" and allied terms wherever they are meant to cast a magic spell over our judgement.23

Mrs. Borgese has dismissed all consideration of "natural boundaries" in a recent discussion:

Today most people agree that the 200-meter isobath boundary is a very whimsical delimitation and one that is, furthermore, completely obsolete. Many people who fifteen years ago argued in favor of the depth criterion today find it unworkable. The same goes for any combination of depth and width criteria. And the geological criterion is totally obsolete.24

Since any boundary in the sea must be artificial, the most rational would be one consisting of straight-line segments and arcs located an agreed distance offshore. It would be easiest to locate, map and administer. But the "agreed distance" should not be the 200 miles claimed by many Latin Americans as the extent of "the patrimonial sea."25 Ideally, it should probably be between 30 and

22. S.W. Boggs, INTERNATIONAL BOUNDARIES 23 (1940) (At the time, Dr. Boggs was The Geographer of the U.S. Department of State).
25. The "patrimonial sea" doctrine is incorporated in the Declaration of Santo Domingo promulgated by most of the Caribbean countries on 9 June 1972 and published in full in U.N. Doc. A/AC.138/80. Thomas A. Clingan, Jr. has an interesting commentary on the Santo Domingo Conference in his review, The Oceans, 4 LAWYER OF THE AMERICAS 579. He points out that "some concern was voiced over the status of the land-locked countries of the region. However, the question was considered outside the scope of the general principles adopted, and the question was postponed for
50 nautical miles from shore, a distance which would give the coastal States, developed and developing, over 90% of the world's proven offshore reserves of hydrocarbons and substantial quantities of a wide variety of minerals, while leaving virtually all of the manganese nodules under the aegis of the international seabed agency. The 200-mile claimants, however, well know that all of the proven hydrocarbon reserves, all of the presently exploitable mineral resources and most of those having potential economic value in the next several decades, and the most readily accessible 10% or so of the manganese nodules are found shoreward of this limit.

The nodules may be found anywhere from shallow waters down to depths of about 3500 meters. The most attractive sites are in the shallow waters and on the outer parts of continental shelf, the upper regions of the slope, and the tops and sides of the submarine banks.

Most of these areas would be included within a 200-mile limit of national jurisdiction. This would leave the international seabed area with the richest nodule concentrations, but those least economically feasible to mine. Despite the impressive technological advances of recent years, it is still very likely true that

commercial development of deep sea minerals is not likely to be significant for many years to come. After development becomes significant, it will be many years before royalty or rental payments will become large.

Not only the developing land-locked States, but all developing States are supposed to share in the income from deep sea mining in the international area. But the countries which would acquire the largest areas of seabed beyond the 200m isobath if the 200-mile limit were to be adopted would not be the poor countries at all, but rather the United States, Australia, New Zealand, Japan and the Soviet Union, all among the countries which are also best equipped to exploit any portion of the ocean bottom. The next five largest gainers of territory from a broad shelf formula would
be Indonesia, Mexico, Brazil, Chile and Norway. While four of these countries are poor, they are far from the poorest and are all significant producers of land-based minerals.

A glance at a bathymetric map of the world will reveal other problems posed by wide limits of national jurisdiction. Small islands and small seas, seamounts and guyots, and the likelihood of artificial islands being constructed on the shelf, all would tend to complicate matters, largely to the benefit of a handful of countries. "If the limits are narrow, then the inequities and difficulties are not particularly great. But as limits become larger, the problems become more intransigent."

Summing up, it would appear that a broad economic zone giving exclusive mineral rights in the continental shelf and adjacent seabed would be of most value to a small group of rich and poor countries, largely the former. It is a mystery why so many developing countries, largely in Africa and Latin America, are going against their own long-term best interests in pursuit of short-term tangible gains, and why even some developing land-locked States are willing to go along with assignment of a relatively small resource base to an international seabed agency, while visions of sugar plums dance in their heads.

**AN INTERNATIONAL SEABED AGENCY**

It has been generally agreed that the Conference on the Law of the Sea will establish some form of agency or authority to assume responsibility for whatever portion of the ocean bottom remains after "the limits of national jurisdiction" are determined. What remain to be decided are the nature of the agency, a system of representation of States in the agency and their participation in the decision-making process. It is not within the scope of this article to survey all of the many proposals and draft treaties put forward during the last decade by individuals, organizations and States. Rather, we shall examine only some of their major fea-

31. An excellent summary of many of the proposals offered to date is
tures and suggest, in broad terms, what would be most equitable for the developing land-locked States. Many observers and practitioners consider that the issues of representation in the agency and distribution of benefits are more important to the land-locked and shelf-locked States than the limits of national jurisdiction. This may well be true, but the questions deserve some attention.

In a recent article, the present writer anticipated that

[the international seabed authority, however constituted, will include representatives of land-locked states and its mandate will somehow permit land-locked states to derive some material benefits from the development of the seabed resources.]

According to Friedmann, "the landlocked states are the only group generally favoring a strong seabed authority with extensive jurisdiction, including revenue-sharing." Fortunately this is not entirely true, for the 13-power draft submitted by Latin American countries in 1971 contains provisions (Articles 14-19) for a strong authority indeed. This is well, for all the developing countries, not only the mediterranean ones, have far more to gain from a strong authority than from a weak one. It is they who have benefited most from the United Nations itself and its many specialized agencies.

Ideally, since "ocean space is an indivisible ecological whole," there should be one single international agency to own and manage the sea, the airspace above and the earth below beyond the (hopefully narrow) limits of national jurisdiction on behalf of the community of man and for the benefit of all. This agency should be closely linked with the United Nations, if not indeed a formal member of the U.N. family, and its profits should be transferred to the U.N. for economic development programs. Such an agency, however, is probably premature, given the presently primitive stage of man's cooperative instincts. Therefore, we may immediately retreat one step from the ideal and suggest two separate agencies with similar strong links to the U.N.; one to manage the high seas and the airspace above, and one to manage the seabed and subsurface thereof. Only the latter is of immediate concern to us here, though it would be necessary for the two agencies to work

together in a harmonious partnership, possibly sharing a single
directorate, so as to harmonize conflicting uses of ocean space and
preserve the integrity of the marine environment.

The agency should be a proper authority, with power to make
and carry out its own decisions, subject to the general policy guid-
ance of the United Nations. Specifically, it should have the power to: 1) Develop and implement long-range plans for the best use
of the seabed, its subsurface and its living and non-living re-
sources; 2) Develop and enforce rules for the safe, efficient explo-
ration and exploitation of the international seabed area so as to
avoid conflicts of use; 3) Develop and enforce rules for the preser-
vation of the seabed environment as an integral part of the whole
marine environment; 4) Borrow and lend money on its own ac-
count; 5) Explore and exploit the area on its own account or in
partnership or joint ventures with States, regional organizations,
other United Nations agencies, consortia of States, or corporations;
6) License entities such as these to conduct operations on its be-
half, on a contract basis, or on their own with appropriate license
fees, royalties and perhaps other moneys to accrue to the Author-
ity; 7) Regulate prices of seabed minerals so as to avoid inordinate
disruption of the present market for these minerals deriving from
terrestrial sources; 8) Publish and otherwise disseminate results
of all exploration and exploitation carried out under its aegis as
rapidly as possible; 9) Provide and otherwise promote scientific
and technical training in marine affairs for personnel of develop-
ing countries; 10) Promote in other ways the transfer of marine
technology to developing countries; 11) Develop and operate ma-
chinery for the compulsory peaceful settlement of disputes which
may arise within its area of competence.

This is certainly a most ambitious scheme, and it is not antici-
pated that the Authority would immediately implement all of these
powers, but they should be granted to it and implemented over
a period of time as they become necessary and feasible.

The structure of the Authority must be such that it will be able
to carry out its functions expeditiously, economically and justly.
It should have a legislative body of some sort in which are rep-
resented all of the States which have ratified or adhered to the
treaty establishing the Authority. In this assembly, each State
would have one vote. It would set policies, organize committees
for research and preparation of legislation and oversee the operations of the other organs of the Authority. There should be a Council composed of representatives of the various groupings of States: rich, poor and "socialist"; coastal, shelf-locked and land-locked; Latin America, North America, Europe, Asia, Africa, the Middle East and the Pacific Basin. It would be the executive agency of the Authority, carrying out the policies of the Assembly, promulgating detailed rules and regulations, contracting or signing treaties with other parties, and supervising the exploration and exploitation of the international seabed area.

There should be a Secretariat headed by a Secretary-General nominated by the Council and approved by the Assembly. The Secretariat would be responsible for housekeeping chores; providing information to the Council and the Assembly; training of personnel and the transfer of technology; dissemination of the results of research and exploitation of the seabed; liaison with the high seas authority and the United Nations; providing facilities for good offices, conciliation and mediation for the compulsory settlement of disputes; and performing other duties which might be assigned to it by the Assembly and/or the Council. There would be no need for a judicial organ, at least initially, since difficult problems could be referred to the Permanent Court of Arbitration or the International Court of Justice if the Authority's own peaceful settlement machinery is inadequate. The Assembly would be empowered to establish such technical commissions and specialized agencies as may be deemed appropriate, responsible to it but receiving immediate supervision from the Council and logistical support from the Secretariat. Qualified personnel to staff the Secretariat and the specialized agencies would be selected with due regard for equitable representation of all contracting parties, including land-locked States.

Clearly this is simply an outline of the major features of an international seabed authority; details would have to be negotiated in Caracas. It would, however, assure that land-locked States are duly represented in all major and most minor organs of the Authority and that their interests would be taken into account in all of its decisions and activities.

**THE DISTRIBUTION OF BENEFITS**

Principle No. 7 of the United Nations Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction reads:
The exploration of the area and the exploitation of its resources shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether land-locked or coastal, and taking into particular consideration the interests and needs of the developing countries. (emphasis supplied)

In dozens of resolutions, draft treaties, declarations of regional groupings, and analyses and recommendations by individuals and private groups since then, some variation of the phrase “equitable sharing by States in the benefits” is given some degree of importance. It may be assumed, then, that there is general agreement that even the countries without the wherewithal to develop seabed resources, even those which have no direct access to the seacoast whatever, should somehow derive some benefits from the development of seabed resources. However, there is considerable disagreement about details, ranging from proposals to give the “hard-core least developed” States the largest share of net revenues of the seabed authority to suggestions to let them have only token payments from uncertain revenue sources. All of these proposals cannot be reviewed here; consideration can only be given to the likely benefits to be obtained and to suggestions of some principles for their distribution will be advanced.

The literature on the resources of the seabed and the continental shelf, especially on petroleum and hard minerals, is abundant and growing increasingly so. But publication still lags behind discovery and much information is withheld from the public as military or proprietary secrets. Nevertheless, it seems fair to say that the continental margin contains enormous quantities of hydrocarbons and some hard minerals, while the abyssal plain, oceanic ridges and other submarine features beyond the margin contain enormous quantities of hard minerals and perhaps some hydrocarbons. Recent advances in submarine mining technology, summarized in two United Nations publications, lead both to a sense of anticipation of the great riches soon to be extracted from our ocean space and distributed bountifully around the world, and to a sense of urgency about the need to establish a suitable international mechanism for

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36. Id. at 222.
regulating this new phase in the long story of man's exploitation of
his physical environment.

Two notes of caution must be sounded, however, before we pro-
ceed further in our discussion: 1) We must be careful not to ex-
aggerate the real wealth to accrue to the developing countries,
coastal or land-locked, from the seabed. Some of the broadest con-
tinental shelves are not particularly well endowed with resources,
and regardless of spectacular technological innovations, high risks
and costs of ocean mining are likely to keep profits low or nil
for many years and the poor countries will for a long time to
come have to rely on traditional sources for development funds;
and 2) Environmental concerns are likely to be largely ignored
in favor of short-term economic ones. Just as the rich countries
are generally unwilling to admit that it is in their interest to share
their wealth with the poor, so the poor countries are generally
unwilling to admit that it is in their interest to protect the environ-
ment. We have not yet reached the promised land.

A cogent article provides what is perhaps the most detailed re-
cent analysis of the question of the distribution of benefits.38 Using
a systems approach, the author examines the likely returns
from ocean mining and various proposals for sharing these returns.
In the process, he considers the needs and problems of land-locked
and shelf-locked States. As he points out,

The economic interest of these countries does not depend pri-
marily on the specific boundary of national-international jurisdic-
tion. Of far greater importance are the provisions of the regime,
and in particular those for the areas of the continental margin
where oil and gas may be found. The objection of the land-
locked and shelf-locked countries to wide limits stems from the
fact that the wider the limit for national jurisdiction the lower
the revenue potential for the international machinery from oil and
gas production in the international area. A meaningful revenue
sharing scheme, however, would increase the scope of revenues
for the international machinery by providing for some contribu-
tions from mineral exploitation much closer to the shore of coastal
States than could otherwise be realistically expected.39

The number and variety of proposed revenue-sharing schemes,
involving wealth extracted from the international area alone, the
international and national zones, or the international and some
kind of intermediate zones, are considerable. Whatever scheme is
finally adopted, however, should include as a minimum the follow-
ing conditions: 1) The land-locked States must be included spe-

38. Kanenas, Wide Limits and "Equitable" Distribution of Seabed Re-
39. Id. at 154-55.
cifically in the relevant conventions as having a right to a share in the revenues from the development of the international area not less than that assigned to coastal developing States, in partial compensation for their having been left, by accidents of history and geography, bereft of frontage on the sea; 2) The revenues derived from all sources including auction sales receipts, license fees, royalties, taxes and profits from sales of resources should, when shared out, total an amount which could reasonably be considered “equitable” as a proportion of total revenues from the international area; 3) Revenues from the international area should be supplemented by a reasonable share of the revenues to be derived from activities on the continental margin and seabed between the limit of the territorial sea and the limit of the international area.

Finally, it should not be forgotten that the land-locked and shelf-locked countries must have an opportunity, on the basis of equality with coastal States, to participate actively themselves or through licenses in the exploration and exploitation of the international seabed area, notwithstanding that it may not be feasible for most of them to do so for some time to come. This aspect of the situation is considered at some length, though tentatively, in an early United Nations study of land-locked countries and the seabed. One point made in the summary is that:

[I]n the event that land-locked countries were to engage individually in direct exploration and exploitation activities, although their position as regards activities on the high seas or on the sea-bed might be subject to the same conditions as those applicable to other States, consideration would have to be given to the adequacy of existing arrangements as regards transit rights through the coastal State or State of transit, the need for coastal facilities and transit through inland waters and the territorial sea.40

REALISM AND IDEALISM ON THE SEABED

What has been presented here so far is admittedly idealistic, a plea for internationalism in a world in which the reality is nationalism. Thus, reluctant concession must be made to realism, even while admitting the essential truth of Friedmann’s dictum, “Today’s ‘realism’ [nationalism] becomes the madness of tomorrow.”41

The land-locked countries themselves appear to have succumbed

41. Friedmann, supra note 33, at 81.
to "realism" and throughout the five-years' labor of the Seabed Committee have not united and fought hard for their interests, which are largely congruent with those of the coastal developing countries. In the last session of the Seabed Committee, in the summer of 1973, seven of them offered twenty-two "draft articles relating to land-locked States." Only three mildly-worded articles pertain to the seabed. They are as follows:

ARTICLE XVII

Access to and from the sea-bed area

(1) Land-locked States shall have the right of free access to and from the area of the sea-bed in order to enable them to participate in the exploration and exploitation of the area and its resources and to derive benefits therefrom in accordance with the provisions of this Convention.

(2) For this purpose the land-locked States shall have the right to use all means and facilities provided for in this Convention with regard to traffic in transit.

ARTICLE XVIII

Representation of land-locked States

In any organ of the international sea-bed machinery in which not all Member States will be represented, in particular in its Council, there shall be an adequate and proportionate number of land-locked States, both developing and developed.

ARTICLE XIX

Decision-making

(1) In any organ of the machinery, decisions on questions of substance shall be made with due regard to the special needs and problems of land-locked States.

(2) On questions of substance which affect the interests of land-locked States, decisions shall be made with their participation.

International law is being created today largely through the political process, with nearly 150 States participating. A far cry indeed from the beginnings of international law several centuries ago. International law being created now is clearly a bundle of compromises which may completely satisfy no one, but on the other hand, the new international law does not completely alienate so many States that it is rejected outright. And so whatever legislation emerges from the Caracas conference or its probable second session in Vienna in 1975 is likely to fall somewhere between the mildly optimistic proposals presented here and the cold, grim view expressed by the Soviet delegation at a Seabed Committee meeting:

The interpretation of the concept of the common heritage of mankind in the sense that this is wealth that belongs to every-

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body, would from the political standpoint be unreal, . . . nor do we believe there is any ground for including . . . a provision whereby the regime to govern the exploitation of the resources of the seabed should insure the equitable sharing by States in the benefits derived therefrom. . . .

The United States Draft Convention, submitted to the Seabed Committee in August 1970, proposed a number of compromises of conflicting interests. One of the most imaginative and potentially trend-setting proposals was for a Trusteeship Zone, a kind of buffer zone between the 200 meter isobath, representing the outer limit of national jurisdiction on the continental shelf, and the outer edge of the continental margin. In this zone the coastal State would act as agent of the international authority in many respects, while still operating therein on its own account. Unfortunately, this proposal appears to have been submerged in a tide of opposition on several grounds. Many former colonies opposed the whole notion of trusteeship as a form of "neocolonialism." One legal scholar opposed it because "If States are given jurisdiction over that area for certain purposes, the phenomenon of 'creeping jurisdiction' will not fail to manifest itself."44

Another view of some sort of "international zone" concept is that it is "an unnecessary and burdensome price to pay to make the international regime more acceptable to coastal nations" but instead it "may be useful and even essential in achieving an acceptable balance of competence between coastal nations and the international regime."45 Only a year after introducing it, Ambassador Stevenson signaled its demise when he told the Seabed Committee on August 10, 1972,

... in order to achieve agreement, we are prepared to agree to broad coastal State jurisdiction in adjacent waters and seabed areas beyond the territorial sea as part of an overall law of the sea settlement. However . . . it is essential that coastal State jurisdiction over the mineral resources of the continental margin be

subject to international standards and compulsory settlement of disputes. Here is a clear case of idealism bowing to realism.

Other far-sighted proposals are likely to be similarly watered down. It is unlikely, for example, that the international seabed authority will have even the statutory authorization to conduct mining operations itself due to opposition from American mining interests and many developing countries. Mining codes are likely to be left to the several coastal States, with only the broadest guidelines laid down by treaty or by the international authority. There is likely to be no effective moratorium on deep sea mining pending the coming into force of an international convention and the establishment of an international authority. While a narrow national zone on the shelf and a strong seabed authority would be in the long-term best interests of the developing countries and the land-locked countries, neither is likely to be achieved. We must therefore look for another compromise formula to substitute for the intermediate zone concept.

Mention has been made from time to time in the Seabed Committee and in the literature of regional cooperation in the development of the continental shelf and the seabed out to the limit of the international zone. In combination with at least a moderately strong international authority, regional organizations composed of coastal, shelf-locked, land-locked, insular and sea-locked States, cutting across ideological lines where possible, may be the best attainable instrument for achieving a harmonization of the four basic objectives of any seabed regime.

These objectives are: 1) achievement of the greatest good for the greatest number of people on earth; 2) equity in sharing the

46. This general statement was elaborated upon in Draft Articles for a Chapter on the Rights and Duties of States in the Coastal Seabed Economic Area. Submitted to Sea-bed Committee in 1973 (A/AC.138/SC. II L 35 and Corr.1). Article 1 begins, “the coastal State shall have the exclusive right to explore and exploit and authorize the exploration and exploitation of the natural resources of the seabed subsoil and in accordance with its own laws and regulations in the coastal sea-bed economic area.” Though the rest of the articles detail some limitations on these “exclusive rights” and some obligations of the coastal states, including the sharing of revenues from mineral exploitation of the economic zone, the proposal still represents a considerable retreat by the United States.

47. Two landlocked States, Uganda and Zambia, made a formal, though quite general, proposal for regionalism in their Draft Articles on the Proposed Economic Zone submitted to the Sea-Bed Committee in 1973 (A/AC.138/SC. II/L.41). They suggested “regional economic zones,” with outer limits unspecified, in which regional or subregional authorities would explore, exploit and manage exclusively all of the resources of the zone on behalf of all of the States in the region or subregion.
wealth of the sea so that even minorities, such as the land-locked States, will attain a fair share of the benefits; 3) preservation of the integrity of the marine environment, all of ocean space; and 4) experience in cooperation and international administration so that "national sovereignty" will not be so difficult to dilute or give up altogether at some time in the future.

The regional sea development organizations would share both the risks and the benefits of developing, as integrated units, the groups of zones within the limits of national jurisdiction. Thus, even if these limits are far out to sea, the regional units will reduce the disadvantages of cutting up the "indivisible ecological whole" of the sea into numerous pieces.

Many questions remain unanswered. For example: What is a region? How would membership in a region be determined? How would the costs, risks and benefits be apportioned? What kind of formal organization would be appropriate? How would the regions cooperate with one another, with the international authority and with the United Nations? For the present, we can only say that the regions themselves will have to work out these and other problems on the basis of good will, experience in other spheres, and trial-and-error.

In this way, the land-locked States would be able to participate in one of man's greatest adventures—the development of the sea—on a footing of equality with all other States, with no apologies and no pleading for concessions. Why is it worthwhile assuring that even the small, poor, weak and isolated land-locked countries of the world are helped in this way by their more fortunate brethren? Robert S. McNamara may have expressed the reason best when he discussed development assistance in his address to the Board of Governors of the World Bank Group in Nairobi on September 24, 1973:

There are, of course, many grounds for development assistance; among others, the expansion of trade, the strengthening of international stability, and the reduction of social tensions.

But in my view the fundamental case for development assistance is the moral one. The whole of human history has recognized the principle—at least in the abstract—that the rich and the powerful have a moral obligation to assist the poor and the weak. That is what the sense of community is all about—any community: the community of the family, the community of the village, the community of the nation, the community of nations itself.