A Review of Efforts to Build an International Ocean Regime During the Past Three Decades, with Special Attention to the Need to Protect the Ocean's Resources

The Marine Revolution through which we are living today did not occur overnight. Its beginnings to back to the years preceding World War II. Overfishing was a problem already at that time; offshore oil drilling was in its infancy but its potential was already apparent. The first comprehensive effort to regulate all major uses of the sea was UNCLOS I, in 1958, but with its four Conventions it left certain gaps which continued to widen during the subsequent decades.

The Convention on the conservation of fisheries on the high seas was too weak to prevent further overfishing; The outer limits of the territorial sea,as well as of the continental shelf remained uncertain; and this was to be confirmed by the failure of UNCLOS II in 1960. The conservation of the marine environment and the fundamental importance of marine science and technology was not understood as yet, and, worst of all, there was no notion of the unity of ocean space and the interaction of ocean uses. States could pick and chose among the four Conventions, becoming parties to any one and ignoring the others: a fragmented system with plenty of room, in the interstices, for chaotic claims to national jurisdiction, extermination of fisheries and pollution of the marine environment.

Something, clearly had to be done. Three major streams of events converged. There were conservative concerns, for the need of stabilizing the limits of national jurisdiction to protect the

freedom of navigation of the historical great naval powers; there were emerging hopes of new States who had not participated in UNCLOS I and II and wanted their say in the making of a new Law of the Sea that should reflect their own legal traditions and economic aspirations; and there was the relentless march of technology development which made marine resources available further and further out and deeper and deeper down, hastening the extinction of commercial fisheries and the pollution of the marine environment.

There was a whirlpool of excitement at the confluence of these trends, and for a generation that had lived through fascism and nazism and the second world war, a generation that was yearning for security and peace, for economic justice and the end to racial discrimination, here was a new horizon. Here was movement, here was change unconstrained by terrestrial rigidities. Here our dreams could be taken down from their lofty heights and connected down to the ground: to the seabed; here we could step out of Academia and bring innovation into the political area. The Law of the Sea seemed to unite humanism: the attempt to build a human law and order, and romanticism, the love of nature and the oceans as part of nature. It offered a starting point for a new philosophy: an "ecological worldview," and a new economic theory: of sustainable development: the economics of the common heritage.

Each one of the pioneers of the new Law of the Sea came to it from a different angle and a different background, but they all shared a pervasive enthusiasm and a hopefulness for the future that was hard to come by in other sectors of national or international politics.

Claiborne Pell, already at that time Senator of Rhode Island,

Two documents

was driven by life-long association with, profound knowledge of, and a deep love for, the sea. In his book, ***The Challenge of the Seven Seas****, published in 1966, he gives a fascinating picture of what ocean development would look like in 1996, or, just about, now: including largely expanded and developed aquaculture; subsea completion systems for offshore oil production transported by nuclear-powered submarine tankers; underwater recreation facilities and resorts; fast hydrofoils; container traffic moving in "sausage trains," "fishmen" swimming freely in the deep breathing through artificial gills ("book lungs") and communicating with the dolphins through an electronically transmitted commonly developed "language;" an information and communication technology symbolized by a chess game played by the captain of an orbiting seascan satellite and the mate of a submersible hidden under the polar ice: one move, each time the satellite appears on the sub's horizon:*

He was not far off the mark: all this is possible today.

There are interesting legal and institutional developments as well in Pell's vision of the future of the oceans: The U.S. has coordinated its comprehensive consolidated ocean development plan through a huge new agency, the National Ocean Agency Headquarter -- NOAH, for short; globally, there is an International Sea Patrol for surveillance and monitoring, for search and rescue, for disaster relief, the enforcement of fisheries management and conservation measures and the protection of the great whales. There also are new sovereign States emerging in the midst of international waters, and recognized by the international community, such as "Sidonia," built by King Sid on a guyot, a flat-topped seamount, within 200 feet of the surface.

After almost thirty years, the book retains an astonishing

actuality, in spite, or perhaps because of the dramatic developments that have taken place during these last three decades. On the scientific side, there is not yet any inkling of tectonic plate theory and continental drift in Pell's book. The deep-seas minerals are there, but they play a far less dominant role than they were to play through UNCLOS III. There is a certain naivete concerning institutional questions. The Sea-guard function is envisaged to be exercised by the U.S. Coastguard, under United Nations auspices: there is not yet any awareness of the chain of reasoning along which the exercise of an important function, such as monitoring and surveillance of the ocean environment with a paramilitary force in reality requires an executive power and that executive power, unless it were to be exercised in an authoritarian manner, needs legislative control, with decision-making processes that have the confidence of the international community.

Pell's "Treaty on Principles Governing the Activities of States in the Exploration and Exploitation of Ocean Space," published in 1968, still shares this institutional weakness. This model treaty establishes a Licensing Agency with powers which considerably exceed those of the International Seabed Authority under the United Nations Convention on the Law of the Sea: for instance, they include the issuing of regulations concerning pollution and the disposal of radioactive waste material in ocean space as well as the establishment and the command of an Ocean Guard by the Agency under the responsibility of the U.N. Security Council. But the Treaty does not tell us who is to exercise these vast powers: a super-bureaucracy -- controlled by whom? Responsible to whom? It was to take fourteen years of negotiation and hard bargaining by the whole international community through UNCLOS III

to begin to sort out these questions.

Senator Pell's "Treaty on Principles" remains nevertheless a pioneering document of historic importance. His treatment of the interaction between space law and law of the sea is interesting and apt to enhance both. His treatment of nongovernmental organisations, almost "as if they were States" is in line with the evolution of international law. Most importantly, the document draws attention to the need for new international "machinery" to ensure "the most efficient exploitation of the resources consistent with the conservation and prevention of waste of the natural resources of the sea-bed and subsoil of ocean space": a theme that has remained before the international community and will yet have to be faced again in Brazil 1992.

The next initiative I would like to single out for consideration is that taken by the Center for the Study of Democratic Institutions in Santa Barbara, California, in 1967. It led to the publication of another ocean draft treaty, ***The Ocean Regime****, in 1968, the initiation of a series of major international conferences, Pacem in Maribus, and the establishment of the International Ocean Institute in Malta, one of the more influential policy-research thinktanks and training institutions in the world today.*

The Santa Barbara draft is indebted to Senator Pell's draft treaty, especially on his constructive borrowing from space law. It is also deeply indebted to Ambassador Arvid Pardo of Malta, who, on November 1, 1967, had delivered his historic address at the United Nations General Assembly, calling for a Resolution declaring the seabed and its resources to be the Common Heritage of Mankind and

for the convening of the Third United Nations Conference on the Law of the Sea to embody this Principle in a universal Treaty and machinery to manage the common heritage of mankind for the benefit of humanity as a whole. Ambassador Pardo joined the Santa Barbara initiative from the very beginning. The deliberations at Santa Barbara, in turn, undoubtedly exercised a major influence on his later proposals in the United Nations, to which we shall return below.

The Santa Barbara draft convention was based on a number of basic considerations, of which we shall cite here only the most important ones.they remain valid today.

1. The creation of the regime will be a political and constitutional task rather than an economic or technological one. "The question of the immediate economic profitability of the oceans seems secondary. In setting out to establish an Ocean Regime, mankind is not just building a business or organizing an industry.the task is far more comprehensive. It is political in the widest sense, a new politics that must harness technology and science, that must constitutionalize science and the economy."

2. The main purpose of the regime will be to create a new form of cooperation in the international community that may set a pattern for the future activities of mankind. "The objectives of the Regime must e based on the fact that ocean space is an indivisible ecological whole. They must be structured in such a way as to comprise the entire array of activities concerned with the oceans, at the national and international, the governmental and the nongovernmental levels. ***Basically, the objectives are three: development (scientific, economic, and legal); conservation***

(including antipollution); and security."

3. In view of the rapid changes in technological development and the many unknown quantities pointed out by the scientists at the Center, the emphasis must be on creating an institution to deal with these as they emerge rather than on establishing a code that might freeze development.

4. This may imply a de-emphasis of the usual administrative organs, as we know them in the specialized agencies, and a new emphasis on the deliberative organs which would constitute, so to speak, a permanent conference on the law of the sea.

5. The organization embodying the regime must be ***sui generis****; as different from other existing international agencies as its functions will be different from those of other agencies.*

6. It will be apparent that all of the major problems that have to be faced are interconnected and must be solved together. "Planning the industrialization of the sea-bed must be accompanied by planning of anti-pollution measures and the conservation of marine life. Industry, fishery, communications, the military complex are linked. Jurisdiction over any aspect of ocean activities tends to entail jurisdiction over all other aspects -- or to be empty. This is the functional interdependence." In the same way, the Draft stresses "horizontal interdependence, since fish do not stop at political boundaries, nor does pollution. "If it is to be effective, the Regime must deal, therefore, with ocean space as an indivisible ecological whole." The Santa Barbara draft thus recognizes the "permeability" or "porousness" of the boundaries that used to

separate the competencies and responsibilities of government departments, intranationally, and of the specialized agencies of the United Nations, internationally -- the structure of international organisation being a mirror image of that of national organisation. Santa Barbara equally recognized that the boundaries between national, regional, and global jurisdictions had become "porous" and "permeable." All this was to be stated authoritatively by the Brundtland Commission twenty years later in its Report ***Our Common Future.***

These "interdependencies," in the Santa Barbara draft, have three major sets of institutional implications.

The first two follow from the "porousness" of the boundaries between what used to be separate levels of governance -- national, regional, international -- and the continuity of jurisdictions (vertical interdependence).

First, this continuity does not imply an invasion of national sovereignty. What it implies is an enlargement of the concept of "legislation": its loosening up over an ever-wider range of "laws" or "norms", "regulations," "directives," "recommendations," and "opinions". This appears to be a general phenomenon, also at the level of federal or even unitary States. It is connected with the role of planning. Planning transforms and enlarges the concept of law. Planning plays an important role in the ocean regime.

Planning is a function distinct from that of law-making. It really adds as fourth dimension to Government. Western constitutional theory is as deeply imbued with the conviction that government can only have three branches as people used to be with the conviction that space had three dimensions. Then came Einstein and proved that there was a fourth dimension, time. With planning,

a fourth dimension is added to government. It may even turn out that government has more branches or dimensions than four. Chinese constitutional theory recognizes five. Riemann space is multi-dimensional. We must shed our Western prejudices as our interests curve round the globe, into outer space, into ocean space.

Plans do not have the character of "laws" in the technical sense. It is not of decisive importance whether they are "enforceable" or not; it is far more relevant that they be such as to benefit those who comply and exclude from such benefits those who do not comply. In other words, they are based on cooperative rather than coercive law. And this accords with the sovereignty of nations.

Twenty years later, Ambassador Pinto of Sri Lanka observed that one of the innovating features of the new law of the sea is indeed that it gives rise to a "new international law of cooperation."

The second institutional implication of "vertical interdependence" is that we need a framework that provides proper linkages between national, regional and global institutions to articulate this interdependence, to make it possible to ***manage*** *this interdependence. The Santa Barbara Draft provides for a network of* ***regional organisations****, with proper backward linkages to national governments, through "regional committees," and proper forward linkages to the global ocean regime and its secretariats. This, in a way, anticipated the Regional Seas Programme. I shall return to this a below.*

The "porousness" of the boundaries separating the competencies of Government Departments, at the national level, and Specialized Agencies of the U.N. system, at the international level, finally, caused by the well known interdisciplinary character of almost all

issues facing the "ocean manager," and the recognition, 20 years later inscribed in the Preamble of the U.N. Convention on the Law of the Sea, "that the problems of ocean space are closely interrelated and need to be considered as a whole," has its own set of institutional implications. It means, we need an institutional framework, at national, regional, and global levels where governments and the international community can indeed consider ocean problems in their interrelatedness, in an interdisciplinary, ecosystemic fashion. It means new forms of decision-making.

The Santa Barbara Draft provided a rather unusual approach to this problem, inspired by Yugoslav constitutional law in the fifties and sixties which came to us through the person of a very unusual Yugoslav jurist and Judge on the constitutional court of Yugoslavia, Professor Jovan Djordjevic, one of the great theorists of neo-Marxism or Marxist Humanism, who was involved in our work in Santa Barbara during those early years.

The basic principle is simple, and as valid today as it was then: If the issues under consideration are interdisciplinary, the decision-making process must be interdisciplinary. It cannot be implemented by just one discipline, i.e., the lawyers and politicians (who generally are lawyers). It must involve scientists, economists, industrial managers: all those whose disciplines are involved. The ocean regime, we reasoned, must create a new synthesis between politics, science, and economics. That implies that decisions have to be made by politicians, scientists and economists.

The Yugoslav model provides for what could be called a "rotating bicameral system" for decision-making. The fulcrum of this system is the political chamber, composed of politicians as usual. their consensus is needed for any decision. But if a decision

involved science or education, then the consensus of the chamber of scientists would be needed as well. If it involved public health, the consensus of the chamber of doctors and public health official would be needed, and so on. The Yugoslav Parliament had five chambers reflecting the interdisciplinary nature of the issues to be dealt with and providing a structure of interdisciplinary decision making.

The Assembly of our Ocean Regime had four chambers: a Political chamber as fulcrum, based on regional rather than national representation, to keep its size in manageable limits. It provided for a chamber representing the fishing industry; a chamber representing the oil and mineral mining industry, and a chamber of scientists. I don't know why we forgot the shipping industry; obviously it should have been provided for as well.

This Assembly elects then elects a Commission, which is the Executive Body. Both of them together elect a Planning Board and a Secretariat with various departments. The competence of the Regime is comprehensive, covering all uses the ocean, in ocean space as a whole, with its flexible and continuous range of enforceable to nonenforceable laws, regulations and plans, its global/regional/national institutional framework, and its goal of enhancing development, environment, and security in the oceans.

That was 22, 23 years ago.

Where does it rate today, on the scale between utopianism and realism? Was it an idle dream? Does it have anything to offer to the world of today? Was it just ahead of its time?

We shall return to these questions after a brief examination of the third major Effort to Build an International Ocean Regime During the Past Three Decades, with Special Attention to the Need to

Protect the Ocean's Resources -- and that is Arvid Pardo's monumental Draft Ocean Space Treaty, a Working Paper submitted by Malta to the Seabed Committee in 1971.

This Draft Convention begins by updating and modernizing conventional and customary international sea law, in particular, the four Conventions adopted by UNCLOS I in 1958 -- a task that later was to be undertaken by the Second Committee of UNCLOS III. In some respects, Pardo's attempt was more successful than UNCLOS III: More rational, less distorted by political compromise. The Santa Barbara Draft, incidentally, failed to provide this part, which is of course essential.

The Pardo Draft then proceeds to define coastal state jurisdiction in ocean space which is divided into National Ocean Space and International Ocean Space, the dividing line being a single one, at a distance of 200 miles measured from the base lines from which the territorial sea is measured.: One boundary only, for the sea floor and the superjacent waters, rather than the intricate array of boundaries that was to be provided for by UNCLOS III.

This is followed by the definition of the International Ocean Space Institutions: An Assembly, a Council, an International Maritime Court and a Secretariat. Major subsidiary organs are an Ocean Management and Development Commission, a Scientific and Technological Commission, and a Legal Commission. Additional major subsidiary organs may be established by the Assembly.

To assure balanced decision-making, representation in all the organs is weighted on the basis of population, length of coastline, gross tons of merchant shipping, possession of research and rescue vessels and the amount spent annually on marine scientific research, the amount of fish harvested annually; the amount of offshore

hydrocarbons produced annually; the possession of submarine pipelines or cables in international ocean Space; and, finally, the amount paid to the Institutions (which is based on revenue obtained from the exploitation of natural resources in national ocean space: a kind of ocean development tax).

States meeting the standards set up by these weighting factors belong to Category A; coastal states not meeting these standards belong to category B, while landlocked States make up category C.

Decisions on most issues require a majority of votes of States belonging to Category A plus a majority of votes of States belonging to one of the other two categories. Some crucial decisions require a majority of votes of all three categories.

The system is undoubtedly ingenious, but, in spite of all intentions it seems almost inevitable that it would assure a preponderance of decision-making power to the richer, more developed, industrialized maritime and coastal States.

The Assembly functions as a kind of permanent Conference on the Law of the Sea. It has the responsibility of drafting and adopting a number of important Conventions on matters of detail which this framework Convention wisely abstains from spelling out.

The executive Council consists of all members belonging to category A, an equal number belonging to category B, and five members belonging to category C. Decisions of the Council require the affirmative vote of a majority of its members as well as of a majority of members if category A and one of the other two categories.

The Commissions are composed on the basis of the same principles as the Council, although the decision-making process differs slightly.

The Ocean Management and Development Commission is responsible for the regulation and licensing of the exploitation of living and nonliving resources in international ocean space and it has to prepare, and submit to the Council for consideration, rules relating to navigation, communications, maritime safety, seabed installations and devices, conservation, management and exploitation of the natural resources in International Ocean Space.

The Scientific and Technological Commission shall make recommendations concerning measures to safeguard the quality of the marine environment and shall prepare draft regulations or conventions thereon. It shall also advise the Council on the proclamation of a regional or a world ecological emergency in ocean space. If so requested, it may advise States on measures required to avoid pollution of national ocean space, and, most important, it shall advise the Ocean Management and Development Commission on the scientific, ecological and technological aspect of licensing the exploitation of the natural resources of International Ocean Space and the exploration of its nonliving resources. This is another way of ensuring interdisciplinary decision-making and the integration of development and environment, or sustainable development, as it is called today.

The most important function of the Legal Commission is to promote the harmonization of national maritime laws and the development of international law relating to ocean space and to prepare draft conventions thereon; and to prepare a number of Conventions on matters of detail not spelled out in this Draft Convention.

Pardo provided for a system of binding dispute settlement and for the standing of legal persons, not only States, before the

International Maritime Court.

There are many other details which I do not mention for lack of time. Let me only recall some fundamental points which Pardo himself stressed in his Introduction to the Draft Ocean Space Treaty:

1. It is based on the conviction that laissez-faire freedom beyond national jurisdiction has become dysfunctional; and that the unfettered sovereignty of the State within national jurisdiction has become equally dysfunctional. "In contemporary conditions both must yield to the supreme interests of mankind if we are to survive and to expand our beneficial use of the oceans."

2. No State can legitimately use its technological capability, whether within or outside national jurisdiction, in a manner that may cause extensive change in the natural state of the marine environment, without the consent of the international community; the coastal State has a legal obligation to take and enforce within its jurisdiction reasonable measures to control pollution of the oceans which might cause substantial injury to the interests of other States.

3. Going far beyond his 1967 proposal which political wisdom constrained him to restrict to the seabed, Pardo now declares that ***ocean space beyond national jurisdiction is a common heritage of mankind.***

4. Pardo stresses the fundamental importance of marine science and technology for the development and rational management of marine resources. Hence the importance given to these subjects in the draft

*and their inclusion among the purposes of the Institutions envisaged. "It should be noted in this connextion that, since the Fisheries Department of FAO, the Intergovernmental Oceanographic Commission and the Inter-Governmental Maritime Consultative Organization, **inter alia**, could appropriately be consolidated in the proposed Institutions, the number of international organizations would not be increased by the creation of institutions for ocean space.*

5. The draft encourages the gradual establishment of a world network of parks and nature preserves (whether for recreational, scientific or other community purposes) and of scientific stations. It also provides for measures to deal with the possible necessity of proclaiming ecological emergencies.

6. Arms control and disarmament in ocean space are mentioned, but without going into details. "If the Institutions envisaged function effectively and act wisely, it is probable that they will be requested in due course to undertake important functions with regard to arms control and disarmament in ocean space."

7. The same goes for resource management in international ocean spate,." It should be made clear in this connexion that, the concept of resource management in ocean space beyond national jurisdiction having been firmly established, it was thought preferable to lay down only general guidelines on the manner in which the management powers of the Institutions should be exercised rather than to attempt a detailed regulation of exploitation without knowledge of the conditions under which exploitation will be undertaken in practice."

Pardo's draft convention consists of thirty-one chapters and 205 articles. It was way ahead of its time which as yet had not come to the recognition that the problems of ocean space are closely interrelated and need to be considered as a whole. Sectoral approaches, absolute national sovereignty, were still the order of the day. A Draft Convention declaring ocean space to be the common heritage of mankind and providing for international ocean institutions to regulate and manage not only the mineral resources of the international seabed, but all resources in international ocean space, could not be given any attention in 1971. And yet, the Pardo Draft is the real prototype of the Convention adopted in 1982.

It was in 1980, when Pacem in Maribus was held in the Hofburg in Vienna, that President Amerasinghe -- quite shortly before his untimely death -- told me, "had we looked at Arvid's Draft Convention in 1971, we could have spared ourselves ten years of work."

This, then leads me to the next question:
How much of our dreams have survived in the 1982 United Nations Convention on the Law of the Sea? Should we despair about the greediness of States, the short-sightedness of politicians, the inadequacy of compromises, about the slowness of real positive developments, about the continued degradation of the marine environment and the exhaustion of many of its living resources? About the continued arms race in and the nuclearization of the oceans? About the continued exploitation of the poor and the weak by the rich and the strong?

All this, undoubtedly continues to give cause for concern. But we knew all along that ideas are changed in the realm of politics and that the synthesis we were seeking had to include a synthesis,

as well, betweeen long-term and short-term, national and supranational interests.

The outcome, the United Nations Convention on the Law of the Sea can be described as a glass that can be seen to be half empty or half full. I prefer to see it as half full. I am in fact amazed, not at how much of our dreams has disappeared, but how much has been preserved and is now enshrined in international law.

First, the Convention contains the first comprehensive, binding, enforceable, international environmental law. This is necessarily generic: it is a framework that needs to be filled, at regional and national levels: but it is there, for us to build on.

Second, the Convention deals with environment in the context of development: Development of natural, living and nonliving, resources; development of human resources; development of marine science and technology. The provisions are clear, but, again, they need to be translated into institutional as well as economic and financial terms: at global, regional, and national levels.

Third, the Convention deals with the advancement of peace and security, by reserving the High Seas -- including the Economic Zones -- as well as marine scientific research for peaceful purposes and the international seabed and its resources "for exclusively peaceful purposes" -- a great, and novel concept which needs to be interpreted and developed in legal and institutional terms.

Fourth, the Convention combines, in a most creative and original way, developmental, environmental, and peace-enhancing aspects in the concept of the Common Heritage of Mankind, which cannot be "owned" or appropriated by anybody; which must be developed equitably, for the benefit of mankind as a whole, regardless of the economic or technological stage of development of

a country; which must be conserved for future generations; and which must be reserved for exclusively peaceful purposes. A concept which indeed contains the seed of a new economic order, of a new economic philosophy; of a new relationship among people and between people and nature.

Fifth, the Convention goes so far as to try to embody this novel concept of the Common Heritage of Mankind in an institutional framework, and while this, quite naturally, is not yet altogether successful, the Prep.Com. has now succeeded in putting into place what may turn out to be a universally acceptable interim regime, not yet for the commercial exploitation of the common heritage of mankind -- the mineral resources of the international seabed area -- but for exploration, the development of human resources, and technology development.

Sixth, the Convention has peacefully achieved the most important redistribution and reorganization of ocean space ever attained in history.

Seventh, the Convention has replaced a system of laissez faire in the oceans with as system of management through a combination and interaction of national, regional, and international institutions which now must be more fully developed.

Eighth, the Convention is based on the recognition that "the problems of ocean space are closely interlinked and need to be considered as a whole," a simple statement fraught with the most complex institutional implications which we now have to spell out.

Ninth, the Convention fosters the concept of regional cooperation which, in a number of instances, it makes mandatory, to the point some experts have seen in it the origin of an emerging new international law of cooperation; and

Tenth, the Convention contains the first, comprehensive, flexible but binding system for the peaceful settlement of disputes: a break-through in international law which, eventually, might well be taken over by the United Nations system as a whole.

It is in the evident interest of the world community that this Convention should come into force. Only then can we build on it, be it in the development of environmental law, the progressive development of the Law of the Sea, cooperation in science, technology and industry, or the building of a new world order in genera.

Details of the Convention have already been overtaken by events and are no longer applicable. The Convention is unfinished business: it is process rather than product.

I have indicated already several levels of action that should be pursued if we are to advance the new order in the world ocean as model for, and part of a new world order: if we want to advance by going back to our old dreams, which were dreams because they were ahead of their time.

1. An absolute priority, in this broader context, is to bring the Convention into force. What would be the point of embarking on another, huge and complex enterprise, such as Brazil 92, to reach new agreements on environment and development when the international community is demonstrating, through its inaction, that it cannot implement the agreements already reached, codified and signed? Brazil 92 can draw on the Convention, can utilize the unique experience of UNCLOS III, it can contribute to the implementation and progressive development of the environmental/developmental law already existing in that Convention -- provided the international

community gets its act together and confirms its readiness to live up to its undertakings. The new world order must be built solidly, one stone upon the other. The Convention on the Law of the Sea is a corner stone. It must be solidly in place before continuing the building. Otherwise both the Law of the Sea and Brazil 92 remain a pie in the sky.

2. The next priority, once the Convention comes into force, is to create a forum where States can discuss ocean policy in an integrated manner. I mentioned that one of the basic recognitions of the Convention is that the problems of ocean space are closely interrelated and need to be considered as a whole; but, since the end of UNCLOS III, there is no organ in the United Nations system where ocean problems could indeed be considered as a whole. The U.N. system still reflects a tightly closed sectoral approach to the big interdisciplinary problems -- oceans; environment; trade; energy; food, etc. inherited from bygone times. It was indeed the Delegation of Portugal -- led by my great friend Mario Ruivo -- which, at the end of UNCLOS III, pointed to the need of creating such a forum -- which might take any of several forms: It might be an annual,or bi-annual Special Session of the General Assembly on Ocean Affairs; it might be a permanent institution such, as for instance, the Disarmament Committee in Geneva; or UNCTAD, but it must be a forum where States can consider ocean problems in their interaction and as a whole. If such an institution is to be established in 1992, we better start thinking about it now.

3. Perestroika has put before us the concept of ***comprehensive security****, that is, the recognition that security today does not have*

only a military dimension, that is: it can no longer be secured through superiority in an arms race; but that it has an economic dimension as well as an environmental dimension. To be ***secure,*** *States and the international community need* ***economic security*** *as well as* ***environmental security****. I want to draw your attention to the fact -- historically conditioned rather than casual, that the concept of comprehensive security and the concept of the common heritage of mankind are complementary in this sense; for the concept of the common heritage of mankind, just as that of comprehensive security has a developmental, an environmental, and a peace-enhancing dimension. In this sense, comprehensive security must be based on the principle of the common heritage of mankind, and the implementation and progressive development of the Law of the Sea can make major contributions to Perestroika.*

4. The Regional Seas Programme, a breakthrough in the seventies, still reflects the sectoral approach of Stockholm 1972. It focused on the protection of the marine environment. It soon realized that, to do that effectively, one had to deal with all sea uses as well as a number of land uses, but the institutional framework established for the Regional Seas Programme still reflects a sectoral approach. This institutional framework now has to be broadened to match the broadened mandate.

Institutional innovation thus is needed at the national, the regional, and the global level, and they are all interlinked: This does not mean, however, that everything has to happen at the same time. It will take time to implement the new system.

One could start -- and this would be my recommendation -- with one or two pilot experiments: I would suggest the Arctic, where

regional cooperation is at its very beginning, and might be developed in accordance with the new comprehensive principles indicated by the Brundtland Report and put forward in quite specific terms by Perestroika; and, secondly, the Mediterranean, where the Regional Seas Programme is most advanced in institutional infrastructure and experience. For the first time since the end of World War II, the political preconditions for such an initiative now exist. Let us try there to create the institutional framework needed to implement comprehensive security, with its environmental, its developmental, and its disarmament dimensions. Let us declare these regional seas zones of peace. In both cases, the institutional implementation of the concept of comprehensive security would strengthen world peace, enhance global economic development, and contribute to the conservation of the human environment. To make the Mediterranean a Zone of Peace could be part of, and would strengthen, an over-all Middle East peace settlement which, we fervently hope, may be the outcome of the present, immensely dangerous, crisis. The rest will follow.

5. Much work is to be done in the Preparatory Commission for the International Sea-bed Authority and for the International Tribunal for the Law of the Sea which has been meeting in Jamaica and New York since 1983 to prepare for the implementation of the Convention once it comes into force. There, an interim regime is emerging for the management of the common heritage of mankind, in the form of an agreement between the so-called "Pioneer investors -- that is countries, recognized by the Law of the sea, which have already made large investments in seabed mining -- and the Preparatory Commission as a whole. (The Pioneer investors, at present, are

France, India, Japan, and the Soviet Union, and, most recently, China.) This interim regime will be of crucial importance not only for the future of the law of the sea, but for international cooperation in science and technology in general. Here, too, a piece of machinery is being generated that must integrate reservation for peaceful uses, development and environment, for this is what the common heritage of mankind is all about.

6. Much work is yet to be done to define, to give a legal content to the concept of reservation for peaceful purposes. This could, perhaps, most appropriately be entrusted to the International Law Commission of the United nations, but somebody has to take an initiative so that this can be done.

War, it has been said, begins in the minds of men. The same can be said with regard to "integration." An institutional framework is of crucial importance for the management of "sustainable development" integrating development and environment. But behind the institutional framework, there must be a conceptual framework . How many of us still think of the protection of the environment as a constraint on economic development, as a cost that must be added to the cost of development? How many are capable of envisaging them as an integrated whole? -- of economics, the economics of culture, as just a part of ecology, the economics of nature? How many of us really feel, deep down, that an economic system that destroys its own resource, really is no economic system at all but is a prescription for disaster? What we need today is a basically new economic theory. And, considering that we are transcending the age of sectoralization, that theory too, will have

to be broadly interdisciplinary: It will be a new philosophy, a new look at relationships among humans, and between humans and nature.

Our terrestrial existence has given us the erroneous idea that we are the overlords of nature and free to treat or ill-treat her at will. The return to the sea, the penetration of the oceans with the industrial revolution, may be a triumph of our science and our technology: It also may have its humbling effects. We are small and frail in the ocean, and nature is mighty. We may destroy it, and ourselves, but we cannot subject it; we must work with it, not against it, and that is what the integration of environment and development is all about. Working in the oceans, with the oceans, integrating environment and development, imposes a new paradigm, somewhat as the integration of time and space into space-time in the theory of relativity imposed a new paradigm, a new worldview. Aurelio Peccei, the founder of the Club of Rome, once said, we need a new economics which is as different from classical economics as Einstein's physics is from Newton's. I like to call it the Economics of the Common Heritage.

This worldview -- more humble than Western tradition has been for the last few hundred years: less aggressive -- that humankind is part of nature, and if we destroy nature we destroy ourselves, we must now bring from our ocean experience to our terrestrial experience. In this sense, the oceans are our great laboratory for the making of a new world order, foreshadowed in the process of implementing, interpreting, progressively developing the new Law of the Sea and the principle of the Common Heritage of Mankind as the basis of a system of common and comprehensive security.