Dalhousie University

International Ocean Institute

I.O.I. - Malta

PROGRESS REPORT

1. This is a progress report on my work on the New International Technological Order Emerging from the United nations Convention on the Law of the Sea. This work is proceeding on schedule, and in accordance with the original project proposal.

2. The first part, which is outlined in my College de France lectures of two years ago, will have to be updated. ***New figures, put together by the Third World Academy of Science will be inserted.*** *A section on "intellectual property" in the high-tech age will be added. This I have already elaborated in my study for the Asian African legal Consultative Committee last year.*

3. The section on "marine industrial technology" will be kept up to date on the basis of the new "Marine Technology Monitor" issued just now for the first time by UNIDO.

4. I have done all the research on the technology cooperation provisions contained in the United Nations Convention on the Law of the Sea and the developments to which this framework has given rise in the context of the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea. Of particular importance in this respect is the Understanding on the Fulfilment of Obligations by the Registered Pioneer Investors and their Certifying States, LOS/PCN/1990/CRP.44, 29 August 1990. ***I shall have to follow progress in the implementation of this agreement by attending the forthcoming***

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***sessions of the Prep.Com.**: New York, August 1991; Jamaica, Spring, 1992. Additional research for this section will be undertaken in cooperation with the Fridjof Nansen Institute in Oslo. That Institute has the best ocean mining technology project I know of. They are working closely with a number of advanced industries in this sector which have entered joint ventures to develop new seabed exploration technology. **I am studying the possibilities of bringing this work into the framework of the Convention and the Prep.Com.** I am attaching a summary paper I did for the Dahlem workshop in Berlin. Although I was not able to attend the conference, this paper is being published as part of the Proceedings.*

*5. Work on the **Regional Centres for R&D in Marine Industrial Technology** is proceeding.*

*(a) In the **Mediterranean** several new developments have taken place. There is an impressive UNDP project (7 million dollars a year) for the establishment of as Arab/European Centre for Environment and Development, with headquarters in Cairo. Among other things, this Centre will deal with marine technology. Secondly, a new Centre has been established in Venice, Italy, that will deal with marine technology, and the whole Trieste/Venice complex of scientific/technological institutions is being consolidated into one Centre for Science and Technology (including marine technology) for Third World Countries.The Mediterranean Centre for R&D in Marine Industrial Technology, for which I elaborated a first proposal three years ago, and which will have its headquarters in Malta, will be part of, benefit from, and contribute to, this whole complex. Malta has already some projects ready to go into action (seawater desalination, in cooperation with*

Italy and Tunisia). All these developments will have to be monitored during the coming year and this will be a central chapter of the book.

(b) Work in the Caribbean is proceeding very rapidly. In cooperation with the Director of INTECMAR, Simon Bolivar University, Caracas, Dr. Ricardo Molinet I am carrying out a feasibility study on the establishment of a Caribbean Centre for R&D in Marine Industrial Technology a first draft of which should be completed in November. This is conceived in conjunction with "Project Bolivar," announced by President Perez of Venezuela last Spring. In November, an intergovernmental workshop (expert level) is scheduled to take place in Caracas to discuss the feasibility study and take further decisions. These developments will form the substance of another central chapter.

6. As suggested in the original proposal, the book will close with recommendations for further action and research, including what I call "the economics of the common heritage," i.e., the institutional articulation of "sustainable development" in the context of the interpretation and progressive development of the Law of the Sea. Some summary indication of the content of this part is given in my paper on Ocean Mining and the Future of the Oceans. I have further elaborated it in my paper Perestroika and the Law of the Sea. The institutional implications are developed in my background paper for Pacem in Maribus XIX. The development of this book will refine these thought and add further concreteness.

7. To sum up: The book will consist of a theoretical introductory part, largely written already, but in need of being updated so as

to take into consideration the latest developments; this will be followed by three substantive chapters: On joint technology development in the ocean mining sector; on the Regional Centre in the Mediterranean; on the Regional Centre in the Caribbean, all based on the new concept of technology co-development (rather than technology transfer) and the newest forms of private/public international cooperation. The final chapter will consider the emerging new international technological order as part of a new world order in general.

Given the amount of work already done, it is realistic to think that the book can be finished in the autumn of 1992.

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THE UNITED NATIONS DECADE OF INTERNATIONAL LAW

AND

THE LAW OF THE SEA

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EXECUTIVE SUMMARY

As the United Nations Decade of International Law is entering the second period of its implementation, it may be timely to draw attention to what we consider a serious lacuna on the agenda.

The Law of the Sea is at the frontier of the progressive development of international law. The adoption of the United Nations Convention on the Law of the Sea in 1982 was hailed by the Secretary-General as the most important event since the adoption of the U.N. Charter itself. The Convention is now coming into force, generating new and important developments in international law and organisation. The implementation and progressive development of the Law of the Sea should be an important component of the agenda for the remainder of the United Nations Decade of International Law.

Activities should focus on four areas:

1. New concepts contributed to international law by the Convention and its progressive development, such as the concept of the Common Heritage of Mankind and Sustainable Development.

2. The contributions of the Law of the Sea to the four programme areas adopted for the Decade: (1) the promotion of acceptance of and respect for the principles of international law: (2) promotion of means and methods for the peaceful settlement of disputes between states, including resort to and full respect for the International Court of Justice; (3) encouragement of the progressive development of international law and its codification; and (4) encouragement of the teaching, study, dissemination, and wider appreciation of international law. The Law of the Sea has major contributions to make in all four areas.

3. The contribution of the Law of the Sea to institution building, at national, regional, and global levels.

4. The integration of the processes triggered by UNCLOS III on the one hand and UNCED, on the other, and their joint impact on the restructuring of the United Nations system as a whole.

INTRODUCTION

The reasons for the increasing importance of the oceans in world affairs are numerous and well known. Scientific/technological developments; the penetration of the industrial revolution into the oceans; resource scarcity on land; overpopulation; migrations into the coastal areas where 60 percent of the world population now reside: these have often been cited.

In the context of international law, one might adduce other reasons: As the information revolution and the globalisation of production systems and services proceed, our perception of the planet is bound to change. Political space, as embodied in the nation State, economic space, and ecological space no longer coincide, generating institutional gaps which frustrate the effectiveness of governance at all levels.

One might conceive of the whole planet as an emerging Archipelagic State and the continents as a group of islands in the world ocean. The ratio of land to water is 1 to 3. Like the Archipelagic State, the world can increasingly be seen as an "Ocean Community," based on a new concept of the interaction between people, land and water. This interaction creates a new legal status for the archipelagic water as an integral part of the territory of the Archipelagic State. Analogously, the legal status of the world ocean must change. The global analogue of the archipelagic waters is the Common Heritage of Mankind. The change in the legal concept of the waters goes hand in hand with a changing concept of the State itself: Once linked to the notion of *territory* and *territoriality*, now consisting overwhelmingly of *ocean space.*

I. NEW CONCEPTS

The United Nations Convention on the Law of the Sea has given rise to fundamental new concepts and is transforming traditional ones. In a very summary manner, one might list the following:

The Common Heritage of Mankind

Throughout world history known as a religious or philosophical concept, it was first introduced as a norm of international law in General Assembly Resolution 2749 (XXV) and codified in Articles 136 137, 140, 141, and 145. These articles define the concept in legal economic, and environmental terms, and give it the following attributes:

1. The common heritage of mankind cannot be appropriated by States, persons, or legal persons. It is *nonproperty*;
2. The common heritage must be *managed* on behalf of mankind as a whole;
3. Benefits generated by the common heritage must be shared, with particular consideration for the needs of developing people;
4. The common heritage of mankind is reserved for exclusively peaceful purposes;
5. The common heritage of mankind must be managed with due regard to the environment so as to be preserved for future generations.

The concept thus has a *development, an environment, and a disarmament dimension.* integrating development and environment concerns, it is basic to *sustainable development.* Adding the disarmament dimension, it is basic to the concept of *comprehensive security* with its military, economic, and environmental aspects. The application of the Common Heritage of Mankind principle to other areas of global concern will undoubtedly be a subject of international law in the coming decades. It should be noted that the Division of Ocean

Affairs and Law of the Sea is currently compiling two volumes of discussion on this subject.

Sovereignty

That the concept of sovereignty, as inherited from 17h century Europe, has become dysfunctional, needs no further elaboration. It is, in fact in a process of breaking up. In its internal dimension --the sovereignty of the ruler over his subjects --this entails the break-up of so many States, under ethnic, religious, or religious pressures. In its external dimension --the sovereignty of States vis à vis other States --it generates unions larger than States, mostly of a regional character. Intra-national break-up and international unification are two sides of the same coin.

In defining the components of ocean space --territorial sea, EEZ, Continental Shelf, Archipelagic Waters --the Law of the Sea Convention contributes to a reconceptualization of Sovereignty which may be seminal. It disaggregates the concept into a "bundle of rights" some of them stronger, some of them less strong. Thus "sovereign rights" over resources and economic uses can live together in the same space with "jurisdictional rights" or "shared rights" in matters of international interest such as the environment or scientific research: a paradigm that could be applicable to international law in general: States have sovereign rights where they can exercise them meaningfully; they have shared rights in matters of regional or global concern.

Ownership

Similarly, the Roman-Law absolute concept of ownership has become dysfunctional. The *jus utendi et abutendi* is incompatible with the conservation of the environment or the abolition of poverty, both fundamental to sustainable development. The concept of the Common

Heritage of Mankind reconceptualises "ownership," as "stewardship" based on early Christian, Catholic, Hindu, Buddhist, and other non-European social philosophies. We do not "own" our wealth: it is entrusted to us; we have to manage it, not only for our own, but for the common good (there being no difference between our own and the common good in as much as we are part of the community), according to the criteria codified in the above mentioned Articles of the Law of the Sea Convention.

A great deal of work will have to be done in the coming decades on the international law aspects of the changing concept of "ownership," particularly in such fields as science- and information-based high technology which cannot be "owned" in the traditional sense.

These are systems-transforming innovations crystallised, for the first time, in the Law of the Sea. The contribution of the Law of the Sea to international law, however, does not stop here. As universally acknowledged, the dispute settlement system contained in the Law of the Sea Convention is by far the most advanced, comprehensive, flexible and yet binding, ever devised by the international community. The Convention, furthermore, contains the only existing comprehensive binding and enforceable international environmental law, basic for the successful implementation of the whole UNCED programme and the advancement of sustainable development.

While other innovations --for instance, the concept of "transit passage" --are specific to the Law of the Sea, without wider implications, the Convention as a whole embodies an "international law of cooperation" which puts it into the forefront of the progressive development of international law.

II. CONTRIBUTIONS OF THE LAW OF HE SEA TO THE FOUR PROGRAMME AREAS ADOPTED FOR THE DECADE

The promotion of acceptance of and respect for the principles of international law

The entire UNCLOS process has been a school for the promotion of acceptance and respect of international law.

The International Ocean Institute has conducted over 40 training programmes during the past ten years. One of the distinguishing marks of these programmes is that each one of them begins with an in-depth discussion of the Law of the Sea Convention and developments surrounding it. Although most other training institutions, dealing with "integrated coastal management" fail to do this, it seems to us to provide an essential basis for ocean management and the sustainable development of marine resources. Training programmes in coastal management, fisheries, sustainable development, etc. for which there is a very great demand, offer an excellent opportunity for the promotion of acceptance and respect of international law.

Promotion of means and methods for the peaceful settlement of disputes between states, including resort to and full respect for the International Court of Justice

With its exemplary, comprehensive dispute settlement system, including the role assigned by it to the International Court of Justice, the Law of the Sea Convention undoubtedly makes a major contribution to this effort. It is indeed remarkable how the marine affairs case load of the ICJ, in particular the settlement of important boundary disputes, has increased over the past decades, and that these settlements have remained peaceful. New concepts, like that of "joint development zones" have emerged, contributing to the progressive development of international law.

Encouragement of the progressive development of international law and its codification

The Law of the Sea Convention itself is the largest and most comprehensive effort ever undertaken in the progressive development of international law and its codification. It is nevertheless to be considered as a *framework* which needs to be filled during the coming decades both *functionally* (e.g.,with regard to high-seas fisheries) and *geographically* (above all, at the regional level). The Decade Agenda would do well in including studies on the next phase of regional cooperation and development, bringing the legal and institutional framework of the Regional Seas Programme up to date, to enable it to respond to the challenges of truly integrating Development and Environment concerns in Sustainable Development.

Encouragement of the teaching, study, dissemination, and wider appreciation of international law

The Law of the Sea Convention has accomplished the largest peaceful redistribution of ocean space in history. Developing countries have considered this an act of international social justice. They expected instant wealth from the peaceful acquisition of the large ocean spaces over which the Convention attributes to them sovereign rights. National wealth, however, is no longer generated by natural resources, or territorial gain. It is generated, overwhelmingly, by science-based technological innovation. The gradual recognition of this fact has triggered an unprecedented demand for "training" or the development of human resources. This "training," as pointed out above, must include the teaching, study, dissemination and wider appreciation of the law of the sea which is an essential part of international law.

III. THE CONTRIBUTION OF THE LAW OF THE SEA TO INSTITUTION BUILDING, AT NATIONAL, REGIONAL AND GLOBAL LEVELS

The Law of the Sea Convention itself creates a number of new international institutions: the International Tribunal for the Law of the Sea; the International Seabed Authority and its Enterprise; as well as Regional Centres for the advancement of marine science and technology. Beyond that, however, the successful implementation of the Convention requires institutional re-organisation at all levels. The simple statement, enshrined in the Preamble, that "the problems of ocean space are closely interrelated and need to be considered as a whole" has vast institutional implications; for if these problems are to be considered as a whole and in their interactions, organs are needed which should be able to do this. This implies the kind of horizontal (interdisciplinary, trans-sectoral) and vertical (local, national, regional, global) restructuring postulated by the Brundtland Report for the management of sustainable development in general. In the marine sector, this development is most advanced.

The International Ocean Institute has conducted numerous studies on this subject over the past three years. These studies will be continued and included in IOI teaching materials. There can be no doubt that this is an important subject for study and promotion by the Decade.

IV. THE INTEGRATION OF THE PROCESSES TRIGGERED BY UNCLOS III ON THE ONE HAND AND UNCED ON THE OTHER, AND THEIR JOINT IMPACT ON THE RESTRUCTURING OF THE UNITED NATIONS SYSTEM AS A WHOLE

The oceans are a crucially important part of the planet's life support system. Practically all pollution, no matter where it is generated, ends up in the ocean. Ocean/atmosphere

interaction determines the planetary climate. It is logical, therefore, that one of the most important and detailed chapters, Chapter 17, of Agenda 21, adopted by UNCED in Rio de Janeiro in June, 19992, deals with the oceans. This Chapter is the link-pin between the "UNCLOS process" and the "UNCED process." From now on, they move together, for better or for worse.

Both UNCLOS and UNCED have already begun to impact on the restructuring of the U.N system. UNCLOS has effected adjustments within each one of the U.N. specialised agencies referred to in the Convention as "the competent international organisation" and attempts have been made to improve coordination and integration of policies among them. UNCED has generated an entire new Division in the United Nations Secretariat, headed by an Undersecretary-General, to service the Commission for Sustainable Development (CSD) and its High-level Segment of Ministers. Efforts have started to integrate the UNCLOS and UNCED processes (e.g., a conference, currently, in Paris, at the Intergovernmental Oceanographic Commission).

These developments are at a very early stage, groping for ways and means. They will have to be intensified during the coming years, both at the intergovernmental and the nongovernmental level. The year 1995, with San Francisco II, right in the middle of the Decade, should be a landmark on the arduous road of restructuring the fifty-years old global institution, enabling it to respond to the new challenges of comprehensive security, sustainable development, and the common heritage of mankind. It goes without saying that this is the real core of a United Nations Decade of International Law.

I. Chronology of Events

1. The Tenth Session

The Ninth Session ended in a mood of euphoria. A major break-through had been achieved on one of the toughest questions that had still remained unresolved: the mode of decision making in the powerful executive body, the Council, of the International Seabed Authority, that is, one of the great innovating features of the emerging Convention. The solution to this problem had been largely engineered by the leader of the U.S. Delegation, Ambassador Elliot Richardson who, at the end of that session, expressed the confident hope that the Conference was now ready to adopt the Convention, an event which he deemed to be the most important one since the foundation of the United Nations itself.

The Tenth Session, instead, was overshadowed by the United States' decision to undertake a comprehensive review of the Draft Convention, questioning the very principles on which it was founded, and to withdraw from the negotiations at the Conference until this review was completed. The gaps between "Reaganomics" and the new philosophy of the Common Heritage of Mankind were altoo evident. Major changes, affecting the basic principles of the Convention, however, could not be considered without risking the unravelling of the whole "package," and it became soon clear that the choices were not between this Convention and another or better one, but between this Convention or none at all: not between a Convention with or without the U.S., but a Convention without the U.S. or no Convention at all. What would be the effect of the U.S. withdrawal on the other industrialized countries and, in particular, on Nato allies and EEC, was not too difficult to predict. It was clear that Europe's interest differed substantially from U.S. interests, and Europe's relations with Third-

World countries were considerably more important than those between Reagan's America and developing countries. It was clear that countries like Canada, Australia, Norway, had to gain too much from the Convention to be willing to give it up, while the socialist countries could not be displeased by a demonstration of political isolation of the United States as the Cold-War temperatures kept sinking. If the Tenth Session began with deep concerns as to the practical utility of a Convention on the Law of the Sea to which major maritime powers would not be parties, it ended with the unquestionable determination to go ahead and conclude the monumental work, even at the cost of abandoning the principle of consensus and proceeding to vote. In spite of overwhelming political difficulties looming in the background, the work of the Tenth Session was productive.

Of the five major issues left to resolve -- listed by Dr. Jagota on p. 291 of his article -- two: the question of the location of the International Seabed Authority and its organs and, simultaneously, the location of the International Tribunal for the Law of the Sea, and the question of the delimitation of economic zones and continental shelves between States with adjacent or opposite coasts, were solved.

The question of the seat of the Authority was a thorny and politically sensitive one, since it was divisive within the Group of 77 itself.

Malta, which, as is well known, had played a leading role in laying the foundations for UNCLOS III, officially renounced this role during the Second Session in Caracas in the summer 1974. "The path indicated by Malta in the past remained open," Mr. Bellizzi, the Maltese representative, said on July 11, 1974, "but his delegation would not be acting as guides." (Official Records, Vol. I, p. 158). In accordance with this policy, Malta did not put forward its candidacy for the seat of the Authority. Filling the vacuum, Jamaica stepped forward and promptly secured the support of the Group of 77. It was only thereafter that Malta changed its mind and placed its candidacy. The competition between the two developing island states was fierce, and often bitter, and not really defused by the advent of a third competitor, Fiji, without, however, having a serious

chances of displacing the two senior rivals.

When it became clear that the Conference could not reach any consensus on the question of the seat, it was decided to put it to a vote during the Tenth Session -- together with the equally ~~burning~~ question of the seat for the International Tribunal for the Law of the Sea, ~~contested~~ by Portugal, Yugoslavia, and the Federal Republic of Germany.

Jamaica won the vote, on the second ballot, with 76 votes, while Malta obtained 66 votes, and there were five abstentions. Fiji, having received only fourteen votes in the first ballot, was eliminated in the second. To have failed, actually only by five votes, after starting the race with such an unfortunate handicap, was really a moral victory for Malta and attested to the perseverance and diligence of the Maltese Delegation, working, as they did, under very difficult circumstances.

Malta conceded her defeat graciously, with sincere recognition of Jamacia's valiancy in the contest. Fiji's somewhat jesting conclusive observation, that "Jamaica has the seat of the Authority, but we have the nodules," may have more significance than may have been apparent when it was made.

The International Tribunal for the Law of the Sea fell to the Federal Republic of Germany. May the Hanseatic city of Hamburg, with its long maritime tradition and its independent spirit, provide a suitable home.

The question of delimitation had eluded satisfactory solution through nine sessions. The advocates of the two opposing schools of thought -- one relying on equidistance (median line) as the decisive criterion for delimitation, the other, on the principle of "equitable principles" -- were entrenched in two separate interest groups, after the attempt by Judge Manner of Finland to arrive at a solution ~~[illegible]~~ had

failed. Both sides held out, unwilling to make any concessions which might have entailed losses in case UNCLOS should fail and there was not to be any convention. Nor could one have expected them to do otherwise, in the real world, not the world of ideas and ideals. On this issue, involving territorial rights and questions of sovereignty, there was no difference between developed and developing countries. Both the "equidistance" group and the "equitable principle " group -- one lead by Ireland, the other by Spain -- contained both developed and developing countries on a purely pragmatic basis.

That the Tenth Session saw the hardened positions softening and a compromise solution emerging, was a clear indication of the political mood of the Conference: Clearly, there was the light at the end of the long tunnel. There would be a Convention, and the time had come to give up holding positions.

The compromise, very simple, and embodied in Articles 74 and 83 of the Draft Convention, provides that delimitation between States with opposite or adjacent coasts "shall be effected by agreement on the basis of international law as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution." The articles also contain a formula on an interim solution which should not prejudice the final delimitation.

. The solution to these two long-standing problems:

. substantial progress in the discussion on "participation," that is, the question of who may sign the Convention and be a member of the Seabed Authority: States only, as under traditional international law, or other entities, responding to the fact that the structure of international relations is changing;

. the adoption of hundreds of technical changes in the Text, resulting from the Herculean labor of the Drafting Committee;

. the change of the status of the Draft Convention,

effected by dropping the subtitle "Informal Text"; and, finally,

. the adoption of an iron-clad schedule for the completion and adoption of the Convention at the Eleventh Session:

these are the principal achievements of the Tenth Session, and one must admit, they are substantial, considering the difficulties engendered by the U.S. withdrawal and the general deterioration of the world political climate, which might even have led to the final break-up of the Conference.

2. The Eleventh Session

The agenda for the Eleventh Session was heavy. Three of the five issues listed by Jagota were yet to be resolved: The establishment of a Preparatory Commission and its functions and powers in relation to the future Seabed Authority; the proposal, by the industrialized countries, for a "Preparatory Investment Protection," pending entry into force of the Convention, and the issue of participation. The Drafting Committee had yet to complete its work, particularly on Part XI and annexes; and beyond these technical questions loomed the political problems arising from the fact that the U.S. President had completed his fundamental review, and the U.S. Delegation was ready to discuss a set of amendments which were first presented in the so-called "Green Book" -- a practically complete rewrite of Part XI of the Convention, taking the Conference back to pre-Caracas days -- and subsequently, in somewhat attenuated form in a set of formal amendments sponsored by seven industrialized States (Belgium, France, Federal Republic of Germany, Italy, Japan, U.K.; Doc. A/Conf. 62/L.121). Very little of this material found its way into an alternative set of amendments, sponsored by a group of neutral "Friends of the Conference consisting of medium-sized and small industrialized countries (Australia, Austria, Canada, Denmark, Finland, Iceland,

Ireland, New Zealand, Norway, Sweden, and Switzerland: Doc. A/Conf. 62/L. 104). This group tried to mediate between the U.S. on the one hand and the Third World on the other, but only three, rather minor, points of their proposal survived in the final text of the Convention as adopted by the Conference.

In accordance with the time table adopted at the end of the Tenth Session, the first three weeks (8-26 March), were devoted to informal consultations and negotiations. The results were presented on March 29 in as series of documents (Report by the President on participation in the Convention by entities other than States, doc. A/Conf.62/L.95; Report by the Chairman of the First Committee, Paul Bamela Engo of Cameroon, indicating lack of agreement on proposed changes in the text, A/Conf.62/L.91; Report by the Co-chairmen of the Working Group of 21 on seabed issues, offering two draft resolutions, one on Preparatory investment protection, the other on the establishment of the Preparatory Commission, A/Conf.62/C.1/L.30; Report by the Chairman of the Second Committee, Andres Aguilar of Venezuela, stating that sufficient support had been indicated for only one minor amendment, proposed by the United Kingdom and regarding the duty of coastal States to remove abandoned or disused structures to ensure safety of navigation.)

The introduction of these reports was followed by nine plenary meetings during which 112 speakers were heard. On the basis of this discussion, the Collegium completed the final revision of the text. The recommendations of the Chairmen and of the President were all incorporated, with very minor changes (Doc. A/Conf.62/L.93 and corr.1).

After receiving this revised document, the Conference was ready for the introduction of formal amendments by States who were dissatisfied with the compromises adopted.

A spate of amendments came forth, affecting almost every part of the Convention. Six meetings were devoted to hearing 87 speakers on these proposed amendments. During this period, however, President Koh succeeded in convincing the sponsors of most of them not to press for a vote. The adoption of amendments, which could have upset the balance of the Conference package as a whole, might have endangered the adoption of the Convention.

On April 23 the Conference determined that all efforts of reaching general agreement had been exhausted, and that the Conference was ready for decision-making.

The amendments were disposed of on April 26: All but 12 of the 31 sets of formal amendments had already been withdrawn, and more disappeared during that day. In the end, only three were put to the vote. Two (by Spain) concerned minor points with regard to passage through straits used for international navigation; one was put forward by Turkey and would have cancelled Article 309, providing that "No reservation or exception may be made to this Convention unless expressly permitted by other articles of this Convention."

The defeat of these amendments demonstrated that the Conference wanted to conclude and adopt the Convention such as it was, and no chances were to be taken by opening a Pandora's box of amendments, wherever they came from.

On the other hand, the rejection of these amendments was paid for with the loss of three votes: Spain abstained in the final vote, while Turkey, joined by Venezuela, voted against the adoption of the Convention which, to them was unacceptable, unless they had the right to make reservations, especially with regard to the question of delimitation.

Only one amendment proved to be sufficiently non-controversial to be adopted, and it concerned a Resolution

rather than the Text itself. This amendment enabled Namibia, through the U.N. Council for Namibia, to sign the Convention and thereby qualify for participation in the Preparatory Commission.

The next two days were marked by hectic activity, on stage and off stage, to ready the final package for adoption or rejection on the appointed day, April 30. "Consensus" still was within the realm of the possible, inasmuch as it was clear that the overwhelming majority of the Conference was in favor of the Convention, and it was anybody's guess whether the United States, and perhaps some of its allies would raise a "formal objection." Last-minute changes were conceded, to better the odds, but it was in vain. On April 30, the United States demanded that a roll-call vote be taken. Had the Conference gauged the mood of the U.S. more correctly, it might have refrained from last-minute compromises which could not soften the U.S. position, while frustrating the Group of 77 and alienating, and finally losing, the Eastern European Socialist States.

II. The Resolutions

1. The Resolution on the Protection of Preparatory Investments

The major object of confrontation, at this time, was not the Convention itself, but the Resolution on the Protection of Preparatory Investments: the one important innovation emerging from the work of the Eleventh Session.

A first draft for a text on PIP had been introduced by the United States on April 2, 1980, at the end of the Ninth Session.

It was not discussed during that session but formed the basis for discussions outside the Conference, on the so-called "Mini-Treaty" or reciprocal agreement among States having enacted unilateral mining legislation.

The U.S. proposal was officially withdrawn from the Conference early in 1980.

Upon the urging of the Conference, a new text was introduced, this time co-sponsored by Belgium. the Federal Republic of Germany, Italy, and the U.S. (A/Conf.62/L.122). The proposal practically amounted to a Mini-Treaty. It carved up the international seabed into enormous blocs and totally emasculated the Authority. obliging it to rubberstamp the production plans presented by the "pioneer investors" who would at any rate been enabled to go ahead even without that rubberstamp. in case the Convention was not ratified ("Nothing in this resolution shall be construed to prohibit commercial production after 1 January 1988 if the Convention has not entered into force by that date").

An alternative proposal was introduced by the Group of 77. In fourteen points it stressed strict conformity with the provisions of Part XI of the Convention and demanded that training and technology transfer would be undertaken on a scale that would make it possible for the Enterprise to initiate exploitation simultaneously with the "pioneer operators."

Thirdly, the Delegation of France introduced an interesting compromise proposal, responding, in particular to the need for training and technology transfer, for which the pioneer operators would be responsible.

In the meantime, the Co-chairmen of the Group of 21 had introduced a draft which, subsequently, went through a number of revisions incorporating suggestions in the above mentioned documents. The final draft was introduced on April 29 (Doc. A/Conf.62/L. 141 (Add 1) and it was accepted by the Conference on April 30.

The essence of this Resolution -- Resolution II, in the Convention package -- is that it defines and recognizes as number of "pioneer investors;" obliges them to register their claims to an exploration site not larger than 150,000 square km. and pay a registration fee of $150,000. after they have reciprocally. among themselves, agreed to ensure that there are no overlapping claims asnd. in case of conflicting claims, accepted a system of mandatory dispute settlement (this. really

being the essence of the "Mini-Treaty"): it carefully circumscribes their right to the exploration of polymetallic nodules in the international area and to research and development of the pertinent technology; it imposes on them the duty (a) of turning over to the Preparatory Commission a "reserved site" in accordance with the terms of the Convention; and (b) of assuming the responsibility for training and technology transfer for the future Enterprise: finally, it guarantees priority to the pioneer investor with regard to a contract for exploitation and a production authorization, once the Convention has entered into force and the "pioneer investor" has ratified it (supposing the "pioneer investor" is a Staste), or, supposing it is a consortium, its "certifying State" or States must have ratified.

The importance of this resolution is quite considerable. It establishes in fact an interim regime, in force immediately and lasting for an indeterminate time, which may be quite long. For whereas it is practically certain that fifty States will be found to sign the Convention, thus establishing the Preparatory Commission, ratification and entry into force may require years or even a decade, depending on circumstances wider than the interests of seabed miners.

Whether this regime is going to be the one created in the minds of the originators of the Conference, is an open question, which will be answered by those who will be called upon to implement it.

On the one hand, this regime does incorporate the principle of the Common Heritage, or at least, pays lip service to it (it should be noted, however, that the term "Common Heritage of Mankind" does not occur in the Resolution; that the Resolution, nevertheless recognizes the principle must be deduced from the assertion (para. 1,(e) (iii) that "area...shall have the meanings assigned to [that term] under the Convention", since, in the Convention, the Area and its resources are defined as the Common Heritage of

Mankind). Those who will manage it, therefore may move in this direction. On the other hand, the regime practically creates a "grid system" as proposed, e.g., by the U.K. in pre-Caracas days. it effectively divides the Common Heritage and turns it over to as limited set of operators functioning on the basis of reciprocal agreement. licensed by a Commission with little operational capacity of its own.

The "pioneer investors" as defined by the Resolution, presently are eight, consisting of (i) France, India, Japan, and the Soviet Union with their State companies, and (ii) of six private consortia (Kennecott, Ocean Mining Associates, Ocean Management Inc., Ocean Minerals Co., Association Française pour l'étude et la recherche des nodules, and Deep Ocean Minerals Association) having the nationality of, or being controlled by, one or more of the following eight States:Belgium, Canada, Federal Republic of Germany, Italy, Japan, Netherlands, U.K., and U.S.A.

The door is left open to new-comers from developing countries, provided they meet the financial criteria by 1 January 1985. Depending on wider political and economic circumstances, one could imagine three more "pioneers" to emerge within this period: Brazil, Mexico, and perhaps a regional African Consortium, as proposed by the Tunis Symposium in May, 1982. One even could imagine the emergence of three regional, private/public enterprises: an African, a Latin American, and an Asian one, which might influence in unexpected ways the development of the Authority, once the Convention is in force.

This division of the actual or potential "pioneer investors" into three groups -- two of which, (i) and (iii) are States which are obliged to sign the Convention to qualify, while one group (ii) consists of nonstate entities (consortia, most of which are multinational) caused great difficulties and the eventual withdrawal of the Eastern European Socialist States.

These States had two basic objections. First, they maintained, private corporations had no place in an international Convention which determines the conduct of States, not of nonstate entities; secondly, and more important even, the provision was discriminatory inasmuch as the States enumerated under (i) and indicated under (iii) were bound to sign the Convention in order to qualify as pioneers, whereas the phrasing of (ii) provides a loophole for States to benefit from the activities of their companies without signing. Thus, e.g., the United States could benefit without signing, from the work of a consortium, some of whose components were domiciled in the U.S. but which could be "certified" by some other States who had signed.

On the first point the Socialist States were overruled by the Legal Advisor of the U.N. whose advisory opinion was sought on the request of the Soviet Union. The advisory opinion was that no international law was being violated by the provision in question. On the second question, the discriminatory character of the provision was conceded. It was pointed out, however, that a subsequent paragraph (para. 8 (c)) insures that "no plan of work for exploration and exploitation shall be approved unless the certifying State is a party to the Convention. In the case of entities referred to in para a (a)(ii), the plan of work for exploration and exploitation shall not be approved unless all the States whose natural or juridical persons comprise these entities are parties to the Convention."

The Soviet Union and its allies demurred. The fact remained that during a first phase, of indeterminate length, there remained discrimination. And thus the eight members of the Group abstained in the final vote.

How the question will eventually be resolved, depends on Soviet policy in a broader context. One could imagine a situation in which the Soviet Union prefers not to sign, if the U.S. insists on noncooperation -- especially in consideration of the fact that, for the

Soviet Union, signature is almost tantamount to ratification, and entry into force, without the United States, has substantial financial implications.

Thus, the Soviet Union now has the possibility to stick to its guns and stay out.

On the other hand, the Soviet Union may want to sign and to participate in the work of the Preparatory Commission. In this case, there are two scenarios: First, one could envisage a loosening of the Conference package. Perhaps, in Caracas, in December, 1982, it will be possible to sign the Convention while maintaining one's disapproval with regard to one or more of the Resolutions. Experts, presently, are divided on this question. Should the Conference insist on maintaining the integrity of the "package," there might still be a second way open to the Soviet Union and its allies: They could sign the Final Act of the Conference, implying observer status in the Commission -- with a statement that they will accede to the Convention as the 53rd to 60th States: for, upon the deposit of the sixtieth instrument of ratification or accession, the Convention enters into force, and the discriminatory provision lapses.

The second, immensely important aspect of the Resolution is that it recognizes that "activities in the area" in the foreseeable future will not consist of commercial exploitation and that contracts for "integrated mining operations" such as envisaged, with such lavish detail, by the text of the Convention, will not be applicable for the foreseeable future. It will be the task of the Commission to concentrate its attention, for the time being, on exploration, research and development and to ensure the fullest possible participation of developing countries in these activities. This could be achieved in either one of several ways: There is nothing in the text of the Resolution to prevent the Commission from establishing a joint venture, or joint ventures, on exploration, research and development.

financed jointly by the private sector, States, and international funding institutions in the field of development cooperation. Such arrangements would be highly beneficial to the industrialized countries, by cutting investment costs and sharing risks. They would be equally advantageous to developing countries, enabling them to participate on an equal footing in an enterprise of high-technology management. Whether there would be one such joint venture, composed by those industrialized States and companies who wishes to participate, together with a certain number of Board Members from Developing countries who might be appointed by the Commission -- or whether there would be several such ventures, taking into account eventual regional developments as suggested by the Africans -- depends on the actual course of events over the next two or three years. In any case, concentration on such a venture or ventures would scale down the cost of the Authority and the Enterprise to a non-utopian level, in line with economic and technological realities.

The proposal is not a thunderbolt falling from a blue sky: The Delegation of Austria introduced it in a statement on March 31 (Provisional Summary Record of the 160th Plenary Meeting, A/Conf. 62/SR. 163, April 6, 1982); it also would be very much in line with the proposal launched by President Mitterand at the opening of the Versailles summit in June, 1982.

"Ocean exploration" indeed is one of the high-technology areas which, together with space technology, biotechnology, electronics, nonconventional energy technologies, etc., make up the "Third Industrial Revolution." It is in these areas of new technologies that the French President proposed the launching of a "concerted programme," by establishing "international commissions for research and development and for technological cooperation between private and public firms and states." In this proposal he stressed the importance of the participation of developing countries in "joint ventures" (initiatives conjointes) to assure to the countries

of the "South" the acquisition of these new technologies, which would be greatly facilitated by "agreements on co-development" or common research and development. (Le Monde, June 6/7).

Nothing could be more in line with the French proposal than our suggestion that the Commission concentrate its early efforts on establishing a joint venture for exploration, research and development in ocean mining.

2. The Preparatory Commission

A third important aspect of Resolution II is its impact on developments which will have to follow implementation of Resolution I, calling for the establishment of the Preparatory Commission.

Discussions during the Eleventh Session clearly demonstrated that this Commission had to be different from other preparatory commissions established within the United system in the past. More than merely consultative powers, the Commission must be given executive and operational powers if it is to discharge the tasks imposed on it by Resolution II, that is, to recognize pioneer investors, register claims, chose reserved sites, and arrange for training and technology transfer for the Authority.

So important, indeed, will be the functions of the Commission that it may become essential to device a system of balanced representastion and decision-making. One Delegation indeed proposed, during the discussions, that, considering its powers and functions, the Commission itself should be composed somewhat along the lines of the future Council of the Authority, and that it should appoint various subcommissions and committees.

The final text as adopted provides that the Commission shall be composed by all signatories of the Convention; all signatories of the Final Act may participate

as Observers. The Commission shall establish a special subcommission "on the problems of land-based producers likely to be most seriously affected by the production of the Area."

A second sub-commission is to be established to "take all necessary measures for the early entry into effective operation" of the Enterprise.

There is nothing in the Text preventing the Commission from appointing or electing a smaller executive council, which might be organized, quite simply, on a regional basis. The Resolution, in fact, provides (para.7) that "The Commission may establish such subsidiary bodies as are necessary for the exercise of its functions and shall determine their functions and rules of procedure."

The establishment of such an executive council might increase the efficiency of the Commission and guarantee a fair balance in decision-making which might be lacking in the larger body.

3. The Other Resolutions

Not much need be said about the remaining Resolutions in the "package."

Resolution III reaffirms, but separates from the body of the Convention, what previously was a Transitional Provision, to the effect of guaranteeing to peoples who have not yet obtained full independence the ejoyment of the rights and benefits of the Convention.

Resolution V, introduced by the Group of 77, calls on member States, the Competent International Organizations, the World Bank, and the Secretary General to assist developing countries in training, education and assistance in the field of marine science and technology and ocean services.

These two resolutions hardly caused controversy.

Considerable controversy, instead, was caused by Resolution IV, which provides that the national liberation movements, which have been participating in the Third United Nations Conference on the Law of the Sea, shall be entitled to sign the Final Act of the Conference, in their capacity as observers, and

that, in that capacity, they may participate in the Preparatory Commission. The adoption of this Resolution, as an inextricable part of the "package" induced Israel to vote against adoption of the Convention package.

III The Convention on the Law of the Sea

1. Introduction

As already mentioned, the changes made in the text of the Convention itself are very minor. The reader is therefore referred to Dr. Jagota's analysis which remains valid. It is on the basis of that analysis that we will attempt to assess the importance of the Convention for the international community in general and for developing countries in particular.

There can be no doubt: The adoption of the Convention is a landmark. It signifies a breakthrough in the structure of international relations: introducing, as it does, a number of concepts into international law which, taken together, offer a new platform from which to launch a new international order.

These innovations were stressed, in the final statements of the Conference, by President Koh and Ambassador Beesley of Canada, the Chairman of the Drafting Committee.

- The concept of the Common Heritage, transcending the traditional notions of sovereignty and ownership;
- the concept of a public international institution -- the Seabed Authority -- that is operational, capable of generating revenue, imposing international taxation, bringing multinational companies into a structured relationship; responsible for resource planning on a global scale as well as for the protection and conservation of the marine environment and scientific research; an institution linking politics, economics and science in new ways -- a model, potentially, for international

organization in the 21st century;

. the concept of the Economic Zone, adding a new dimension to development strategy;

. the concept of international environmental law;

. new concepts such as the archipelagic State or transit passage, adjusting the traditional law of the sea to the requirements of the situation as it emerges from UNCLOS III;

. a regime for marine scientific research and technology transfer;

. the most comprehensive, and most binding system of international dispute settlement ever devised

-- there never has been a document like this.

Needless to say, progress is never linear. History manages to move forward and backward at the same time. The Convention is the result of political compromises, reflected in ambiguities, loopholes, and even contradictions. Solutions of some prolems give rise to new problems, as big as, or bigger than, the ones solved. Perceptions of interests keep changing. Circumstances surrounding problems supposedly solved keep changing, rendering adopted solutions obsolete before they even have a chance of being applied. Agreed solutions may turn out to have implications and consequences nobody wanted or even thought of.

Thus while the Conference was crossing the last t's and dotting the last i's of this law for the future, symbolically, and as though to remind the world community of the persistence of the old , navies were girding for battle in the South Atlantic, to decide a question of "sovereignty," imperial style -- whose dimensions, however were being transformed by UNCLOS III: for at stake was no longer the domination of a far-flung tiny

colonial holding, but the hub of an ocean area larger than the continent of Europe, probably rich in untapped resources, and a bridgehead to the last continent, Antarctica, where the next conflict is looming between the principle of national sovereignty and the principle of common heritage, between the past and the future.

2. Common Heritage, Seabed Authority, and Ocean Mining

The concept of the Common Heritage of Mankind, proposed by the Delegation of Malta in 1967,
is one of the few great contributions of the 20th Century to political theory and international law.

Resource depletion, technological and economic developments transcending the boundaries of nation states, and the degradation of the marine environment on which all life depends, were beginning to play havoc with the application of the traditional principles of sovereignty and ownership to the new medium of the ocean. While not negating the old principles, the new concept of the common heritage transcends them by asserting thast certain resources, and, inseparably lined with them, certain technologies, and, in the last analysis, certain financial resources

. cannot be owned in the traditional sense, but

. must be managed in common

. for the benefit of all mankind, with particular consideration for the needs of the poor and of future generations;

. can be used for peaceful purposes only.

The principle of the Common Heritage, first applied to the resources of the seabed beyond the limits of national jurisdiction, has implications far wider than the oceans. It could ideally become the foundation

of a new economic order not only in the oceans but in general. It should become the basis of a new economic theory, which the world so badly needs to replace the worn-out and evidently bankrupt economic theories applied today, quite incapable of coping with contemporary economic ills.

True, the Convention does not fully define the new principle: but the gist is there.

True, while proclaiming the new principle, States, both developed and developing, hastened to contravene and abridge it as far and as fast as possible by stretching the limits of their nationasl jurisdictions. These jurisdictions, however, are somewhat permeated by the new principle: functional sovereignty, that is, sovereign rights over uses, is taking the place of hard-and-fast territorial sovereignty and absolute ownership.

True, the mechanism embodying and articulating the principle of the Common Heritage, that is, the International Seabed Authority, is far from perfect: reflecting conflicts and contradictions the Conference was really not able to overcome.

Thus, industrialized countries, having spent hundreds of millions on developing technologies that should have increased their independence from supposedly unstable foreign producer countries, found themselves slipping, collectively, through the Seabed Authority, under the control of the very same countries they had sought to avoid individually, bilaterally. Developing countries, on the other hand, who had hoped to gain collectively from sharing in the management of the Common Heritage, found their economies threatened individually by the competition between marine resources and land-based resources.

The very nature and scope of the Authority remains somewhat uncertain: between the aspirations of the developing countries, who wanted to build a first piece

of the New International Economic Order in the shape of an operational Authority with broad and comprehensive powers and functions ranging from scientific research and environmental policy to resource management, technology transfer and a redistribution of wealth -- and the conservatism of the industrialized world wanting an Authority -- if any -- as narrow in scope -- restricted to nodule mining -- and as powerless as possible. To reduce its discretionary powers to the minimum, they insisted that every administrative and financial detail be spelled out in advance: and this, for an industry still in an experimental stage, and on the basis of economic projections that had to be purely conjectural.

Thus, with every session that passed, the compromise text became more complex, more ambiguous, more unwieldy, and more remote from the world of the real.

For the assumptions of the 1970s, on which the whole edifice -- including system of production, production limitations, etc. -- is based were never questioned. While they remained immobile, however, the real world kept moving, so that a gap opened, and began to widen, between the construct and the economic and political reality.

The assumptions of the seventies, basically, were three: First, that seabed mining would be fully operational, on a commercial scale, by the 1980s, and that the revenues accruing to the Authority, both from licenses and from the operations of the Enterprise, would be substantial. Secondly: that seabed mining would practically be restricted to the mining of polymetallic nodules, and that other deep-sea minerals would be without economic interest for the foreseeable future; and, thirdly, that nodules were to be found only in the "international area," far beyond the limits of national jurisdiction, so that the Authority would have a monopoly position enabling it effectively to control production.

All three assumptions have turned out to be wrong: Economic depression, a glut of land-based minerals, and volatile prices on the commodity market, are not inducive to the launching of a new industry. Before the beginning of next century, there is not likely to be a commercial, integrated mining project of the kind considered by the MIT Model, on which the convention has lavished such an abundance of legal minutiae.

Thus, no revenues are in sight for the Seabed Authority. From an instrument for the redistribution of wealth, it is becoming a drain for large-scale international funding, needed to defray administrational costs and to assist the Enterprise to get started.

This reappraisal of the financial potential of the Seabed Authority raises the fundamental question of the real relevance of ocean mining for developing countries, and, on this, opinions are divided.

The more traditional view of the development economist is that ocean mining is of no interest, since the technologies involved are highly complex and highly capital intensive rather than labor-intensive.

This writer has always held the opposite view. Ocean mining technologies belong to those listed by President Mitterand as part of the Third Industrial Revolution. If developing countries fail to join this revolution -- and the most economical way is to join it "on the ground floor" -- at the present stage of research, development, and exploration -- the development gap will widen to the point -- 20 years from now -- where it may become unbridgeable. Ocean mining technologies, furthermore, can be disaggregated into systems and subsystems which range from highly complex to fairly simple. On the less complex end of the spectrum, even the least industrialized countries could make some contribution. Participation in an international venture in ocean mining will accelerate technology transfer

enhance industrial diversification. If, in the long term, over the next 50 years, there is going to be a large-scale displacement of land-based mining by ocean mining -- a development that appears to be very probable -- then land-based producers should be the first ones to join the new industry: just as the oil companies are eager to buy into ~~alternate~~ energy industries, in view of the anticipated shift from a petroleum-based energy economy to one based on other energy resources and technologies.

To come now on the second assumption on which Part XI of the Convention is based: that the only commercially interesting form of deep sea mining would be nodule mining: recent scientific discoveries have altered this picture. The discoveries of sulphide deposits in the offshore of the Galapagos islands and off the West Coast of the United States, with metal contents in concentrations far superior to those of the manganese nodules, have defused interest in the manganese nodules -- the only type of resource covered by the text of the Convention, which thus is already obsolete in this respect. Rules, regulations, and procedures will have to be drafted, not only for manganese nodule mining but for other forms of deep-sea mining as well.

The most serious consequences, however, will derive from the collapse of assumption No. 3 -- that the Authority has a virtual monopoly over the resource it is to manage. Apart from the metalliferous muds of the Red Sea, ~~in the Economic Zones~~ of Saudi Arabia and the Sudan, and apart from the sulphides, under the jurisdiction of Ecuador and the United States, even nodule deposits of considerable commercial interests have been identified in the Economic Zones of Chile and Mexico. It is probable that additional deposits have already been discovered and will be explored in Polynesia (under French jurisdiction) and in the offshore of Hawaii (U.S. jurisdiction).

It need not be emphasized, because it is self-evident, that the Authority's position is of one kind if States and companies have no choice but have their activities organized, carried out and controlled by the Authority on behalf of mankind as a whole -- and that it is quite another thing if States and companies have a choice between working under the Authority or under bilateral agreement with some coastal State, in areas under national jurisdiction. It is well known, and documented, where the preferences of the companies would go.

Production limitation, under the Convention, always posed problems which have not really been resolved. It was only during the Tenth Session that the land-based producers among the developing countries became aware of the fact that a limitation formula based on the projected nickel demand would not really protect the producers of cobalt and manganese. But even supposing it had been possible to device a formula safeguarding these countries: it is one thing to base such as formula on the assumption of monopoly by the Authority; and it is quite another thing to apply such formula, if production is out of control by the Authority and takes place in areas under national jurisdiction: For what cannot be produced by or through the Authority because of the application of production limitation, may be produced, unchecked, in areas under national jurisdiction.

Thus arises the spectre of an Authority incapable of performing the functions for which it was created, and useless, because ocean mining, if and when it comes, will take place in areas under national jurisdiction. Thus arises the spectacle of as whole bureaucracy Waiting for Godot.

But it need not go that way. Curiously enough, those vety actorswho, through their kind of PIP resolution

they proposed at the Conference, clearly manifested the intention of postponing the Common Heritage regime ad calendas graecas and, for all practical purposes, of replacing it with a registry system based on mutual agreement among the seabed mining States, have opened the possibility of initiating activities in the right direction. Part XI being inapplicable in the present situation, the Convention might have been by-passed if ratified, or not ratified at all. The PIP resolution confers powers and functions on the Preparatory Commission it might not have had otherwise. Yet the Preparatory Commission -- unlike the rigid structure erected in Part XI -- is flexible enough to adjust the concepts of the seventies to the realities of the eighties. The establishment of the Commission, furthermore, when a mere fifty States will have merely signed (not ratified) the Convention, is a goal that is undoubtedly far easier to reach than the sixty ratifications needed for the establishment of the Authority. Whether the Commission will succeed in adjusting and preparing the activities of the Authority in such a way that, rather than waiting for Godot, it may render tangible and immediate services to the world community and especially to developing countries, depends of the trends of history, the political will and the leadership capacities of those who will be called to serve. The foundation has been laid. Never before has the international community had at its disposal an instrument with a development potential such as that of the Commission.

3. The Exclusive Economic Zone

One need not be a Hegelian, assuming that whatever happened had to happen, to realize that the extension of national jurisdiction into the oceans was inevitable. The territorial sea of three, or of six, or even of twelve miles was an anachronism, unable to respond to the needs of military as well as economic security as shaped by technological developments. Industrialized countries had to regulate and manage the penetration of the industrial revolution into deeper and wider offshore zones.

Developing nations had to defend their coastal waters against the depredations of modern distant water fishing fleets and factory ships. No country could tolerate the emplacement of spying devices or the conduct of polluting activities near their coast. The time of laissez-faire in the oceans was over. Systems of management were required, and jurisdiction was needed to build them. Even Arvid Pardo, the father of the Common Heritage concept, proposed, as early as 1971, in his Draft Convention, submitted to the Seabed Committee, the recognition of "national ocean space" up to a limit of 200 miles from clearly defined baselines. Nor was he overly concerned that the establishment of such a zone would detract from or conflict with the concept of the Common Heritage.

On principle, the EEZ concept is the most benign, the most flexible, and the most innovating way in which the inevitable trend towards the extension of national jurisdiction could have been met. In the Convention, however, it is flawed by a few ambiguities which, as in the case of seabed mining, open the possibilities of increasing inequality, conflict and chaos as well as those of rational management and international cooperation.

If the hope had been that the new limits should be such as to forestall further expansion of claims which might entail conflicts and further increase inequalities among States, this hope has been deluded. There are three major loopholes through which expansion could proceed unchecked.

The first is the inadequate definition of straight baselines in Article 7, which does not specify the maximum length of these baselines from which territorial sea, EEZ and, in some cases, the breadth of the continental shelf are measured. Nor does it define the "appropriate points" to be connected by the baselines, which need not be on land but may be defined by coordinates on the map. States thus have the possibility of including considerable ocean spaces as "internal waters and extend

their EEZs, the breadth of which is measured from the baselines, way out beyond 200 miles from shore.

The second loophole is the lack of a proper definition of islands in Article 121. It may turn out to be difficult to draw the line between an "island," defined as a "naturally formed area of land, surrounded by water, which is above water at high tide," and which is entitled to an EEZ and a continental shelf, from a "Rock which cannot sustain human habitation or economic life of its own" and is not entitled to and EEZ or a continental shelf of its own. The acquisition of tiny islands, or rocks claimed to be islands, may bestow vast ocean spaces and their resources. The Falkland Island conflict, alas, may be one in a long series of similar conflicts.

The third loophole is the definition of the limits of the Continental Shelf in Article 76. The "Irish formula," on which it is based -- of Byzantine complexity -- is practically open-ended, and competent geologists, from the Soviet Union as well as from the Intergovernmental Oceanographic Commission of UNESCO, and others, have not failed to point out that it is inadequate as a basis for actually drawing boundaries. I personally do not hesitate to define it as pseudo-scientific. Beyond that, I would seriously challenge the validity of invoking geophysical criteria for the drawing of political boundaries. Such criteria have long since been abandoned on land, and there is no reason for this relapse into romantic geopolitics at sea.

The Soviet amendment, incorporated in the final text of Article 76, limiting any claims under the Irish formula to no further than 350 miles from the above-mentioned baselines, is undoubtedly an improvement. But even this limit is as elastic as the baselines from which it is measured.

The continental shelf doctrine might have been deemed superseded by the economic-zone doctrine, as

was proposed by Arvid Pardo and advocated by a number of countries, especially African and Arabic, at the Conference. To have one single boundary, from the surface through the water column to the ocean floor and its subsoil, at 200 miles from clearly defined baselines would have been simple and tidy: Only few countries would have lost rights they might have claimed, beyond 200 miles, under the Continental Shelf Convention of 1958 -- and they might have been compensated.

As long as present political winds prevail, it is to be feared that expansion will continue, and the discovery of any significant resource anywhere in the oceans will immediately be followed by claims by the nearest coastal Staste, island or archipelatic State. Further expansion of claims will further increase inequalities among States and increase tension and conflict.

But, again, the glass is half empty as well as half full. The Convention, while yielding to, and further encouraging, expansionist and nationalistic trends, also respons to other needs and has triggered off different trends.

The extension of national jurisdiction itself, and the transition from a laissez-faire system to a system of management requires more, not less international cooperation and organization. Three developments, all initiated by the Convention even before its adoption, are clearly discernable.

IV. New Trends, triggered by the Convention

1. National Legislation

The first is the adjustment and updating of national legislation and the building of national infrastructure, to respond to the opportunities offered and responsibilities imposed by the new Law of the Sea. This is a complex

process. Old laws have to be pulled out of a great number of Government Departments. Activities that did not exist, areas over which the State had no jurisdiction, have to be covered by new laws. Boundaries have to be determined, out at sea, or negotiated with neighbors. Hydrographers, geologists, experts in marine biology, fish population dynamics and fisheries management, in the protection of the marine environment in all its ramifications, in ocean mining, in energy, are needed: lawyers trained in the most recent developments in public and private international law are needed to create a new body of national laws, collecting, collating, updating, and harmonizing the old laws, among themselves and with the international law.

Ocean Development Departments, Ministries for Ocean Affairs have to be built, and their interaction with other Government Departments, at the national, at the local, as well as with international agencies, have to be articulated. In no other area are internal and international affairs so inextricably linked as in ocean affairs.

2. Regional Integration

Pollution, as is well known, does not stop at national boundaries. Fish cross political frontiers without submitting to passport control. If, in a laissez-faire, or freedom-of-the-seas system, it was possible for each nation to fend for itself, and the strongest nations fended best, a system of management, instead, requires attention to interlinkages. If Nation A wants effectively to manage a certain fish stock, it depends on Nations B and C for cooperation, for this stock may migrate between two or more EEZs, or between EEZs and the high seas. And it is not only with regard to this one stock that cooperation is necessary -- it is for the stock that this fish feeds on, as well as the predators that may feed on the fish in question; it is the environment in which it breeds: it is the whole ecosystem, which in most cases cannot be contained within national

boundaries. Scientific research, on which stock assessment and management must be based, must extend over the whole ecosystem, and, if management is to be effective, the political system will have to be adjusted to it. Oceanographic research, furthermore, is too costly to be carried out by individual nations, in most cases, and necessitates international cooperation, not only because the ecosystem to be researched is transnational, but as a cost-sharing mechanism.

Thus we see an emerging trend toward regional integration of marine activities. The Convention foresees such development, in Article 123, on Cooperation of States Bordering Enclosed or Semi-enclosed Seas, and in the sections dealing with the management of living resources, in the EEZ as well as on the high seas; with the protection and preservation of the marine environment; with marine scientific research, and the transfer of technology.

The real push, however, came from the Regional Seas Programme, initiated and coordinated by the United Nations Environment Programme and involving the cooperation of over a hundred Governments, intergovernmental organizations and nongovernmental organizations. Ten regional sea programmes are presently in action, covering one area after another with networks of regional cooperation, with laws and regulations, plans of action, monitoring and enforcement systems, and financial arrangements to carry the cost. The Regional Seas Programme would be unthinkable without the Third Conference on the Law of the Sea and the principles it has been evolving. On the other hand, the Convention on the Law of the Sea might have remained dead letter, had it not been for the Regional Seas Programme, which is beginning to articulate, at a practical, regional level, -- to implement and complement, to give "teeth" to the new Law of the Sea.