- Urges the full and effective participtionof the member States in the PREPCOM so as to ensure the safeguarding of the interests of the developing countries.
- Rejects all efforts aimed at effecting a premature amendment of the Convention on the Law of the Sea, 1982.
- Decides to inscribe on the Agenda, of its Thirty-first Session, an item entitled "Law of the Sea; Report of the PREPCOM".

(iii) Secretariat Study : The Significance and Cost of Ratification of the Law of the Sea Convention, 1982

When UNCLOS III adopted the Convention on the Law of the Sea 1982, the Convention was viewed largely as a codifying Convention which however also provided for the regulation of almost every aspect of maritime activity. The Convention has reached a vital crossroad in that it has already received over two-thirds of required sixty instruments of ratification or accesaion, having been ratified by 44 States, as of 10 November 1990.[2] The Convention will come into force twelve months after the date of deposit of the sixtieth instrument of ratification or accession.

The United Nations experts believe that the necessary additional sixteen (16) instruments of ratification or accession will be received within the next two years or so. However it is regrettable that almost all industrialised countries have so far refused to ratify the UN Convention on the Law of the Sea, 1982. An overwhelming majority of those who have hitherto ratified the Law of the Sea Convention are developing countries. To date, of the forty-four countries which have ratified the Convention only 18 are member States of Asian-African Legal Consultative Committee.[3] The ratification of the

2 The Convention has been ratified by Antigua and Barbuda, Bahamas, Bahrain, Belize, Botswana, Brazil, Cameroon, Cape Verde, Cote d'Ivoire, Cuba, Cyprus, Egypt, Fiji, Gambia, Ghana, Guinea, Guinea-Bissau, Iceland, Indonesia, Iraq, Jamaica, Kenya, Kuwait, Mali, Mexico, Namibia, Nigeria, Oman, Paraguay, Philippines, Senegal, Saint Lucia, Sao Tome and Principe, Somalia, Sudan, Togo, Trinidad and Tobago, Tunisia, Uganda, United Republic of Tanzania, Yemen, Yugoslavia, Zaire and Zambia.

3 These are Botswana, Cyprus, Egypt, Gambia, Ghana, Indonesia, Iraq, Kenya, Kuwait, Nigeria, Oman, Philippines, Senegal, Somalia, Sudan, Tanzania, Uganda and Yemen.

Law of the Sea Convention by major coastal States from the Asian-African region would lend the necessary impetus to the process of ratification or accession to the said Convention and would lead to other States outside the region to do likewise.

The international community, is indeed, at the crossroads and needs to take a decision between order and chaos in the seas. It is the function of law to create order, to avoid conflict and to provide for the resolution of conflicts in accordance with the principles and norms of the law and in due process thereof. The Convention on the Law of the Sea can be no different and must perforce concur with that universal acceptance of the function of law. It is therefore vital that the Convention becomes legally binding even if this is brought about initially through the ratification or accession largely by the developing countries.

Conflict and consensus are two universally accepted models of the society. The function of law in respect of conflicts has been attended to above, however, it is equally important to bear in mind that consensus too must be arrived at in accordance with the due process of law. An outright and total rejection of the Convention merely because of a handful of the provisions of the Convention on the Law of the Sea—comprising some 320 articles and IX Annexes—would not only erode the confidence which the members of the family of nations have hitherto placed in multilateral negotiations but also, would, pose a grave and severe set-back to the process of progressive development and codification of international law in the United Nations Decade of International Law.[4]

Significance and Urgency of Ratification

The significance of ratifying the Convention and bringing it into force at the earliest—even if this is accomplished by the efforts of developing countries—cannot be overemphasized for many reasons.

It is in vogue today to classify the numerous provisions of the Convention under two broad headings viz., those that are said to have passed into the realm of the customary international law and those that are deemed to be non-customary having been developed and incorporated in the process of negotiations in the UNCLOS III. Such categorisation of norms thus while attractive is in many respects

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See Law of the Sea : Report of the Secretary General A/45/721.

4. See General Assembly Resolution 44/23. Also see AALCC Doc. No. AALCC/XXIX/90/24.

misleading and could contribute to fragmentation of the Convention. According to this approach, the territorial limits of 12 nautical miles, transist through straits, the 200 nautical mile exclusive economic zone, the regime of continental shelf and the freedom of high seas are now part of customary international law. In this context it is our view that the principle of common heritage of mankind has also entered into the realm of customary international law *due to its nearly universal acceptance*. But without the guarantees provided by the provisions of the Convention each State will be free to unilaterally interpret these concepts, particularly vis-a-vis the States not parties to the Convention.

It should also be underscored, that many of the traditional customary principles of international law of the oceans have undergone fundamental change in the process of negotiations leading to the adoption of the Convention. A comparative study of traditional customary principles such as those of innocent passage, freedom of the high seas compared with the provisions in the 1982 Convention illustrate some very significant developments which can only be invoked within the framework of a binding Convention.

One of the basic canons of interpretations of statutes is the principle that a statute must be read as a whole. The Convention, therefore, must be read as a whole and applied in its entirety. States cannot and should not be allowed or encouraged to pick and choose bits and parts of the provisions of the Convention on the ground that they have been or have become part of customary international law. It should always be borne in mind that the Convention as a whole is a delicate blend of rights and obligations—and it is common knowledge that all rights are subject to the fulfilment of their concommitant obligations.

The Convention has, among other things, enhanced the importance of baselines. It is from the *baselines* that the limits of the territorial sea, contiguous zone, exclusive economic zone and the continental shelf are measured. The Convention in clarifying the status of atolls and of islands having fringed reefs has made provisions legitimizing the drawing of baselines where coastlines are very unstable because of deltas and other natural conditions. Thus the importance of concretizing the baselines principles in a binding Convention for various purposes can hardly be over-emphasized if conflicts on delineation of respective national and international zones are to be minimized.

Besides, significant principles of law of the sea have been substantially developed by a Convention. The concept of *transit passage* through straits is an instance of a new principle which has no roots in customary international law and is an innovation of the Convention. In customary international law, as it obtained before the Convention, the maritime areas or corridors in which transit passage is conceded by the Convention, were parts of the territorial waters of Coastal States and at best admitted, only of regime of innocent passage. The transit passage is an instance of the spirit of give and take that prevailed in UNCLOS III. The right of transist passage implies the fulfilment of manifold other obligations stipulated in the Convention and cannot therefore be availed of except within the context of the Convention, let alone be assumed to have become part of customary international law.

The crux of the foregoing is that while it is true that the Convention *inter alia* embodies several concepts of customary international law such as those of the territorial seas, contiguous zone, the Continental Shelf, the regime of the high seas, innocent passage etc. these have in the process of negotiations undergone significant changes. These concepts can today be, strictly speaking, deemed customary only in that the legal concepts themselves can be traced back to some date or event in the past. In their present content and substance these concepts differ substantially from their customary counterparts. Besides, the concepts, irrespective of their present day content and substance, the mechanisms and systems incorporated in the Convention of computing for the implementation of some of these 'Customary principles' such as those of territorial waters, contiguous zone, exclusive economic zone and the continental shelf are to be found, not in customary law, but in the provisions of the Convention.

Thus, claims and determination of the extent of the rights and obligations within these maritime zones and the regime of transit passage are to be found in the provisions of the Convention. Similarly, though the concept of the Exclusive Economic Zone may be deemed to have become part of customary international law, the *details of rights and obligations in it can only be invoked* within the 1982 Convention. As such ratification of the Convention is a *sine qua non* in the claiming of these maritime zones including the claim and exercise of the right of transit passage. There is no denying in any case that the right of transit passage never has, in the past, been a part of customary international law.

It may be stated that five of the forty-four States that have ratified the Convention are landlocked States. The landlocked States that have ratified the Convention on the Law of the Sea 1982 including two member States of AALCC are Botswana, Paraguay, Uganda, Zaire and Zambia. It is hoped that other landlocked States, including other members of the AALCC would consider ratifying the Convention in the near future.

The ratification of the Convention by these landlocked States is *inter alia* reflective of the faith that they repose in Part X of the Convention addressed to the issue of the Right of Access of Landlocked States to and from the Sea and freedom of Transit. Once the Convention comes into force the right of access to and from the sea and the freedom of transit of these landlocked States—and others who ratify it—would cease to be a matter of bilateral arrangement with the neighbouring Coastal States and would thereafter be governed and regulated by the provisions of articles 124 to 132. The landlocked States also shall have the right to participate, on an equitable basis, in the exploitation of the living resources of the exclusive economic zone(s) of neighbouring coastal States. It may be recalled in this regard that Article 69 (1) of the Convention stipulates that the landlocked States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same sub-region or region, taking into account the relevant economic and geographical circumstances of all the States concerned and in conformity with the provisions of this article and of articles 61 and 62.

The Convention also constitutes a blue print for the preservation and protection of the maritime environment. Preambular paragraph 4 of the Convention explicitly states that the objectives of the Convention, *inter alia*, are the establishment of a legal order designed to facilitate international communication, and to promote the peaceful uses of the seas and oceans, the "equitable and efficient utilization of their resources, the conservation of their living resources and *the study, protection and preservation of the marine environment*". (emphasis added) The emphasis that the Convention, particularly in Part XII thereof, places on protecting and preserving the environment, brings in sharp focus the primordial importance of the oceans with respect to their role in maintaining the global ecological balance as well as controlling and moderating world climate.

As the international community prepares to negotiate a new social contract for the protection and preservation of the environment which has already been accepted to be a common concern of mankind it may be justified to dwell at some length on Part XII of the Convention in a bid to underscore the significance—and the urgency—of ratifying the United Nations Convention on the Law of the Sea, 1982.

Even a cursory reading of the provisions of Articles 192 to 237 comprising Part XII of the Convention would show that they are not merely a restatement of existing conventional law or practice but are fundamental or constitutional in character, in that they are the first comprehensive statement of basic international legal norms on the subject. Those provisions mark a movement to regulation based upon a holistic conception of the oceans as an exhaustible and finite resource. In this Part XII of the Convention is a maiden venture at a globle response to the problem of combating marine pollution.

It is also the first codification of the principles on marine pollution as articulated in the Stockholm Declaration. Inspite of the fact that the provisions of Part XII impose extensive obligations, which perforce restrict state autonomy, consensus on these obligations was achieved at an early stage during the UNCLOS negotiations. This, it may be stated, is illustrative of the unanimous concern of the global community about marine pollution problem and the relatively uncontroversial nature of the solutions required. Yet these provisions will only become legally binding on the coming into force of the 1982 Convention.

Part XII and allied provisions of the Convention are significant for the general development of international law because they comprise the first such endeavour to develop a public international law framework in response to the deterioration of and threats to the marine environment. More significantly they are reflective of the nature of its subject matter and Part XII is expressly designed to operate as an "umbrella" for further gloabal and regional actions. Besides the traditional norm setting function, regional approaches are expressly recognised and indeed mandated. Thus, Section 2 of Part XII is entitled "Global and Regional Cooperation" and *inter alia* directs the States to cooperate on a global and as appropriate, on a regional basis, "taking into account characteristic regional features".[5]

Not all the provisions relating to marine pollution are, however, to be found in Part XII of the Convention and this reflects the close relationship among the different parts of the Convention. The

5. See Article 197 of the Convention on the Law of the Sea, 1982.

Convention, as a whole, by striking a balance between the protection of the marine environment and other competing activities in the marine expanses by furnishing a blue print for rational exploitation and sound conservation of both the living and non-living resources of the sea, endeavours to protect marine eco-systems from abusive activities and harm. It also incorporates a system of exploitation which could contribute to sustainable development i.e. development which meets the needs of the present without in any way compromising the ability of future generations to meet their needs. Adherence to the Law of the Sea Convention is the "most significant initial action that nations can take in the interests of the ocean's threatened life support systems".[6]

Similarly among the forty-four states that have ratified the Convention are twelve island and archipelagic States[7] including three that are members of the Asian-African Legal Consultative Committee. For these island and archipelagic States the Convention—particularly the provisions of Part XII thereof on the preservation of the marine environment besides expanded jurisdiction over living resources—could be, pending the adoption and coming into force of a Convention on Climate Change, a very significant first line of defence against the 'heat trap' effects of greenhouse gases. It may be recalled that there has been an observed increase of globally averaged temperature of 0.5°C in the past century which is consistent with theoretical greenhouse gas predictions. The accelerating increase in concentrations of greenhouse gases in the atmosphere, if continued, will probably result in a rise in the mean surface temperature of the Earth of 1.5 to 4.5°C before the middle of the next century.

Global warming will accelerate the present sea-level rise. This will probably be of the order of 30 cm but could possibly be as much as 1.5 m. by the middle of the next century. This could inundate low-lying coastal lands and islands, and reduce coastal water supplies by increased salt water intrusion. Many densely populated deltas and adjacent agricultural lands would be threatened. The frequency of tropical cyclones may increase and storm tracks may change with consequent devastating impacts on coastal areas and islands by floods and storm surges. The significance of ratification of the Convention on the Law of the Sea and bringing it into force at an early date for the island and archipelagic States cannot be over-emphasized. It is therefore

6. A/42/427, p. 270.
7. These include Antigua, Bahamas, Cape Verde, Cuba, Cyprus, Fiji, Iceland, Indonesia, Jamaica, Philippines, Sao Tome & Principe and St. Lucia.

hoped that more island States, particularly those members of the AALCC, would consider ratifying the convention.

Recent estimates suggest that a climatically-induced one-meter sea-level rise would cover scarce arable land in Egypt and Bangladesh presently occupied by 8 to 10 million people. Adherence *inter alia* to comprehensive international agreements such as the convention on the Law of the Sea would be most effective at slowing the rate of climate change.

As stated earlier the Convention must be read as a whole and enforced and applied in its entirety as it was adopted. It is therefore necessary to urge all States, who have not already done so, to ratify or accede to the Convention to enable them to claim and exercise the rights stipulated in the Convention. The process of ratification leading to early entry into force would contribute to lending to the Convention the legal and moral authority of the Law which is so necessary to guarantee the rights of developing countries *vis-a-vis* the encroachment from the maritime powers which have in the past been the hallmark of the regime of the oceans.

It may at this juncture be pertinent to refer to some recent developments. The reluctance on the part of the industrialised countries to ratify the United Nations Convention on the Law of the Sea, 1982 or become bound by it after all the concessions made at UNCLOS III to accommodate their, expressed concerns then, has generated a feeling of frustration and betrayal among the developing countries. More recently, efforts have been made in some quarters to amend the Convention even before it comes into force. Those who have advocated and lobbied for such premature amendment of the LOS Convention have ignored the feelings and aspirations of the peoples of the developing countries in general and member States of the AALCC in particular.

The Secretariat is of the view that in light of the provisions of Resolutions I and II of UNCLOS III it is neither permissible nor within the mandate of the PREPCOM, as had been recently mooted, to make substantive changes to the 1982 Convention to be incorporated in a protocol which can come into force simultaneously with the Convention. This is not to suggest that the Convention is sacrosanct and immutable. The Convention itself admits of amendments of the provisions thereof amongst which are amendments relating exclusively to the activities in the 'Area'. But the procedure for doing

so—amending—is very clearly spelt out and can only be applied subsequent to the entry into force of the Convention.

It has been argued that the Convention can and must be amended to remove certain reservations of a number of industrialised countries. These reservations relate namely to :

(i) The obligation on the contractors to sell technology to the Authority (Annex II, Article 5 of the Convention);

(ii) The production policy provisions (Article 151 of the Convention);

(iii) A guaranteed seat in the Council for the United States of America (Article 161 of the Convention);

(iv) Decision-making procedures (Article 162 of the Convention); and

(v) The procedure for the adoption of amendments by the Review Conference (Article 155 of the Convention).

Recently the Secretary-General of the United Nations convened informal consultations on outstanding issues relating to the deep seabed mining part of the UN Convention on the Law of the Sea. In the course of the first of these informal consultations convened, in July 1990, to encourage States to enter into a dialogue in order to resolve the problems that some States have the delegate of United Kingdom identified seven areas of difficulties or reservations. These related to (1) The Enterprises; (2) Cost to State Parties; (3) Production limitation; (4) Compensation Fund (5) Financial Terms for Commercial Operations; (6) Decision Making and (7) The Review Conference.

In some instances the MARPOL Convenion adopted under the auspices of the International Martime Organization (IMO) has been cited as a precedent of an international instrument having been amended before its coming into force. This in itself is insufficient justification or rationale for amending the "Social Contract" for the Oceans. Besides one of the provisions sought to be amended is the very procedure for amendment to be followed by the review Conference which is to be convened fifteen years after the commencement of commercial exploitation in accordance with article 155 of the Convention.

The importance of a globally binding Law of the Sea Convention to the entire international community has always been the underlying basis of the unique and in many respects peculiar negotiating procedures which characterised UNCLOS III. If it were a question of necessary majorities, the Group of 77—the developing countries—could have

wrapped up the Convention in Caracas in 1974. But realising the need for a consensus, comprehensive package deal Convention they seriously engaged in evolving compromise solutions with the maritime powers and other industrialised countries; and the result was the 1982 Convention. This Convention, indeed involved numerous concessions from the developing countries to meet the then expressed fears and concerns of the developed countries. Among these compromises and concessions are the very provisions in the Convention relating to each of the above mentioned issues.

In the view of the Secretariat of the AALCC nothing new has emerged since 1982 to justify tinkering with the above provisions. Neither the proposed amendment of the Convention nor the "empty chair" negotiating tactics hitherto adopted by one of the major maritime powers is therefore a solution to the reservations nursed by the developed countries. The United States attended the informal Consultations convened by the Secretary General of the UN in 1990 but has made no undertaking that should the identified issues be resolved, it would accede to the Convention. It is not inconceivable that if concessions were made on the above issues new "problems" would not be identified for further amendments. It is no secret that the 1982 Convention provisions on the above identified issues were a result of concessions and compromises made to satisfy the industralised countries, and more specifically the United States.

Finally it may be stated that a new international legal order is to be built up in slow measures literally by placing one stone atop another. The United Nations Convention on the Law of the Sea, 1982 is the cornerstone of the new international legal order in the oceans and it is therefore imperative that it be placed firmly and squarely. It will be recalled in this regard that the Convention *inter alia* embodies several vital components of a New International Economic Order. Several States have reiterated their faith in the character of the United Nations as a linchpin of contemporary international relations. It is time now to reflect a similar faith in the Law of the Sea Convention as the cornerstone of a new and emerging order.

Financial Obligations and Cost of Ratification

Many developing countries have been cautioned by some quarters that the accession to or ratification of the Convention would entail colossal increased financial obligations for them. It is important that

such misconceptions be clarified and where necessary categorically refuted.

Ratification of the Convention by the developing Coastal States by itself entails and involves no financial obligation on the part of the ratifying States. Any significant financial obligations which may develop on the States Parties to the Convention would arise only when the deep sea-bed mining arm of the International Seabed Authority—the Enterprise—undertakes a venture for the exploration and exploitation of the polymetallic nodules in the Area.

As the Chairman of the Group of 77 observed during the course of the Summer meeting of the Seventh Session of the PREPCOM a "false impression has been conveyed and perpetuated, despite repeated statements by Members of the Group of 77 to the contrary, that the Group of 77 contemplated the establishment of a large bureaucratic organisation unrelated to the activities which the Authority is legitimately required to perform under the Convention from time to time. *Nothing could be further from the truth. The Group of 77 is desirous of establishing an Authority which would be efficient and cost effective, the size of which would be no larger or smaller than is required to enable the Authority to carry out its functions efficiently.*"[8]

It is now generally accepted that such an undertaking or venture is not likely in the foreseable future. It should also be pointed out that there is nothing in the Convention which obligates States Parties to the Convention, to bring into being the entire machinery and bureaucracy foreseen in Part XI on the exploration and exploitation of the Area of the Convention before commencement of commercial exploitation. A modest Secretariat, such as the one already existing within the United Nations Secretariat, could be charged with the necessary functions of implementing whatever needs to be done before the Enterprise becomes fully operational. In the words of the Chairman of the Group of 77 at the PREPCOM "the costs of the Authority at any given moment will depend upon the activities it will be required to perform on a cost effective basis. The contribution of members will be related thereto and if the organization is initially established on a modest basis, because the activities at that stage will not be enormous, so too the contributions of Members will be correspondingly small"[9] It may be stated that there was "a consensus among all regional groups and interest groups with regard to these guidelines".[10]

8. See the statement of H.E. Mr. Mumba S. Kapuma (Zambia) made before the PREPCOM on September 1, 1989 (Emphasis added).

In the event of the Enterprise commencing its ventures before the turn of the century the financial obligations, if any, of the developing States would not be of the astronomical proportions that they are made out to be. The financial obligations of the States Parties to the Convention could in the initial stages be kept at the bare minimum through various options. For one, the entire machinery and system with all its paraphernalia, as envisaged by the Convention, need not be established at one go. In the initial stages then, modalities for the functioning of the Nucleus Enterprise making use of the existing administrative and secretariat staff of the United Nations Office for Ocean Affairs and Law of the Sea could be envisaged. The Secretariat of the International Seabed Authority and such other subsidiary organs as may be required could be established in due course as and when the ventures of the Enterprise start bringing returns.

Therefore, pending such time until the entire machinery as envisaged in the Convention, is actually established, the developing States of Asia and Africa need have no reason to worry with respect to increased financial obligations. Quite the contrary, in the *interim* period they have much to gain by the ratification and implementation of the provisions of the Convention as we have attempted to indicate above.

An endeavour is made hereunder to show that the cost of ratification would not be as astronomical as has hitherto been made out. A study of the cost of ratification of the convention made by the International Ocean Institute had rightly pointed out that the cost of ratification can be broken down into two parts, viz :

(a) Costs arising from the new responsibilities which come together with the new rights over extended areas of jurisdiction; and

(b) Payments for the establishment, and running, of the new institutions to be set up under the convention; the International Sea-bed Authority, the Enterprise, the International Tribunal for the Law of the Sea and the Commission on the limits of the continental shelf.

That study had *inter alia* observed that the costs arising from the new responsibilities which come together with new rights of resource jurisdiction may vary depending on the stage of technical and organizational preparedness of a State at the time the Convention

9. Ibid.
10. See Administrative Arrangements, Structure and Financial Implications of the International Seabed Authority: Background Paper by the Secretariat (LOS/PCN/WP.51, 10 August 1990).

comes into force. It had recommended, and in the opinion of the Secretariat of the AALCC rightly so, that that *"amount to be spent should not be considered simply as a 'cost' and that it should be accepted as an investment in development"*.[11] It had gone on to observe that the greatest benefit of the Convention may in fact consist in the stimulus it gives to this kind of investment in development—development of human resources, of infrastructure and of technology.

It may be mentioned that implementation of the Convention implies the undertaking of a system of internal measures which may include any or all of the following :

(a) Policy measures (formulation of a development and management plan);
(b) Constitutive measures (establishment of new national institutions);
(c) Administrative measures;
(d) Legislative measures (new laws etc.);
(e) Technical measures;
(f) Judicial measures;
(g) Education and training measures;
(h) Measures promoting participation; and
(i) Public information measures.[12]

While some of these measures are one time events, the others are occasional or continual. Yet others are continuous. The actual measures taken by a government would, however, depend on several variables such as geography, internal politics, external political affiliations, economic well being and management consideration.

Insofar as implementation involves a range of activities to be undertaken by a government, certain costs are involved, such as the allocation of human resources, funds and other material resources, and time. For instance, in the case of zones of national jurisdiction insofar as the conservation of living resources and marine environment protection are concerned, the measures which a coastal State is required to take are, at a minimum, of a scientific, legislative, administrative and judicial nature, including surveillance and monitoring. Every single one of these measures entails economic costs. In the

11. See E.M. Borgese, A. Chircop & M. Pereira : The United Nations Convention on the Law of the Sea : The Cost of Ratification, Study prepared by the International Ocean Institutes, Malta (Emphasis added).
12. Ibid.

case of small States, these costs can be reduced through regional cooperation.

As regards the implementation of Part XI the IOI study had estimated that the recurring costs, of establishment and running the machinery envisaged, for the first five years would amount to some US$ 50 million per annum. That figure was based on some assumptions that activities will take place in Jamaica, where the infrastructure is already in place, and in Hamburg, where Germany would take care of establishment costs. It had also assumed that the Convention would come into force in 1990. The said study had accordingly concluded that "if the Convention were ratified by all States Members of the United Nations, the poorest States would have to contribute US$ 5,000 to the annual budget, the richest (USA) US$ 12.5 million: a very modest undertaking indeed, which, however would be sufficient to gloablise the most advanced concepts of international scientific/industrial cooperation, including the developing countries as equal partners".

At a seminar on 'Alternative Cost Effective Models for Pioneer Cooperation in Exploration Technology Development and Training' organised jointly by the AALCC and the IOI during the Eighth Summer Session of the PREPCOM in August 1990, it was *inter alia* pointed out that the proposal on joint ventures directed itself to the functional operations of joint ventures during the initial stages from the coming into force of the Convention to the commencement of the mining operations. This is important to ensure that the Enterprise would be able to keep pace with the activities of States and State Enterprises in exploration and exploratory stages. It was underscored that an estimated one hundred million dollars per annum are being spent on research and development on deep sea-bed mineral extraction technology and that it would be significant if a part of this amount could be brought under the auspices of the PREPCOM or that of the International Sea-bed Authority when the Convention comes into force. Such pooling of resources in joint ventures, needless to say, could reduce costs by as much as 75% if efforts on research and development were to be conducted jointly. The undertaking of joint ventures as proposed in the Paper on "Alternative Cost—Effective Models for Pioneer Cooperation in Exploration, Technology Development, and Training", offers an approach whereby cost of implementation of Part XI can be shared and thus the financial obligations both of the developing and developed countries kept at a minimum. Apart from importance of reduction of costs of such

development through joint ventures, such an enterprise would also be instrumental in technology transfer and for training.

It may be recalled that that proposal of AALCC and IOI had envisaged that about 50 percent of the financing of such joint ventures would be made by private corporations or States Parties through the pioneer investors or other ventures while the remainder would be contributed by public financial institutions such as the World Bank and others such as UNDP. It was *inter alia* foreseen that such joint ventures would be cost effective to the amount of 200 million dollars over a period of four years.

The UN Office of the Law of the Sea and Ocean Affairs recognising the need for economy, the need to minimize the financial burden of State Parties and the imperative of taking into account "the likely developments in deep sea-bed mining" recently prepared a background note on the Administrative Arrangements, Structure and Financial Implications of the International Seabed Authority. The note *inter alia* observed that the financial implications for States Parties to the Convention are to be viewed within the overall institutional arrangements provided for in the Convention, involving the two new institutions, the Authority and the Tribunal and the United Nations. The financial requirements of the United Nations for the fulfilment of the functions under the Convention will be met from the regular budget of the United Nations. The financial implications with regard to the Authority and the Tribunal are summarized as follows :

A. Authority	(Thousands of United States dollars)	
(i) Self-administered		
(a) Recurrent annual expenditures	2 978.6	
(b) Annual conference servicing costs	1 639.0	
(c) Initial one-time capital outlay	100.0	
Total		4 717.6
(ii) United Nations-linked		
(a) Recurrent annual expenditure	1 658.2	
(b) Annual conference servicing costs	1 639.0	
(c) Initial one-time capital outlay	20.0	
Total		3 317.2

B. Tribunal

(a) Recurrent annual expenditures[13]	5 750.0

Grand Total

(i) Authority : Self-administered + Tribunal	10 467.6
(ii) Authority : United Nations-linked + Tribunal	9 067.2

While the Self-administered Authority headed by a Secretary-General comprises a total staff of 50 personnel including a deputy to the Secretary-General. The staff structure envisages a total of 20 personnel in the professional and technical category and 30 in the general services category.

On the other hand, a United Nations linked Authority headed by a Secretary-General shall comprise 10 personnel in the professional category and 17 in General Services Category.

It would have been observed that the UN Office of the Law of the Sea and Ocean Affairs note envisages a one time capital outlay for the self-administered institution (Authority) as US$ 100,000 and for the UN linked institutions as US$ 20,000. This capital outlay would be required for purchase of certain office equipment.

From the foregoing the cost of ratification would not be of the astronomical proportions that it has been made to sound and the cost for most developing countries is likely to range between US $ 2,000 to US $ 8,000 depending on policy choices made. Clearly joint ventures would also significantly help in reducing the costs and in promoting economy and minizing financial obligations of States.

13. Projection based on phased-in functions, contained in document LOS/PCN/SCN.4/WP. 8, addendum to be issued.

III. Environmental Protection

(i) Introduction

The AALCC has a long history of addressing the environmental issues from the legal perspective. As early as its Tokyo Session held in 1974, the item "Environmental Protection" was included in the agenda of that session, and since then, the topic has been under its consideration. After conclusion of the basic preparatory work and general exchange of views at the AALCC's sessions held in Tehran (1975), Kuala Lumpur (1976), Baghdad (1977) and Doha (1978), an Expert Group Meeting was convened in New Delhi in December 1978 in order to identify areas and issues where efforts were most needed for protection of the environment in the context of the situation and the needs of the developing countries in the Asian-African region. A programme of work which could be meaningfully undertaken by the AALCC to assist its Member States was drawn up by the Expert Group and later approved at the Seoul Session of the AALCC held in early 1979.

In the subsequent period, priority was given to the question of protection of the marine environment including the promotion of ratification of or accession to some of the major Conventions in the field of marine environment, and regional seas programmes coordinated by the UNEP which were related to the Asian-African region.

At the twenty-eighth session of the AALCC held in Nairobi in February 1989, a new item entitled "Transboundary Movement of Hazardous Wastes and Their Disposal" was inscribed in the environmental law programme of the AALCC. The Secretary-General was mandated to participate at the plenipotentiary conference held in Basel in March 1989 which adopted the Basel Convention on the