Notes for an address by J. Alan Beesley, Q.C.,
Ambassador for Disarmament, to the
17th Annual Conference of the Law of the Sea Institute,
Oslo, Norway, July 16, 1983

# An Action Plan for Competent International Organizations on Marine Pollution

### Introduction

It is a widely held view that the fate of the 1982 Law of the Sea Convention will have an important effect upon the United Nations itself; this is particularly significant in light of the numerous attacks upon the U.N. emanating from various quarters. Two successive Secretary-Generals of the U.N. have pointed to the Law of the Sea Convention as one of the most successful achievements of the U.N., as have many heads of state and heads of government. By the same token, the fate of the Law of the Sea Convention may raise the question to some significant degree, when considered in the context of changing attitudes towards the U.N., as to whether we wish the U.N. to go the way of the League of Nations. It is well known that the two new international institutions created by the Convention, the International Sea Bed Authority and the International Enterprise, are opposed by a handful of powerful states. It is less widely recognized that the Convention delegates to a series of other international institutions important standard-setting, lawcreating conservation and monitoring functions. With the noteable exception of the delegation of Portugal (particularly Dr. Mario Ruivo, now Secretary of the I.O.C.), insufficient attention has been given to this issue and it is not overstating the situation to suggest that unless a coordinated action plan is developed to ensure that the "competent international organizations" carry out their assigned tasks,

then a threat to the success of the Convention will arise from the impatience of coastal states concerned to cope with urgent pollution problems. This is particularly true in the field of the preservation of the marine environment since the Law of the Sea Convention was deliberately devised as an "umbrella convention" which delegates to various global and regional institutions much of the task of ensuring that the substantive provisions of the Convention designed to protect and preserve the marine environment are implemented.

Most of the international legislative process has been completed, but much still remains to be done. More importantly, perhaps, the implementation and application of the Convention depends upon the development of effective enforcement laws, including in particular liability and compensation, a field which requires much further work. A preliminary but basic question relates to the apportionment of such tasks amongst the existing international inter-governmental organizations. It is the thesis of this paper that what is needed is, in the words of Peter Thatcher, who was a distinguished international public official serving with UNEP, "a universal forum for the cooperation of states in the preservation of the marine environment" which would ensure the necessary coordination of activities, guard against overlapping functions, and provide the necessary momentum for continuing action on a whole range of uncompleted work.

## The Nature of International Institutions

It is well known that much of that part of the Convention relating to the marine environment had its origin in the U.N. Conference on the human environment held in Stockholm in 1972. As one of the delegates to that conference, and the representative of a country seeking to develop consensus upon a series of legal principles directed to the

into technical rules by institutions such as IMCO(now IMO) and new substantive rules of law in the Law of the Sea Conference, I can attest to the wisespread satisfaction on the attainment of agreement by consensus on such principles, particularly principle 21 "that states have the obligation to protect and preserve the marine environment". As a participant in the 1973 London Dumping Conference, I witnessed the agreement, again by consensus, on an effective Dumping Convention based on the innovative "blacklist-graylist" approach pioneered in the Oslo Convention. Shortly afterwards, however, on being posted to Vienna as Ambassador to Austria and Canadian governor on the Board of Governors of the International Atomic Energy Agency, I received some useful lessons on the nature of international institutions, even though I had already worked closely within the U.N. system in New York, Geneva and Paris for over ten years. The lesson is a simple and self-evident one. International institutions are only as effective as their member states permit them to be. I ought not to have been surprised to have discovered in Vienna that the same states which had expressed varying degrees of opposition to the Stockholm principles and to the London Dumping Convention were equally active in the IAEA and in the related activities of WHO in seeking to preserve the oceans as a dumping ground for radioactive waste.

I found at my first meeting of the IAEA Board of Governors that a "model" or action plan had been devised for dumping radioactive waste in the ocean which did not, in my layman's view, provide adequate safeguards. I had been under the impression that the decision at the London Dumping Conference to delegate such decisions to the IAEA was of itself an ample safeguard. As a result of a series of questions not only by me but by representatives of Sweden, Australia and the Federal Republic of Germany we found that the Secretariat experts were also unhappy with the

dumping plan but had dutifully prepared it in accordance with the instructions of governments. They welcomed the request to develop a new model providing more stringent safeguards. The eventual decision was in accordance with the highly responsible approach traditionally followed by the IAEA, both on non-proliferation and on preservation of the marine environment. The point of my anecdote is that it is not enough: to delegate important tasks to international institutions, particularly to unnamed "competent international organizations" and assume that everything necessary will be done through some inevitable process. In the field of multilateral diplomacy, particularly in the case of law-making activities, there is no principle of automaticity. I remain of the view that the preservation of the marine environment, more perhaps than any other field of activity covered by the Law of the Sea Convention, requires a very activist multi-disciplinary approach based upon a continuing and determined commitment to the preservation of the environment. It is to the credit of the international community and to the international institutions through which they take action to protect the marine environment that so much has been achieved, particularly through UNEP's Regional Seas Programme, in the decade since the Stockholm conference.

## New Environmental Law

A little less than ten years ago in an article on the Canadian approach to international environmental law I expressed the view that international environmental law is inadequate both in scope and substance — in scope in that it is incomplete and in substance in that it is inconsistent, fragmentary and in large part inchoate. The article argued that international environmental law must be developed on the basis of the principle that all states have the duty to preserve the environment and that states must accept responsibility for any damage they cause to the environment of another state or the environment beyond any state's jurisdiction.

The article suggested further that both substantive and adjectival law must be developed so as to enable effective application of this principle, either through existing institutions or through new ones, including those established for the purpose of resolving environmental disputes.

It is not necessary for me to reiterate the importance attached by Canada to the 1909 Boundary Waters Treaty between Canada and the U.S.A., one of the earliest international agreements prohibiting water pollution, nor to the Trail Smelter Arbitration, in which Canada accepted responsibility for the acts of a private concern which was damaging the environment of a foreign jurisdiction. Suffice it to say that Canada's approach to the Stockholm Conference and London Dumping and IMCO Conventions and to the Law of the Sea Conference was based on these important early precedents. The environmental provisions of the Law of the Sea negotiations are, like all of the provisions in the Convention, the result of a series of accommodations and compromises. No state was successful in wholly obtaining its objectives. I doubt, however, if any state takes more satisfaction than does Canada from the whole new chapter of law relating to the preservation of the marine environment which emerged from the intensive negotiations on the series of controversial and divisive issues which we faced and resolved. For the first time we now have a clear cut obligation of states to preserve the marine environment. Article 192 states categorically "states have the obligation to protect and preserve the marine environment". Chapter XII of the Convention sets out the detailed and sometimes complex series of compromises between the coastal states and flag states, including also the concept of Port State jurisdiction, which emerged from our years of negotiations under the capable chairmanship of Alex Yankov of Bulgaria, who is with us today. It is not my function to analyse these provisions and other

requiring action by international institutions. I would be remiss however if I did not express my view that if the Conference had achieved nothing but the creation of this whole new chapter of law, the Conference would have been a worthwhile expenditure of time, action and money, since this chapter constitutes a great achievement of the U.N. system. When this chapter is coupled with the series of innovative provisions for third party settlements of disputes, the Convention must be regarded as a tremendous accomplishment. A question which arises, of course, although not strictly within my mandate, is how much of the new environmental law can be deemed to have emerged as settled law through the customary law creation process, and whether recourse to third party settlement procedures can exist for non-parties to the Convention. In a separate paper another member of the panel argues that the major maritime powers were the winners in the battle with coastal states over coastal state environmental jurisdiction. One wonders what the eventual outcome of that battle will be if the treaty does not come into force, given the extent to which states have delegated standard-setting powers to international organizations while reserving to themselves certain enforcement powers.

## State Practice

Before turning to the question of an action plan for international organizations, it is necessary to consider the rights and duties of states pursuant to the Convention. Even the most cursory reading of the Convention indicates the need for all states both signatories and nonsignatories, to make a detailed analysis of the Convention to measure their national legislation against the yardstick of the Convention in order to determine what amendments are required to existing legislation and what new legislation is needed. Ideally, a process of global harmonization and legislation is required. The argument against

"picking and choosing" with respect to provisions of the Convention apply particularly to the need for national environmental legislation. It is said, for example, that the two major powers still have legislation permitting the setting of construction standards for vessels transitting their territorial seas. Numerous other examples might be cited, but there is no need to belabour the point. It is not enough, however, to argue that the Convention codifies or creates customary law on the preservation of marine environment. In no other field, except perhaps in the case of the deep ocean seabed, is there such a requirement for specific kinds of national legislation to enable states to comply with the Convention or, alternatively, to argue that on the basis of state practice the Convention merely codifies customary law.

## The Health of the Oceans

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There is one further preliminary question which should be addressed before considering the problem of the role of international institutions and the need for a global action plan, namely the present state of the oceans. The subject is too vast to permit anything but the most summary reference to the issue; fortunately there is a recent authoritative statement on the subject to which one can turn. I refer to the report entitled "The Health of the Oceans" which is No. 16 of UNEP's regional seas reports and studies. The study was made by the Joint Group of Experts on the Scientific Aspects of Marine Pollution. It took the Group of Experts four years to prepare their study; and every four years from now on, the "Gesamp" experts plan to issue an up-dated review of the state of pollution of the world's oceans. It is of interest that the report was prepared in cooperation with the U.N., FAO, UNESCO, WHO. WMO, IMO and the IAEA.

The report was relatively reassuring with respect to those areas far from land with which few of us come into contact very frequently. Presumably it will take time to degrade to a dangerous degree the environment of the vast areas of deep ocean space. However, the report makes clear that:

"Pollution is generally most severe in semi-enclosed marginal seas and coastal waters bordering highly populated and industrialized zones. Such areas have substantial concentrations of contaminants from land-based sources. The environmental effects vary from one part of the coastal zone to another depending on the type and volume of the wastes, and the nature of coastal activities. Many pollutants introduced to the coastal zone remain there, at least temporarily.

"Effects of oil released into the marine environment depend on the type of oil, the nature of the ecosystem affected, and on a variety of physical, chemical and biological processes important to its fate that may be operative at the time of release. Oil spill effects on pelagic communities are rarely drastic and recovery is usually a question of weeks or months. Impact on intertidal, and subtidal communities may be severe with recovery taking years or decades, particularly in the shoreline communities where oil penetrates the sediments, and oil on beaches can seriously affect their amenity as recreational areas. Birds are particularly at risk, but there is no evidence that oil alone can threaten species survival.

"The vast bulk of marine fishery resources (more than 90 per cent) is located in continental shelf areas and in the upwelling regions of the oceans. The coastal fisheries are particularly exposed to the effects of pollution, since the highest concentration of metals, halogenated hydrocarbons, petroleum hydrocarbons, suspended solids and litter are found in these areas. Effects of pollution on fisheries tend as yet

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"The use of the coastal zone for sewage disposal is world-wide and the input is increasing. Incidents have occurred when human health has been severely threatened as a result of the sewage load in the coastal zone, and in places the nature of the habitat has been altered and the species composition of plant and animal populations changed. There are also records of the ecosystem recovering and returning to normal when proper control has been instituted. A proper management of sewage disposal and a re-examination of sewage disposal practice are necessary, otherwise the combined effects of many local disturbances could become serious on a regional and perhaps gradually on a global scale.

"The importance of living marine resources as a protein source is increasing. Fisheries management has in recent years prevented complete destruction of several threatened fish stocks, and it is clear that the practice of management must continue and develop. Adequate management requires an assessment of all pressures on the stocks -- pollution as well as fishing.

"Concerning energy, the extension of oil exploration into extremely hostile ocean areas may give rise to major spills and greater low-level inputs. Production is expected to increase in cold areas where oil degrades more slowly. Nuclear power is being developed in several countries which see this as essential to their energy requirements so that increased discharges of low-level radioactivity and further marine dumping of wastes can be expected. If any of the several attempts to win energy from the sea by unconventional methods are successful, effects of this must also be considered, and proper control instituted.

"If deep-sea mining becomes economic and if an active industry develops, potential effects should be assessed, and again any necessary control instituted."

"The Group noted that although effects of pollution have not so far been detected on a global scale, general trends of increasing contamination can be recognized in some areas, and these trends are warning signals. The signals are noticeable mainly in the marine areas most intensively used by man, viz. coastal waters. The oceans are capable of absorbing limited and controlled quantities of wastes and, as such represent an important resource. But careful control of waste disposal is necessary. Programmes must be maintained for this purpose and initiative taken to regulate the entry of new contaminants to the oceans. The effects of pollution should be carefully monitored, and our understanding of the fate and effects of pollutants in the oceans must be improved. This approach makes for more accurate predictions and assessments and therefore provides the most effective means of ensuring that the health of the oceans is maintained

"Many contaminants eventually reach the sea floor where they interact with the marine sediment and biota at the sediment-water interface. As yet serious damage is known to have occurred only in very localized regions."

The conclusion seems inevitable that there is serious cause for concern over the state of the oceans and a continuing and immediate need for a coordinated action plan to prevent their further degradation. Role of International Organizations - the Need for a Master Plan

The problem of coordination of action by the various international organizations concerned with marine affairs including the preservation of marine environment has for some time been recognized by the United Nations. A study on the future functions of the Secretary-General under the Convention and on the needs of countries, especially developing countries, for information, advice and assistance under the

new legal regime/effect was issued by the U.N. Secretariat on

August 18, 1981 under Document No. 62/L.76, drawing attention to the need
to ensure an adequate understanding on the part of the U.N. Secretariat
and in the secretariats of the specialized agencies of the purposes and
specific provisions of the Convention. This document constituted a useful
preliminary study, dealing with the need for national legislation and
regulation, publication or notification, surveillance and enforcement,
administration and organizational requirements in cooperation directly
with other states or through international organizations. Paragraph
9 of the study deals with environmental administration and includes the
following observations on the need for action by states:

"With respect to environmental administration,

Adoption of policy, and its implementation through appropriate mechanisms, may entail considerations of its relationship both to more general environmental policies outside the ambit of the future Convention (e.g. dumping at sea may be viewed as one aspect of a general policy of waste management), and to other aspects of marine policy-making (e.g. development of fisheries and other ocean resources and uses). Administrative mechanisms may be expected to vary according to the source of pollution being dealt with, although important functions associated with the monitoring and assessment of the risks and effects of marine pollution and of activities likely to cause pollution may depend on close cooperation and coordination among many branches of government. Also, the wide range of scientific and technical support needed to identify research needs, study questions of giving effect to international rules, etc. or formulating rules with similar effect, for example, will have important administrative implications. In the case of "vessel-source pollution", administrative mechanisms may depend essentially on whether policies are adopted for the standpoint of a coastal State with major port

facilities or of one without them, of a coastal State with port facilities also used by neighbouring States, of a State with a merchant marine or important fishing fleets or one without them, of an archipelagic State, of a State bordering a Strait, of a State designating a special area within its EEZ, or of a State co-ordinating its policies at an appropriate regional level. (For example, a State with a significant merchant marine is more likely to approach pollution prevention as a basic aspect of maritime safety with consequent emphasis on the adoption and enforcement of safety standards and navigational rules, and on the competence of sea-going personnel.)"

The report goes on to highlight the need for joint action by states, as required by various provisions of the Convention.

- "Environmental administration may encompass, as appropriate:
- "(a) Arrangements for participation in international organizations and conferences establishing or re-examining international rules and standards, etc. and developing appropriate scientific criteria in this connection; formulating programmes of studies, research, education and training, information and data exchange, monitoring; and coordinating or harmonizing policies at appropriate regional levels. Account would have to be taken of participation also in conferences on safety of maritime operations, training and competence of crews etc. and of needs for consultations with other States (arts. 194, 197, 200, 201, 204, 207, 208, 210, 211, 212);
- "(b) Arrangements in connection with co-ordination in enclosed or semi-enclosed seas (art. 123); other arrangements associated with harmonization of policies, particularly at appropriate regional levels (arts. 194, 207, 208);
- "(c) Arrangements with other States regarding pollution from ships in the A3).

- "(d) Participation in programmes of scientific and technical assistance to developing States and utilization of results. This requires assessments of available manpower and associated training needs; of the capabilities of existing infrastructure for research, education and training, information and data exchange and monitoring; and of equipment needs (art. 202);
- "(e) Arrangements for making observations, measurements, evaluations and analyses of risks or effects of pollution and preparing reports in this connection; assessing planned activities under national jurisdiction in terms of potential environmental effects, preparing and communicating reports thereon and requesting assistance in preparation of environmental assessments (arts. 202, 204-206);
- "(f) Arrangements to provide for such coordination as needed between programmes and projects on marine pollution and those concerning marine sciences and fisheries;
- "(g) Arrangements for response to pollution incidents, particularly with respect to joint development of contingency plans; international assistance to minimize effects of major incidents; arrangements for providing prompt notification in cases of pollution or incidents involving discharges; measures to deal with emergencies created by maritime casualties (arts. 198, 199, 202, 211, 221);
- "(h) Specific arrangements to deal with dumping, including designation of the competent authorities, issuance of permits, coordination with other waste management authorities and consultations with other States (art. 210);
- "(i) As a port State, administration of particular requirements established for entry of foreign vessels into ports, internal waters, or off-shore terminals; prior evaluation of need for their establishment and of ability to implement; consultations with other port States on harmonization of policies and establishment of cooperative arrangements; communications to the competent international organization and publicity. ... l

(Account would need to be taken of other laws and regulations applying to ships navigating the territorial sea, straits, the exclusive economic zone and any specially designated areas of the exclusive economic zone, and to ships flying its flag or of its registry.) Arrangements for investigation and institution of proceedings against vessels in respect of alleged discharges and violation of international rules, etc. outside its internal waters, territorial sea or exclusive economic zone; similar action at request of flag State or an affected State; transmittal of record of investigation to requesting State or transferral of evidence and records and any bonds posted to that State on suspension of proceedings (arts. 218, 228);

- "(j) Administration of special areas of the exclusive economic zone: prior study of its oceanographical and ecological conditions, questions of utilization and protection of its resources, and of traffic conditions; consultations with other States through the competent international organization regarding establishment of special mandatory measures; submission of evidence in support of measures including information on reception facilities to the competent international organization; publication of limits of area and measures to be applied (taking account of time limits specified); participation in activities developing international rules and standards or navigational practices for such special areas; enforcement (arts. 211, 220, 228);
- "(k) Administrative implications of adopting environmental laws with respect to ice-covered areas of the exclusive economic zone, including collection and analysis of scientific information and study of navigational requirements (art. 234);

"(1) Administrative measures regarding seaworthiness of vessels: ascertaining that a vessel is in violation of applicable international rules; retention in port or at offshore terminal; ensuring rectification of causes of violation (art 219);

"(m) Administrative measures regarding violations of rules applicable to the territorial sea, straits, exclusive economic zone or special area of the exclusive economic zone. These might include, depending on the violation and the area to which the rule in question applies: ascertaining identity, registry and itinerary of vessel; conducting on-board inspection and other investigations associated with institution of proceedings in respect of the violation; detaining and releasing vessels; securing bond or other financial security; imposing monetary penalties. Such measures would need to take account of safeguards on exercise of enforcement powers, e.g. ensuring that proceedings are facilitated, that vessels are not delayed unduly, that flag States are promptly notified of enforcement actions, that proceedings are suspended when corresponding charges are brought by the flag State, that monetary penalties are appropriately applied, that recourse for liability is allowed for damage or loss arising from enforcement action, etc. (arts. 220, 223-233);

"(n) Administrative measures to ensure prompt and adequate compensation for pollution damage; cooperation in implementation of existing international laws, further development of international law, and development of criteria and procedures with respect to compulsory insurance or compensation funds, for example (art 235)."

The foregoing listing of action through international organizations required by the Convention speaks for itself, for those who think that even the law-making role is completed. Certainly the implementation program is a vast and comprehensive one.

More recently, the U.N. Environmental Program issued a report in March 1982 reviewing UNEP activities relevant to issues before the U.N. Law of the Sea Conference. It outlined developments in its highly successful regional seas action plan covering ten separate regional seas agreements and went on to discuss legal aspects of offshore mining and drilling within national jurisdictions; cooperation concerning shared natural resources; and outlined a list of international environmental conventions. That register has been issued under UNEP/GC/INFORMATION 5/Supplements 1-5 & UNEP/GC.10/5/Add.l. The review paper reported also that the UNEP Secretariat has prepared an in-depth review of environmental law, issued as a discussion paper under Symbol A/Conf. 62/11; It referred also to the conclusions of the Ad Hoc committee of senior governmental officials expert in environmental law.

An even more recent and dramatic study has been released by the Economic and Social Council in a document dated March 15, 1983, No. E/AC.51/1983/2 entitled "Cross-organizational programme analysis of the activities of the United Nations system in marine affairs". The impact of the report is overwhelming in the number, scope and variety of activities and organizations related to marine affairs, including, in particular, the preservation of marine environment. The report points out that during the biennium 1982-83 some 17 major organizational units of the U.N. and 11 specialized agencies are undertaking 456 distinct marine affairs activities, whose total cost is estimated at a relatively modest \$371.3 million. The institutions referred to include: the United Nations (Office of the Special Representative for the Law of the Sea (UNCLS), the Office of Legal Affairs, the Department of Political and Security Council Affairs (PSCA), the Department of International Economic and Social Affairs (DIESA), the Department of Technical Conseration for Nevelopment (DTCD), the United Nations Centre on

Transnational Corporations (UNCTC), the United Nations Centre for Human Settlements (UNCHS), the Economic Commission for Europe (ECE), the Economic and Social Commission for Asia and the Pacific (ESCAP), the Economic Commission for Latin American (ECLA), the Economic Commission for Africa (ECA), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Industrial Development Organization (UNIDO), the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the United Nations Institute for Training and Research (UNITAR) and the United Nations University (UNU), the International Labour Organization (ILO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), Division of Marine Sciences and Secretariat of the Intergovernmental Oceanographic Commission (ICC), the World Health Organization (WHO), the World Bank, the International Civil Aviation Organization (ICAO), the International Telecommunication Union (ITU), the World Meteorological Organization (WMO), the International Maritime Organization (IMO) (formerly the Inter-Governmental Maritime Consultative Organization (IMCO)), the International Fund for International Maritime Organization (IMO), the International Fund for Agricultural Development (IFAD) and the International Atomic Energy Agency (IAEA).

I am taking the liberty of appending to this paper a copy of table 2 outlining the programmes in question. A separate table (No. 5) lists issues addressed by organizations in the field of control of pollution and, leaving aside living resources and conservation, the U.N. is addressing 23-issues, IMO (formerly IMCO) 16, UNESCO/IOC 15, FAO 7, IAEA 5, WHO 2, and WMO 1. This information should provide food for thought for all of us. Paragraphs 43 and 44 of the report are worth noting:

developed, in 1974, the regional seas programme, now covering ten regions and involving 120 coastal States, 14 bodies of the United Nations system and other global and regional intergovernmental and non-governmental organizations and national institutions. General cooperation between UNEP and other United Nations agencies on environmental matters is organized through periodic meetings of the Designated Officials for Environmental Matters, as well as through bilateral or thematic joint programming. There have been three inter-agency meetings on the regional seas programme, in 1976, 1978 and 1981, and interagency consultations for specific regions are organized by UNEP on an ad hoc basis whenever necessary."

The report concludes that since there are no fewer than 28 organizational institutions of the U.N. system active in marine affairs, which have a multiplicity of mandates, activities and working relationships, "there may be an advantage in keeping the overall consistency and complementarity of the whole range of related activities under review." Even by the standards of the U.N. Secretariat, this is a masterly piece of low-key understatement.

In spite of the comprehensive nature and the high calibre of the report by ECOSOC from which I have just quoted, critics of the U.N. system may be surprised to learn that the study was criticized in the subsequent report of the U.N. Committee for Programme and Coordination as being too up-beat in tone and not sufficiently complete in its scope. An interesting comment made in the CPO report dated June 14, 1983 and numbered A/38/38 (Part 1) is that the committee noted that the Secretariat had approached the Commission on Human Settlements for its guidance on preparation of the cross-organizational programme analysis. It further noted that no equivalent inter-governmental body existed which dealt with all a sects of marine affairs. The document also drew attention

to problems of overlap and potential duplication between the work of the United Nations Conference on Trade and Development (UNCTAD) and the International Maritime Organization (IMO) in the area of maritime legislation, as well as the possibility that the work of the United Nations Environment Programme (UNEP) in this area was developing beyond its initial mandate and that potential problems existed, especially in relation to the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO). As regards the problem which had become evident between UNCTAD and IMO, the Committee noted that the optimistic tone of the report stemmed from assurances to the Secretariat that the issue was being satisfactorily resolved. It further noted that one positive side-effect of preparing reports such as this one was to encourage resolution of such problems.

### Conclusion

I hope I will be forgiven for not attempting to produce my own master plan concerning the apportionment of activities amongst international institutions pursuant to the provisions of the Law of the Sea Convention. What is clear is that there is a need for an overall coordinating mechanism or process which does not yet exist. For those of us concerned to ensure the success of the Convention but even more perhaps for those who hope to operate outside it, it is clear that a coordinating mechanism capable of ensuring the development of an overall plan of action is a necessity, and one becoming increasingly urgent.

Table 2. Coverage of substantive areas by regular programme and technical co-operation activities of the United Nations system in the biennium 1982-1983

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	thescoloc, North Bank, and	United Nations, 7AO, ITU, INC	72	7 027.8	25	1 367.1	13	15 394.9
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		in tad Nation	•	68.7	•		-	68.7
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Transfer of technology	United Nations	IAEA, UNESCO/IOC		,	31	•	1	704.0
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products				•	•	•	٠	1
Condition	1	United Nations	•				•	•
	9. <b>•</b>	united Nations, UNESCO/IOC	•	•	•			
renewable renewable						•		
*Dane			•	٠	•	•		•
Archaeology		United hathors	121	78 837.9	295	70 117.8	430	143 955.7
TOTAL	. Land							

		Percen	rcentage of activiti	percentage of activities addressing leaves 3/	services used in over 20 per cent of
	Organizations involved	Total Programme	rogramme	rechnical co-operation	Manna or action (number of programme activities)
Issue area	assistance activities)			;	consideration (13), publications (11), intergovernmental
Legal	United Nations (27), FAO (7), INO (5) ICAO (1), UNESCO/IOC (1), ITU (1)	1.6	19.4	3	meetings (11), standard-setting (10), expert your seminars (9), reports (8), advisory sarvices (7), case setudies (7), surveys (6), training courses (6)
Policy and management	United Harions (43), FAO (43), 1MO (9), 1LO (3), 1TU (3), UNESCO/IOC (2)	13.7	23.9	23.6	publications (15), co-ordination (15), intergovernmental neetings (14), training courses (12), advisory services (11), backstopping technical co-operation (11), surveys (11), sent (11), reports (9), standard-setting (9), expert oroups (6), manuals (8), TCDC/ECDC (7)
Living	FAO (127), United Mations (14) UNESCOTIC (8), World Bank (1) 110 (1), 140 (1)	35.6	15.7	979	publications [11], advisory mervices (10), TCDC/ECDC (3), intergovernmental meetings (8), backstopping technical co-coperation (6), ongoing research (6), case studies (8), expert groups (7), eurveys (7), co-ordination (7), training courses (6), reports (6), manuals (5), seminars (5)
Mon-living	united Nations (26), UNESCO/IOC (2), 110 (1), FAO (1)	7.0	2	F.8	publications (5), backstopping technical co-operation (5), advisory marvices (4), co-ordination (4), intergovernmental netting (4), expert groups (3), case studies (3), training courses (3), orgoing research (3)
use of ocean		17.5	17.2	19.3	Co-ordination (19), intergovernmental meetings (18), standard-setting (18), model legislation (17)
Regulation and control		26.7	32.1	24.3	Standard-setting (16), publications (15), seminars (14), co-ordination (14), reports (13), advisory services (12), co-ordination (14), reports (13), about 9 fours (10),
other	United Nations (1), World Bank (4), WHO (5), ILO (5), World Bank (4), UNESCO/IOC (1), WHO (1)				intergovernmental mertings of the backstopping technical co-operation (10)
Conservation		11.4	÷i	1:11	publications (8), co-ordination (8), case studies (6), advisory services (7), manuals (6), apport groups (6), reports (6), seminars (6), surveys (5), intergordensental meetings (5), atandard-setting (5), training dourses (4), directories (4), ongoing research (4)

	orgoing fements: [10], case studies (10), types advisory services (10), case studies (10), types advisory savings (25), orgoing sanuals (6)	Expect groups (34), annual (22), co-ordination (21), research (24), publications (21), reports (18), aurysys (17), services (21), ones studies (21), bedystopping tachnical scannars (16), TCC/ECDC (15), bedystopping tachnical co-operation (14), establishment of data bases (13), sanuals (11)		
percentage of activities addressing issues 2/ rechnical tal programme co-operation (6.3 29.9 10.1		3.61	11.1	\$ 25.0
nge of sping gramme		6.1	20.1	3
percentage of a addressing is addressing is		č.	H.7	18.6
	united wations (23), ING (18), unesco/IOC (18), FAG (7), IAEA (8), who (2), who (1)	UNESCO/IOC (42), FAG (27), United Nations (23), New (10), TAEA (5) IND (3), NHO (1)		PAO (58), United Nations (16), 190 (4)
11000	control of pollution	goorsedge	Supporting services	Industry

by A given activity can address pore than one issue. The figure is the portion of all activities other than financial assistance which address the issue.

1.