UNIVERSITY OF SOUTHAMPTON

FACULTY OF LAW

The Role of UNEP in the Development of International Environmental Law

By

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To

My Parents

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SUMMARY OF CONTENTS

TABLE OF CONTENTS

ABBREVIATIONS

ASEAN	Association of South-East Asian nations
ALECSO	Arab League Educational Cultural and Scientific Organization
CEDE	Conseil Europeen de Droit de L'Environnement
C C O L	Co-ordinating Committee on the Ozone Layer
CFCs	Chlorofluorocarbons
C.I.T.E.S.	Convention on Interantional Trade in Endangered Species of Wild Fauna and Flora
CPPS	Permanent Commission for the South Pacific
EC	European Community
ECA	United Nations Economic Commission for Africa
ECE	United Nations Economic Commission for Europe
EEC	European Economic Community
EMEP	Co-operative Programme for the Monitoring and Evaluation of the Long-Range transmission of Air Pollutants in Europe
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization
FUST	FUND FOR ENVIRONMENTAL STUDIES
GATT	General Agreement on Tariffs and Trade
GEMS	Global Environmental Monitoring System
GESAMP	Joint Group of Experts on the Scientifc Aspects of Marine Pollution
IAEA	International Atomic Energy Agency
IIED	International Institute for Environment and Development
IJO	International Juridical Organization
I.L.A.	International Law Association
I.L.C.	International Law Commission
I.L.M.	INTERNATIONAL LEGAL MATERIALS

ILO	International Labour Organization
IMCO	Intergovernmental Maritime Consultative Organization
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IRPTC	International Register of Potentially Toxic Chemicals
ISBA (ISA)	International Seabed Authority
IUCN	International Union for the Conservation of Nature and Natural Resources
IWC	International Whaling Commission
LOSC	Law of the Sea Convention, Montego Bay, 1982
OAU	Organization for African Unity
OECD	Organization for Economic Cooperation and Development
SACEP	South Asia Cooperative Environment Program
SPC	South Pacific Commission
SWMTEP	System-Wide Medium-Term Environment Programme
U.K.	United Kingdom of Great Britain and Northern Ireland
UNCLOS	United Nations Conference on the Law of the Sea
UN/DIESA	United Nations Department for International Economic and Social affairs
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
U.S.S.R.	Union Soviet Socialist Republics
WHO	World Health Organization
WMO	World Meteorological Organization
WWF	World Wildlife Fund

TABLE OF LEGAL INSTRUMENTS CITED IN THIS THESIS:

'I.C.R.W.'	International Convention for the Regulation of Whaling, Washington, 1946 (1948) FUST 946:89
'Geneva Territorial Sea Convention'	Convention on the Territorial Sea and the Contiguous Zone, Geneva, 1958 (1964) FUST 958:32
'Geneva High Seas Convention'	Convention on the High Seas, Geneva, 1958 (1962) FUST 958:33
'Geneva Continental Shelf Convention'	Convention on the Continental Shelf, Geneva, 1958 (1964) FUST: 958:30
'Geneva Living Resources Convention'	Convention on Fishing and Conservation of the Living Resources of the High Seas, Geneva, 1958 (1966) FUST: 958:31
'Netherlands-FRG Frontier Treaty'	Treaty Between Netherlands and the Federal Republic of Germany, Concerning the Course of the Common Frontier, the Boundary Waters, etc. The Hague, 1960 (1963); UNTS, vol. 508, p. 15
'OECD Paris Convention'	Convention on Third Party Liability in the Field of Nuclear Energy, Paris, 1960 (1968) FUST 960:57
'1961 Single U.N. Convention on Narcotic Drugs'	Single Convention on Narcotic Drugs, 1961 (1964). Amended by the 1972 protocol (amendments in force 1972) 976 UNTS 105
'1962 Brussels Convention'	Convention on the Liability of Operators of Nuclear Ships, Brussels, 1962 (N) FUST 962:40
'Vienna Liability Convention'	Convention on Civil Liability for Nuclear Damage, Vienna, 1963 (1977) FUST 963:40
'Nuclear Tests Ban Treaty'	Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Moscow, 1963 (1963) FUST 963:59
'Niger River Commission Agreement'	Agreement Concerning the River Niger Commission and the Navigation and Transport on the River Niger, Niamey, 1964 (1966), FUST 964:87
'African Convention'	African Convention on the Conservation of Nature and Natural Resources, Algiers, 1968 (1969), FUST 968:68
'European Water Charter'	European Water Charter of the Council of Europe proclaimed in Strasbourg (May 6, 1968), RS XI:5744

'Bonn Agreement'	Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and Other harmful substances, Bonn, 1983(N), I.E.R. 121:0701
'Brussels Intervention Convention'	International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Brussels, 1969 (1975) FUST 969:89
'Civil Liability Convention'	International Convention on Civil Liability for Oil Pollution Damage, Brussels, 1969 (1975) FUST 969:88
'Ramsar Convention'	Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar, 1971(1975) FUST 971:09
'Copenhagen Agreement'	Agreement Concerning Co-operation in Taking Measures against Pollution of the Sea by Oil, Copenhagen, 1971(1971), FUST 971:69
'1971 Convention on Psychotropic Substances'	Convention on Psychotropic Substances, 1971(1976)10 ILM 261
'Oslo Convention'	Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Oslo, 1972(1974), FUST 972:12
'Space Liability Convention	Convention on International Liability for Damage caused by Space Objects, London, Moscow, Whashington 1972 (1972) FUST 972:24
'Antarctic Seals Convention'	'Convention for the Conservation of Antarctic Seals, London, 1972 (1978) 11 ILM 251
'Stockholm Declaration'	Declaration of the United Nations Conference on the Human Environment, Stockholm, 1972. (UN Doc. A/CONF, 48/14)
'Stockholm Action Plan'	Action Plan for the Human Environment, Stockholm, 1972, 11 ILM 1421 (1972)
'World Heritage Convention'	Convention concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972(1975) FUST 972:86
'London Dumping Convention'	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, London, 1972 (1975) FUST 972:96
'C.I.T.E.S.'	Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973 (1975) FUST 973:18

'Marpol Convention'	International Convention for the Prevention of Pollution from Ships, London, 1973 (1983)FUST 973:84
'Nordic Convention'	Nordic Environmental Protection Convention, Stockholm, 1974(1976), FUST 974:14.
'Helsinki Convention'	Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, 1974(1980), FUST 974:23
'Paris Convention'	Convention for the Prevention of Marine Pollution from Land-Based Sources, Paris, 1974(1978), FUST 974:43
'OECD Recommendation C(74)216'	Recommendation on the Analysis of the Environmental Consequences of Significant Public and Private Projects, adopted on 14 November 1974. RS 1:287
'OECD Recommendation C(74)224	Recommendation on Principles Concerning Transfrontier Pollution , 14 November 1974. RS 1:316
'EEC Directive 75/442/EEC	Council of European Communities Directive on Waste. 15 July 1975, OJ L 194, July 25, 1975
'USA-Canada weather Modification Agreement'	Agreement between the United States of America and Canada relating to the Exchange of Information on Weather Modification Activities, Washington; March 26, 1975, RS XVI:8269
'Barcelona Convention'	Convention for the Protection of the Mediterranean Sea against Pollution, Barcelona, 1975(1978), FUST 976:13
'Barcelona Dumping Protocol'	Protocol on the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, Barcelona, 1976(1976), FUST 976:14
'Barcelona Emergency Protocol'	Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency, Barcelona, 1976(1978), FUST 976:15
'Apia Convention'	Convention on Conservation of Nature in the South Pacific, Apia, 1976 (N), FUST 976:45
'EEC Directive 76/464/EEC	Council of European Communities Directive on Pollution Caused by Certain 76/464/EEC' Dangerous Substances Discharged into the Aquatic Environment of the Community, Brussels, 4 May 1976, OJ L 129, 18 May 1976
'OECD Recommendation C(76)155(Final)'	Recommendation of the Council on A Comprehensive Waste Management Policy, 28 September 1976 RS XXX:40

'OECD Recommendation C(76)161(Final)	Recommendation of the Council on Principles Concerning Coastal Management, 12 October 1976 RS XIX:9714
'ENMOD'	Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques, Geneva, 1976 (1978) FUST 977:37
'OECD Recommendation C(77)28(Final)	Recommendation for the Implementation of a Regime of Equal Right of Access and Non-Discrimination in Relation to Transfrontier Pollution, 17 May 1977. RS XVIII:9344
'OECD Recommendation C(78)77'	Recommendation of the Council for Strengthening International Co-operation on Environmental Protection in Frontier Regions , 21 september 1978 RS XVIII:9406
'Shared Resources Principles'	Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, Nairobi, 7 February 1978 (UNEP/GC.6/17)
'Kuwait Convention'	Regional Convention for Co-operation on the Protection of the Protection of the Marine Environment from Pollution, Kuwait, 1978(1979), FUST 978:31
'Kuwait Emergency Protocol'	Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency, Kuwait, 1978 (1979), FUST 978:32
'Amazonian Treaty'	Treaty for Amazonian Cooperation, Brasilia, 1978(1980) FUST 978:49
'Offshore Liability Convention'	Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1977 (N) FUST 977:33
'EEC Directive 78/319/EEC	Council of European Communities Directive on Toxic and Dangerous waste, 20 march 1978, OJ L 84, 31 March 1978
'EEC Directive 78/631/EEC'	Council of European Communities Directive on Classification, Packaging, and Labelling of Pesticides, 26 June 1978; OJ L 206 (as amended by 79/83/EEC, 15 October 1979)

'1979 GATT Agreement on Technical Barriers to Trade'	'GATT Agreement on Technical Barriers to trade', 1979 (1980) TIAS 9616
'EEC Directive 79/117/EEC	Council of European Communities Directive on Plant Protection Products, 21 Dec 1978, OJ L 33, 8 February 1979 as amended by Council Directive 83/131/EEC, 14 March 1983, Council Directive 85/298/EEC, 22 May 1985 I.E.R 161:1401 and Council Directive 86/214/EEC, 26 May 1986
'OECD Recommendation C(79)116'	Recommendation of the Council on the Assessment of Projects with Significant Impact on the Environment, 8 May, 1979
'Bern Convention'	Convention on the Conservation of European Wildlife and Natural Habitats, Bern, 1979(1982), FUST 979:70
'Migratory Species Convention'	Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979 (1985) FUST 979:55
'Geneva/ECE Convention'	Convention on Long-Range Transboundary Pollution, Geneva, 1979 (1983) FUST 979:84
World Conservation Strategy	IUCN, UNEP, WWF, World Conservation Strategy, 1980 RS:XXIII:420
'Weather Modification Provisions'	Provisions for Co-operation between States in Weather Modification (UNEP GC Decision 8/7 A of 29 April 1980) GAOR:Thirty-Fifth Session Suppl. No. 25(A/35/25)
'Athens Protocol'	Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, Athens, 1980(1983)FUST 980:37
'Canberra Convention'	Convention on the Conservation of Antarctic Marine Living Resources, Canberra, 1980 (1982) FUST:980:39
'World Charter for Nature'	World Charter for Nature, Document A/RES/37/7, 28 October 1982(A/37/PV.48)
'USA-Canada Memorandum of Intent'	Memorandum of Intent Between the Government of the United States of America and the Government of Canada Concerning Transboundary Air Pollution, Washington, August 5, 1980 RS:XXVIII:352
"Abidjan Convention"	Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, Abidjan, 1981 (1984)FUST 981:23

'Abidjan Emerge--ency Protocol'	Protocol Concerning Co-operation in combating Pollution in Cases of Emergency, 1981 (1984) FUST 981:24
'Lima Convention'	Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific, Lima, 1981 (N) FUST 981:84
'Lima Emergency Agreement'	Agreement on Regional Co-operation in Combating Pollution of the South-Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency, Lima, 1981 (N) FUST 981:85
'CEDE Draft Convention'	Adopted by CEDE on 1 April 1978 EPL, 4 (1978) at 137
'Off-shore Mining and Drilling Conclusions'	Conclusions of the Study on the Legal Aspects Concerning the Environment related to Offshore Mining and Drilling within the Limits of National Jurisdiction, Geneva, 13 February 1981 (UNEP/GC.9/5/Add.5, annex III)
'Jeddah Convention'	Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment, Jeddah, 1982 (1985) FUST 982:13
'Jeddah Emergency Protocol'	Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency, Jeddah, 1982 (1985) FUST 982:14
'Mediterranean Protected Areas Protocol'	Protocol concerning Mediterranean Specially Protected Areas, Geneva, 1982 (N) FUST 982:26
'LOSC'	United Nations Convention on the Law of the Sea, Montego Bay, 1982 (N) ILM XXI:1245
'1982 Montreal Rules on TWP'	1982 ILA Montreal Rules on Water Pollution in an International Drainage Basin proposed by the ILA Committee on International Water Resources Law (in: ILA 60th Conf. Rep. p. 535)
'1982 Montreal on TP'	1982 ILA Montreal Rules on International Law Rules on International Law Applicable to Transfrontier Pollution (in: ILA 60th Conf. Rep. p. 1)
'Cartagena Convention'	Convention on the Protection and Development of the Marine Environment of the Wider Caribbean Region, 1983 (N) FUST 983:23
'Cartagena Emergency Protocol'	Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region, 1983 (N) FUST 983:24

'Quito Protocol'	Protocol for the Protection of the South-East Pacific against Pollution from Land-Based Sources, Quito, 1983(N). Text supplied by UNEP.
'OECD Decision Decision and Recommendation C(83)180(Final)'	Decision and Recommendation of the Council on Transfrontier Movements of Hazardous Waste, 1st February, 1984. EPL, 12(1984) at 55
'OECD Recommendation C(84)37(Final)'	Recommendation of the Council Concerning Information Exchange related to Export of Banned or Severely Restricted Chemicals, 4th April, 1984. EPL, 12(1984) at 116
'EEC Directive 84/631/EEC'	Council of European Communities Directive on Transfrontier Shipment of Hazardous Waste, 6 December 1984, OJ No. L 326; as amended by Directive 85/469/EEC. I.E.R., 181:0701
'ASEAN Agreement'	'Agreement on the Conservation of Nature and Natural Resources', 1985(N)EPL, 15(1985)64-69
'Ozone Layer Convention'	Vienna Convention for the Protection of the Ozone Layer, 1985(N) (UNEP Doc. IG.53/5)
'Montreal Guidelines'	Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources, Montreal 19 April 1985. (UNEP Doc. UNEP/WG.120/3)
'Cairo Guidelines/ Principles'	Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes (UNEP doc. UNEP/WG.122/3/Annex III, 9 December 1985)
'EEC Directive on E.I.A.'	Council of European Communities Directive on the Assessment of the Effects of Certain Public and Private Projects on the Environment(85/337/EEC), OJ L 175, 5 July 1985. I.E.R 131:2201.
'Nairobi Convention'	Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and Protocols, Nairobi, 1985(N). Text supplied by UNEP
'Nairobi Protected Areas Protocol'	Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region, Nairobi, 1985(N). Text supplied by UNEP

Note:

- The date between brackets refers to the year of entry into force of the legal text. Where N is included, it means that the legal instrument in question is not in force (as of January 1986).

-RS refers to Ruster,Bernd and Simma,Bruno,'International Protection of the Environment,Treaties and Related Documents'.

-FUST refers to the compilation by W.E. Burhenne,ed.'International Environmental Law-Multilateral Treaties',Verlag FUST,Berlin,1975,continuing.

-ILM refers to International Legal Materials

-I.E.R refers to International Environment Reporter,reference file.

-UNTS refers to United Nations Treaty Series

-TIAS refers to Treaties and other International Acts Series

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ABSTRACT

FACULTY OF LAW

Doctor of Philosophy

THE ROLE OF UNEP IN THE DEVELOPMENT OF INTERNATIONAL ENVIRONMENTAL LAW

by Taha TIAR

Concern for the protection of the environment and conservation of its natural resources was given an official expression in the 1972 Stockholm Conference on the Human Environment.

Subsequently environmental law(including international environmental law) will be considered as one component of environmental protection techniques and UNEP proposed, as a 'catalytic' body ,to use,among other things,environmental law activities where environmental law is found defective,insufficient or completely non-existent.

This thesis examines the role and achievements which UNEP has made in the development of international environmental law,whether substantive law,procedural law or institutional law and looks at whether UNEP's activities and achievements in this field have yielded a model which has been,or could usefully be,applied by States when concluding agreements among or between themselves.

GENERAL INTRODUCTION

It is proposed to study the role of the United Nations Environment Programme(UNEP)in the development of international environmental law.

The study of this topic holds,in my opinion,a particular importance for it will show the achievements or contribution of one international institution in the development of this young branch of international law.

In order to achieve this aim,the thesis is divided into three parts.

Under Part one, one will deal with UNEP's 'catalytic role';chapter 1 will deal with UNEP's mandates for the development of international environmental law and chapter 2 will deal with execution by UNEP of its 'catalytic role'.

Under chapter 1 two main periods will be considered :The 'pre-Montevideo' period which starts from the United Nations Conference on the Human Environment to the holding,in Montevideo,in 1981, of the Ad Hoc Meeting of Senior Government Officials Expert in Environmental Law (the 'Montevideo Meeting').Relevant UNEP Governing Council's decisions as well as U.N.General Assembly Resolutions, adopted during this period,will be discussed in order to assess the existence of any mandate,whether general or in specific fields,for UNEP to develop international environmental law.Under the second period(the 'Montevideo Period'),one will discuss UNEP mandates for the development of international environmental law as contained in the Conclusions,Recommendations and the Programme of Development and Periodic Review of Environmental Law(the 'Montevideo Programme') as adopted by the 'Montevideo Meeting' and as endorsed by UNEP Governing Council.It should be noted that as regards the 'Montevideo Programme',only the subjects selected and on which the Governing Council has taken a decision to authorize a follow-up action will be considered.

One will also consider under this period, UNEP's mandates in this field under the Law of the Sea Convention.

Under Chapter 2, execution by UNEP of its 'catalytic' role in the development of international environmental law will be assessed at two levels : The regional level and the global level.

Discussion of the 'catalytic' role of UNEP at the regional level will mainly involve discussion of UNEP's action regarding the 'Regional Seas Programme'. For this, UNEP's contribution in the elaboration of Action Plans as a whole will be looked at as well as its role in the development of specific legal instruments.

Discussion of the 'catalytic' role of UNEP at the global level will concentrate on actions undertaken by this organization in order to facilitate the development of international environmental law at this level. For this, two sub-sections will be used: One will give an overview of UNEP's role in this field by describing and analyzing the major actions taken; be they identification of subject areas where law needs be developed, constitution of working groups to achieve this aim; their support, financial or otherwise etc., . The overview will cover UNEP's actions in all fields concerned (pollution, conservation, management of hazardous wastes etc., .). The second sub-section will concentrate more on actions undertaken by UNEP in order to facilitate development of international environmental law in specific fields .

Part two of the thesis will be devoted to the discussion of the achievements made under UNEP in the development of substantive law. Five chapters will be used in order to assess these achievements. They will treat, respectively, definitions and general obligations; pollution law; conservation law; chemicals management law and finally liability and compensation and settlement of disputes law.

Part three will concentrate on the achievements made under UNEP in the development of procedural law and institutional law.

By procedural law one means legal provisions which relate to such duties as impact assessment, prior notification and exchange of information , consultation and equal access and treatment .

By institutional law one means legal provisions concerned with the creation or establishment of structures, permanent or otherwise, intergovernmental or governmental and the conferring upon them of special tasks in order to facilitate international co-operation for environmental protection.

Under "conclusions" one will not only include the general conclusions reached with regard to the question/object which is of this thesis but will also discuss UNEP's juridical model in order to show whether legal instruments in whose elaboration or support UNEP has been involved have yielded a model which has been, or could usefully be, applied under other legal instruments.

Discussion of UNEP's role in the development of international environmental law calls for a number of observations.

First, it is understood that UNEP being a 'catalytic' body, the legal instruments which will be considered in order to assess its role in this field are those in whose elaboration UNEP has directly been involved as well as those supported by it.

Second, in reviewing UNEP's achievements in the development of international environmental law (especially in a 'hard law' context), reference will be made not only to agreements which have entered into force, but also to other agreements adopted but not yet in force.

The reason behind this lies in the existence of a trend among States to implement legal instruments;especially those dealing with environmental problems,before they enter into force.This trend exists both with regard to legal agreements adopted outside UNEP(i.e the 'Geneva/ECE Convention') and within it.As regards the latter level, under the UNEP's Regional Seas Programme,for example,at no time did the countries party to a regional agreement refer to their legal obligations in order to undertake field activities.Field activities have been undertaken in many instances without waiting for the legal instruments to enter into force.

This trend is important as regards evaluation of UNEP's achievements in the development of international environmental law in that early implementation of agreements by countries will add to the performance and results achieved either in implementing or supplementing existing agreements.

PART ONE: UNEP's CATAYTIC ROLE

CHAPTER 1: UNEP's CATALYTIC ROLE: MANDATES

CHAPTER 2: UNEP's CATALYTIC ROLE: IMPLEMENTATION

CHAPTER 1: UNEP's CATALYTIC[1] ROLE: MANDATES

Introduction

In 1972 a United Nations Conference on the Human Environment was held in Stockholm. This Conference produced a basic Declaration, a detailed Resolution on Institutional and Financial arrangements and an Action Plan.[1a]

In the light of the results of the 'Stockholm Conference', U.N. General Assembly Resolution 2997 (XXVII) on Institutional Arrangements,[2] provided for a Governing Council of the United Nations Environment Programme, an Environment Secretariat, an Environment Fund, and Environment Co-ordination Board.[3]

The Governing Council is entrusted under Section 1, paragraph 2 of the aforementioned Resolution with the following functions and responsibilities:

(a) "To promote international co-operation in the field of the environment and to recommend, as appropriate, policies to this end;

(b) "To provide general policy guidance for the direction and co-ordination of environmental programmes within the United Nations System.

(c) "To receive and review the periodic reports of the Executive Director of the United Nations Environment Programme... on the implementation of Environmental Programmes within the United Nations System:

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[1] On the catalytic role of UNEP see GC decision 5(II) of 21 March 1974 and U.N.General Assembly resolution 3326(XXIX) of 10 December 1974. Also, UNEP doc. UNEP/GC/82 of 16 January 1976.

[1a] Report of the United Nations Conference on the Human Environment Stockholm, 5-16 June 1972. (A/Conf.48/14/Rev.1)

[2] Resolution 2997 (General Assembly, Twenty-Seventh Session, 19 September - 19 December 1972, Official Records, Supplement No. 30 (A/87 30).

[3] Subsequently there was the merger of the Environmental Co-ordinating Board with the Administrative Committee on Co-ordination. (U.N.General Assembly Res.32/172 of 19 Dec.1977). The creation of a body like UNEP within the U.N.system shows the unwillingness of States to create a major new organization for the environment having specialized agency status which would add to the bureaucratic problems of the U.N.. See on this, L.K.Caldwell 'International Environmental Policy' (Duke Press Policy Studies) at 49.

(d) To keep under review the world environment situation in order to ensure that emerging environmental problems of wide international significance receive appropriate and adequate consideration by Governments.

(e) To promote the contribution of the relevant international scientific and other professional Communities to the acquisition, assessment and exchange of environmental knowledge and information and, as appropriate, to the technical aspects of the formulation and implementation of environmental programmes within the United Nations System.

(f) To maintain under continuing review the impact of national and international environmental policies and measures on developing countries, as well as the problem of additional costs that may be incurred by developing countries in the implementation of environmental programmes and projects, and to ensure that such programmes and projects shall be compatible with the development plans and priorities of those countries.

(g) To review and approve annually the programme of utilisation of resources of the Environment Fund."

Strictly speaking, one can note from the Governing Council's functions and responsibilities that, initially, UNEP was not mandated to develop international environmental Law[4] except the mention which is made with regard to the role of the Governing Council "to promote international co-operation in the field of the environment and to recommend, as appropriate, policies to this end .....".

The absence of an explicit mandate for UNEP to develop international environmental Law has been explained by the fact that "it was not intended that [the Stockholm] Conference should consider

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[4] For different views with regard to the question as to whether there exists a branch of international law called international environmental law; see KISS 'The International Protection of the Environment' in 'The Structure and Process of International Law: Essays in Legal Philosophy, Doctrine and Theory' (The Hague; Boston; Lancaster, 1983) at 1070; BROWNLIE, (remarks), 'protection of the global heritage' (E. Brown Weiss, Chairp.) in A.S.I.L. Proceed., Vol. 76: 32-55 (1980) at 37-38.

legal questions" and that "it was to be merely a technical, scientific meeting".[5]

UNEP mandates in this field have, however, been defined and sharpened by subsequent Governing Council decisions and U.N. General Assembly Resolutions. The LOSC also contains frequent references to 'competent international organisations' and their responsibilities for the further development of a global regime for the marine environment. This, as will be shown later may also refer to UNEP.

In discussing UNEP mandates in this field, one will first discuss UNEP general mandates; in this respect states' attitudes towards this question as well as relevant decisions taken by UNEP Governing Council will be reviewed.

Second, a separate section will give an account of UNEP's mandates for the development of the Law regarding specific subject-areas.

1.1 UNEP's General Mandates for the Development of International Environmental Law.

Two periods can clearly be distinguished in this respect: the 'Pre-Montevideo' period and the 'Montevideo Period'.

1.1.1. The Pre-Montevideo Period.

The 'pre-Montevideo' period was characterised by opposite attitudes of States to the role of UNEP in this field but also by a precision of this role through UNEP Governing Council decisions.

Regarding the first aspect, there were, on the one hand, States who had serious reservations as regards a role for UNEP in this field.

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[5] See, BACON, 'The Role of the United Nations Environment Program (UNEP) in the Development of International Environmental Law' in, 12 Can. Y.b. Int'l. L. 255-266 (1974) at 255. Also HEILBRUNN 'UNEP Mandates: Stockholm Recommendations, General Assembly Resolutions and Governing Council Decisions" in Earth Law J. 1 (1975) pp. 161-66.

France ,for example, did not, during the second session of the Governing Council, believe UNEP to be competent to develop International Environmental Law since, according to it, this task was not mentioned in U.N. General Assembly Resolution 2997 (XXVII) which defined the Council mandates and responsibilities.[6] There were, on the other hand, those who agreed on, and supported, a UNEP involvement in this field, and who considered that the progressive development of international environmental Law should be of priority concern for UNEP. Those who agreed about UNEP involvement in the development of international environmental Law did warn, however, that this task was not an easy one, and that it required a level of knowledge and experience that was still non-existent in most of the areas of environmental co-operation. Weakness of jurisprudence in this field was also mentioned; Consequently, UNEP was called upon to proceed slowly and with caution.[7]

The difference in attitude of States regarding this question was well reflected in decision 8(II) section A III taken by UNEP's Governing Council[8] in which the Executive Director was directed to take into account the following considerations:

> "(a) The solutions to many environmental problems are dependent on adequate Law relating to the environment, taking into account regional requirements and approaches;
>
> (b) The development of environmental Law requires the collaboration of governments and inter-governmental bodies.
>
> (c) The programme *has no formal mandate in this connection;* however, *it can facilitate this development by initiating appropriate consultations between experts;*(my emphasis)

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[6] See, Report of the Governing Council on the Work of its Second Session. 11-22 March 1974, General Assembly Official Records: Twenty-Ninth Session, Supplement No. 25 (A/9625) at 12.

[7] Ibid.

[8] See note 6 supra. at p.69.

(d) In initiating such consultations, there is a need to inform all governments, as well as intergovernmental bodies concerned with the environment, in order that the viewpoint of all interested Governments, and the widest possible range of expertise may be brought to bear on this problem."

As for the role which UNEP should play in this field, views advanced at that time, especially during the early sessions of UNEP Governing Council, were not very clear. There were views which advocated that UNEP should act as the Secretariat for conventions relating to the protection and Conservation of the environment for which no other agency has this responsibility or that UNEP should undertake preparation of international legal instruments relating to the protection of the environment. Other opinions were advanced where it was stressed that UNEP's main concern in this area, should be the preparation of an 'international code of conduct', or a 'charter of the environment'; this could be initiated, according to them, by a 'Comprehensive codification of minimum environmental standards, which could then serve as the basis for a new code of environmental ethics, leading eventually to a comprehensive codification of a new body of international environmental law".

There were also suggestions that UNEP should, for the sake of efficiency, stimulate and develop the study of basic definitions, general concepts and principles which are necessary for the adequate application of any legislation.[9]

As said earlier, UNEP mandates for the development of international environmental law, have been clarified, during this period, by Governing Council decisions. Only decisions which relate to the general mandate of UNEP in this field will be referred to here;decisions relating to UNEP mandates regarding the development of international environmental law for specific subject areas will be the object of a separate section.

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[9] See note 6 supra. at p.12. See also, Report of the Governing Council on the work of its Third Session, 17 April - 2 May 1975, General Assembly Official Records: Thirtieth Session, Supplement No. 25 (A/10025) at 46-47.

Regarding UNEP Governing Council decisions which relate to UNEP's general mandate in the field of international environmental Law, one should note decision 35(III) of May 1975[10] in which, the Governing Council endorsed the following objectives and strategies[11] relating to the programme of UNEP in the field of environmental Law.

objectives

.....

"(a) To contribute towards the development and codification of a new body of international law, to meet new requirements generated by environmental concerns and by the international strategy in the field of the environment, based particularly on the Declaration of Stockholm;

"(b) To facilitate co-operation among States for the development of international law regarding responsibility, liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of States to areas beyond the limits of their jurisdiction in accordance with principles 21,22,23 and 24 of the Stockholm Declaration;

"(c) To contribute towards the development of environmental law and the national and regional levels;

"(d) To promote the protection of international Commons and the regulation of their use from the environmental point of view;

"(e) To work towards establishment of guidelines and procedures for the avoidance and settlement of environmental disputes;

"(f) To study institutional structures related to environmental concerns, with the aim of devising efficient new mechanisms or improving existing ones."

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[10] See, Report of the Governing Council on the Work of its third session...., note 9 supra. at 101.

[11] See UNEP doc. UNEP/GC/31, para. 2(i).

"Strategy.

"(a) A systematic collection will be made of data and information with the aim of creating a base for action, and for formulation, proposal and promotion of general principles, legal rules and instruments;

"(b) Further elaboration will be fostered of general principles adopted at the Stockholm Conference, in UNEP and elsewhere, and their utilisation in specific contexts, (compensation, transfer of costs, liability for damage, responsibility for preventing environmental damage, natural resources shared by two or more States etc.);

"(c) international agreements or conventions will be promoted to deal with global environmental concerns (weather and climate modification, exploitation of sea-bed, etc.);

"(d) international agreements or conventions, bilateral and multilateral, will be promoted to deal with specific environmental problems in given geographical contexts (international rivers and river basins, enclosed and semi-enclosed seas, transfrontier pollution, ground-waters etc.);

"(e) Efforts will be made by international organisations and fora to take the environmental law aspect into account in their work;

"(f) Comparative studies will be conducted of national environmental protection law, as a means of generating ideas and rules for wider application by countries in their national contexts as well as for adaptation to the requirements of international environmental law;

"(g) Mechanisms and arrangements will be developed for international co-operation on a voluntary basis to deal with specific environmental issues in ways that will facilitate evolution of environmental law in respect of such issues;

"(h) Technical assistance will be provided to developing countries for the development of their environmental legislation".

By virtue of the same decision the Governing Council requested the Executive Director "to take such measures as may be necessary for the realisation of the objectives and the implementation of the strategies ..... emphasising the preventive character of environmental law, and in particular to take measures designed to provide technical assistance to developing countries at their request for the development of their national environmental legislation".

Moreover, by decisions 47(iv)[12] of 14 April 1976 and 8/6 of 29 April 1980, the Governing Council adopted, respectively, concentration areas[13] and revised goals[14] for the UNEP environmental Law programme which read in their relevant part;

Concentration Areas.

"implementation of Governing Council decisions for the initiation of activities to promote co-operation in the field of the environment concerning natural resources shared by two or more States;

Goals for 1982

"19. Wide acceptance by Governments and application of international conventions and protocols in the field of the environment, both those now existing and those being developed;

"20. Agreement on the principles which should guide States in their relations with each other in respect of shared natural resources, the problems of liability and compensation for pollution and environmental damage, weather modification and risks to the ozone layer".

1.1.2. The 'Montevideo period'

This period is characterized by the adoption of a programme for the development and periodic review of environmental law(including international environmental law) and by the necessity to consider a follow-up of relevant provisions contained in the LOSC.

1.1.2.1. A Programme for the Development and Periodic Review of Environmental Law

At the eighth session of the Governing Council of UNEP, a number of delegations spoke favourably of the further development of international environmental law through UNEP, and supported the idea of a high-level meeting to develop a long-term programme

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[12] See, Report of the Governing Council on the work of its Fourth Session, 30 March - 14 April 1976, General Assembly Official Records: Thirty-First Session; Supplement N.25 (A/31/25) Annex I at 110.

[13] See UNEP doc. UNEP/GC/INFORMATION/1/Rev.2.

[14] The goals for 1982 were proposed by UNEP's Executive Director in 1977, in his introductory statement to the UNEP Governing Council's fifth session. He proposed 21 goals to be accomplished by UNEP by 1982. (See UNEP/GC/L.48). Also, UNEP Governing Council Decision 82(V), Section VI.

in this area.[15] By decision 8/15[16] the Governing Council of UNEP requested the Executive Director to:-

"1....convene, prior to the tenth session of the Governing Council, an ad hoc meeting of Senior government officials expert in environmental law, ... to assist in ensuring that the section on environmental law of the system-wide medium-term environment programme to be submitted for consideration by the Governing Council at its tenth session:

"(a) Identifies subject areas where increased global and regional co-ordination and co-operation may encourage and further enhance progress in the field of environmental law, in particular with regard to the interest of developing countries;

"(b) Sets out a programme, including global, regional and national efforts, towards this end;

it also requested the Executive Director, in order to ensure that developments within the United Nations system and the related work of other international forums and organisations, as well as regional and bilateral agreements, are taken fully into account in preparing for the ad hoc meeting of senior government officials ....

"2....

"(a) To consult with Governments and appropriate regional governmental and non-governmental bodies with a view to reflecting particular recommendation on regional concerns, interests and priorities in the field of environmental law;

"(b) To prepare the necessary documentation, noting, inter alia, material published by leading authors in the field of environmental law;

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[15] See, report of the Governing Council on the Work of Its Eighth Session, 16-29 April 1980; GAOR: Thirty-fifth Session, Supplement No.25 (A/35/25) at 28.

[16] Ibid. Annex I at p.28

Also, by decision 9/19A,[17] the Governing Council,

> "Recalling its decision 8/15 of 29 April 1980 on the convening, prior to the tenth session of the Governing Council, of an ad hoc meeting of Senior Government officials expert in environmental law,
>
> "Recognising that the results of the ad hoc meeting will constitute a major contribution to the development and implementation of the environment programme,
>
> "Recognising further that the development of environmental law should be viewed in the broad context of the promotion of international co-operation,
>
> Decided that
>
> "1.... further to General Assembly resolution 35/74 of 5 December 1980, the Ad Hoc Meeting of Senior Government Officials Expert in Environmental Law shall take place in Montevideo in November 1981 and that the Working Group of Experts on Environmental Law, acting as the prepatory committee for the Ad Hoc Meeting, shall meet at Geneva for two weeks early in September 1981;

By the same decision, the Governing Council further decided that the Mandate of the Ad Hoc Meeting shall be

> "2....
>
> "(a) To establish a framework and methods for the development and periodic review of environmental law, by focusing upon:

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[17] See, Report of the Governing Council on the work of its Ninth Session, 13-26 May 1981, General Assembly Official Records: Thirty-sixth Session, Supplement N.25 (A/36/25) at Annex 1, p.127.

(i) The identification of major subject - areas, such as marine pollution from land-based sources, protection of the ozone layer and disposal of hazardous wastes - suitable for increased global and regional co-ordination and co-operation in elaborating environmental law, with particular regard to the interests of developing countries.

(ii) The promotion of guidelines or, where appropriate, of principles, or the conclusion of bilateral, regional or multilateral agreements, in relation to such subject areas;

(iii) The identification of other subject areas which could be susceptible to the development of such guidelines, principles or agreements;

(iv) The identification of subject areas suitable for the elaboration of preventive measures as well as other mechanisms for the implementation of environmental law, including the improvement of remedies available to the victims of pollution;

(v) The means for the promotion and provision of technical assistance to developing countries in the field of environmental law;

(b) To set out a programme, including global, regional and national efforts, in furtherance of the above elements;

The UNEP Governing Council also requested, by the same decision the Executive Director

(a).....

(b) To convene, in conjunction with the prepatory committee, a meeting to identify the particular interests and concerns of the developing countries in the light of the mandate set out above;

.....

The first consultation in preparation for the senior level meeting of experts was the informal consultative meeting on

environmental law which was held in Ottowa from 5-7th November 1980(hereafter the 'Ottawa Meeting'). At this meeting, the functions of the senior level meeting were seen as being ones of planning, not developing specific legal instruments. In the opinion of the Canadian representative "the meeting will be the beginning, not the end of a process, and accordingly should make recommendations on which the Governing Council can base policy decisions as to the co-ordinating and catalytic role UNEP will play in contributing to the development of environmental law".[18]

The Preparatory Committee which met in Geneva from 9-18th September to prepare the Ad Hoc meeting in accordance with decision 9/19A (hereafter the 'Preparatory Committe Meeting') was able to identify major subject areas and six other subject areas susceptible to inclusion in a comprehensive programme.[19]

In accordance with the above-mentioned decision the Executive Director also convened a meeting of Experts of some developing countries on Environmental Law in Geneva from 7-9th September.[20]

The Senior Government Officials Expert in Environmental Law met in Montevideo from 28th October to 6th November 1981 (the 'Montevideo Meeting') and adopted conclusions and recommendations regarding development of guidelines,principles or agreements in major subject areas and also in other subject areas which call for attention(hereafter the 'Montevideo Programme')[21]

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[18] See 'Informal Consultation on Senior Level Meeting' in EPL, 6 (1980) at 154.

[19] See, EPL, 8 (1982) at 3 and ff.

[20] Ibid. at 2.

[21] See,Report of the Ad HocMeeting of Senior Government Officials Expert in Environmental Law (UNEP/GC.10/5/Add.2,7 December 1981).

The 'Montevideo Programme' was submitted to the UNEP Governing Council at its tenth session held in Nairobi from 20-31st May 1982 which adopted it by decision 10/21 of 31st May 1982.[22]

It must be observed, however, that UNEP's mandate for the development of international environmental law regarding some subject areas selected by the 'Montevideo Meeting' has been defined by the Governing Council before this meeting. One example is UNEP's mandate for the development of international environmental law regarding protection of the Ozone layer.[23]

1.1.2.2 Follow-Up of Environmental Provision of The LOSC

The Post-Montevideo period has, as stated earlier, seen the signature of the Law of the Sea Convention in 1982. This Convention contains provisions regulating the majority of the uses of the marine environment: navigation; fishing, scientific research, the exploration and exploitation of its mineral resources etc. The environmental dimension is present in most of these provisions, particularly those related to the exploration, conservation and management of natural resources, and to scientific research and the transfer of marine technology.

More importantly, Part XII (articles 192-237) has been devoted exclusively to the protection of the marine environment some provisions of which need to be developed. In this regard, the Convention refers to "competent international organisations" which, as will be seen subsequently, might refer to UNEP.

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[22] See, Report of the Governing Council on the Work of its Tenth Session (UNEP IGC. 10/14 of 15 June 1982) at page 100.One should note ,with regard to the 'Montevideo Programme',that hesitations have been expressed by some countries in respect of the global approach to the conventions envisaged such as that on land-based pollution which ,in their view,should rather be dealt with at the regional level.(see proceedings of the governing council at its eleventh session,UNEP doc.UNEP/GC.11/18,9 June 1983 at p. 41,para.18.)

[23] See, UNEP Governing Council decision 9/13B of 26 May 1981; in Report of the Governing Council on the work of its Ninth Session.... note 17 supra. at 118-119.

It must be observed, however, that due to the nature of the Law of the Sea Convention, that is a "framework Convention"; nature which has been known from the early stages of the negotiation of the Convention;[24] also due to the advance knowledge of the subject-areas, in international environmental law which needed development; UNEP has been involved in the development of international environmental law in some areas without waiting for the outcome of the Law of the Sea Convention. Moreover, the fact that discussion of environmental provisions of the Law of the Sea Convention, under Committee III, of the conference was finalised at an early stage,[25] has meant that some subject areas included in the Convention text were selected for further development by the 'Montevideo' meeting before the signature of the LOSC.

Regarding UNEP's mandate for the development of environmental provisions contained in the LOSC; some commentators[26] believe that relevant guidance concerning the distribution of competence in the field of the protection and preservation of the marine environment is given in Annex VIII to the Convention which deals with "special arbitration procedure" and according to which UNEP is entrusted with the establishment and maintenance of the list of experts for the constitution of interpretation or application of the provisions of the Convention relating to the protection and preservation of the marine environment.

This, according to such view, constitutes a strong indication of the UNCLOS opinion concerning UNEP general competence in the field of the preservation of the marine environment.

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[24] See, STEVENSON and OXMAN, 'The Preparation for the Law of the Sea Conference' in 68 A.J.I.L. 1-32 (1974).

[25] See OXMAN, 'The Third United Nations Conference on the Law of the Sea : The Eighth Session' 1979 A.J.I.L. pp. 1-47 at 3. Also 'The Environmental Law of the Sea' (D.M. JOHNSTON IUCN, Gland, 1981), p. 387; and KISS 'Dix Ans après Stockholm, une Decennie de Droit International de L'Environnement' in (1982) A.F.D.I. pp. 784-793 at 790.

[26] See, KINGDAM and Mc RAE, "Competent International Organizations and the Law of the Sea", Mar. Pol'y. 3:106-132 (1979) at 108, 109.

UNEP mandates regarding the development of international environmental law relating to specific subject-areas will now be discussed.

1.2 UNEP's Mandates For the Development of International Environmental Law in Specific Fields

1.2.1 Pollution

1.2.1.1. Marine Pollution

In connection with the protection of the marine environment, resolutions, recommendations and decisions defining UNEP mandates relate to the following: general mandate relating to the protection of the marine environment; contribution to the work of the U.N. Conference on the Law of the Sea; protection of specific bodies of water, and elaboration of guidelines, principles or rules for the regulation of some types of pollution that affect the marine environment.

1.2.1.1.1. General Mandate

Principle 7 of the Stockholm Declaration[27] is relevant in this respect, it provides that; "States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea."[28]

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[27] See, note 1 supra.

[28] Although the principles and recommendations contained in the Stockholm Declaration and Action Plan are adressed to Governments; this does not alter the fact that because of its 'catalytic' function, UNEP has a major responsibility in the implementation of the Stockholm Declaration and Action Plan.

1.2.1.1.2. Contribution to the Work of the U.N. Law of the Sea Conference

The U.N. General Assembly requested, in its resolution 3133 (XXVIII) of 13th December 1973,[29] the Governing Council of the United Nations Environment Programme to;

"5..... Continue to direct special attention to the question of environmental protection of the seas and oceans, in particular its living marine resources, and to report thereon, as well as on the implementation of the present resolution, to the General Assembly at its 29th session."

The Resolution also emphasised:

"6..... The importance of the task of the third United Nations Conference on the Law of the Sea in relation to the preservation of the marine environment, as approved by the United Nations Conference on the Human Environment".

The question of the implementation of U.N. General Assembly Resolution 3133 (XXVIII) of 13th December 1973 was raised during UNEP's Governing Council second session. There was general agreement that UNEP should play an active role in the third United Nations Conference on the Law of the Sea so as to ensure that the protection of the marine environment and its living resources was adequately taken into consideration in the work of that Conference. that conference should, in the view of delegates, provide a comprehensive legal framework for the protection of the marine environment on the basis of the Declaration and Action Plan principles and recommendations agreed upon by the United Nations Conference on the Human Environment at Stockholm.[30]

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[29] General Assembly; Twenty-Eighth Session 18 September - 18 December 1973, official records, Supplement N.30 (A/9030)

[30] See, note 6 supra. at p.101.

Decision 8 (II)[31] of UNEP Governing Council took into consideration most of these suggestions by recommending that "the programme should make a constructive contribution to the third United Nations Conference on the Law of the Sea", and by urging the Conference to "attach importance to its work relating the the preservation of the marine environment, taking into account, in particular, the contents of General Assembly 3133 (XXVIII) on the protection of the marine environment and the positions of Member States as expressed during the debate and on the adoption of the resolution of that General Assembly."

1.2.1.1.3. The Regional Seas Programme

Mention of UNEP's legislative authority regarding the development of programmes for the protection and preservation of specific bodies of water against pollution is important as far as development of international environmental law is concerned; the reason being that usually, under each Action Plan adopted in order to protect the environment of a given region, a legal component is included which relates to the elaboration and adoption by the States concerned of legal instruments in the form of 'framework' Conventions and protocols.

Suffice it to say, here, that after adoption by the Governing Council of UNEP of a regional approach, a number of decisions have been taken by it to request the Executive Director to develop action plans for eleven regions.[32]

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[31] See note 6 supra.

[32] See UNEP, Achievements and planned developments of UNEP's Regional Seas Programme and comparable programmes sponsored by other bodies, UNEP Regional Seas Reports and Studies No. 1, UNEP 1982.

1.2.1.1.4. Pollution from Activities in the Seabed Under National Jurisdiction

International Law in this area is not developed. Few relevant provisions are included under the 'Geneva High Seas Convention'and the 'Geneva Continental Shelf Convention'; and regional Conventions only contain very general and sometimes imprecise provisions. The only legal instrument which relates specifically to this source of pollution is the 'Offshore Liability Convention'and is a regional agreement.[33]

The LOSC devotes only a few terse provisions to pollution from sea-bed activities. Article 208(5) of the Convention calls on States to "establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution, from seabed activities under their jurisdiction".

Concern of UNEP for the development of the law, at the global level, regarding protection of the environment from pollution arising from offshore exploration and exploitation activities can be traced back to the meeting of the Group of Experts on liability for pollution and other environmental damage and compensation for such damage which was convened by the Executive Director of UNEP in implementation of decision 66 (IV) of UNEP Governing Council.[34]

During this meeting, the Deputy Executive Director of UNEP, in addition to calling on the Group to study "the principles of liability and compensation as applicable to the problems of pollution and other environmental damage"; also called on the Group to recommend to the Executive Director areas in which UNEP "Could profitably concentrate its efforts in the development of international environmental law".[35]

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[33] See, discussion under chapter 4.

[34] See, UNEP doc. UNEP/WG. 8/3; 6 April 1977.

[35] Ibid. at p.2, para. 4.

The Group of Experts generally considered that "off-shore mining was an area on which the various questions raised in connection with liability regimes could usefully be brought to bear.... since the activity could involve a real risk of significant damage to the environment of another state or to areas outside national jurisdiction". The majority of experts present at this meeting recognised that offshore mining should be one of the priority areas for study by UNEP.[36]

The Group of Experts although recognising that "the avoidance and prevention of environmental damage was of primary importance in dealing with international environmental problems" and that ".... any consideration of systems of liability and compensation should take into account the importance of preventive mechanisms and the possible linkages between concepts and mechanisms of prevention, responsibility and liability" limited its suggestions to the study of liability and compensation for damage arising from a number of activities including off-shore mining.[37]

At the fifth session of the Governing Council, a view was expressed which stated that the further elaboration of the principles of liability and compensation for damage caused by pollution of the environment must be regarded as part of the general problem of environmental law. For that reason, there was a proposition that the Group of Experts on liability should be transformed into an intergovernmental working Group on Environmental Law and that it should be given the mandate of examining all necessary questions

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[36] Ibid, at p.6, para. 20.

[37] Ibid.

concerning environmental law, including questions of liability.[38]

During this session, the Governing Council took decision 91(V) in which it requested the Executive Director to

> "(a) Convene as soon as possible a small working Group on environmental law, composed of Government experts, to examine and further pursue, inter alia, the work undertaken in accordance with Governing Council decision 66(IV)".
>
> "(b) recommend to the Group topics for study during the period for 1977 to 1979, taking into account and reviewing, inter alia, the Conclusions contained in the report of Group of Experts on liability for pollution and other Environmental Damage and Compensation for such damage."[39]

The Executive Director accordingly constituted a working Group of Experts on Environmental Law and recommended topics for study to the Group during 1977-1979. The topics recommended included "liability and compensation for damage from marine pollution caused by off-shore mining."[40]

At its first session,[41] held in Geneva from 29 August to 1st September 1977, the Group considered, among other matters, the topics recommended by the Executive Director, and decided that its first study during that period should be of the legal aspects of offshore mining and drilling carried out within the limits of national jurisdiction.[42]

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[38] See, UNEP, Report of the Governing Council on the work of its fifth session, 9-25 May 1977, G.A.O.R; Thirty-Second Session, Supplement No. 25 (A/32/25) at page 54, para. 261.

[39] Ibid. at Annex I.

[40] See, UNEP doc. UNEP/GC/90/Add.1.

[41] See, UNEP doc. UNEP/WG. 12/3, 3 October 1977.

[42] Ibid. at p.2, para. 6.

Two observations must be made in this context: first, the question of offshore drilling was added to offshore mining; this, it should be noted, was first suggested during discussion of the draft decision 91 (V) at the fifth session of the Governing Council by the representative of Finland who believed that any future study of liability and compensation for marine pollution caused by offshore mining,as recommended by the Group of Experts should also cover pollution caused by off-shore oil production.[43]

Second, the Working Group expressed a preference for a comprehensive approach to the study of this topic ranging from preventive to corrective measures including liability and compensation issues.[44]

During the third Conference on the Law of the Sea the question as to who should prescribe international standards for exploration and exploitation of the seabed under national jurisdiction was also debated. A number of States wanted the new Seabed Authority to prescribe these international standards: others, however were reluctant to agree to that idea, at least before the structure of the Authority is fully negotiated.[45]

While there was support for a further regulation of this form of pollution there was still stress on the importance for the coastal States to set higher standards; this was particularly the position of the U.S.S.R. whose representative believed that the importance attached to such sources of pollution as seabed pollution was essential because of inadequacy of current international rules and because, "as coastal states bore the main responsibility for stopping such pollution, they should be empowered to establish additional and more stringent rules to prevent it, including a total prohibition of such activities".[46]

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[43] See, note 38 supra. at p.55.

[44] See note 42 supra.

[45] See, STEVENSON and OXMAN, 'The Preparation for the Law of the Sea ...' op.cit.at 25

[46] See, Third UNCLOS, Official Records, Vol. IV, Third Session: Geneva, 17 March - 9 May 1975 at p.87 para. 69.

For some states the regulation of this form of pollution cannot be adequately dealt with under the Law of the Sea Convention. At the resumed eighth session, the representative of the United States of America stated ,for example,that his delegation "did not think that the Conclusion of the negotiations of Part XII was an adequate solution to the problem"; consequently, he stated, without indicating any preference for any institution that "further negotiations in other international forums would be needed to broaden existing measures to deal with marine pollution and to establish new measures in areas where the international standards were inadequate". Citing as an example article 208 of the Law of the Sea text, which called for the establishment of international standards to prevent, reduce and control pollution from activities on the continental shelf he did not believe that "such international efforts needed to await Conclusion of a Law of the Sea Convention."[47]

Some States, during the Law of the Sea negotiations, named institutions which should play a leading role in the regulation of this form of pollution.

Speaking in the third Committee at the second session of the Conference, the delegation of the German Democratic Republic referred to the need to create international standards regarding pollution of the seas from seabed activities by "an appropriate body in co-operation with UNEP".[48]

During the same session, the Japanese delegation spoke of the possibility that IMCO, the ISBA, or some other appropriate organisation would be able to establish standards for the prevention of marine pollution from the seabed.[49]

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[47] See,Third UNCLOS,Official Records,Vol. XII at p.48.

[48] See,Third UNCLOS,Official Records,Vol.II, Second Session, Third Committee, 3rd Meeting, P.312.

[49] Ibid.5th Meeting, P.325.

Finally, environmental lawyers have also recognised the leadership of UNEP in this field with a supporting role from the IOC and the Sea-Bed Authority.[50]

Whatever is said about UNEP, its competence in this field, in addition to the favourable views mentioned earlier, has been confirmed by the mandates included in its governing council decisions where an important number of States are represented.

Regarding the possible risk of duplication of work with another organisation, the representative of IMO (the organisation most involved in the protection of the marine environment), who attended the meetings of the 'working group' made clear, from the beginning, that work undertaken by UNEP in the field of offshore mining and drilling would not conflict with IMO's field of competence.[51] IMO is in fact not concerned with offshore activities as such. Its main concern is with the shipping component of these activities that is with offshore units which are mobile.

1.2.1.1.5 Land-Based Pollution

Little effort has been made on negotiating international legal instruments regarding land-based pollution. No general multilateral convention on the subject has been negotiated and only a regional agreement, the 'Paris Convention' dealt specifically with it. Other regional Conventions,[52] but with a wider scope, dealt also with this form of pollution.

UNEP mandates for the development of the Law in this field can be found in a number of principles and decisions.

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[50] See, note 26 Supra. at p.112.

[51] See, UNEP doc. UNEP/WG. 12/3 at p.2, para. 6.

[52] See e.g. The 'Helsinki Convention' and the 'Nordic Convention'.

A number of principles and recommendations adopted at the 'Stockholm Conference' are of relevance. Among these, one should note principle 6 of the 'Stockholm Declaration'[53] which provides that:

"The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems.....".

Under the 'Stockholm Action Plan',[54] recommendation 71 and 92 are also if interest. Recommendation 71 reads:

"it is recommended that Governments use the best practicable means available to minimise the release to the environment of toxic or dangerous substances, especially if they are persistent substances, such as heavy metals and organochlorine compounds, until it has been demonstrated that their release will not give rise to unacceptable risks or unless their use is essential to human health or food production, in which case appropriate control measures should be applied."

Recommendation 92 provides that:

"(b)..... Governments take early action to adopt effective national measures for the control of all significant sources of marine pollution, including land-based sources, and concert and co-ordinate their actions regionally, and where appropriate, on a wider international basis...."

A UNEP mandate in this field can also be found in the third UNCLOS debates.

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[53] See note 1a supra.

[54] Ibid.

In fact, in his address to the third Committee of UNCLOS on 9 August 1974, the UNEP representative expressed the view that "the Convention could recognise UNEP as the appropriate forum for the international community of States in its endeavour to establish, both at the regional and global levels, standards, rules and regulations for the prevention of marine pollution from land-based sources."[55]

This view was supported by the representatives of Kenya and the U.S.A. In the opinion of the latter "the idea that UNEP was the appropriate organisation in which to examine the question of land-based marine pollution deserved consideration."[56]

Moreover, in a communication[57] circulated to delegations informally on 27 August 1980 at the resumed ninth session of the third United Nations Conference on the Law of the Sea, UNEP reiterated its interest in the question of development, at the global level, of international law in the field of land-based pollution. It was noted in this communication that "many of the conference environmental provisions - and in particular those dealing with pollution from land-based sources and seabed activities, while admirable in their general import still need a great deal of concentrated and detailed future work for their effectuation" and "the elaboration of these norms will require a great deal of additional work, on both the regional and global level, to formulate more detailed obligations to prevent, reduce and control pollution"; for this UNEP "stand ready to assist [States] further, as requested, in this important task."[58]

Some scholars have also recognised UNEP competence in this field. According to Kingdam and McRae "It is clear that the general mandate of UNEP to promote international co-operation in the field of

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[55] Third UNCLOS, Official Records, V.II, Second Session, Third Committee; 14th Meeting at p.371.

[56] Ibid.

[57] U.N. Doc. A/Conf. 62/112. 10 April 1981.

[58] Ibid. at p.2.

the environment includes promoting the adoption of appropriate rules and standards in the fields of land-based and atmospheric pollution...." Furthermore and according to the same authors UNEP ".... through its regional seas programme has already involved itself in such activities and that.... a general power to prepare draft rules and conventions may be implied from UNEP's constitutional function."[59]

Opposition to the development by UNEP of rules in the field of marine pollution from land-based sources has nevertheless been voiced. During the second session of the Law of the Sea Conference, the U.K. delegate, for example, said that his country "regarded UNEP's role as a co-ordinating body as being a vitally important one" and "he questioned whether it should attempt an executive function."[60]

UNEP's competence in this field has however been confirmed by subsequent decisions of the Governing Council; those taken in preparation of the 'Montevideo Meeting' and by decisions adopting the Montevideo Programme for the development of international environmental law.

As has been said earlier, the 'Montevideo Meeting' selected the subject of marine pollution from land-based sources as one of the three major subject- areas of a programme for the development and periodic review of environmental law.[61] 'Objectives', 'strategy' and

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[59] See, KINGDAM and McRAE, 'Competent International Organizations...."; op.cit.at p.116.

[60] See note 55 supra

[61] With regard to development of international environmental law at the global level in the field of land-based pollution, one should note that the selection of priority areas, including land-based pollution, was achieved during the preparatory process leading to the 'Montevideo Meeting' only after "considerable discussion" and as asserted by one delegate at the ninth session of the Governing Council of UNEP it cannot even be said that there was agreement at all.(see, UNEP, Report of the Governing Council on the work of its ninth session,..op.cit. at p.60). Moreover, participants in "the meeting of experts of some developing countries" held in preparation of the 'Montevideo Meeting' when considering the topic of land-based pollution, while stressing the necessity of elaborating global principles in this field were of the view, however, that "in concrete cases regional, (.../..)

'elements of strategy' were also defined[62] for this subject area as follows:

"objective

To prevent reduce and control pollution of the marine environment from land-based sources, including the effects of such pollution on coastal areas and to minimise the adverse effects that have already occured".

Strategy

"implementation and further development of specific regional, subregional or, as appropriate, bilateral agreements, as well as national legislation to give effects to such agreements, bearing in mind, inter alia, the results of the Third United Nations Conference on the Law of the Sea; taking account of these developments, preparation of guidelines or principles which could lead to a global Convention, with a view in particular to co-ordinating the work undertaken within the framework of existing regional agreements."

"elements of strategy

"(i) Utilisation of elements of Part XII (protection and preservation of the marine environment) or the United Nations Convention on the Law of The Sea.

(ii) Further development, conclusion, entry into force and implementation of regional, sub-regional or, as appropriate, bilateral agreements in co-operation with regional organisation and the Government concerned.

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[61] (follows)sub-regional and bilateral legal solutions were the most appropriate way of dealing with this kind of pollution. (See UNEP doc. UNEP/WG.60/3, Annex IV, p.2)

[62] See note 21 supra.

(iii) In concert with the strengthening of actions at the regional, sub-regional and bilateral levels, preparation, in particular within the framework of UNEP, of guidelines or principles at the global level, based on common elements drawn from regional agreements and drawing upon experience already gained through their preparation and implementation.

(iv) In the longer term preparation, if appropriate of a global Convention, based on further experience gained in the development and implementation of regional, subregional and bilateral agreements and taking into account guidelines or principles at the global level developed within the framework of UNEP.

(v) Elaboration, adaptation, development and enforcement of national laws and regulations, taking into account international rules and standards and establishment or strengthening of national institutions for this purpose.

(vi) Establishment, designation or strengthening of appropriate international machinery to ensure the harmonisation and implementation of global and regional rules, standards, recommended practices and procedures and to review the effectiveness of measures taken.

(vii) Multilateral or bilateral assistance to regional organisations and national governments in the development and application of such laws and regulations and the establishment of institutions, including training and research facilities, and exchange of information.

(viii) Development or strengthening of environmental assessment mechanisms."

The 'Montevideo Meeting' also adopted specific recommendations for initial action regarding this subject-matter as follows:

"UNEP should, in consultation with Governments and international organisations concerned, continue to promote the development, conclusion and implementation of regional and subregional agreements, and identify the mechanisms through which guidelines and principles at the global level could be developed."

By decision 10/24[63] of 31st May 1982, the UNEP Governing Council authorised the Executive Director to convene in 1983/84, after consultation with Governments and the international agencies concerned, three meetings of government experts to consider guidelines or principles on three subject-areas, one of which was "marine pollution from land-based sources."

The 'Montevideo Meeting' also selected, for the development and periodic review of environmental law, other subject areas related to the marine environment such as 'Coastal zone management' and 'International co-operation in environmental emergencies' and adopted for them objectives, strategies and elements of strategies.[64] They will not be detailed here, the reason being that UNEP Governing Council has not taken any decision as yet to request the Executive Director to convene working groups in order to consider the elaboration of any form of international legislation regarding them.

1.2.1.2. Air and Atmospheric Pollution

The protection of air and atmospheric environment is the least developed link in the chain of protection measures in international environmental law. Only a regional Convention, the 'Geneva/ECE Convention' has been negotiated which deals with air pollution and the few treaties which deal with atmospheric pollution concern themselves with nuclear emissions.[65]

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[63] See, note 22 supra.

[64] See note 21 supra.

[65] See, e.g. the 'Nuclear Tests Ban Treaty'

In the field of the protection of ozone layer proper, few measures relating mainly to regulation of CFCs have been taken by some States.[66]

As regards UNEP's mandates for the development of the Law in this field; and as far as air pollution is concerned; this subject area was selected by the 'Montevideo Meeting' as an area for the development and periodic review of environmental law and an objective, a strategy and specific recommendations for initial action were also adopted for it.[67] The UNEP Governing Council has not taken a decision to establish a working group to discuss this matter as yet.

Recommendations and decisions have, however, been taken in the area of atmospheric pollution with regard to the protection of the ozone layer and regulation of weather modification activities.

1.2.1.2.1. Protection of the Ozone Layer

A call for regulatory measures regarding ozone layer protection was made as early as the 4th session[68] of UNEP's Governing Council. The decision taken at this session focused, however, only on scientific aspects of the problem.[69]

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[66] See Chapter 4 infra.

[67] See note 21 supra.

[68] See, UNEP, Report of the Governing Council on the Work of its Fourth Session..... op. cit, at 50.

[69] Decision 65(IV) of 13 April 1976. (See, UNEP, Report of the Governing Council on the Work of its Fourth Session,...op.cit. Annex at 126.).

At the fifth session of the Governing Council, different opinions were expressed as to the timeliness of promoting international agreements to control the production and use of chlorofluorocarbous and other threats to the ozone layer, but the general feeling among delegates was that it was too soon to introduce control over CFC production and use.Collection of more data on the part played by CFCs in ozone depletion was called for however.[70] Accordingly, the decision[71] taken at this session, called upon the Executive Director.....

> "1. ..to initiate action to co-ordinate and integrate research efforts related to the ozone layer, and to establish a Co-ordinating Committee on the Ozone Layer, which should meet for the first time late in 1977;"

It also urged;

> "2. ..Governments, international agencies and others to support the World Plan of Action on the Ozone Layer..."

Decision 8/7B[72] taken by the Governing Council of UNEP at its eighth session, was also limited to noting the increasing scientific concern at the harmful effects on the ozone layer of the release of chlorofluorocarbons into the atmosphere, to welcoming the steps taken by the scientific community to increase understanding of the process at work and to pool knowledge internationally, and to appreciate the steps already taken by several Governments and the EC to limit the production capacity of chlorofluorocarbons and their uses. It considered, however, that, in the present state of scientific knowledge precautionary measures should be taken to limit global

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[70] See, UNEP, Report of the Governing Council on the work of its fifth session.... op. cit. at 30.

[71] Decision 84 C(v) of 25 May 1977. (See,Report of the governing council on the work of its fifth session...op.cit.annex,at p.113.)

[72] See, UNEP, Report of the Governing Council on the Work of its Eighth Session.... op. cit. at 118-119.

production and use, in particular, of the chlorofluorocarbons F-11 and F-12, and that investigations should be pursued into all chlorofluorocarbon emissions. Accordingly, the Governing Council recommended that;

> "2. ....Governments, expecially those of countries where use of the chlorofluorocarbons F-11 and F-12 is high, should achieve significant reductions in use and encourage the developlment of ways to control releases into the atmosphere";

It is also recommended that;

> "4. ....production capacity for the chlorofluorocarbons F-11 and F-12 should not be increased;
>
> and further recommended that
>
> "5. ....measures already taken be re-examined in the light of the scientific, technical and economic data available;"

It invited, however, the Executive Director to;

> "6. ....Consider ways of accelerating international co-operation on the subject and to report theron to the Governing Council."

At the ninth Session of the Governing Council, a number of delegations expressed support for the drafting of a Convention to protect the Ozone Layer. It was suggested that a Working Group should be set up to prepare a first draft, and that the Co-ordinating Committee on the Ozone Layer should oversee the whole process.[73]

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[73] See, UNEP, Report of the Governing Council on the work of its ninth session.... op. cit. at 20.

By decision 9/13B of 26 May 1981[74], the Governing Council recognised

> "....The desirability of initiating work aimed at the elaboration of a global framework Convention which would cover monitoring, scientific research and the development of best available and economically feasible technologies to limit and gradually reduce emissions of ozone-depleting substances, as well as the development of appropriate strategies and policies".

After recognising the role and mandate of the United Nations Environment Programme in protecting and enhancing the global environment, and after noting with appreciation the work of the Co-ordinating Committee on the Ozone Layer it:

> "1. Decide[d] to initiate work aimed at the elaboration of a global framework Convention for the protection of the Ozone Layer;"

it further decided to this end to;

> "2. ....establish an ad hoc working group of legal and technical experts nominated by interested Governments and intergovernmental organisations, which shall report, through the Executive Director, to the Governing Council on the progress of its work;"

It finally requested the Executive Director;

> "3.....
>
> (a) To ensure that in the work so initiated, all relevant information and related work currently under way in other forums, as well as the results of any discussions on this subject at the Ad Hoc Meeting of Senior Government Officials Expert in Environmental Law, are taken into account;

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[74] Ibid. at 118-119.

(b) To invite the Co-ordinating Committee on the Ozone Layer, as part of its activities under its mandate:

(i) To contribute to the work of the ad hoc working group;

(ii) To compile all relevant information, including statistical and technical data, on the implementation of the recommendations contained in decision 8/7B of 29th April 1980, in particular that relating to the reduction in the use of chlorofluorocarbons 11 and 12, as well as to production capacity on the basis of an agreed definition;

"(c) To assist and support the ad hoc working group in its prepatory work;

"(d) To submit to the Governing Council at its tenth session, with his comments, the first progress report of the ad hoc working group".1

The 'Montevideo Meeting' selected[75] the "Protection of the Stratospheric ozone layer" as a "major subject area", and adopted an objective, a strategy and elements of strategy and specific recommendation for initial action concerning this subject matter;

"Objective

"To limit, reduce and prevent activities which have, or are likely to have adverse effects upon the stratospheric ozone layer".

Strategy

"continuation of the work already initiated by the Governing Council aimed at the elaboration and establishment of a global framework Convention. (decision 9/13 B).

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[75] See note 21 supra.

Elements of Strategy

"(i) Promotion of dissemination of information and public awareness on the protection of the stratospheric ozone layer".

"(ii) Continuation on the basis of available scientific data of the work already initiated aimed at the elaboration of a global framework Convention which would cover monitoring, scientific research and the development of best available and economically feasible technologies to limit and reduce emissions of ozone-depleting substances, as well as the development of appropriate policies and strategies".

"(iii) Establishment by any such convention of appropriate international machinery to ensure the implementation and development of the convention for the protection of the stratospheric ozone layer".

"(iv) Development and adoption of national laws and regulations to implement the provisions of the convention for the protection of the stratospheric ozone layer".

"Specific recommendations for initial action

"UNEP should continue to strengthen its co-ordinating role as regards research, monitoring and assessment of the ozone layer, in particular through the CCOL mechanism, and expand the dissemination of information on the problems of the stratospheric ozone layer".

1.2.1.2.2. Weather Modification

International law in this field is yet to be developed. No global treaty regulating civil[75] weather modification activities has been concluded. A bilateral agreement on the exchange of information on weather modification activities has been concluded in 1975, however, between Canada and the United States.[76]

As regards UNEP's mandates in this field, one should note first recommendation 70 of the 'Stockholm Action Plan'. This reads;

> "It is recommended that Governments be mindful of activities in which there is an appreciable risk of effects on climate, and to this end:
>
> "(a) Carefully evaluate the likelihood and magnitude of climatic effects and disseminate their findings to the maximum extent feasible before embarking on such activities;
>
> "(b) Consult fully other interested States when activities carrying a risk of such effects are being contemplated or implemented."

With regard to decisions of UNEP Governing Council in this field; a call for legal studies in this area was made as early as the first session[77] of the Governing Council and reiterated at the second session.[78] At this latter session a delegation suggested that UNEP

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[75] In the military field, one has the 'ENMOD'.

[77] See, UNEP, Report of the Governing Council on the work of its first session, 12-22 June 1973 G.A.O.R. Twenty-Eighth Session, Supplement No. 25 (A/9025) at 6-7.

[78] See, UNEP, Report of the Governing Council on the work of its second session.... op. cit. at p.11

should take the initiative in the formulation of a Code of Conduct governing the operational aspects of man-induced weather modification.[79] A decision was unanimously adopted whereby the Executive Director is given authority to "Consult with WMO and other scientific and legal experts as necessary on the desirability of developing general principles and operative guidelines on man-induced weather modification, including its operational and research aspects.....".[80]

1.2.2. Conservation

UNEP's mandates for the development of international law in this field can be found in a number of Stockholm principles and recommendations and in UNEP Governing Council decisions. Those including a general mandate will first be reviewed, followed by a review of recommendations and decisions which include a specific mandate for UNEP in this field.

1.2.2.1. General Mandates

Principle 2 of the 'Stockholm Declaration', for example, proclaims that "The natural resources of the earth, including.... land, flora and fauna, and especially representative samples of natural ecosystems, must be safeguarded for the present and future generations through careful planning or management as appropriate."

'Stockholm Action Plan' recommendations 32,33, 38, 43 and 50 are also relevant.[81] Worth noting among these is recommendation 38

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[79] Ibid.

[80] Decision 8 (II) of 22 March 1974. (See note 6 supra.)

[81] Under Recommendation 50 States are to strengthen existing international and regional machinery for the development and management of fisheries and their related environmental aspects, and encourage the establishment of new fishery councils and commissions.

which reads "It is recommended that Governments take steps to set aside representative ecosystems of international significance for protection under international agreement."

UNEP Governing Council has taken a number of decisions which clarified UNEP's mandates in this field.

At its first session ,for example, after delegates have expressed concern at the increasing loss of wildlife due to indiscriminate killing and destruction of the habitat of wild animals throughout the world, UNEP Governing Council took decision 1(I)[82] where it requested the Executive Director to perform as regards "Conservation of nature, wildlife and genetic resources" a number of tasks, among which

> "(i) To promote the protection and Conservation of plants and animals, especially rare or endangered species."
>
> (ii)....
>
> "(ii)To promote the identification and conservation of unique natural sites and especially representative samples of natural ecosystems."

Worth noting also, is goal 11 to be reached by UNEP by 1982[83], which reads:

> "11. development of a global plan for the conservation of nature and the planning, establishment and management of selected protected areas, and promotion of their links in a global network."

1.2.2.2. Specific Mandates

These relate, principally, to shared natural resources, trade in endangered species, migratory species, moratorium on whaling and environmental impact assessment.

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[82] See, UNEP, Report of the Governing Council on the Work of its First Session..op.cit.Annex I.

[83] See note 14 supra.

1.2.2.2.1. Shared Natural Resources

UNEP has an obligation to execute Resolution 3129[84] of The United Nations General Assembly. This resolution states in its pertinent part that:

"1. ....it is necessary to ensure effective co-operation between countries through the establishment of adequate international standards for the conservation and harmonious exploitation of natural resources common to two or more states in the context of the normal relations existing between them;

"2. ....Considers further that co-operation between countries sharing such natural resources and interested in their exploitation must be developed on the basis of a system of information and prior consultation within the framework of the normal relations existing between them;

"3. ....Requests the Governing Council of the United Nations Environment Programme, in keeping with its function of promoting international co-operation according to the mandate conferred upon it by the General Assembly, to take duly into account the preceding paragraphs and to report on measures adopted for their implementation;

"4. Urges Member States, within the framework of their mutual relations, to take fully into account the provisions of the present resolution."

The Governing Council considered this matter at its second session and took decision 18(II)[85] where, after recalling the relevant provisions of General Assembly resolution 2849 (XXXVI) of 20 December 1971 on development and environment; the Declaration of the

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[84] U.N. General Assembly, Twenty-Eighth Session, 18 September - 18 December 1973, official Records, supplement N.30 (A/9030)

[85] See, UNEP, Report of the Governing Council on the work of its second session.... op. cit. Annex I at p.80.

United Nations Conference on Human Environment, held at Stockholm in 1972, and the important Economic Declaration adopted at the Fourth Conference of the Heads of State or Government of Non-Aligned Countries, held in Algiers in 1973, and taking into account the functions and responsibilities vested in the Governing Council and the Executive Director by the General Assembly in its resolution 2997 (XXVII) of 15th December 1972, and taking note with satisfaction of the provisions of Assembly resolution 3129 (XXVIII) of 13th December 1973, and particularly of the request therein addressed to the Governing Council, it requested the Executive Director of the United Nations Environment Programme, in co-operation with other organisations of the United Nations system,

> "1. .... to prepare a study and make proposals to implement the provisions of General Assembly 3129 (XXVIII) and to submit them in a report to the Governing Council at its third session, with the purpose also that the report be presented to the Assembly, at its thirtieth session bearing in mind its requirement to be informed about the implementation of that resolution;

It further requested the Executive Director

> "2. ....to take the necessary measures to ensure that the provisions of resolution 3129 (XXVIII) are taken into account in preparing and undertaking the relevant programme activities and to report to the Governing Council at its third session on the measures taken for the implementation of that resolution."

At its third session, by decision 44 (III)of 25th April 1975[86] the Governing Council requested the Executive Director:

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[86] See, UNEP. Report of the Governing Council on the work of its third session.... op. cit. Annex I at p.111.

"2. ....to establish an intergovernmental working group of experts, to be drawn from among the member States of the Governing Council, selected on the basis of equitable geographical distribution, in order to prepare, on the basis of the above recommendations and proposals and of other useful elements that it may have at its disposal, draft principles of conduct for the guidance of states in the conservation and harmonious exploitation of natural resources shared by two or more states, and to submit a report on progress made in this respect to the Governing Council for consideration at its next session, in order that it may be presented to the General Assembly of the United Nations;

It further requested the Executive Director to:

"3. ....transmit his report to the General Assembly, the specialised agencies and other relevant organs of the United Nations system, including the International Law Commission, and to international governmental and non-governmental organisations which may have an interest in this field, and to invite such specialised agencies and international governmental and non-governmental organisations to collaborate with the Executive Director on this subject."

1.2.2.2.2. Trade in Endangered Species

At the first session of the Governing Council, a view was expressed that, when the administration of a Convention relating to the environment did not fall within the mandate of any particular agency, the responsibility for this should fall within the competence of UNEP.[87]

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[87] See, UNEP, report of the Governing Council on the work of its first session.. op. cit. at 5.

By decision 1(I) and taking account of article XII para. 1 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Executive Director was authorised to "provide Secretariat Services" for this Convention and was further asked "to give assistance as appropriate in the preparation of other international Conventions in the environmental field."[88]

1.2.2.2.3. Migratory Species

There exists treaties which concern migratory animals, but usually only certain species, in restricted areas and in limited scope.[89]

The mandate of UNEP regarding migratory species protection and conservation is included in Stockholm Recommendation 32, which reads as follows:

> "it is recommended that Governments give attention to the need to enact international Conventions and treaties to protect species inhabiting international waters or those which migrate from one country to another:
>
> (a) A broadly-based Convention should be considered which would provide a framework by which criteria for game regulations could be agreed upon and the over-exploitation of resources curtailed by signatory Countries;
>
> (b) A working group should be set up as soon as possible by the appropriate authorities to consider these problems and to advise on the need for, and possible scope of, such Conventions or treaties".

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[88] Ibid. at Annex I.

[89] See, de KLEMM, 'Migratory Species-A Review of Existing International Instruments' in EPL, 15/3/4(1985) at 81-91.

1.2.2.2.4. Moratorium on Whaling

UNEP's mandate stems principally from recommendation 33 adopted by the Stockholm Conference on the Human Environment. This recommendation reads as follows:

"It is recommended that the Governments agree to strengthen the International Whaling Commission, to increase international efforts, and as a matter of urgency to call for an international agreement, under the auspices of International Whaling Commission, and involving all Governments concerned, for a ten-year moratorium on commercial whaling."

Resolution 3133 of the U.N. General Assembly is also relevant in this respect.[90]

1.2.2.2.5. Impact Assessment

Apart from few provisions of a general nature contained in regional legal instruments,or a Directive on the subject,[91] international law in this field is still to be developed.

The topic of "environmental impact assessment" was selected by the 'Montevideo Meeting' as one of the subject areas which call for action.[92] It also adopted for it an objective, a strategy and elements of strategy and recommendations for initial action as follows;

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[90] See note 29 supra.

[91] See discussion under chapter 8

[92] See note 21 supra.

"Objective

" To promote the adoption and implementation by States of legal and other appropriate mechanisms for assessing the effects on the environment of potentially harmful activities under their jurisdiction or control, as well as their dissemination of information and the public use thereof. To foster the use of environmental impact assessment procedures (whether the impact is national or international) as an essential element for development planning".

"Strategy

" Preparation at the global level of guidelines, standards and model legislation adaptable to specific needs (taking into account the different levels of development of various countries). Implementation of these, in particular at the national level; where requested, appropriate technical co-operation in the preparation of domestic legislation as well as in its implementation, should be made available".

"Elements of strategy

"(i) Preparation, especially in the framework of UNEP, of guidelines, standards and model legislation adaptable to the specific needs of various countries, taking into account the existing models developed by various components of the United Nations system and other organisations.

(ii) Organisation of regional seminars to train national EIA experts and periodically inform them about the developments in the general state of the art relevant to their particular country problems."

"Specific recommendations for initial action."

"UNEP should, in consultation with relevant international organizations, develop model legislation or guidelines which could assist Governments to make provision in national legislation or regional agreements for environmental impact assessment and the dissemination and public use of information thereon."

As stated earlier, the conclusions and recommendations of the 'Montevideo Meeting' were endorsed by the Governing Council of UNEP in its decision 10/21. The same decision adopted the programme for the development and periodic review of environment.

By decision 10/22 of 31st May 1982,[93] the Governing Council decided, within the framework of the action to be initiated as a follow up to the Ad Hoc Meeting of Senior Government officials expert in Environmental Law "....to consider the mandate, future work programme and composition of the Working Group of Experts on Environmental Law at its eleventh session".

By decision 11/7 of 24th May 1983,[94] Part Two B of 24th May 1983, the Governing Council decided, subject to the availability of additional funds,

> "to entrust the Working Group of Experts on Environmental Law established under decision 91(v) of 25th May 1977 with the task of developing principles and guidelines with regard to environmental impact assessment."

1.2.3 Environmentally Sound Management of Hazardous Wastes

Existing Law in this field is constituted by a number of legal instruments adopted under the E.E.C. and the OECD.[95]

This question has also been the concern of other international organisations.[96]

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[93] See, UNEP, Report of the Governing Council on the Work of its Tenth Session...op.cit., Annex I.

[94] See, UNEP doc. UNEP/GC.11/18 of 9 June 1983, Annex I at 21.

[95] See discussion under chapter 6

[96] Organizations or bodies such as IMO, ECE, UNIDROIT, all have activities related to this field. (See, UNEP, preliminary survey of activities of other international organizations having relevance for the environmentally sound management of hazardous wastes(document without reference).

UNEP's mandate for the development of the Law in this field dates back to the eighth session of the Governing Council.

In fact, at this session, delegates emphasised the hazards of chemicals, and specifically toxic wastes and, while acknowledging work already done by WHO, IRPTC, and industry programmes of UNEP and OECD, they called for more work to be done, particularly on controlling the export or transfer of hazardous waste from one Country to another. The role which UNEP should play in the development of guidelines for the safe and appropriate disposal of such wastes was particularly emphasised.[97]

In response to such concern, the Governing Council of UNEP took decision 8/8 of 29th April 1980[98] where it urged Member States, in order to protect health and the environment:

> "1. ....to ensure the institution of adequate protection measures for the handling and disposal of hazardous chemical wastes, to exchange information on such measures and the procedures used in their implementation, and to develop notification procedures and controls for international transfers of such wastes between countries involved."

it also requested the Executive Director, in co-operation with competent organisations in the United Nations system and other international organisations,

> "2. ....to develop, after consultation, guidelines for the safe and appropriate disposal of hazardous chemical wastes and pertinent measures concerning their trans-boundary transport, and to report on progress in this respect to the Governing Council at its ninth session".

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[97] See, UNEP, Report of the Governing Council on the work of its eighth Session.... op. cit. at 55-56.

[98] Ibid. Annex I.

The topic of 'Transport, Handling and Disposal of Toxic Wastes', was given priority status as a major subject-area by the 'Montevideo Meeting'.[99] An objective, a strategy, and elements of strategy, as well as specific recommendations for initial action were adopted for it as follows:

"Objective

"To prevent, reduce, and control damage, and the risk thereof, from local and international transport as well as from handling and disposal of wastes that are toxic and dangerous to human health and to the environment".

"Strategy

"Preparation, at the global level, of guidelines, principles or conventions, as appropriate; development and implementation of guidelines and principles through specific regional, subregional or bilateral agreements, as well as by means of national legislation".

Elements of Strategy

"(i)Preparation, in particular within the framework of UNEP and in co-operation with the competent international organisations, of guidelines or principles which could lead to a global convention, drawing upon the experience already gained."

"(ii)Further development, conclusion, entry into force and implementation of regional, subregional or, as appropriate, bilateral agreements in co-operation with regional organisations and the governments concerned".

"(iii)Establishment, designation or strengthening of appropriate international machinery to ensure the harmonization and implementation of global and regional rules, standards, recommended practices and procedures and to review the effectiveness of measures taken".

"(iv)Elaboration, adaptation, development, harmonization and enforcement of national laws and regulations, including inter alia measures aimed at ensuring that international transfers of toxic and dangerous wastes are made without risks to human health and the environment, taking into account international rules and standards, and establishment or strengthening of national institutions for this purpose".

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[99] See note 21 supra.

"(v)Development of legal and administrative rules, procedures and guidelines which will enable the governmental authorities of the country to which toxic and dangerous wastes are destined, as well as the authorities of countries through which such wastes are being transported, and anyone temporarily having possession or control of such wastes, to be fully informed of such movement in a timely manner, to ensure the handling, storage and disposal of such wastes in an environmentally safe manner".

"(vi)Multilateral or bilateral assistance to regional organizations and national governments in the development and application of laws and regulations and the establishment of institutions, including training and research facilities, and exchange of information."

"(vii)Development or strengthening of environmental assessment mechanisms as a means of implementing guidelines, principles and agreements and of promoting the development and implementation of new environmental legislation".

"Specific recommendation for initial action

"UNEP should, in co-operation with relevant international organisations, analyse major programmes and existing national and international regulations as a basis for the preparation of principles or guidelines for environmentally sound transport, handling (including storage) and disposal of toxic and dangerous wastes".

Further, by decision 10/24 of 31st May 1982, the Governing Council, after recalling the report of the Montevideo Meeting which stresses the need for inter alia "preventing, reducing and controlling damage, and the risk thereof, from local and international transport, as well as the handling and disposal of wastes that are toxic and dangerous to human health and to the environment", authorised the Executive Director of UNEP to Convene in 1983/4, after consultation with the Government of the Federal Republic of Germany and the international agencies concerned regarding its preparation, the meeting of government experts to consider guidelines and principles on environmentally sound transport, handling (including storage) and disposal of toxic wastes.[100]

1.2.4 Exchange of Information on Potentially HarmfulChemicals in International Trade

UNEP Governing Council first called the attention of

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[100] See, note 22 supra.

Governments to the problem of international trade in potentially harmful chemicals, by decisions 85/v (of 25th May 1977)[101] and 6/4 (of 24th May 1978).[102] The U.N. General Assembly also considered this matter.[103]

The 'Montevideo Meeting' did not select this topic among the priority areas adopted by it; an objective, a strategy, elements of strategy and recommendations for initial action were however adopted for it as follows[104]:

> "Objective
>
> To control international trade in hazardous or inadequately tested chemicals, particularly where the sale of such substances has already been banned or restricted in the producing country".
>
> "Strategy
>
> Preparation of guidelines at the global level as a first step towards a global Convention; development and implementation of internationally harmonised practices, in particular for the gathering and dissemination of information".
>
> "Elements of strategy
>
> "(i)Analysis and strengthening of the experience and know-how gained through national regulations or international studies such as those produced by IRPTC and the WHO/UNEP/ILO Programme on Chemical Safety."
>
> "(ii)Preparation, in particular within the framework of UNEP and in co-operation with the competent international organisations, of principles or guidelines which could lead

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[101] See, UNEP, Report of the Governing Council on the work of its fifth Session.... op. cit. Annex I.

[102] See, UNEP, Report of the Governing Council on the work of its sixth session.... op. cit. Annex I.

[103] The U.N. General Assembly Considered this matter from 1979 onwards (Res. 34/173; 35/186; 36/166).

[104] Concern of UNEP for protection of the ozone layer;environmentally sound management of hazardous wastes and control of international trade in hazardous or inadequately tested chemicals marks a clear shift in the focus of UNEP activities in the area of international environmental law from nature conservation to man-made environmental problems,in particular the management of chemicals.

to a global convention, especially on the exchange of information on potentially harmful chemicals."

"Specific recommendations for initial action

UNEP should consider convening an intergovernmental meeting of experts for the development of principles or guidelines on the exchange of information in relation to the trade in potentially harmful chemicals, drawing upon, inter alia, the results of the discussions on the subject, in the General Assembly".

By decision 10/24 of 31st May 1982, the Governing Council of the United Nations Environment Programme (UNEP) authorised the Executive Director to convene, inter alia, a meeting of government experts to consider guidelines and principles on the exchange of information relating to trade in and use and handling of potentially harmful chemicals, in particular pesticides.[105]

1.2.5 Liability and Compensation

Law in this field is constituted mainly by very broad customary law principles such as the 'good neighbour' principle[106] which underlies the contention that a state must not allow use of its territory to prejudice the rights of other states. This principle was enunciated in the 'Corfu Channel' case[107] as well as in the 'Trail Smelter' case;[108] and by international treaty provisions which provided for a regime of civil liability rather than a regime of inter-state liability. These dealt with liability and compensation

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[105] Note here, that decision 10/24 of 31 May 1982 of UNEP Governing Council re-orientes the proposed guidelines or principles from the objective "to contol international trade" as formulated in earlier decisions and in the Montevideo Programme towards the objective of the *exchange of information relating to trade*"....(my emphasis).

[106] See, UTTON, 'International Environmental Law and Consultation Mechanisms' in Col.J.Transn'l L.12:1, pp.56-72 (1973) at 58-59.

[107] Corfu Channel Case [1949] ICJ Rep. 1.

[108] Trail Smelter Arbitration (1941) III R1AA 1905.

for specific environmental harm.[109] The 'Space Liability Convention' is worthy of mention, however, since it sets a double standard of absolute liability for damage on this planet and a fault regime of extra-terrestrial injury'[110].

As for the mandate of UNEP regarding the development of international Law of Liability and Compensation for environmental damage; this one is clear from, first of all, the principles included in the 'Stockholm Declaration'. Four principles are relevant in this respect: Principles 21, 22, 23 and 24. Principle 21 reads:

> "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."

Principle 22 deals more specifically with the question of liability and compensation; it provides that

> "States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction."

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[109] See e.g. the 'OECD Paris Convention';the 'Vienna Convention'; and the '1962 Brussels Convention'.

[110] See,'Space Liability Convention',Art.II

Principle 23 reads;

"Without prejudice to such criteria as may be agreed upon by the international Community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the system of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries."

Finally Principle 24 reads

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big and small on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States."

Regarding UNEP Governing Council decisions, one can note decision 35 (III) of 2nd May 1975[111] by which the Governing Council adopted objectives and a strategy relating to the programme of UNEP in the field of environmental law. Among the objectives included in this decision, is the task of UNEP

"(b) To facilitate co-operation among States for the development of international law regarding responsibility, liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction, in accordance with principles 21, 22, 23 and 24 of the Stockholm Declaration."

Further, by decision 66(iv),[112] the Governing Council requested the Executive Director to continue, together with existing activity in the field of environmental law,

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[111] See note 9 supra.

[112] See, UNEP, Report of the Governing Council on the work of its fourth session.... op. cit. Annex I

"(b) The development of the relevant principles contained in the Declaration of the United Nations Conference on the Human Environment, in particular through studies by a group of governmental and other experts on the specific aspects of the problem relating to liability for pollution and other environmental damage and compensation for such damage, taking into account inter alia the progress made in the work of the Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States as well as the relevant work of other international governmental and non-governmental organisations and forums, especially that of the International Law Commission."

The Governing Council also took decision 91(v),[113] in which it expressed its desire to promote the further development of international law related to the protection of the environment and to develop the relevant principles contained in the Stockholm Declaration as they relate to liability for pollution and other environmental damage and compensation for such damage, and in which it requested the Executive Director to

"(a) Convene as soon as possible a small working group on environmental law, composed of governmental experts, to examine and further pursue, inter alia, the work undertaken in accordance with Governing Council decision 66(iv);

(b) Recommend to the group topics for study during the period from 1977 to 1979, taking into account the reviewing, inter alia, the conclusion contained in the report of the group of experts on liability for pollution and other environmental damage and compensation for such damage."

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[113] See, UNEP, Report of the Governing Council on the work of its Fifth Session.... op. cit. Annex I.

Under the LOSC,[114] States shall co-operate in the "further development of international law relating to responsibility and liability....." The article does not mention international organisations through which this co-operation is realised. UNEP has, in addition to the fact that it has taken responsibility in this field pursuant to the principles of the'Stockholm Declaration' and to subsequent Governing Council decisions, expressed an interest as regards a role in the implementation of the LOSC provisions. Regarding the specific question of liability and compensation, UNEP has declared that the article on environmental responsibility and liability "is clearly incomplete" and showed its willingness to work towards filling gaps in existing law.[115]

With regard to the 'Montevideo Meeting', and presumably because of the early involvement of UNEP in the development of international law regarding responsibility and liability; this subject-matter was not selected by it as a "major subject area" for which guidelines, principles or agreements should be developed. Instead, the meeting listed the subject of "Legal and aministrative mechanisms for the prevention and redress of pollution damage" among the subject-areas which "call for action also".

The meeting adopted an objective, a strategy and specific recommendations for initial action for this subject area. No elements of strategy were adopted for it.

Objective

> "To promote, at both the national and international levels, the development of the legal and administrative measures necessary to ensure effective knowledge and control of potentially polluting activities prior to their commencement and during their continuance, as well as the further

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[114] LOSC, Art. 235

[115] See. U.N. Doc. A/Conf. 62/112, 10 April 1981.

development of international law with respect to liability and compensation, including the improvement of remedies available to the victims of pollution."

"Strategy

Preparation of conventions, principles or guidelines, as appropriate at the regional or global level; implementation and monitoring of such principles and guidelines, in particular at the regional and national levels."

"Specific recommendations for initial action

"UNEP should develop principles or guidelines with regard to the concept of non-discrimination in administrative and judicial proceedings on potentially polluting activities."

1.2.6 International Conventions and Protocols in theField of the Environment

During Governing Council sessions,[116] States were concerned that a number of the Conventions concluded regarding the protection of the environment have not yet come into force because of delays in their acceptance by States, and suggested that UNEP remedy that situation. UNEP Governing Council took decision 24(III)[117] where it

"1. Urges all States entitled to become parties to existing Conventions and protocols in the field of the environment to do so as soon as possible;

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[116] See. e.g. UNEP, Report of the Governing Council on the Work of its second session.... op. cit. at 12.

[117] See, UNEP, Report of the Governing Council on the Work of its Third Session.... op. cit. Annex I.

"2. Requests depositaries of the Conventions mentioned above to inform the Executive Director of the United Nations Environment Programme periodically of the status of acceptance of those Conventions and protocols;

"3 Requests the Executive Director to assist States, upon request, in preparing proposals for legislative and other measures necessary for the adherence to Conventions in the field of environmental management;

"4. Further requests the Executive Director to keep the Governing Council informed at each session of any new international Conventions concluded in the field of the environment and of the status of existing Conventions, with particular reference to ratifications, accessions and entry into force, as well as of the intentions of various governments to became parties to such Conventions during the year of the Council's session."

On December 9th 1975, the United Nations General Assembly took resolution 3436 (XXX) where it

"2. Urges all States entitled to become parties, as appropriate, to existing Conventions and protocols in the field of the environment to do so as soon as possible.

"3. Requests the depositaries of the Conventions referred to above to inform the Executive Director of the United Nations Environment Programme periodically of the status of those Conventions;

"4. Requests the Executive Director of the United Nations Environment Programme to assist States, upon request, in preparing proposals for legislative or other measures for their adherence to Conventions in the field of environmental management;

"5. Further requests the Governing Council of the United Nations Environment Programme to keep the General Assembly informed annually of any new international Convention concluded in the field of the environment and of the status of existing Conventions, with particular reference to ratifications, accessions and entry into force, as well as of the intention to become parties to such Conventions expressed by governments during the year between sessions of the Council."[118]

Worth noting also, is revised Goal 19 to be reached by UNEP in 1982[119] which reads,

" 19. Wide acceptance by Governments and application of international conventions and protocols in the field of the environment, both those now existing and those being developed."

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[118] See, UNEP, Report of the Governing Council on the work of its Fourth Session.... op. cit. Annex I.

[119] See, note 14 supra.

Summing-Up

No clear mandate for the development of international environmental law can be found in UNEP's original functions and responsibilities.

UNEP's mandates in this field have, however, been defined and sharpened by subsequent UNEP Governing Council decisions and occasionally in U.N.General Assembly resolutions.

Two periods can clearly be distinguished in this respect: The 'Pre-Montevideo' period and the 'Montevideo Period'.

The first period was characterised by opposite attitudes of States regarding the role of UNEP in this field: On the one hand were those who had serious doubts and reservations with regard a role for UNEP in this field and, on the other hand, those who supported a UNEP involvement in the development of international environmental law and who considered that the progressive development of this branch of law should be of priority concern for UNEP.

In spite of this, decisions were taken by UNEP's governing body, in this period, which defined UNEP's mandates for the development of the law in such important fields as liability and compensation; weather modification; shared natural resources; off-shore mining and drilling etc..,.

The 'Montevideo Period' was characterised by the adoption of a programme for the development and periodic review of environmental law and by the necessity to consider a follow-up of relevant provisions of the LOSC. Regarding the latter aspect, some support is found whether in the debates of the UNCLOS or in the doctrine to such role being played by UNEP.

The 'Montevideo Meeting' adopted conclusions and recommendations regarding development of legal texts in major subject-areas and in other subject-areas, which defined UNEP's work programme in this field, the majority of which have also been the object of decisions by the

Governing Council of UNEP. These decisions have , in certain cases, however, modified the original mandate of UNEP as contained in the aformentioned conclusions and recommendations.

CHAPTER 2: UNEP 'CATALYTIC' ROLE: IMPLEMENTATION

2.1 The Regional Level

After designation[1] by the UNEP Governing Council of "oceans" among the priority areas in which activities are to be developed; and with endorsement of a regional approach to the control of marine pollution and management of marine and coastal resources; the UNEP's Regional Seas Programme was launched in 1974.[2]

Since 1974, 11 action plans have been adopted with an important number of states; United Nations organizations and other international organizations taking part in them.[3]

In developing these action plans; UNEP followed the Stockholm Action Plan model.[4] A typical action plan includes the following components: An assessment component; a management component; a legal component and supporting measures.

Because all components of a regional action plan are interdependent, UNEP's 'catalyic role' at the regional level will be reviewed taking account not only of its support to purely 'legal' activities but also to action plans as a whole.

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[1] See UNEP, Report of the Governing Council on the work of its First Session, 12-22 June 1973, GAOR: Twenty-Eighth Session, Supplement No. 25 (A/9025) at 42. See also Report of the Governing Council on the work of its Second Session, 11-22 March 1974, GAOR: Twenty-Ninth Session, Supplement No. 25 (A/9625) at 59.

[2] See UNEP, "Achievements and Planned Developments of UNEP's Regional Seas Programme and Comparable Programmes Sponsored by other Bodies"; UNEP Regional Seas Reports and Studies No. 1 - UNEP 1982. The objective and strategy of the Regional Seas Programme were adopted at the sixth session of the UNEP Governing Council; see UNEP/G.C 6/7, para. 397, approved by GC decision 6/2 of 24 May 1978.

[3] UN/DIESA; ESCAP; ECA; UNIDO; FAO; UNESCO; IOC; WHO; IMCO(IMO); and also IUCN, all co-operate in this Programme.

[4] The Stockholm Action Plan Consisted of three Components: environmental assessment; environmental management, and supporting measures. See, Action Plan for the Human Environment, 11 I.L.M. 1421(1972).

2.1.1. Support to Action Plans

UNEP has played an important role in the development of these action plans. One scholar[5] has identified four stages in the development of an action plan: The identification of the region; an assessment of the pollution problems in the marine region in collaboration with other United Nations agencies; the preparation of a draft action plan in consultation with the governments concerned and appropriate U.N. agencies and a review of the draft by experts nominated by the participating governments.

UNEP's 'Catalytic Role' is not only present in all these stages but also after adoption of any action plan. In the majority of cases UNEP takes the responsibility for the implementation of the action plan in the interim period.

A few examples are given below regarding UNEP's action in the development and implementation of action plans.

Regarding the identification of the regions; eleven regions have been identified for action by the Governing Council of UNEP.[6]

Since the 1975 Mediterranean Action Plan, UNEP has launched an average of one a year: The Red Sea (drawn up in 1976 with a revised version approved in 1982); The Kuwait (adopted 1978); West and Central Africa(1981);the wider Caribbean (1981); East Asia(1981);the South East Pacific (1981); the South-west Pacific (1982); East African Action plan (1984).

Regarding the "assessment" stage; UNEP's action consists generally in exploratory missions[7] to assess States' interest in

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[5] See BOCZEK; 'Global and Regional Approaches to the Protection and Preservation of the Marine Environment', Case W. Res. J.Int'l L. 16:39-70 (1984) at 64.

[6] See note 2, Supra.

[7] Ibid. See also 'Four years of the SIREN'; News from UNEP's Regional Seas Programme (1982) and following issues.

participating in an action plan, to find out which activities they would like to see included in it; to try to discover which environmental problems are most pressing in the region, what institutions are available to deal with these problems and what scientific data is available to deal with them and what scientific data is available describing the state of the marine environment. The findings of the mission are usually used to prepare a summary of environmental resources and problems and contribute to sectoral reports on a number of subjects.

On the basis of these reports the UNEP Secretariat prepares the first draft of a regional action plan.

UNEP has in each and every case mobilized the assistance of the U.N. specialised agencies.[8] The important role of these and other organisations is recognised by S.Keckes when he affirmed that "without the help of the specialised agencies of the United Nations and of numerous other inter-governmental and non-governmental organisations, UNEP couldn't have achieved the progress it has up until now".[9]

The fund of UNEP has also been used in assisting these action plans. Trust funds, with assistance from UNEP, have been established, for example,for such Action Plans as the Mediterranean; the Kuwait, the Caribbean; East Asian Seas; West and Central Africa and UNEP was entrusted with their management.[10]

In the South-West Pacific UNEP provided the bulk of the funds

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[8] See note 3 supra.

[9] See note 7 supra, no. 16, Spring 1982 at 6.According to BOCZEK,"intervention of U.N. agencies in the regional arrangements of ocean pollution does bring certain advantages to the States of the region,especially in the developing world.The organizations provide funding,administrative services and a certain co-ordination",See BOCZEK,'Global and Regional..'op.cit.at 64.

[10] See note 2 supra. at 12; 14; 15 and 17

for the initial stage of the programme.[11]

In the Red Sea and Gulf of Aden Region, UNEP assistance was limited to the environmental assessment component of the action plan.[12]

In the South-East Pacific, a trust fund was proposed at the conference of plenipotentiaries in late 1981 in Lima which adopted the Action Plan, in order to support the Action Plan and CPPS was entrusted with its management.[13]

As said earlier UNEP's action is not limited to the development and funding of Action Plans but extends to their implementation. The activity of UNEP in the interim period is in this respect very important.

Under the Kuwait Action Plan ,for example, in the interim period for which UNEP had responsibility, environmental assessment and management surveys of the region generated valuable information on the region's major environmental problems; operational documents for environmental assessment projects were drawn up and the ground work was laid for the establishment of the Marine Emergency Mutual Aid Centre.[14]

UNEP's support for the Action Plans adopted was not even. In some regions existing regional institutions have taken the lead role[15]. 'ALECSO' co-operated on the Red Sea, 'ASEAN' on the East -

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11 See, HULM; 'The Regional Seas Program: what Fate for UNEP's Crown Jewels? in AMBIO, a Journal of the Human Environment, Vol. XII, Number 1 , pp.2-13 (1983) at 11.

12 See 'The SIREN' Supra note 7, No. 16; spring 1982 at 5

13 See, note 2 supra at 18

14 See, 'The SIREN' note 7 supra, No. 13; Summer 1981 at 8.

15 See note 2 supra.

Asian sea; CPPS on the South-East Pacific. In the South-West Pacific the development and Co-ordination of the Action Plan is in the hands of four organisations: SPC,SPEC,ESCAP and UNEP with SPC acting as the secretariat.[16]

Of particular importance to this study is the success achieved in the adoption of legal instruments (conventions and protocols) under these action plans. The performance in this regard is positive.

Under most, but not all, the Action Plans adopted; 'Framework' Conventions and additional protocols have been adopted. Some of them have entered into force.[17]

Framework Conventions were adopted under the following Action Plans: the Mediterranean Action Plan; Red Sea and Gulf of Aden Action Plan; South-East Pacific Action Plan; The wider Caribbean action Plan; the Kuwait Action Plan , West and Central Africa Action Plan;East Asia Action Plan and the East Africa Action plan.

Protocols on "co-operation in pollution emergencies" have been adopted under most of the above mentioned Action Plans.

A Protocol on "dumping" has been adopted under the Mediterranean Action Plan .

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[16] Note,however,that some criticism was directed to UNEP from countries outside the Regional Seas Programme.Speaking at the eighth session of UNEP Governing Council,the representative of Finland complained about the lack of involvement of UNEP in supporting the co-operative effort of the Baltic States under the 'Helsinki Convention'.See EPL,6(1980)at 56.Moreover,with regard to the Regional Seas Programme,concern has been expressed recently by some States that ongoing work involving development of regional conventions or other legal instruments in other areas may be adversely affected by the move of the Programme's headquarters from Geneva to Nairobi.(See EPL,14/4(1985) at 93-94.

[17] 'Barcelona Convention'(1978) 'Barcelona Emergency Protocol'(1978),'Barcelona Dumping Protocol'(1978);'Athens Protocol'(1983);'Kuwait Convention' and 'Kuwait Emergency Protocol' (1979); 'Jeddah Convention' and 'Jeddah Emergency Protocol' (1985);'Abidjan Convention' and 'Abidjan Emergency Protocol'(1984).

Protocols on "Land-based pollution" have been adopted under the Mediterranean Action Plan and the South-East Pacific Action Plan.

Protocols on "Protected areas" have been adopted under the Mediterranean Action Plan and the East-African Action Plan.

Only a 'Declaration on Natural Resources and the Environment' has been adopted under the South Pacific Action Plan.[18]

2.1.2. Support to the Development of Legal Instuments

UNEP has also undertaken specific actions in order to promote and support the discussion, negotiation and adoption of additional legal instruments in the form of protocols in order to tackle important and sensitive pollution problems. These actions concern mainly[19] the Mediterranean Sea Area where environmental co-operation has reached an advanced stage.

In order to implement the Mediterranean Action Plan recommendations, a number of initiatives have been taken; some successful others not, or not yet in order to tackle pollution arising from such sources as land-based sources; exploration and exploitation of the sea bed under national jurisdiction; to conserve fisheries and preserve particularly sensitive areas or to develop a legal instrument on liability and compensation and to establish an inter-state liability Fund.

The successful initiatives relate to the adoption of two protocols on pollution from 'land-based sources' and two protocols on 'protected areas'[20].

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[18] See, 'The SIREN' note 7 supra, No. 16, Spring 1982 at 2-3.

[19] UNEP has had other successes in other regions such as the adoption and signing under the South-East Pacific Action Plan of a protocol on 'Land-based' pollution and the adoption under the East African action plan of a protocol on protected areas.

[20] Ibid.

The part played by UNEP in the adoption of the two protocols under the Mediterranean Action Plan, for example, has been important with a greater role assumed as regards the first one.

Regarding the land-based protocol (the 'Athens Protocol'), suffice it to say here that the battle UNEP secretariat had to fight at the beginning was to convince the developing countries of the region that such a protocol was useful to them. In order for UNEP Secretariat to show to developing countries that they could control pollution without hindering their economic development without too great an extent was for it to base the control measures on technical quality objectives. This could be done, bearing in mind the fact that the developing countries have relatively clean waters which they can continue to use to receive wastes.[21]

Other support of UNEP for such a protocol includes the preparation by UNEP of a thorough survey of pollutants from land-based sources in the Mediterranean which was used in the negotiation of the Protocol.[22]

Regarding the 'Mediterranean Protected Areas Protocol', UNEP's action consisted mainly in convening meetings[23] to consider guidelines and technical principles for the selection, establishment and management of Mediterranean Specially Protected Areas and background material on existing legislation and regional legal alternatives for the protection of such marine and Coastal areas .Most of the scientific background papers were prepared, however, by IUCN, while FAO drafted the Protocol.[24].

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[21] See 'Athens Protocol'(Art. 7).

[22] See UNEP doc. UNEP/WG. 18/INF.4 of 14 May 1979. The preparation of this document was a joint undertaking of six United Nations bodies ECE, UNIDO, FAO, UNESCO, WHO, IAEA.

[23] See UNEP doc. UNEP RS/PAC of 13 December 1979.

[24] Ibid. For an account on similar actions in the East African Region, see, OKIDI, 'Nairobi Convention-Conservation and Development Imperatives' in EPL, 15(1985), pp. 43-51 at 44; also, FORSTER, 'The Draft Regional Seas Agreement for East Africa' in EPL, 14(1985), pp. 13-16 at 13.

UNEP's less (or not yet) successful actions relate principally to such questions as pollution from exploration and exploitation of the seabed under national jurisdictions and liability and compensation.

Regarding the first question, UNEP supported the IJO/UNEP Meeting[25] in order to formulate a Protocol regarding prevention of pollution arising from exploration and exploitation of the Mediterranean seabed under national jurisdiction. The IJO/UNEP Meeting was not organised and supported by UNEP's Regional Seas Programme but by the UNEP Environmental Law Unit where it was thought that the work of the meeting would be useful to the work of its Working Group on "off-shore mining and drilling." Only individuals were invited to that meeting (mainly people working with the IJO) and one does not think that they ever had the political support they would have had, had UNEP invited governments to designate experts. This in itself may partially explain the failure, as is shown later, to adopt a protocol on this question in the Mediterranean.[26]

In the area of liability and compensation; UNEP's action consisted mainly in the preparation, with the assistance of Consultants, of a study proposing that the Mediterranean States consider adopting a Protocol concerning liability and Compensation and proposing that the feasibility of creating an inter-state Guarantee fund, or funds, should be studied by a Committee or experts in co-operation with IJO[27]. Action in this field, has not, as will be shown later, borne fruit as yet.

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25 UNEP/IJO, Meeting of Experts on the Legal Aspects of Pollution resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its subsoil in the Mediterranean. Rome, December 11-15, 1978.

26 Interview with Miss Patricia BLISS-GUEST (UNEP Regional Seas Programme Activity Centre - Geneva)

27 The study was prepared by experts from Morocco (Mr LAHLOU and Mr. LOUKILI (UNEP doc. UNEP/IG.14/Inf.18). See also discussion under Chapter 7.

2.2 The Global Level.

2.2.1. Overview

The first important role which UNEP has played was, in my opinion, the identification of subject-areas where law needed development. In this respect, as said earlier,[28] it has identified areas where supplementary action or new initiatives are required. These subject-areas include: liability and compensation, shared natural resources; weather modification; offshore mining and drilling, identified before the 'Montevideo Meeting' and all the subject-areas identified and agreed to at the 'Montevideo Meeting' or at preparatory meetings to it.

Identification of subject-areas where law needed development was not, however, a total 'success story' for UNEP.

Before the 'Montevideo Meeting'; the Intergovernmental Working Group of experts in Environment law was never able to agree on the subjects which should be the object of its future work.[29]

Likewise, it was very difficult for experts, whether at preparatory meetings to the 'Montevideo Meeting', or at the 'Montevideo Meeting' itself, to agree on a list of important subject-areas for further development.[30] The Chairman of the 'Montevideo

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[28] See, Chapter I.

[29] See Report of the Working Group of Experts on Environmental Law on its fifth session; UNEP doc. UNEP/WG.36/6 of 29 February 1980 at 5 para. 17.

[30] See Report of the Preparatory Committee for the AD HOC Meeting of Senior Government officials Expert in Environmental Law; UNEP doc. UNEP/WG.60/3 of 18 September 1981 at 3 para. 7.

Meeting' had no option but to keep the long list of subject-areas referred to earlier. No subject was dropped altogether, except a proposal made by the Soviet Union at the 'Preparatory Meeting' to the 'Montevideo Meeting' that the question of 'Disarmament and Environment' should be selected as a subject, and the proposals from Uruguay, concerning the study of "liability for pollution activities of an international nature" and "identification of environmental offence and transgression".[31]

Regarding the first subject; there was opposition to it principally on the ground that the issue of disarmament was well and truly covered in other fora.[32]

As regards the Uruguayan proposals; the complexity of the subjects proposed, as well as bad drafting, may have been the real reason for their non-selection.

Regarding the question of identification of subject-areas, it is, in my opinion, necessary to say that very few of the subjects which were chosen, whether before the 'Montevideo Meeting' or at the 'Montevideo Meeting', were chosen by experts because of their importance. There were countries; because of a specific interest or because of a concern about their political image, as 'environmentally concerned' countries which were the main 'architects' of the whole

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[31] Ibid. at 9. See also, Report of the AD HOC Meeting of Senior Government Officials Expert in Environmental Law, UNEP doc. UNEP/GC.10/5/Add.2 of 7 December 1981, Annex at p.21, para. 34 and p.22 paras. 40,41.

[32] The reluctance of states to discuss issues of armament and disarmament is also well illustrated in the discussions of the principles of the 'World Charter for Nature'. For this see BURHENNE and IRWIN, 'World Charter for Nature, A Background Paper' (Erich Schmidt Verlag, Berlin, 1983) at 79, ff.

process of promotion of meetings and subjects to be dealt with.[33] In this respect, and for understandable reasons, UNEP, unlike the Secretariats of such bodies as OECD or EEC, could never play a 'dynamic' role or become a 'positive force' in influencing the choice of subjects.

The choice of subjects for distinctly 'negative' reasons and the great number of subjects selected may explain why, at meetings of expert groups established by UNEP in order to study the subjects selected (especially the ones selected by the 'Montevideo Meeting'), there is a bad attendance of experts; a frustration in the intervention of a number of countries who wonder whether the problem discussed needs to be pursued and a certain degree of dissatisfaction among certain countries who think that not only is there a big time-table that is expressed to be a programme for the eighties dealing with subjects that they think are not that important, but also that UNEP is putting an immense pressure on them to participate in three or four meetings simultaneously.[34]

These problems were particularly acute for developing countries who found it hard to attend the numerous UNEP expert group meetings not only because of their weak financial ability but also for a lack of a sufficient number of experts in the fields discussed.

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[33] Canada is, in this respect, the Country which has played an important role in the promotion of subject-areas to be dealt with. It was e.g. one of the main 'architects' of UNEP Governing Council's decision (8/15) regarding the convening of the 'Montevideo' Meeting. See for this, EPL, 7(1981) at 106. Note also the denomination: 'Montreal Guidelines'.

[34] At the twelfth and thirteenth sessions of the Governing Council of UNEP ,for example, several delegations pointed out that the environmental Law work schedule was very heavy and "was being implemented too rapidly for many governments to assess all its ramifications or play an active role in it"; they also thought that the focus should be on finalizing ongoing activities before taking new topics, See EPL, 13 (1984) at 15; EPL, 14/4(1985) at 102.

The quality of the meetings and the experts attending them is generally recognised to be high. The experts who attended the 'Shared Natural Resources' legal exercise's meetings, for example were very experienced and although these experts were somehow 'senior' than the ones who attended subsequent legal exercises meetings, it is safe to say that the quality of the latter meetings has never been a subject of concern.[35]

It should be noted, however, that it is often easy to observe that the general endeavour is often frustrated by a general pre-occupation, among experts, for procedure and sometimes an almost transparent wish to want the substance of the matter delayed until some future time.[36]

In order to support the work of the meetings of experts, UNEP follows a procedure, unknown in other fora, which consists in preparing or in engaging people to create studies; doing in-depth assessments and seeking the advice of advisory panels on subjects-areas selected for discussion.[37]

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[35] Interview with Mr. P. SZELL (legal Directorate, Department of the Environment, U.K.)(27 April,1985).

[36] This is clear e.g. in most of the reports of the Working Group of Experts on Environmental Law (see e.g.UNEP doc. UNEP/WG.14/4 (p.5, para. 14; P.6, paras. 16,17,18,19,20) and UNEP doc. UNEP/WG.24/3 (p.2. paras. 6-9)

[37] In order to support the work of the Working Group which studied the question of 'offshore mining and drilling', the I.J.O., following a request by UNEP, prepared studies (e.g.'Study of off-shore mining and drilling carried out within the limits of national jurisdiction - safety measures to prevent pollution) (UNEP/WG.36/4). Background papers were also prepared by other UNEP Consultants (Prof. Alexandre Charles Kiss "Study of off-shore mining and drilling carried out within the limits of national jurisdiction (UNEP doc. UNEP/WG.24/2 fo 15 December 1978); Prof. A.L.C. de MESTRAL, "Study of off-shore mining and drilling Carried out within the

limits of national jurisdictions" (UNEP doc. UNEP/WG.14/2 of 23 February 1978) and Mr. J. McLoughlin 'Study of off-shore mining and drilling within the limits of national jurisdiction - liability to pay for compensation for environmental damage" (UNEP doc. UNEP/WG.49/2). Likewise, for the purpose of the Ad Hoc Meeting of Senior Government officials Expert in Environmental law, UNEP Secretariat prepared with the assistance of its Consultants, a working paper and ten background documents relating to environmental problems and priorities of specific regions or countries which were also submitted to the 'Preparatory Committee Meeting' for consideration. (see EPL, 8 (1982) at 10). At the 'Preparatory Committee Meeting' Copies of a report on River Inputs to Ocean Systems were also distributed to participants (See, UNEP/WG.60/3, at 10). In support for 'the meeting of experts on liability for pollution and other Environmental Damage and Compensation for such damage', UNEP Secretariat submitted a background document (UNEP/WG.8/2). As part of the preparatory process for the work of the AD Hoc Working Group of Experts on the Protection of the Marine Environment against pollution from land-based sources, the Executive Director of UNEP sought the advice of legal and technical experts, from various geographic regions, on the preliminary drafts of the legal and technical elements suggested for inclusion in the draft guidelines (principles) for the protection of the marine environment against pollution from Land-based sources (the 'Advisory Panel'). These experts, who were invited in their personnal capacity, offered their suggestions with regard to the nature and the scope as well as the structure and the contents of the draft elements of the guidelines/principles with a view to assisting the deliberations of the working Group at its first session. (See UNEP doc. UNEP/WG.92/2/add. 1 of 17 October 1983). Similar support was given by UNEP for other working Groups established by Governing Council of UNEP in implementation of the 'Montevideo' programme for the development of environmental Law.

Despite some criticism[38] voiced regarding the quality of papers and studies prepared by UNEP and its consultants; it is fair to say that very often the studies and papers presented by consultants were excellent ones. One could say, however, that one has often seen these excellent studies approached at meetings of UNEP as if they were so 'academic' and so off the central concerns of the experts present that they were not really content to discuss the substance of the points made and, once again, it is usually something that is deferred until the procedural matters are settled.

In preparing papers and studies, UNEP has often had the benefit of advice and comments from International Organisations and bodies, inside and outside the United Nations System.[39]

Both the 'Hazardous Waste' legal exercise and particularly the 'Toxic Chemicals' legal exercise, had a 'new phenomenon' for UNEP, that is, a very heavy non-governmental organisations presence. The attitude of non-governmental environmental groups is believed to have been very responsible and to have helped raise the level of debates in the meetings.[40]

UNEP's action is not limited, however, to 'logistical' assistance to the work of the groups of experts. This organisation has often attempted to influence the outcome of the work done by making suggestions; advancing proposals or clarifying points. Examples of this action are numerous: under the 'Shared Natural Resources' legal exercise ,for example, the Executive Director of UNEP took the initiative to mention 'examples' of 'Shared Natural Resources' before the working group had started its work.[41]

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[38] See Editorial EPL, 6 (1980) at 1.

[39] See note 37 Supra.

[40] Interview with Mr. SZELL (Legal Directorate, Department of the Environment U.K.)(April 27th,1985).

[41] See 'Co-operation in the field of the Environment Concerning Natural Resources Shared by Two or More States, Report of the Executive Director', UNEP doc. UNEP/GC/44, 20 Feb. 1975 at 40-41.

Under the 'Land-based Pollution' legal exercise, in addition to the progressive background paper, prepared by the UNEP Secretariat; the representative of UNEP exhorted the working group, at its first session, to "go beyond synthesizing the existing legal texts (on land-based pollution), and to consider, as appropriate, improving or extending the existing provisions or formulating alternatives to them."[42]

2.2.2. Specific Actions

2.2.2.1. Pollution

In the area of the marine environment one should mention UNEP Executive Director's address to the U.N. Law of the Sea Conference,[43] and support given, by the organisation, to the Working Groups who discussed the "off-shore mining and drilling" and the "Land-based pollution" questions.[44] Also important is the special attention, devoted by UNEP to the implementation of the existing marine pollution Conventions in response to the requests contained in UNEP Governing Council decision 88(V)A and in U.N. General Assembly Resolution 34/183.[45]

In the area of pollution of air and atmosphere UNEP's action has also been important. As regards air pollution, one should mention the role played by UNEP to support the EMEP.

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42 See Report of the AD HOC Working Group of Experts on the Protection of the Marine Environment Against Pollution from Land-based Sources at its first Session, UNEP doc. UNEP/WG.92/4 of 2 December 1983 at 1, para. 3.

43 See Adress by Mr. M.STRONG, in Third United Nations Conference on the Law of the Sea - official Records - Vol.I at 120. Note, however, that the Executive Director of UNEP "came in for some criticism at the Caracas Session of UNCLOS, because he commented upon problems that he foresaw with the economic zone concept." (See Mc RAE, 'The New Oceans Regime, Implementing the Convention', in Mar.Pol'y, April 1984, pp.83-94 at 85.

44 See note 37 Supra.

45 See Environmental Law, an in-depth Review, UNEP Report No.2(1981) at 26.

This programme, carried out under ECE auspices and implemented in co-operation with WMO, forms part of the Global Environment Monitoring System (GEMS) of UNEP. Its main objective is to provide ECE Governments with information on the deposition and concentration of air pollutants, as well as the quality and significance of pollutant fluxes across national boundaries. Its activities are divided into two parts; chemical and meteorological. A chemical co-ordination centre, located at the Norwegian Institute for Air Research is responsible for the chemical part which includes such matters as data collections and storage; semi-annual reports, inter-laboratory tests of the quality of the chemical analyses etc. The Meteorological part of EMEP is co-ordinated by WMO with two synthesising Centres (MSC's), one in Moscow, and one in Oslo.[46]

Two Governing Council decisions were taken to provide support for this programme.[47] The financial support of UNEP by the end of 1983 was estimated at more than one million U.S dollars and UNEP agreed to continue to support EMEP activities in 1984 on the understanding that the total funding would be limited to 120,000 U.S. Dollars[48].

As well as funding EMEP, UNEP supported the implementation of the 'Geneva/ECE Convention' during the period prior to its entry into force[49].

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[46] For a detailed information, see U.N. doc. ECE/ENV/15,Annex II.

[47] Decision 64(iv)) of 13 April 1976 and decision 7/4B of 3 May 1979. The success of EMEP is further illustrated by the agreement to include in the period 1984-1986, on a voluntary basis, and as far as possible, work on nitrogen oxide (gas phase) and nitrate ammonium and conductivity (in precipitations) as well as heavy metals.See EPL,13(1984)at 49

[48] See EPL, 9(1982) at 76.One of the decisions taken at the second Session of the Executive Body for the Convention on Long-Range Transboundary Air Pollution (Geneva, 25-28 September 1984) was the adoption and signing of a protocol to the convention on long-term financing of EMEP. For this, see EPL,13/3/4(1984) at 86.

[49] From 1981, UNEP designated one professional and one general service post for work associated with the implementation of the Convention(See BANKES and SAUNDERS; 'Acid Rain: Multilateral and Bilateral Approaches to Transboundary Pollution Under International Law', in U.N.B.L.J, 33:155-201 (1984) at 177.

This support from UNEP is considered to have helped the good functioning of EMEP which is illustrated by the participation, at the end of 1983, of 81 stations in 22 Countries in the monitoring network and by completion of the fact-finding and preparatory stages of the implementation of the Convention.[50]

In the area of pollution of the atmosphere; UNEP's action relates principally to its support to the work of the working groups of experts constituted in order to discuss and elaborate legal instruments for the protection of Ozone layer and to regulate weather modification activities.

As regards protection of the Ozone layer; delegates, at the fourth session of UNEP's Governing Council, saw a need for a strong UNEP co-ordinating role in research on the problem of pollutants adversely affecting the Ozone layer, and a suggestion was made to the effect that it would be particularly appropriate for UNEP to concentrate on the scientific and technological aspects, especially in the areas of effects on health, environmental and climate, through appropriate specialised agencies. Consequently, it was proposed that UNEP should convene in 1976, a meeting of international bodies to consider risks to the Ozone layer, consequent risks to the biosphere, and the division of labour in handling research on various aspects of the problem.[51]

UNEP Governing Council decision 65(iv) was taken to this effect,[52] and pursuant to it, The Executive Director convened a Conference in Washington from 1-7th March 1977. This meeting made two important recommendations: first, it recommended the adoption of a "World Plan of Action" involving research into, and monitoring of ozone-depleting substances in the atmosphere, investigation of the impact of ozone modification and incresed ultra-violet radiation on

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50 See EPL, 13 (1984) at 49.

51 See UNEP, Report of the Governing Council on the work of its fourth session, 30 March - 14 April 1976, GAOR: Thirty - First session, Supplement No. 25 (A/31/25) at 50, para. 213.

52 Ibid. Annex I at 126.

humans, the biosphere and climate and socio-economic studies. Second; it recommended the establishment by UNEP of a Committee to enable UNEP to exercise a broad co-ordinating and catalytic role aimed at the integration and co-ordination of research efforts related to the ozone layer.[53] The relevant provision of the Plan of Action regarding CCOL reads as follows: ....

> "3 In order for UNEP to fulfil [its broad co-ordinating and Catalytic role] it should establish a co-ordinating Committee on the ozone layer composed of representatives of the agencies and non-governmental organisations participating in implementing the Action Plan as well as representatives of Countries which have major scientific programmes contributing to the Action Plan. The Committee should meet with sufficient regularity to meet its responsibilities...."
>
> "The Committee should make recommendations relevant to the continuing development and co-ordination of the Action Plan to the Executive Director who will report these to the Governing Council...."

Pursuant to Governing Council decision 84(v) of 22nd May, 1977, UNEP established a Co-ordinating Committee on the Ozone layer. This Committee has, since 1977, met regularly and made environmental assessments of ozone layer depletion and its impacts. These assessments were regularly forwarded to the Working Group responsible for the elaboration of an ozone layer Convention and served as a valuable input to the work of this group[55].

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[53] See GOUR-TANGUAY 'Protection for the Ozone Layer,' in EPL, 3 (1977) at 61.

[54] See UNEP, Report of the Governing Council on the Work of its Fifth Session, 9-25 May 1977, GAOR: Thirty-Second Session, Supplement No. 25 (A/32/25); Annex I at 115.

[55] See e.g., UNEP doc. UNEP/WG. 94/5, 10 November 1983 at 2.

Other activities of UNEP include its participation in the April 1977 Meeting hosted by the U.S. Environmental Protection Agency in Washington. This meeting which was attended by representatives of 13 Nations and five International bodies was concerned with regulatory alternatives of chlorofluorocarbons[56].

In 1978, December, UNEP participated in the International Conference on Chlorofluorocarbons(CFCs) held in Munich. This conference which was held as a follow up to the April 1977 Meeting in Washington, examined current scientific knowledge regarding CFCs . At that Meeting UNEP's co-ordinating role in the area of scientific research was re-affirmed[57].

These two meetings are said to have played a significant role in focusing world attention on the chlorofluorocarbon problem.[58]

Also in the area of pollution of the atmosphere, UNEP was involved in the establishment and assistance of a working group with mandate to draft legal principles for guidance of nations with respect to each other in carrying out weather modification activities[59].The legal exercise on weather modification has, however been carried out jointly by UNEP and WMO and was not held under that part of UNEP which could be called the "legal part", but under one of its more general wings: "management"[60].

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[56] See STOEL, Jr, & others,'International Regulation of Chlorofluoromethanes' in EPL, 3:129 (1977) at 131.

[57] See VAN BEEK, 'Industrial Nations Agree to Limit CFC Aerosols" in EPL, 5 (1979) at 9.

[58] See STOEL, Jr, 'Fluorocarbons: Mobilizing Concern and Action' in(David A. KAY &H.K. Jacobson eds.) 'Environmental Protection: the International Dimension'39 at 51.

[59] See chapter I

[60] Ibid.

Finally, UNEP has established and is supporting three working groups of experts in order to produce legal instruments on the sound management of hazardous waste; exchange of information on potentially harmful chemicals (in particular Pesticides) in international trade; and environmental impact assessment.[61]

2.2.2.2. Conservation

In this area it is, in my opinion, necessary to deal with UNEP's 'Catalytic role' with respect to 'Hard Law' instruments such as 'C.I.T.E.S.' and the 'Migratory Species Convention'; 'Soft Law' instruments such as the 'Shared Resources Principles';[62] the World Conservation Strategy and the 'World Charter for Nature'; and also such iniatives as UNEP's support for marine mammals Conservation. UNEP's role regarding the question of the protection of the environment in Antarctica will also be referred to.

When UNEP was created, important conservation conventions such as the 'Ramsar Convention' and the 'World Heritage Convention' were already adopted.[63]

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[61] As regards impact assessment, UNEP's action include the preparation by one consultant of a paper on 'environmental assessment as an instrument for the development and implementation of environmental law', this paper was submitted to the Meeting of Experts of Some developing Countries on Environmental Law(7-8 September 1981, Geneva)and the Working Group of Experts on Environmental Law(9-18 September 1981, Geneva) for information.

[62] As regards the 'Shared Resources Principles', see discussion under under Chapter 1.

[63] For an account on these conventions, see LYSTER, 'International Wildlife Law' (Grotius Pub., 1985) at 183-239.

Administrative support for the 'Ramsar Convention' is provided by IUCN,[64] working closely with the International Waterfowl Research Bureau (IWRB) and the 'World Heritage Convention' is supported by UNESCO which provides the 'Secretariat'.

UNEP's involvement, in Conservation instruments, began with the adoption of 'C.I.T.E.S.'.Article XII paragraph 1 of this Convention as adopted by the Plenipotentiary Conference in Washington on March 3, 1973 states:

"Upon entry into force of the present convention, a Secretariat shall be provided by the Executive Director of the United Nations Environmental Programme. To the extent and in the manner he considers appropriate, he may be assisted by suitable inter-governmental or non governmental, international or national agencies and bodies technically qualified in protection, conservation and management of wild fauna and flora."

The Governing Council of UNEP, at its first session in Nairobi on 22nd June 1973, that is one year after UNEP's creation, authorised the Executive Director of UNEP "to provide secretariat services for the implementation of the Convention of International Trade in endangered species of wild fauna and flora in accordance with its article XII."[65]

In April 1974, the Executive Director of UNEP delegated secretariat functions under the Convention to the International Union for Conservation of Nature and Natural Resources (IUCN).[66]

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[64] See 'Ramsar Convention', Art. 8.

[65] Decision 1(I) VIII of 22 June 1973. See UNEP, Report of the Governing Council on the Work of its first Session, 12-22 June 1973, GAOR: Twenty-Eighth Session, Supplement No. 25 (A/9025) at 46.

[66] See, INSKIPP and WELLS, 'International Trade in Wildlife', an Earthscan Publication (I.I.E.D., 1979) at 15.

Until the year 1977, UNEP allocated a total of 322,224 American Dollars to IUCN for the purposes of the Convention.[67]

In 1978, at the sixth UNEP's Governing Council Meeting, while some delegates wanted UNEP to continue to provide Secretariat services, following a request for assistance made by the Parties to 'C.I.T.E.S.', some delegates argued that UNEP, as a catalytic and co-ordinating body, should not enter into an open-ended commitment which might create a precedent. There was a suggestion that UNEP support projects under the Convention, rather than undertake its administration on a continuous basis.[68]

Consequently, the Governing Council of UNEP took decision 6/5D of 25th May 1978 where it requested that a "contribution of 700,000 American Dollars from the Environment Fund be made to the budget of the Secretariat of the [C.I.T.E.S.] Convention for the biennium 1978-1979"; but called upon the conference of the Parties, in co-operation with the Executive Director of UNEP to "establish at its second meeting an arrangement for showing the administrative costs of the secretariat and for the gradual reduction and cessation, at the earliest possible date, and no later than 1983, of fund contribution to such costs."[69]

The Governing Council, in the same decision, invited parties to the Convention, however, to "submit to the United Nations Environment Programme from time to time proposals for research and other projects which would assist in the effective implementation of the Convention."[70]

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[67] See Convention sur le Commerce International des Espèces de Faune et de Flore Sauvages Menacées d'extinction - Deuxieme Session de la Conference des Parties - (doc. 2.9).

[68] See UNEP, Report of the Governing Council on the work of its sixth session, 9-25 May 1978, GAOR: Thirty-Third session, Supplement No. 25 (A/33/25) at 41.

[69] Ibid at 117.

[70] Ibid.

At the second meeting of the parties, in Costa Rica, (including also the extraordinary meeting in Bonn on 23rd June 1979) it was agreed that the secretariat of CITES would be financed in 1980-81 jointly by UNEP and the newly established Trust Fund. UNEP undertook to contribute 350,000 dollars for this period and the Parties to Trust Fund undertook to contribute 673,000 dollars.[71]

At the third meeting of the Parties in New Delhi, 1981, UNEP representative re-iterated his organisation's pledge made in Costa Rica, to contribute a further 175,000 dollars, and affirmed that beyond 1982, the costs of the Convention should be the responsibility of the Parties completely.[72] The year 1983 saw, thus, the termination of UNEP's financial support to CITES.

UNEP also supported, in co-operation with IUCN, activities which are of direct relevance to 'CITES'. It supported ,for example, activities which are very important for the effective enforcement of international trade controls such as its involvement with IUCN in the preparation and publication of the Red Data Books on Mammals, Birds, Fishes, Amphibious Reptiles, Invertebrates and Plants and in the development of an international identification manual.[73]

UNEP also supported activities which aim to assure international uniformity in the implementation of C.I.T.E.S. It supported,for example, the further development and finalisation of a world checklist of vertebrates based on the preliminary checklists on mammals, and on amphibians and reptiles, which were prepared by the U.S. Fish and Wildlife Service and the U.K. Nature Conservation Council in 1976, and supported the preparation of guidelines for transport and shipment of live wild animals and plants which were adopted at the second meeting of the Conference of the Parties in San-José, Costa Rica, in 1979.[74]

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[71] See EPL, 5 (1979) at 83

[72] See note 80 infra.

[73] Project No. FP/1110-81-01 (PP/2242)

[74] Project No. FP/1110-81-01 (2173)

Finally, UNEP supported the 'TRAFFIC' group, which is concerned with trade records analysis of flora and fauna in commerce. This support is believed to have facilitated recording of trade information from port of entry and export, analysis of data and the preparation and dissemination of reports on heavily exploited species to governments concerned, and to national and international governmental and non-governmental Conservation organisations.[75]

Because of the successful 'CITES' experience, UNEP was approached for the same role for the 'Migratory Species Convention' and the 'Ramsar Convention'.

As regards the 'Migratory Species Convention', delegates in UNEP's Governing Council at its 1979 session, a few months before the adoption of the Convention in question, stressed, however, the need for caution regarding UNEP's possible commitment to the cost of the secretariat, and proposed an arrangement similar to the one agreed to for the 'CITES'.[76]

This message of the Governing Council was conveyed to the Plenipotentiary Conference by UNEP's Executive Director. In his address to the Conference he stated that the "financial responsibilities for the cost of the secretariat of the Convention lies with the Parties" , that this fact "should be clarified in the provisions of the Convention," and that "a scale of contributions should appear in the text of the Convention from the very beginning...." . He affirmed however, that "....in view of its catalytic role, UNEP could make an initial contribution as appropriate to the expenses of the new secretariat during the first four years of operation of the Convention...." . He also advised that "the eventual

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[75] See Speech by the Assistant Executive Director of UNEP at the Third Meeting of Contracting Parties of C.I.T.E.S., New Delhi, 1981.

[76] See UNEP, Report of the Governing Council on the work of its seventh session, 18 April - 4 May 1979, GAOR: Thirty-Fourth Session, Supplement No. 25 (A/34/25) at 47.

establishment of a Trust Fund, to be administered by UNEP, with contributions coming from the Parties, should be considered....," and pledged UNEP's willingness to "establish and initially administer a Trust Fund for this new Convention...."[77]

The Bonn Conference, in consultation with UNEP, adopted a provision specifying that the Parties will meet the Convention expenses according to financial arrangements and a scale of contributions to be developed and agreed upon by unanimous vote of the Conference of the Parties. The understanding with UNEP on startup funding was embodied in a resolution appended to the final act.[78]

At its twelfth session, a few months after the entry into force of the 'Migratory Species Convention', the Governing Council of UNEP authorised the Executive Director to provide a Secretariat in accordance with its Article IX and to make an appropriate financial contribution to the expenses of this Secretariat during the first four years after entry into force of the Convention.[79]

Regarding the 'Ramsar Convention', the Governing Council of UNEP, at its ninth session, in April 1981 was unable to approve the setting up of a Trust Fund for the Convention considering that secretariat services should be provided by IUCN on the basis of direct financial contribution from Parties.[80]

UNEP's involvement in 'Soft Law' instruments such as the World Conservation Strategy; the World Charter of Nature; has also been important. UNEP's most significant action, in this respect, was in my opinion, its direct participation in the elaboration of these documents, and its present assistance in their implementation.

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77 See Doc. SUM P1 3 of 12 June 1979.

78 See RUSTER, SIMMA and BOCK,'International Protection of the Environment,Treaties and Related Documents'; Vol. XIII at 33.

79 See EPL, 13 (1984) at 25.

80 UNEP doc. UNEP/GC. 9/10/Add. 7 of 14 May 1981. See also EPL, 7(1) at 47.

As regards the World Conservation Strategy; the idea of it came during discussions between UNEP and IUCN in 1975, and with agreement among these two organisations "for a need for a clear statement of Conservation priorities with a broad plan for achieving them", UNEP commissioned IUCN to prepare the strategy.[81]

Moreover, UNEP was deeply involved in the preparation of the World Conservation Strategy. This document went through four major drafts, and at each stage these drafts were worked over very carefully by UNEP experts in Nairobi. This involvement of UNEP is believed to have brought an inter-governmental perspective to the World Conservation Strategy and a better consideration of developing Countries' problems.[82]

UNEP is also participating in the implementation of the World Conservation Strategy. In fact, under the framework of the 'Ecosystem Conservation Group', a body established in 1975 to provide a forum for co-operation and co-ordination between the main international organisations dealing with the problems of nature conservation and natural resources management, the concerned organisation (FAO;UNESCO IUCN and UNEP) have decided to work together on a National Conservation Strategy project in one Country. Uganda was chosen as a pilot Country for that purpose, and UNEP has agreed to use its funds under the SWMTEP to promote this co-operative project.[83]

It is expected that the experience which will be gained from this pilot project will be evaluated, and if successful, will be used to expand the exercise to other Countries.

As regards the 'World Charter for Nature', UNEP's involvement began with the adoption by the U.N. General Assembly, in October 1980,

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[81] See IUCN/WWF (Backgrounder to the World Conservation Strategy)

[82] Interview with Mr. Mark HALLE (IUCN - Gland (Switzerland))(April 1984).

[83] Ibid.See also EPL, 13 (1984) at 3.At the time of writing national conservation strategies have been prepared by UNEP and IUCN for three countries.(See,EPL,14/4(1985) at 102.).

of Resolution 35/7 inviting member States to send their views on the Draft Charter for Nature to the Secretary-General and requesting this latter to transmit these views to its next sessions along with appropriate recommendations formulated in co-operation with IUCN and UNEP.[84]

With a view to implementing the last part of the request, a special group of experts from IUCN and UNEP, as well as from various States, was established and met from 24th to 27th August 1981 and again in mid-September 1981 in Nairobi in order to amend the initial draft World Charter for Nature where necessary[85]. This group made a number of amendements to the initial draft.

Because UNEP participated in this Group, it is, in my opinion, useful to indicate some of the most signigicant aspects of the revisions retained. In some revisions made, special attention was paid to the fact that the World Charter for Nature be opened with the concept of mankind being a part of Nature; that its provisions be consistent with the objectives of the World Conservation Strategy such as the objective to link man's ability to use natural resources with his efforts to achieve the sustainable use of species and ecosystems, and with the principles of the Stockholm Declaration.[86]

Other amendments sought to give a more comprehensive character to the Charter by incorporating in it all elements of nature which are utilised by mankind, such as land, marine and atmospheric resources.[87]

New provisions were added to the original draft to emphasise that Conservation of Nature should be regarded as an integral aspect of social and economic planning and development and to mention

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[84] See EPL, 7 (1981) at 32.

[85] See EPL, 8 (1982) at 16 and also 'World Charter For Nature, a background paper.... note 32 supra.

[86] Ibid at 42; 45; 47.

[87] Ibid. at 53

specifically the role of science and technology in the enhancement of ecosystems to maintain life[88].

Specific provisions were included in order to emphasise and strengthen the procedural aspect of nature conservation such as inclusion of a provision on consultation with the participation of the public on the results of studies on the impacts of proposed policies and developments on Nature.[89]

The Group of Experts also wanted monitoring to include not only "Species" but "natural processes, ecosystems and species," and not only to "enable early detection of degradation or threat" but also "to facilitate the initiation of action, ...to alter plans and policies and take remedial steps to reorient inappropriate activities."[90]

Finally, amendments were made to include international organisations and their role in the exchange of information, development projects, international co-operation and nature conservation.[91]

Regarding Conservation of marine mammals; one should mention UNEP's support for the moratorium on whaling,[92] its participation in the discussion regarding the possible revision of the whaling Convention[93] and its participation with FAO in the elaboration of the World Plan of Action for the Conservation, management and utilisation of marine mammals.

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[88] Ibid at 58 - 59.

[89] Ibid at 86.

[90] Ibid. at 78.

[91] Ibid. at 83.

[92] See also Chapter 5 of this thesis.

[93] See EPL, 4 (1978) at 66.

UNEP's action regarding the moratorium question can be characterized by 'negative' elements such as a 'timid' support by the Governing Council to the moratorium and irregular presence of its representative at IWC's meetings; but also by positive elements such as interesting pronouncements made by its representative (when present) at opening sessions of IWC's meetings which went, in my view, further than UNEP Governing Council decisions. These aspects of UNEP's role are developed below.

During the first three years of its existence (1972-74), UNEP has not played an important role in the moratorium issue. In 1972, when UNEP came into existence; it was the United States, seconded by the United Kingdom, that led the call for a moratorium and they were to continue to lead, during the following two years and with stricter demands, this battle for the moratorium[94].

Regarding UNEP Governing Council; this has, in spite of its endorsement, at its first session, of recommendation 33 of the 'Stockholm Action Plan'[95]; put in the subsequent two sessions less emphasis on the moratorium issue, giving prominence instead, to scientific research[96].

The relative inaction of UNEP, as far as the moratorium issue is concerned, during these early years can be explained by not only its concern, at that time, with organizational matters and with setting its 'priorites' for action, but also by the fact that UNEP was

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94 See, M'GONIGLE, 'The "Economizing of Ecology: Why Big Rare Whales Still Die' in Ecol.L.Q. 9:119 (1980) at 141 ff.

95 Decision 1(I).

96 This is clearly reflected in the statement made by UNEP's representative at the 1974 IWC Meeting. Dr CURRY-LINDHALL, who attended as observer for UNEP said that "UNEP was willing and anxious to co-operate on the work of the Commission as soon as opportunity would be found *particularly in the field of research...*" (my emphasis) (See, IWC, Chairman's Report of the Twenty-Sixth Meeting, at p.25).

not clear about its status in the IWC. The latter being an intergovernmental organization; only authorized delegates from Member Countries can participate in all its proceedings. Observers from other Countries and observers from accredited international organizations are forbidden to discuss the debates and votes taken during the technical sessions and do not vote at plenary sessions[97].

In the follwing years, UNEP's role in the moratorium issue was still insignificant. Its status (or the lack of it) in IWC, prevented it from any active role and the moratorium issue was not even on the agenda of the 1975, 1976 and 1977 IWC meetings. As regards the latter point, the introduction of the New Management Procedure and the neutralization of the commission's main conservationist, the United States, are the main cause.[98]

During these years UNEP concentrated its action on the question of scientific research which culminated in the holding in

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[97] The question of the status of UNEP along that of FAO in the IWC was, however, raised by the U.S. Commissioner as early as the1974 IWC Meeting. At that meeting the U.S. Commissioner pointed out that "..the relationship of both FAO and UNEP with the Commission was of a different character from that of the other organizations who were invited to send observers for the meeting". The special status of these two organizations was, generally speaking, acknowledged but it was agreed that it should be left to the discretion of the chairman of IWC meetings to invite comments from FAO and UNEP when appropriate. (See, IWC, Chairman's Report of the Twenty-Sixth Meeting, at p. 25.)

[98] See, BIRNIE, 'International Protection of Whales' in Y.B. World Aff., 240-261 (1983) at 249. Also, M'GONIGLE, 'The "Economizing" of Ecology..' op.cit. at 144-145 ff.

1976, of the Bergen Consultation[99]. As from 1979, UNEP's Governing Council concern was more with the preparation of a World Plan of Action on Marine Mammals than with the specific question of the moratorium[100].

The other negative element was, as stated earlier, the irregular participation of UNEP's representative in the opening sessions of IWC Meetings[101].

On the positive side, one should note the interesting pronouncements made by the UNEP representative when attending the opening sessions of IWC. These pronouncements have, due to the personal prestige of the representative, put, in my view, more emphasis on the moratorium question than did the UNEP Governing Council decisions[102].

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99 UNEP's interest in the question of research can clearly be seen in the contents of decisions taken by its Governing Council during this period. At the third session of the UNEP Governing Council, for example, the Executive Director was requested in Decision 33(III) of 2 May 1975 to "..support the Interagency Advisory Committee's Working Party on Marine Mammals and its symposium scheduled to be held in 1976.." and "to support research on marine mammal populations and on whales and small cetaceans in particular" (See UNEP, Report of the Governing Council on the Work of its Third Session, 17 April-2 May 1975, GAOR: Thirtieth Session, Supplement No. 25(A/10025) at p. 100).

100 See, UNEP, Report of the Governing Council on the Work of its Eighth Session, 16-29 April 1980, GAOR: Thirty-Fifth Session, Supplement No. 25(A/35/25) at p. 72.

101 e.g. no UNEP representative attended the 1973 IWC Meeting.

102 The statements made by UNEP's representative justified the need for a moratorium not only on an "economic" basis but also on a "moral" basis. Thus, at the 1974 IWC Meeting, for example, UNEP's representative stated, among other things, that one should not "..lose sight of the whale's own right to exist" (Statement by K. Curry-Lindhall, UNEP, before the twenty-sixth meeting of IWC; IWC Records-1974 Meeting-First Plenary Session, Monday 24 June 1974). Moreover, the UNEP's representative has, during the years 1975 and 1976, made statements which strongly supported the moratorium. At the 1975 IWC Meeting, he said that UNEP was "..strongly committed to the 10-year moratorium on all whaling" (Statement by K. Curry-Lindhall, UNEP, before the Twenty-Seventh Meeting of the IWC, 23 June 1975.). At the 1976 IWC Meeting, the absence of a general moratorium from the IWC's agenda was "deplored " by him. He went even further than this when he gave , at that meeting, an interpretation of a sentence included in a UNEP (follows)

The Plan of Action on marine mammals constitutes the culmination of joint efforts of FAO and UNEP undertaken since the adoption, by the Stockholm Conference on the Human Environment of Recommendation 33[103].

The aim of the elaboration of this World Plan of Action was to contribute towards more effective measures for the proper conservation of Whales and other badly depleted mammals.[104]

The threats to the survival of marine mammals which the Plan of Action purports to counteract include unregulated hunting; endangerment of marine mammals by fishermen in many parts of the world responding to the destruction of nets and the competition for fish by these mammals; effect of pollution; loss of critical habitat for breeding, and deterioration of other areas of the environment, accidental or incidental killing in the process of fishing for other species; and disturbance or harassment which may disturb reproductive activities.[105]

The Global Plan of Action also includes recommendations related to "improvement of Law and its application."[106] Assistance of UNEP for the preparation and elaboration of the World Plan of Action included not only financial assistance for meetings but also preparation of substantive proposals such as submission by UNEP of proposals for seals management and Conservation.[107]

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[102](follows) Council Decision "in order to avoid misunderstanding" with regard to UNEP's position toward conservation of whales. (See, Statement by K. Curry-Lindhall, UNEP, before the Twenty-Eighth Meeting of the IWC, June 21, 1976). Other noteworthy statements by UNEP's representative include the reference, in the 1977 IWC Meeting, to whales as "shared natural resources" and as "common heritage of mankind".

[103] Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals (FAO/UNEP Project No. 0502-78/02), FAO, Rome 1981.

[104] See UNEP doc. UNEP/GC. 12/15 of 9 March 1984.

[105] Ibid. at 15-16.

[106] Ibid. at 49.

[107] See AD HOC Planning and Co-ordinating Consultation on Marine Mammals, Rome, 11-13 January 1984 (Document without reference).

The Governing Council of UNEP, at its twelfth session, endorsed the Global Plan of Action as a "timely and valuable framework of policy planning and programme formulating by the International Community."[108]

Regarding Conservation of the environment in Antarctica; UNEP's action has, because of the nature of the existing consultative regime, not been that effective. UNEP has, however, on a number of occasions, made positive pronouncements regarding protection of the environment in Antarctica, and some of them have in one instance, as shown below, led Antarctic Treaty Parties to adopt a recommendation on environmental protection.

Regarding Conservation of living resources; UNEP has, since 1976, revealed an active interest in Antarctic living resources. This interest has, however, not been vast. It is affirmed that there had been greater interest with FAO.[109]

UNEP actions include the promotion by the UNEP's Executive Director, in 1975 of an idea developed in 1972 at the Second World Conference on National Parks, which suggested that the whole Antarctic region be made into "a truly international park or reserve which would permit continuation of its extensive use as the site of important scientific research"[110].

At the eighth session of the Governing Council of UNEP, the Executive Director singled out the emergence of new sets of environmental problems, one of which, in his view, "stemmed from the

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[108] See EPL, 13 (1984) at 23. Note also that the Regional Seas Programme Activity Centre of UNEP has become the "Programme Activity Centre for Oceans and Coastal Areas" (OCA/PAC) to reflect the Centre's enlarged mandate over UNEP's marine and coastal area activities. One sub-programme of OCA/PAC is the one on Living Marine Resources which includes co-ordination of the FAO/UNEP Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals. (See, the Siren No. 27, March 1985 at 1, 31).

[109] See BARNES 'The Emerging Antarctic living Resources Convention' in A.S.I.L., Proceedings of the 73rd Annual Meeting (Washington D.C.) April 26-28, 1979 at 285.

[110] See OAKES BUTLER, 'Owning Antarctica: Co-operation and Jurisdiction at the South Pole', in Jnl. Int'l Aff., Vol. 31 No. 1, Spring/Summer 1977 at 49.

potential hazard of overfishing.... in Antarctica and the Southern Ocean" . The executive Director added that these issues, though serious, should be seen as apportunities for international co-operation and solutions and should have a "positive impact on the whole inter-related system of resources, people, environment and development ."[111]

At the same session there were also suggestions that UNEP should add other seas in its Regional Seas Programme and Antarctica was cited among the oceans to be added to this programme.[112] Finally at the eleventh session of UNEP Governing Council, delegates mentioned the need for protected areas in Antarctica.[113]

All these actions of UNEP have not had any serious impact for the 'Canberra Convention' was negotiated and adopted outside the ambit of the United Nations.The only positive aspect is the provision under Article XXIII(2) of the Convention that "the Commission and the Scientifc Committee shall Co-operate as appropriate with the Food and Agriculture Organizations and the United Nations and with other specialized agencies."

As regards the question of mineral exploration and exploitation in Antarctica, UNEP has had only a very minor success.

In 1975, UNEP proposed the establishment of ecologically sound guidelines for exploration and exploitation of resources. Consideration of the proposal was blocked, however, by the Treaty Powers in the Governing Council.[114]

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111 See EPL, 6 (1980) at 51.

112 Ibid. at 65.

113 See UNEP doc. UNEP/GC. 11/18 at 60.

114 See MITCHELL and TINKER; 'Antarctica and its resources', an Earthscan publication (IIED) at 79.

The Executive Director of UNEP suggested a moratorium on exploitation of mineral resources in Antarctica and continued to press for a UNEP involvement in Scientific or technical activities in Antarctica despite a strong resistance from Treaty Countries. This insistence from UNEP's Executive Director led to the adoption by the Eighth Consultative Meeting of a recommendation entitled "the Antarctic Environment" where it was vaguely stated that measures to protect the Antarctic environment must be consistent with the interests of all mankind, and no activity with inherent tendency to modify the environment over wide areas within the Antarctic Treaty area should be undertaken unless steps were taken to exercise appropriate controls'[115].

At the eighth session of the Governing Council of UNEP "the potential hazards of..... oil exploration in Antarctica and the Southern Ocean" was cited by the Executive Director as among the new sets of emerging environmental problems.'[116]

At the UNEP session of special character, a statement was made by UNEP's former Executive Director, Mr STRONG, in which he underlined the 'disturbing signs that strong pressures are growing for the development of the Antarctic, particularly petroleum exploration." This, in his opinion, could "represent a challenge to the concept that [Antarctica] is, and should remain, an intrinsic part of the international commons and part of the common heritage of all mankind rather than the preserve of the privileged few nations."[117]

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[115] See, AUBURN, 'Antarctic Law and Politics' (1982) at 125.

[116] See note 111 supra.

[117] Seee Maurice STRONG (Speech made at the UNEP Session of Special Character) in EPL, 9 (1982) at 6.

As with Conservation of living resources, all these actions and pronouncements by UNEP had a very minor effect; for discussion of a regime for mineral exploration and exploitation is continuing under the sole and exclusive authority of the Antarctic Consultative Parties'[114]

Summing-Up

UNEP's "catalytic" role has,on the whole,been positive.

At the regional level and in the area of protection of the marine environment,the success in the development and support of the Regional Seas Programme, including its legal component,should be noted.One should say,however,that, in some fields,UNEP has not carried out its catalytic role efficiently;this applies particularly to some unsuccessful endeavours under the Mediterranean Action Plan such as failure to develop protocols on exploration and exploitation of the seabed under national jurisdiction;liability and compensation and establishment of an Inter-State Guarantee Fund and environmental aspects of fisheries.Bad timing and inappropriate membership of working groups coupled with complexity of the subject-matters being the main reason for failure.

Moreover,As regards the Regional Seas Programme,concern has been expressed that transfer of the Programme's headquarters from Geneva to Nairobi might adversely affect development of regional conventions in other parts of the world.

Finally,States Party to regional conventions negotiated outside UNEP(i.e. the 'Helsinki Convention') have also complained about the non-involvement of UNEP in their co-operative effort.

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[114] Five formal minerals meetings have taken place: in Wellington 1982 and January 1983; in Bonn, July 1983; in Washington January 1984 and in Brussels in 1985. An 'informal' Meeting took place in Tokyo, in May 1984. See in this respect, BOCZEK, 'The Soviet Union and the Antarctic Regime' in, A.J.I.L.78:834-858 (1984) at 834.On recent developments on the "question of Antarctica",see KISS,'Qui Assure la Conservation de l'Environnement dans l'Antarctique" in EPL,14/2/3,pp.52-54.Also,FORSTER,'The Question of Antarctica" in EPL,14(1985) at 2-4.

At the global level, UNEP's 'catalytic role' has on the whole been successful. An important role has been played by this body not only in the identification of subject-areas where law need be developed, but also in the support given to the various working groups established for this purpose. This success can be seen in the production by these working groups of legal texts in such fields as conservation and harmonious utilization of shared natural resources; weather modification; off-shore mining and drilling; pollution from land-based sources; protection of the ozone layer; environmentally sound management of hazardous wastes, etc.

It should be noted, however, that criticism has often been directed to this organization with regard to the speed with which it is implementing the 'Montevideo Programme' and with regard to the poor participation of experts from developing countries in the work of the working groups referred to above. This latter element has cast serious doubt about the value of legal instruments produced by UNEP.

Still at the global level but as concerns UNEP 'catalytic role' in specific fields, one can draw the following conclusions:

In the area of air and atmospheric pollution, one can mention UNEP's support for the EMEP and the 'Geneva/ECE Convention' and the useful role it has played as a forum for early discussion of the problem of depletion of the ozone layer, and through CCOL as a coordinator of scientific research and scientific consensus-building.

In the area of conservation, in addition to establishing the working group of experts which produced the 'Shared Resources Principles', UNEP has provided an important financial support to C.I.T.E.S.; played an important role in the elaboration of the World Conservation Strategyand the 'World Chater for Nature' and is presently helping in their implementation. UNEP's involvement in the elaboration of the World Conservation Strategy is believed to have brought an inter-governmental perspective to this text and a better consideration of developing countries' problems.

Moreover, UNEP has had some role in the conservation of marine mammals. This can be characterized by 'negative' elements such as a "timid" support by the Governing Council of UNEP to the moratorium and an irregular presence of its representative at IWC's opening sessions; but also by positive elements such as promotion and support of discussion on marine mammals' conservation and as a consequence of it preparation of a Global Plan of Action on Marine Mammals.

Finally, UNEP has been less successful in influencing the conservation of the Antarctic Environment due mainly to the nature of the present Consultative Regime .

PART TWO: DEVELOPMENT OF SUBSTANTIVE LAW

CHAPTER 3: DEFINITIONS AND GENERAL OBLIGATIONS

CHAPTER 4: POLLUTION LAW

CHAPTER 5: CONSERVATION LAW

CHAPTER 6: CHEMICALS MANAGEMENT LAW

CHAPTER 7: LIABILITY AND COMPENSATION AND SETTLEMENT OF DISPUTES LAW

CHAPTER 3: DEFINITIONS AND GENERAL OBLIGATIONS

3.1 Definitions

3.1.1 "Pollution"

The importance of a definition of "pollution" or other similar words is twofold: First, it determines the scope of activities which a State or a group of States consider to be polluting; second, it determines the threshold at which legal consequences, especially liabiblity attach to those activities[1].

Legal texts negotiated under UNEP up to now, concern themselves with the protection of different environments or with conservation; for this, discussion of the definition of "pollution" will be undertaken for three categories of texts: Those concerned with conservation; those concerned with protection of the marine environment; and finally, those concerned with the protection of the atmospheric environment.

3.1.1.1 Conservation

One would include under this title the 'Shared Resources Principles'. These principles refer not to "pollution"' but to "adverse environmental effects". Thus under principle 3 it is provided;

> "1. States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."
> .....
> "3. Accordingly, it is necessary for each State to avoid to the maximum extent possible and to reduce to the minimum extent possible the *adverse environmental effects* beyond its jurisdiction of the utilization of a shared natural resource so as to protect the environment, in particular when such utilization might
> (a) Cause damage to the environment which could have repercussions on the utilization of the resource by another State;
> (b) Threaten the conservation of a shared renewable resource;
> (c) Endanger the health of the population of another State.
> "Without prejudice to the generality of the above principle it should be interpreted, taking account, where appropriate, the practical capabilities of States sharing the natural resource. (Emphasis added)

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[1] See, TOMCZAK, Jr., 'Defining Marine Pollution, a Comparison of Definitions Used by International Conventions' in Mar. Pol'y. (Oct. 1984) at 311-322.

Is the notion "adverse environmental effects" with the specific obligations noted above a more advanced notion than other notions denoting injury to the environment and used in other contexts?

In studying the "pollution" concept as a concept indicating a threshold of damage or interference which is legally significant, Springer has chosen five categories to describe the ranges of approaches to pollution: pollution as any alteration of existing environment; pollution as a right of territorial sovereign; pollution as damage; pollution as interference with other uses of the environment and pollution as exceeding assimilative capacity of the environment. The last three approaches correspond, in his view, to the major centres of opinion[2].

To what approach corresponds the definition of environmental injury as contained under ' Shared Resources Principle' 3 above?

"Repercussions on the utilization of the resource by another sharing State" corresponds most certainly to the approach which considers "pollution" as "interference with other uses of the environment found particularly in international agreements regulating rivers and ocean areas.[3]

Paragraph(b) of the principle referred to above which speaks of an utilization which might " threaten the conservation of a renewable resource" adopts the environment-oriented approach adopted under such agreements as, for example, the 'Brussels Intervention Convention'[4]. It is also similar to the approach which considers pollution as "exceeding the assimilative capacity of the environment."

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[2] See, SPRINGER, 'Towards a Meaningful Concept of Pollution in International Law' in I.C.L.Q. 26:531-557 at 533.

[3] The 'Netherlands-FRG Frontier Treaty' requires under Art. 58(2(e)) both Parties to take steps "to prevent such excessive pollution of the boundary waters as may substantially impair the customary use of the waters by the neighbouring State".

[4] Art. I.

The approach taken under paragraph (c) of the principle above which refers to utilization which might "endanger the health of the population" has also been adopted under a number of agreements [5].

From what preceded one can see that the approach taken under 'Shared Resources Principle' 3 above, clearly combines a number of approaches in its definition of what constitutes an environmental injury. This approach, in spite of its positive features, can only be said to be consistent with international law in this field as can be seen in the following discussion.

3.1.1.2 Pollution of the Marine Environment

Under UNEP 'hard' and 'soft' law instruments related to pollution of the marine environment one can note a difference in the definitions of pollution.

Under the first category of agreements such as the 'Barcelona Convention' and the 'Abidjan Convention', the GESAMP definition of "pollution" is used without the words(including estuaries)[6].

Under the second category of agreements which includes the 'Kuwait Convention' and the 'Jeddah Convention', an amended version of the GESAMP definition of "pollution" is used. The words "likely to result" are added[7]. Inclusion of these words obviously broadens the definition because it covers not only the *ascertainable* damage as under the first category of conventions referred to above, but also the *risk*

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[5] The 'European Water Charter' includes in its definition of pollution injury to health: "Pollution is a change, generally man-made, in the quality of water which makes it *unusable or dangerous for human consumption*, industry, agriculture, fishing, recreation, domestic animals and wildlife". So does the definition of marine pollution given by GESAMP in 1969: Pollution is defined as "the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, *hazards to human health*, hindrance to marine activities including fishing.."

[6] 'Barcelona Convention' (art. 2(a)); 'Abidjan Convention' (art. 2(1)).

[7] 'Kuwait Convention' (art. 1(a)); 'Jeddah Convention' (art. I(3)).

of future damage.The 'Stockholm Declaration', the 'London Dumping Convention' and the 'Marpol Convention' all follow this approach by covering in their definitions of "pollution" the risk of future damage.[8]

The third group of agreements which include such legal texts as the 'Lima Convention',the 'Quito Protocol' and the 'Montreal Guidelines' uses a much more sophisticated definition of "pollution".These legal texts not only cover,like the second category of agreements referred to above,the risk of future damage by adding the words "is likely to result" but also expand the values to be taken into account in the definition of "pollution" by referring to "marine life" as under the 'Lima Convention' and the 'Quito Protocol' or "marine ecosystems' as under the 'Montreal Guidelines'.[9]

The 'Lima Convention''s definition of " pollution" along that of the 'Quito Protocol' follows the LOSC's precedent[10].The 'Montreal Guidelines''definition of "pollution",unlike the 'Paris Convention''s[11] includes the risk of future damage by refering to "likely to result".

3.1.1.3 Pollution of Air and Atmosphere

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[8] 'Stockholm Declaration'(Principle 7);'London Dumping Convention'(art.I)'Marpol Convention'(art.2(2)).

[9] 'Lima Convention'(art.2(a));'Quito Protocol'(art.III);'Montreal Guidelines(Guideline 1(a)).See TOMCZAK,Jr "Defining Marine Pollution,..op.cit. at 319-320.

[10] LOSC (art.1(4)).

[11] 'Paris Convention'(art.1).

The 'Ozone Layer Convention' also uses the words "adverse effects"[12]. Although it does not cover the risk of future damage'[13]; the values it takes into account are quite wide: they include not only "human health" and "natural and managed ecosystems" but also "materials useful to mankind".

3.2 General obligations

3.2.1 Basic Obligation

3.2.1.1 Marine Environment

3.2.1.1.1 The 'Hard Law' Context

Art. XI of the 'Quito Protocol' reads;

> "The High Contracting Parties shall take the necessary measures to ensure to the extent possible that activities under their jurisdiction or control are so conducted that they do not cause damage by pollution to the other Parties or to their environment and that pollution rising from accidents or from activities under their jurisdiction or control does not spread beyond the areas in which the High Contracting Parties exercise sovereignty and jurisdiction".

The foregoing provision is a weak version of the the provision under Art. 194(2) of the LOSC or Principle 21 of the 'Stockholm Declaration'; the reason being that under the foregoing provision the obligation of the Parties to take the necessary measures to ensure that activities under their jurisdiction or control are so conducted that they do not cause damage by pollution to the other Parties or their

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[12] The 'Ozone Layer Convention' defines under Art. 1 "adverse effects" as "..changes in the physical environment or biota, including changes in climate, which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on material useful to mankind".

[13] Note, however, that the ILA Committee on the "Legal Aspects of the Conservation of the Environment" decided not to insert the words "or likely to result" after the word "resulting" considering that "the duty of States is to prevent a deleterious effect and not the presumption or fear of such effect". (ILA (Montreal 1982) "Legal Aspects of the Conservation of the Environment", Report of the Committee, at 159).

environment is qualified by the words "to the extent possible".

3.2.1.1.2 The 'Soft Law' Context

Relevant provisions are included under both the 'Off-shore Mining and Drilling Conclusions' and the 'Montreal Guidelines'.

Thus under the first legal text, it is provided under guideline 16 that;

> "(1) States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their environmental policies, and the responsibility to ensure that activities within their jurisdiction do not cause damage to the environment of other States or of areas beyond the limits of national juridiction.
> "(2) Accordingly, States within whose jurisdiction operations are carried out, should take measures to avoid to the maximum extent possible and reduce to the minimum level possible pollution and other adverse effects on the environment beyond the limits of their jurisdiction."

The foregoing provision reproduces in paragraph (1), without the word "control", Principle 21 of the 'Stockholm Declaration' and, much like principle 3, paragraph 3 of the 'Shared Resources Principles', expand on it, by including the provision of paragraph 2.

Under the 'Montreal Guidelines', two provisions are worth noting; those under guidelines 2 and 3.

Guideline 2 provides;

> "States have the obligation to protect and preserve the marine environment. In exercising their sovereign right to exploit their natural resources, all States have the duty to prevent, reduce and control pollution of the marine environment."

Under guideline 3 it is provided;

> "States have the duty to ensure that discharges from land-based sources within their territories do not cause pollution to the marine environment of other States or of areas beyond the limits of national jurisdiction".

As regards the first provision, one should note that the first part of the guideline confirms the basic obligation to protect and preserve the marine environment. In this respect, it is similar to Art. 192 of the LOSC.

The second part of the guideline above uses some provisions of Art.194 of the LOSC which includes the obligation to "prevent,reduce and control" pollution.It also uses the language of Art.193 of the LOSC which speaks of the "duty" to protect and preserve the marine environment and also of the sovereign right" of States to "exploit their natural resources".

The provision contained in the guideline above is,in my view,more progressive,however,than the relevant LOSC provisions referred to above.First,the "sovereign right" of States to exploit their natural resources under the 'Montreal Guideline' above is not followed by the words "pursuant to their environmental policies" as under Art.193 of the LOSC.Second,States'"duty" to prevent,reduce and control pollution of the marine environment is not qualified as under Art.194 of the LOSC where States' duty to prevent,reduce and control pollution is "in accordance with their capabilities".

By not qualifying the duty of States as regards protection and preservation of the marine environment,the provision under 'Montreal Guideline' 2 above constitutes a positive achievement as far as protection of the marine environment is concerned [14].

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[14] It should be recalled,that initial efforts to secure international recognition of a positive obligation to protect the environment at the 'Stockholm Conference' became,due to the economic implications of this obligation,the subject of controversy between developed and developing countries;the latter countries resisting an unqualified general obligation to protect the environment supported by the former.The principles contained ,for example,in principles 21 and 24 of the 'Stockholm Declaration' recorded both positions. (See,ANGSTMAN &others,'The Stockholm Conference:A Synopsis And Analysis' in Stan.J.Int'l L.8:31-78 (1973) at 37 and ff.).The special status of developing countries was to be recognized once again during negotiations of the LOSC.The articles of the LOSC concerning general rights and duties of all States to protect and preserve the marine environment clearly reflect the interests of developing countries(e.g. Arts.193;207).

The other positive aspect of 'Montreal Guideline' 2 above lies in the fact that like the LOSC, and notwithstanding the difference in nature of these two texts, it "universalizes" the duty to prevent, reduce and control pollution of the marine environment.

The provision under 'Montreal Guideline' 3 above is a weaker version of Art.194, paragraph 2 of the LOSC and Principle 21 of the 'Stockholm Declaration'.

3.2.1.2 Atmospheric Environment

One should note in this field the incorporation, in the preamble of the 'Ozone Layer Convention', of Principle 21 of the 'Stockholm Declaration' .[15]

At the first session of the 'working group', and also at subsequent sessions, the relevance of this principle was mentioned as the basis for the fundamental obligation to protect the ozone layer and several experts said that it should be adequately reflected.[16]

The 'Weather Modification Provisions' also include a provision on the basic obligation of States with regard to weather modification activities. This ones reads;

> "Weather modification activities should be conducted in a manner designed to ensure that they do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction".

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[15] Principle 21 is also invoked in the preamble to the 'Geneva/ECE Convention'. Note in this context, however, that preambles have no force of law. (See for this, KISS, 'International Protection of the Environment..' op.cit. at 1074. Also, ROZENCRANZ, 'The International Law and Politics of Acid Rain' in (Ved. P. NANDA ed. 'World Climate Change, the Role of International Law and Institutions') at 198.

[16] See e.g. UNEP docs. UNEP/WG.69/10 at p.8, para.20; UNEP/WG.78/8 p.4, para.13.

This version of the provision is a very weak one. A stronger version was proposed during the first meeting of the 'working group'[17] which reads as follows;

> "States shall take all reasonable steps to ensure that weather modification activities under their jurisdiction or control do not cause adverse environmental effects in areas outside their national jurisdiction".

Among the countries which were against a strong version of this provision is Canada. In this country's view "given the present limits to the scientific knowledge of weather modification, the application of this principle may be technically impractical, and would be likely to present major problems both domestically and internationally"[18]

3.2.1.3 Conservation

3.2.1.3.1 The 'Hard law' Context

One would mention under this title the provision included under Art. 20 of the 'ASEAN Agreement'. This provision reads;

"20. Transfrontier Environmental Effects

> 1) Contracting Parties have in accordance with generally accepted principles of international law the responsibility of ensuring that activities under their jurisdiction or control do not cause damage to the environment or the natural resources under the jurisdiction of other Contracting Parties or of areas beyond the limits of national jurisdiction.
> 2) In order to fulfil this responsibility, Contracting Parties shall avoid to the maximum extent possible and reduce to the minimum extent possible adverse environmental effects of activities under their jurisdiction or control, including effects on natural resources, beyond the limits of their national jurisdiction.
> ....."

This provision, as can be seen, reproduces, with few but important changes, Principle 21 of the 'Stockholm Declaration'. The provision above

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[17] See RIPHAGEN, 'The International Concern for the Environment as Expressed in the Concepts of the "Common Heritage of Mankind" and of "Shared Natural Resources"' in(M. BOTHE, Project Co-ordinator, 'Trends in Environmental Policy and Law', pp. 363-390 at p. 361 (footnote 34).

[18] See U.N. doc. WMO/UNEP/WG.26/5 at p. 10.

does not mention ,for example,States' "sovereign right to exploit their own resources pursuant to their own environmental policies" and makes an express mention of "effects on natural resources" among the adverse environmental effects of activities under States' jurisdiction and control which States shall avoid to the maximum extent possible and reduce to the minimum extent possible.These two changes make indeed the provision above a more progressive provision than the one under Principle 21 of the 'Stockholm Declaration .

3.2.1.3.2 The 'Soft law' Context

One should mention here principle 3 of the 'Shared Resources Principles' discussed earlier.This principle not only restates Principle 21 of the 'Stockholm Declaration' by providing for States'sovereign right to exploit their own natural resources pursuant to their environmental policies,and their responsibility to ensure that activities within their jurisdiction or control do not damage the environment of other States or of areas beyond national jurisdiction;but "expound on it"[19] by providing for specific obligations such as the need to "avoid to the maximum extent possible and to reduce to the minimum extent possible" the adverse environmental effects beyond States'jurisdiction of the utilization of a shared natural resource.

Also worthy of mention is principle 21(d) and (e) of the World Charter for Nature.This one reads;

> "States and,to the extent they are able,other public authorities,international organizations,individuals,groups and corporations shall:
> ....
> (d) Ensure that activities within their jurisdiction or control do not cause damage to the natural systems located within other States or in area beyond the limits of national jurisdiction;
> (e) Safeguard and conserve nature in areas beyond national jurisdiction."

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[19] See BIRNIE,'Legal Measures for the Conservation of Marine Mammals'(IUCN Environmental Policy and Law Paper No.19,IUCN 1982) at 10.

What is most remarkable about this provision is that it does not mention States' "sovereign right to exploit their own natural resources pursuant to their environmental policies";it addresses itself to entities "lower" than States ; it expressly mentions "natural systems" instead of such more general words as,for example, "environment" and provides for a positive obligation to "safeguard and conserve nature" in areas "beyond national jurisdiction" .These provisions should be seen, in my view,as instances where Principle 21 of the 'Stockholm Declaration' and principle 3 of the 'Shared Resources Principles ' are being refined.

3.2.1.4 Environmentally Sound Management of Hazardous Wastes

Guideline 2 of the 'Cairo Guidelines/Principles' reads;

"2.General Principles
"(a) States should take such steps as are necessary,whether by legislation or otherwise,to ensure the protection of health and the environment from damage arising from the generation and management of hazardous wastes.To this end,States should,inter alia,ensure that transfrontier movements of hazardous wastes are kept to the minimum compatible with the efficient and environmentally sound management of such wastes;
"(b) States should take all practicable steps to ensure that the management of hazardous wastes is conducted in accordance with international law applicable in matters of environmental protection."

Originally two draft guidelines were proposed by the UNEP consultant;one on "States and their environment" and the other on "States and the environment of other areas".[20]

The obligation under paragraph (a) of the guideline above is for States "to take such steps as are necessary.." to ensure the protection of health and the environment..This obligation is weaker than the one contained in draft guideline 2 as initially proposed by the UNEP consultant which provided that States "have an obligation to protect the environment..."[21];it is also weaker,in my view,than a similar obligation under 'OECD Decision and Recommendation C(83)180 (Final)' which does not

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[20] See UNEP doc.UNEP/WG.95/4

[21] Ibid.

include the qualifying words[22].

This change was brought about because the experts attending the first session of the 'working group' believed that all that could be expected of States in this respect, was that they take measures, whether by legislation or otherwise, to ensure protection of the environment.[23]

The second part of paragraph (a) of the guideline above relates to States' obligation toward the environment of other States or areas. The words "kept to the minimum" included under it, which constitutes a positive provision in my view, were challenged by one expert at the second session of the 'working group' who thought that such words "undermined the fundamental notion that rational, efficient environmentally sound management of hazardous wastes might justify some transfrontier movement.."[24]; 'OECD Decision and Recommendation C(83)180 (Final)' recognizes, in fact, in its preamble, such element.[25]

Paragraph (b) of guideline 2 above, qualifies the obligation of States regarding management of hazardous wastes by the words "take all practicable steps.." and fails to include expressly the wording of Principle 21 of the 'Stockholm Declaration' in spite of the fact that experts, both at the first and second session of the 'working group' were agreed that the wording regarding States' obligation towards the environment of other States or other areas' environment should conform more closely to that of Principle 21 of the 'Stockholm Declaration'.[26]

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[22] 'OECD Decision and Recommendation C(83)180 (Final)' uses under principle 1 the expression "Countries should ensure..."

[23] See UNEP doc. UNEP/WG.95/5, p.4, para.15.

[24] See UNEP doc. UNEP/WG.111/3 p.3, para.11.

[25] The preamble to 'OECD Decision and Recommendation C(83) 180 (Final)' considers that "..efficient and environmentally sound management of hazardous waste may justify some transfrontier movements of such waste in order to make use of appropriate disposal facilities in other countries".

[26] See UNEP docs. UNEP/WG.95/5, p.4, para.15; UNEP/WG.111/3, p.3, para.12.

3.2.1.5 Exchange of Information on Potentially Harmful Chemicals(in particular Pesticides) in International Trade

Under the 'Revised Draft'[26a] it is provided under draft guideline 2,paragraph (a) and (b) that,

"(a) [In the national and international regulation of trade in chemicals,States share the responsibility for safeguarding the quality of the environment against potential harm][26b].
"(b) States have the responsibility to ensure that activities within their jurisdiction or control relating to potentially harmful chemicals do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction"
.....

As originally drafted by the UNEP consultant,the draft guideline on "general principles" included a provision which was modelled closely on Principle 21 of the 'Stockholm Declaration'[27].

The provision under the original draft guideline which provided for States' sovereign right within the framework of their own environmental policies to develop and implement national measures regulating potentially harmful chemical products,in accordance with the Charter of the United Nations and the principles of international law,has not been retained;some experts feeling that this provision "appeared so obvious as not to require being stated"[28].

At the second session of the 'working group' it was agreed[29] to revise the draft guideline as follows:

"(a) Both States of export and States of import should protect human health and the environment against potential harm by exchanging information on [potentially harmful,in particular] banned or severely restricted chemicals in international trade.
"(b) In their activities with regard to [potentially harmful,in particular] banned or severely restricted chemicals,States should act,insofar as applicable,in accordance with Principle 21 of the 1972 Declaration of the United Nations Conference on the Human Environment'.
....."

[26a] See UNEP doc.UNEP/WG.112/3
[26b] Provisions in betwen square brackets are those on which no agreement has been reached as yet.
[27] See UNEP doc.UNEP/WG.96/4,p.12
[28] See UNEP doc.UNEP/WG.96/5,p.7,para.31.
[29] See UNEP doc.UNEP/WG.112/5,p.15,para.36.

Inclusion of a provision which recommends to States to act in accordance with Principle 21 of the 'Stockholm Declaration' will, if adopted, represent a positive achievement for it constitutes one instance where an attempt is made to extend application of this principle to new fields of environmental harm.

3.2.2 Non-Discrimination

3.2.2.1 Conservation

A duty of non- discrimination has been provided for under the 'Shared Resources Principles'. Principle 13 reads,

"It is necessary for States, when considering, under their domestic environmental policy, the permissibility of domestic activities, to take into account the potential environmental effects arising out of the utilization of a shared natural resource, without discrimination as to whether the effects would occur within their jurisdiction or outside it."

The provision above goes further than Principle 21 of the 'Stockholm Declaration': there, States should ensure that activities within their jurisdiction or control "do not cause damage to the environment of other States", while under the provision above States are required to take into account the potential environmental effects arising out of the utilization of a shared natural resource, "without discrimination as to whether the effects would occur within their jurisdiction or outside it."

The provision above is, however, less elaborate than similar provisions adopted under the OECD[32]

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[32] See, 'OECD Recommendations C(74) 224', Annex, Title C ; 'OECD Recommendation C(78)77', Annex;

3.2.2.2 Off-Shore Mining and Drilling

A number of 'Off-Shore Mining and Drilling Conclusions' deal with non-discrimination. Thus, guideline 19(1) provides,

"A State within whose jurisdiction operations are being considered or carried out should take into account any adverse environmental effects without discrimination as to whether such effects are likely to occur within the limits of its jurisdiction or beyond such limits; inter alia; such non-discrimination should be observed in national preventive laws and regulations."

Moreover, guideline 31 provides,

"A State within whose national jurisdiction actions are being considered or are being taken to deal with contingencies, should take into account any potential adverse environmental effects without discrimination as to where, in particular in areas of equivalent ecological importance, such effects are likely to occur."

Finally, guideline 8 reads,

"The assessment referred to in conclusion 6(2) should cover the effects of operations on the environment, wherever such effects may occur..."

The provisions above implement 'Shared Resources Principle' referred to above. The obligation of states on non-discrimination under guideline 19(1) above, "a State should..." is, in my view, weaker than under "UNEP Shared Resource Principle" 13 which uses the words "it is necessary.."

On the other hand, the provisions under 'Off-shore Mining and Drilling Conclusions' refine the principle of non-discrimination as included under the 'Shared Resources Principles" in a number of ways. First, guideline 19(1) speaks of "any" adverse environmental effects while the 'Shared Resource Principle" 13 speaks of "the potential" adverse environmental effects. Second, guidelines 19(1); 31 and 8 clarify the circumstances in which non-discrimination should be

observed. Thus, non-discrimination should be observed "in national preventive laws and regulations"; "when considering whether to take or actually taking actions to deal with contingencies", and when "making environmental impact assessments". Regarding non-discrimination when considering to take or actually taking actions to deal with emergencies; mention is made under guideline 31 of "areas of equivalent ecological importance."

In spite of the 'progressive' elements mentioned above; the 'Off-shore Mining and Drilling Conclusions" can only be said to be consistent with international law in this field as reflected ,for example, in the 'OECD Transfrontier Pollution Principles' as initially adopted or subsequently refined.[33]

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[33] 'OECD Recommendation C(74)224' provides in its annex under Title C that "4. Countries should initially base their action on the principle of non-discrimination, whereby:
a) polluters causing transfrontier pollution should be subject to legal and statutory provisions no less severe than those which would apply for any equivalent pollution occuring within their country, under comparable conditions and in comparable zones, taking into account, where appropriate, the special nature and environmental needs of the zone affected".
Under 'OECD Recommendation C(77) 28', annex, it is provided under Title A (Principles to facilitate the solution at the inter-State level of transfrontier pollution problems) that "1. When preparing and giving effect to their policies affecting the environment, countries should, consistent with their obligations and rights as regards the protection of the environment, take fully into consideration the effects of such policies on the environment of exposed countries so as to protect such environment against transfrontier pollution.
....
b) Thus, transfrontier pollution problems should be treated by the country of origin in an equivalent way to similar domestic pollution occurring under comparable conditions in the country of origin".
Under 'OECD Recommendation, C(78)77', annex, it is provided under II (Guidelines relating to the general principles of cooperation);
Environmental impact studies
.....
3. In accordance with the principle of non-discrimination..., when the initiation of activities in a frontier region is conditional in a country upon the carrying out of an environmental impact study, the said country should ensure that, as far as possible, the effects of such activities on both sides of the frontier are included in such study on an equivalent basis". See also OECD Recomendation C(77)28, annex, title A.3, and 'Nordic Convention' (Art. 2)

3.2.2.3 Environmentally Sound Management Of Hazardous Wastes

Under the 'Cairo Guidelines/Principles';a number of provisions on non-discrimination are included.Thus,'Cairo Guideline/Principle'3 (non-discriminatory control of hazardous wastes)provides,

"Each State should ensure that,within its jurisdiction,hazardous wastes to be exported are controlled no less stringently than those remaining within its territory."

'Cairo Guideline/Principle 22(contigency plans) also provides,

"States within whose territories hazardous wastes are being managed should recognize the need for studies on the risks of sites or facilities,and contingency plans prepared by operators of sites or facilities,or by the competent authorities,as appropriate,and the application of such plans as and when necessary.These plans should take into account any potential adverse effects on health and the environment in other States."

The provisions above can only be said to be consistent with international law in this field as reflected ,for example, in relevant provisions of the 'OECD decision and Recommendation C(83)180(Final)'[34].

3.2.2.4 Exchange of Information on Potentially Harmful Chemicals(in particular Pesticides)in Iternational Trade

'Revised Draft' guideline 7 (classification,packaging and labelling)provides under paragraph (b) that

"States should ensure that potentially harmful Chemicals exported or re-exported from their territories are subject to no less stringent requirements of classification,packaging and labelling than comparable products destined for use in the country of export."

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[34] Under this Recommendation it is provided,
"4.Countries should apply their laws and regulations on control of hazardous wastes movements as stringently in the case of waste intended for export as in the case of waste managed domestically".Other aspects are covered under relevant OECD recommendations referred to above.

This is a progressive provision especially when compared to similar provisions under other relevant legal texts[35].

While the inclusion of provisions on non-discrimination under UNEP legal texts is a positive achievement;one should mention that environmental scholars have often voiced their reservations with regard to this principle .In the opinion of DUPUY,for example,the principle of non-discrimination is not without danger for,"..en alignant le traitement des victimes transfrontières de la pollution sur celui des victimes nationales,il subordone les premières aux aléas du droit interne du pollueur".In his view "le risque n'est pas trop grand entre pays également soucieux de promouvoir une legislation cohérente et sévère en matière de protection de l'environnement .Il pourrait au contraire être defectif lorsque la pollution émane d'un pays peu soucieux de protection écologique et affecte un territoire étranger dans lequel le respect de l'environnement est au contraire primordial".[36]

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[35] Note e.g.that the European Community (e.g. in 'EEC Directive 78/631/EEC',Article 1,para.2/c),currently apply "double standards" whereby products intended for export to third countries are exempt from stricter provisions applicable to locally marketed products.Note also that a principle of non-discrimination is provided for under the 'OECD Recomendation C(84)37(Final)' in a different manner.Thus,under the "guiding principles" it is provided that "any control measures applied to an imported chemical for which information has been received within the framework of the Guiding Principles should not be more restrictive than those applied to the same chemical produced domestically or imported from a country other than the one that supplied the information".

[36] See DUPUY,'La Recommendation C(74)224 de l'O.C.D.E. Concernant des Principes relatifs à la Pollution Transfrontière' in R.J.E.1-1977,pp.25-30 at 29.Also KISS,'L'Etat du Droit de l'Environnement en 1981:Problèmes et Solutions' in J.D.I. No.3,1981,pp.495-543 at 541 and EISENSTEIN,'Economic Implications of European Transfrontier Pollution:National Prerogative and Attribution of Responsibility' Ga.J.Int'l & Comp.L.11:519-561(1981) at 545.

3.2.3 Duty Not to Transfer or Transform Pollution

Usually conventions dealing with pollution problems establish the duty of States not to transfer pollution from one area to another or transform one type of pollution into another.

This rule first appeared in the 'Oslo Convention'[37] and was later included in different forms under such conventions as the 'Paris Convention';the 'Helsinki Convention' and the LOSC[38].

Under UNEP one can note that in a 'hard law' context,not all the agreements adopted include a provision on such a duty and the agreements which provide for it use different formula.

Thus, the 'Barcelona Convention' does not include any rule on transfer or transformation of pollution;the 'Kuwait Convention' and the 'Jeddah Convention' cover only the 'transformation' aspect[39] ,and the 'Lima Convention' and the 'Cartagena Convention' cover only the 'transfer' aspect[40].These provisions fall short of the requirements of the LOSC's provision referred to above.

A much stronger formula is used ,however, under the 'Abidjan Convention'.Article 4(5) of this convention not only provides for the duty not to transfer or transform pollution ,thus implementing Article 195 of the LOSC before it has come into force;but adds a supplementary element related to the application of this duty:The duty not to transfer or transform pollution applies not only with regard to measures to prevent ,reduce,combat and control pollution, but also as regards measures "..to promote environmental mangement."

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[37] Art.3

[38] 'Paris Convention'(Art.7);'Helsinki Convention'(Art.3(2));LOSC (Art.195).

[39] 'Kuwait Convention'(Art.III(e));'Jeddah Convention'(Art.III(5)).

[40] 'Lima Convention'(Art.3(5));'Cartagena Convention'(Art.4(2)).

Still in the area of marine pollution, but in a "soft law" context; one should mention 'Montreal Guideline'6 which reads,

"In taking measures to prevent, reduce and control pollution from land-based sources, States have the duty to act so as not to transfer directly or indirectly, damage or hazards from one area to another or transform such pollution into another type of pollution"

In addition, in a footnote to this guideline it is provided that the guideline above "...does not prevent the transfer or transformation of pollution in order to prevent, reduce and control pollution of the environment as a whole."

The provision above uses the words "States have the duty..." in relation to the obligation not to transfer or transform pollution which, in my view, is less stringent than the language used under Article 195 of the LOSC which uses, in relation to the same obligation "States shall act..."

The obligation not to transfer or transform pollution under 'Montreal Guideline'6 is also weaker than the similar provision under the 'Abidjan Convention' referred to above.

However, by qualifying the obligation not to transfer or transform pollution, the text of the footnote to 'Montreal Guideline'6 adds a useful clarifying element to this obligation. In fact, the text of the footnote to 'Montreal Guideline'6 was inserted because, during discussion of the guidelines, it was pointed out that "an obligation not to transfer pollution from one medium or place to another would often prevent the selection of the best option for dealing with the problem and was contrary to modern pollution practice."[41]

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[41] Note however that the 'Kuwait Convention' and the 'Jeddah Convention' anticipated such problem by providing as under Article III(e) of the 'Kuwait Convention' that States use their best endeavour to ensure that implementation of the convention shall not cause transformation of one type of pollution to another *which could be more detrimental to the environment* (emphasis added).

The duty not to transfer or transform pollution has also been provided for under other UNEP 'soft law' instruments dealing with different environmental problems.

Thus, under the 'Cairo Guidelines/Principles' it is provided under guideline 6; "States and persons involved in the management of hazardous wastes should recognize that protection of health and the environment is not achieved by the mere transformation of one form of pollution into another, nor by the mere transfer of the effects of pollution from one location to another, but only by the use of the waste treatment option (which may include transformation or transfer) which minimizes the environmental impact."

In its original form, the guideline followed closely the formulation adopted in Article 195 of the LOSC[42] but this was subsequently revised as it appears from the final version of the guideline , because the 'Working Group' felt that the guideline as originally drafted was "open to the interpretation that all transfers of waste from one location to another (itself an integral element of sound waste management) would contravene the guideline". The 'Working Group' also felt that the redrafted guideline should recognize the fact that hazardous waste management "cannot have a "zero-effect" on the environment" and should "recognize that the mere shifting or exchange of pollutants, while perhaps in some degree helpful, did not amount to the proper discharge of an obligation to avoid pollution".[43]

As can be seen, the formulation of this duty under the 'Cairo Guideline" above, like the footnote to 'Montreal Guideline'6 discussed earlier, adapts the duty not to transfer or transform pollution to a specific environmental problem , in this case hazardous wastes, and reflects also the need to clarify the said duty in order to make it more in line with modern pollution practice.[44]

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[42] See UNEP doc. UNEP/WG.95/4 (guideline 6).

[43] See UNEP doc. UNEP/WG.95/5, p.7, para.18. Also UNEP doc. UNEP/WG.111/2, pp.7-8.

[44] Note e.g. that the preamble to 'OECD decision and recommendation C(83)180(Final)' considers that efficient and environmentally sound management of hazardous waste "may justify some transfrontier movements of such waste in order to make use of appropriate disposal facilities in other countries".

Although the 'Cairo Guideline/Principle' on transfer and transformation of pollution is more progressive than the provision under the 'Montreal Guidelines' since, first, it includes the qualifying words discussed above, in a more precise way, not in a footnote, but in the body of the guideline; and second, it addresses itself not only to "States" but also to "persons"; it can only be said to be consistent with international law in this field[45] .

Summing-Up:

Although consistent with the more progressive legal instruments in this respect, definitions of "pollution" or other similar notions under UNEP legal texts show an important evolution: coverage of the risk of future damage as well as actual damage, and expansion in the values to be taken into account when defining pollution.

Some evolution can also be noted with regard to the basic obligation of States towards the environment. Under some UNEP legal texts, such as the 'Shared Resources Principles', provisions have been included which not only implement 'Stockholm Declaration' Principle 21 but "expound" on it. Under other legal texts such as the the 'ASEAN Agreement', the 'Montreal Guidelines' and the 'World Charter for Nature' provisions have been included which either do not mention the "sovereign right" of States "to exploit their own resources pursuant to their environmental policies" mentioned under Principle 21 referred to above; dissociate States' basic duty to protect and preserve the environment from their "capabilities" or provide for a positive obligation to "safeguard and conserve nature" in areas "beyond national jurisdiction".

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[45] Ibid.

A duty of non-discrimination has been provided for under UNEP legal texts but only in a 'soft law' context. The provisions on "non-discrimination", though refining relevant 'Shared Resources Principles' by clarifying, for example, the circumstances in which non-discrimination should be observed, can only be said to be consistent with international law in this field as reflected, for example, in relevant OECD legal instruments.

A duty "not to transfer or transform pollution" has been provided for , in different forms, under most UNEP legal instruments whether 'hard law' or 'soft law'.

In a 'hard law' context, a more comprehensive duty not to transfer or transform pollution has been provided for under the more recent regional conventions, particularly the 'Abidjan Convention'.

Under both 'hard law' and 'soft law' instruments, the duty not to transfer or transform pollution has been clarified by emphasizing that this duty does not prevent the transfer or transformation of pollution in order to prevent, reduce and control pollution of the environment as a whole. These provisions are, however, merely consistent with international law.

CHAPTER 4 POLLUTION LAW

4.1 Water Pollution

No major achievements can be recorded in this area at the legal level apart from one provision included under the 'ASEAN Agreement'[1].

4.2 Marine Pollution

4.2.1 Pollution from Ships

The 'Marpol Convention' does not provide for the adoption of regional agreements; this is due to the fact that regional agreements are not advisable for cases where universal interests are involved as in the case of pollution from ships[2].

The " pollution from ships"' provisions of UNEP regional seas agreements require, however, Coastal States to ensure effective implementation or compliance with internationally recognized rules in

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[1] This provision reads,
1)The Contracting Parties shall, in view of the role of water in the functioning of natural ecosystems, take all appropriate measures towards the conservation of their underground and surface water resources.
2)They shall to that effect, in particular, endeavour to
(a)undertake and promote the necessary hydrological research especially with a view to ascertaining the characteristics of each watershed;
(b)regulate and control water utilization with a view to achieving sufficient and continuous supply of water for, *inter alia*, the maintenance of natural life supporting systems and aquatic fauna and flora;
(c)when planning and carrying out water resource development projects take fully into account possible effects of such projects on natural processes or on other renewable natural resources and prevent or minimize such effects".
At a different level, one should also note the holding of the U.N. Water Conference (Mar del Plata, 1977).

[2] See BOCZEK, 'Global and Regional Approaches to the Protection and Preservation of the Marine Environment' in Case West. Res. J. Int'l L. 16:39-70 (1984) at 56.

the Area covered by each agreement.[3]

This approach is not specific to UNEP-sponsored agreements. Under the 'Helsinki Convention', for example, the solutions contained in global conventions have been adopted in order to reconcile the regional requirements of protection and the maritime interests.[4]

In spite of this, the wish to have regional agreements regarding this source of pollution has not been absent from the mind of delegates when negotiating regional agreements for their Area.

At the Intergovernmental Meeting held in Barcelona in 1975, where discussions on the draft legal instruments to protect the Mediterranean from pollution took place, many representatives backed the idea of having a Protocol on prevention of pollution from ships. Recommendations presented by representatives from Lebanon, Spain and Turkey declared that the adoption of a recommendation on the 'Marpol Convention' should not prevent the preparation of a Protocol to prevent pollution of the Mediterranean due to the exploitation of ships.[5]

Although all UNEP-sponsored regional agreements do not include any detailed provisions on ship-based pollution , a difference in treatment of this matter and also in the wording used under these agreements must be noted.

Under some regional conventions such as the 'Barcelona Convention', the 'Kuwait Convention', the 'Jeddah Convention' and the 'Abidjan Convention'; the obligation to ensure the effective implementation of the applicable international rules and standards established by the competent international organization is stronger than under other

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[3] 'Barcelona Convention' (Art.6); 'Kuwait Convention' (Art.4); 'Abidjan Convention' (Art.5); 'Cartagena Convention' (Art.5); 'Jeddah Convention' (Art.4); 'Lima Convention' (Art.4(b)). For a discusion of this point, see BOYLE, 'Regional Pollution Agreements and the Law of the Sea Convention' in (W.E.BUTLER ed.) 'The Law of the Sea and International Shipping' (Oceana Pub. New York, London, Rome, 1985).

[4] 'Helsinki Convention' (Art.7 and Annex IV).

[5] See UNEP doc. UNEP/WG.2/5 at p.13 para.75.

regional conventions such as the 'Lima Convention' where Parties recognize only "the advisability of taking account" of other international legal instruments concerning the preservation of the marine environment against pollution originating from vessels in the course of their normal operations[6].

The wording used as regards the obligation of States towards this source of pollution is also different: The 'Barcelona Convention' calls on States to "...ensure the effective implementation in[the] area of the rules which are generally recognized at the international level relating to the control of this type of pollution"; the 'Kuwait Convention uses the expression "...applicable international rules relating to the control of this type of pollution." The convention cites expressly such matters as "...load-on-top; segregated ballast and crude oil washing procedures for tankers". The 'Abidjan Convention' uses "...internationally recognized rules and standards.."[7]

Two main expressions are used: "applicable international rules" and "generally recognized" or "internationally recognized" rules . A look into their meaning may be useful.

With regard to the expression "applicable international rules..", one author believes that these words cover not only rules and standards in treaties ratified by the States concerned but also covered customary international law[8]

With regard to the expression "generally accepted", views range from those which argue that only those conventions which have achieved the status of customary law can be regarded as setting international rules and standards to those which require for this widespread ratification or

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[6] See note 3 supra.

[7] Ibid.

[8] See Van REENEN, 'Rules of Reference in the New Convention on the Law of the Sea, in particular in connection with the Pollution of the Sea by Oil from Tankers' in Neth.Y.B.Int'l L. XII:1-44 (1981) at 13.

incorporation in national law.[9] One author seems to prefer, however, an interpretation which would cover any recent rules such as those covered by the 'Marpol Convention'[10]

A question may also be asked as to whether "rules and standards" used under the 'Barcelona Convention', the 'Abidjan Convention' and the LOSC, with the expressions discussed above refer only to treaties signed under the competent international organizations in question which have been ratified by the vast majority of maritime and Coastal States, or also to decisions and recommendations of this organization. One commentator believes that, although IMCO (now IMO) as the "competent organization" cannot on the basis of its founding treaty issue any external decision which binds the Member States, it is concievable that recommendations made by this organization could eventually become rules of worldwide customary law and thus be equivalent to "generally accepted international rules"[11].

Some UNEP regional conventions such as the 'Barcelona Convention', the 'Kuwait Convention', the 'Abidjan Convention' and the 'Jeddah Convention' with the provisions discussed above, have entered into force before the 'Marpol Convention' (as is the case of the first two conventions) or the LOSC which represent, in my view, a very important achievement as far as international environmental law is concerned[12].

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[9] See BOYLE, 'Marine Pollution under the Law of the Sea Convention' in A.J.I.L. 79:347-372 (1985) at 355-56

[10] Ibid. at 356

[11] See note 8 supra at 9

[12] The assessment made by ALHERITIERE in this respect, although limited to the 'Abidjan Convention' is worth noting; in his view, "le but plus ou moins avoué des efforts qui ont conduit à la Conference d'Abidjan étaient d'aller plus vite et plus loin sur un point particulier-la protection de L'environnement ; et dans une region précise-la côte occidentale de l'Afrique-que la conference des nations unies sur le droit de la mer". (See ALHERITIERE, 'Convention sur le Milieu Marin de l'Afrique de l'Ouest et du Centre' in EPL, 7:61 (1981) at 63.

To this achievement one should add another one: It has been suggested that the regional formulae adopted by UNEP is a development of the notion of "Special Areas" adopted under the 'MARPOL Convention'. The first element which backs such a suggestion is the fact that UNEP-Regional Seas Programme covers some of the areas which were recognized as "Special Areas" by the 'Marpol Convention' with some differences in the geographical delimitations. The second element in support of such a suggestion relates to the fact that "vulnerability" seems to be one important factor which has motivated the choice of the Areas to be protected under the above referred to programme. The notion of "vulnerability" is, in fact, included in the provisions of the regional conventions negotiated under UNEP. [13]

If this suggestion is correct, it can be said that UNEP has re-defined the notion of "Special Area" contained in the 'MARPOL Convention' by generalizing it and by adopting a comprehensive approach to protection and conservation of these areas.

4.2.2 Pollution from Dumping

No major development of international environmental law has been achieved under UNEP regarding this type of pollution. Only one Protocol, the 'Barcelona Dumping Protocol' has been adopted, signed and entered into force. Other UNEP-sponsored regional conventions include however, general provisions on this source of pollution[14], and a Protocol on prevention of pollution by dumping , with a specific concern for radioactive wastes is being negotiated for the South-Pacific Region[15].

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[13] See FALICON, 'Protection of the Marine Environment by the United Nations', C.N.E.X.O.; rapports économiques et juridiques No. 9, 1981.

[14] 'Barcelona Convention' (Art. 5); 'Kuwait Convention' (Art. 5); 'Abidjan Convention' (Art. 6); 'Cartagena Convention' (Art. 6); 'Jeddah Convention' (Art. V). The 'Lima Convention' requires Parties to *endeavour* to adopt laws and regulations at least as effective as international standards (Arts. 3(3), 4(a)) (my emphasis).

[15] See 'South Pacific Forum' in EPL, 15/3/4 (1985) at 95-96.

Regarding the 'Barcelona Dumping Protocol', this one uses the 'dumping' definition provided under the 'London Dumping Convention', and the use of the 'Black List' and 'Grey List' in it also mirrors the practice of the 'London Dumping Convention'.

The 'Barcelona Dumping Protocol' is, however, more strict in some of its provisions than the conventions referred to above. The so-called 'Black List' of substances, the dumping of which is totally prohibited has been enlarged to include "acid and alkaline compounds of such composition and in such quantities that may seriously impair the quality of sea water", and all levels of radioactive waste are also included'[16].

4.2.3 Land-Based Pollution

4.2.3.1 Introduction

Two 'hard law' instruments have been adopted under UNEP for this source of pollution; they are the 'Athens Protocol' under the Mediterranean Action Plan and the 'Quito Protocol' under the South-East Pacific Action Plan.

In a 'soft law' context, the 'Montreal Guidelines' have been adopted by the 'Working Group' established pursuant to UNEP Governing Council Decision 10/24 of 31 May 1982'[17].

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[16] See SCIOLLA-LAGRANGE, 'The Barcelona Convention and its Protocols' in Ambio 6:328-332 (1977) at 331. Also KISS, 'La Convention pour la Protection de la Mer Mediterranée contre la Pollution' in R.J.E.2:151-157 (1977) at 155. Note however, that the 'Helsinki Convention' prohibits dumping almost entirely (Art.9).

[17] See discussion under chapter 1.

In the following sections one will discuss what one believes to be the most important provisions of the 'hard law' and 'soft law' instruments referred to above.

4.2.3.2 Definitions

4.2.3.2.1"Land-Based Sources"

In a 'hard law' context,under the 'Athens Protocol'[18] , for example, the definition of 'land-based sources' is more comprehensive than similar definitions included under the 'Paris Convention'[19] or the 'Helsinki Convention'[20].

The definition of 'land-based sources 'under the 'Paris Convention' does not include airborne land-based pollution[21], and Art.2(2) of the 'Helsinki Convention' does not include pollution from fixed or floating platforms.

In contrast to the 'Paris Convention',however,the 'Athens Protocol' stipulates that it applies only to structures which "serve purposes other than exploration and exploitation of mineral resources of the continental shelf and the seabed and its subsoil". Omission of fixed man-made structures used in exploration and exploitation of the seabed

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[18] 'Athens Protocol'(Art.4).

[19] 'Paris Convention'(art.3(c)).

[20] 'Helsinki Convention'(Art.2(2)).

[21] The non inclusion of atmospheric pollution in the scope of application of the 'Paris Convention' was,according to a conclusion reached by one author,caused by the fact that "....the drafters of the convention did not consider this to be a major source of pollution of the marine environment-or at least a source which could be readily controlled-when the Convention was drafted." Some information is also given by this author as regards efforts being made by the 'Paris Commission' to bring under control this source of land-based pollution.For all this,see,P.HAYWARD,'Environmental Protection,Regional Approaches' in,Mar.Pol'y.8(1984)2:106-119 at 112-113.

was due to the intention of Mediterranean States to develop a separate protocol which will deal with this subject-matter[22].

As regards control of atmospheric pollution, different strategies have been adopted. Some legal instruments regulating land-based pollution include atmospheric pollution , others do not.

Under the 'Helsinki Convention', as stated above, the definition of land-based pollution includes pollution by "airborne" discharges originating on land. The 'Paris Convention' excludes, however, pollution through the atmosphere entirely from its scope of application.

As regards control of this source of pollution under UNEP legal instruments , under the 'Athens Protocol', for example, there was recognition, during negotiation of this legal instrument, that pollution through the atmosphere was an important pathway of land-based source of pollution to the sea particularly through hydrocarbon pollution from refineries.

More important, the Mediterranean developing States contended that pollution from or through the atmosphere was adressed by the LOSC as a separate issue; therefore a separate protocol was needed for it in the Mediterranean. For these States the LOSC was an important precedent to follow.

It was basically Spain and France who refused a separate protocol on atmospheric pollution advancing the argument that due to the minimal scientific knowledge on the pathways, sources, quantities of pollutants reaching the region, and until all this was clarified, it would be difficult to adopt a protocol or any measures at all.

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[22] See discussion under sub-section 4.2.4.1.2 of this chapter

The developed States of the Mediterranean were thinking of the ECE negotiations on transfrontier air pollution and wanted to avoid having the issue of acid rain raised in addition to issues of liability, in the Mediterranean. These States did not want to set a precedent to the Mediterranean until they had enough experience on the European context which they should be having through the ECE[23].

The compromise reached -as it appears from the text[24]-was to deal with atmospheric pollution under the land-based protocol and that there is to be a specific recognition of the problem; but the technical measures to control this source of pollution will be developed only when there is sufficient evidence and that they will be contained in an annex to the protocol.

From what has been said, it appears that the strategy adopted in the Mediterranean differs from the one adopted under the LOSC[25]

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Another area of difference between the two texts is that the 'Athens Protocol' provides that it shall apply to pollution from land-based sources "transported by the atmosphere", thus, applying to the atmosphere as a "medium" whereas the LOSC's Article 212 applies as it appears from its title to pollution "from or through the atmosphere" considering the atmosphere not only as a "medium" but as an "origin" of the pollution. The atmosphere may, in fact, itself be the place where the pollution threatening maritime areas is formed.

In subsequent UNEP-sponsored regional agreements such as the 'Abidjan Convention', the 'Cartagena Convention' and the 'Lima

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[23] Interview with Miss. P. BLISS-GUEST (UNEP Legal Officer; Regional Seas Activity Centre, Geneva).

[24] 'Athens Protocol' (art. 4(b)).

[25] The LOSC includes an independent provision on atmospheric pollution (Art. 212).

Convention'[26], contracting States were more inclined to follow the LOSC precedent and to consider pollution from or through the atmosphere as a separate, distinct source of pollution.

Another area of comprehensiveness of the 'Athens Protocol' is related to the fact that it makes express mention of underground watercourses[27]

In a 'soft law' context, 'Montreal Guideline' 1(b) provides,

"For the purposes of these guidelines:
.....
(b) "Land-based sources" means
(i) Municipal, industrial or agricultural sources, both fixed and mobile, on land, discharges from which reach the marine environment, in particular:
From the coast, including from outfalls discharging directly into the marine environment and through run-off;
Through rivers, canals or other watercourses, including underground watercourses; and
Via the atmosphere.
(ii) Sources of marine pollution from activities conducted on offshore fixed or mobile facilities within the limits of national jurisdiction, save to the extent that these sources are governed by appropriate international agreements.

By including pollution "via the atmosphere" and "sources of marine pollution from activities conducted on offshore fixed or mobile activities within the limits of national jurisdiction..", the definition above , like the one under the 'Athens Protocol' is a comprehensive one. Inclusion of the words "....save to the extent that these sources are governed by appropriate international agreements" in relation to "sources of marine pollution from activities conducted on offshore fixed or mobile facilities within the limits of national jurisdiction" can be explained by a wish among the experts who produced the 'Montreal Guidelines' to accomodate the difference in treatment of this source of land-based pollution under the 'Athens Protocol', the 'Paris Convention' and the 'Helsinki Convention'.

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[26] 'Abidjan Convention'(Art.9);'Cartagena Convention'(Art.9);'Lima Convention'(Art.4(ii)).

[27] The 'Paris Convention' does not provides expressly for groundwater(Art.3(c)), the 'Helsinki Convention' mentions only "waterborne" land-based pollution(art.2(2)). grounwater is mentioned, however, in EEC Directive 74/464/EEC of 4 May 1976.

4.2.3.2.2 "Marine Environment"

In a'hard law' context,the 'Athens Protocol' applies expressly to internal waters[28].

This is a positive feature for not all legal instruments related or relevant to land-based sources include them under their area of coverage[29].

The inclusion of saltwater marshes communicating with the sea under the geographical coverage of the 'Athens Protocol' is seen as representing an "interesting innovation" of the Protocol due to the intimate ecological interrelations between these saltwater marshes and the open sea.According to Remond-Gouilloud,"the acknowledgement of these interrelations in an international agreement is...indicative of the growing awareness by coastal States of the need for a comprehensive approach,taking into account geographical and ecological realities."[30]

In a 'soft law' context, the definition of the 'marine environment' under the 'Montreal Guidelines'[31] is similar to that of the 'Athens Protocol'.

The definition of the "marine environment" under the 'Monteral Guidelines' seems to have a specific purpose;that is inclusion of internal waters and "areas where interaction between seawater and freshwater occurs".In fact, regulation of some forms of pollution,such as pollution from land-based sources,necessitates an extension of the geographical coverage of the relevant legal instrument,because of that pollution's most frequent geographical location.

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[28] 'Athens Protocol'(art.3).The 'Quito Protocol' also applies to internal waters(art.I).

[29] The 'Helsinki Convention'(Art.I).

[30] See, REMOND-GOUILLOUD,'Land-Based Pollution' in (Douglas M.JOHNSTON(ed.)'The Environmental Law of the Sea' at 325.

[31] 'Montreal Guideline' 1(c) provides that "marine environment means the maritime extending,in the case of watercourses,up to the freshwater limit and including inter-tidal zones and salt-water marshes'.

4.2.3.2.3 "Fresh- Water Limit"

In a 'hard law' context,the 'Athens protocol' and the 'Quito Protocol' treat differently the question of the definition of "fresh-water limit".

Under Article 2(c) of the 'Athens Protocol' "freshwater limit" has been defined as "..the place in watercourse where,at low tides and in a period of freshwater flow,there is an appreciable increase in salinity due to the presence of sea-water."Under the 'Quito Protocol' no definition of "freshwater limit" is given;article 1 provides only that the "freshwater limit will be determined by each State Party,in accordance with the relevant technical and scientific criteria".

The treatment of this question under UNEP' 'hard law' texts referred to above does not differ from international law and practice in this field as reflected,for example,in Art.3 of the 'Paris Convention'.This convention,although defining " freshwater limit" like the 'Athens Protocol', provides,however,under Art.16(c) that one of the duties of the Commission established under the convention is "to fix,if necessary,on the proposal of a Contracting Party or Parties bordering on the same watercourse and following a standard procedure,the limit to which the maritime area shall extend in that watercourse."

Under the 'Montreal Guidelines' a definition of "freshwater limit" identical to that of the 'Athens Protocol' and that of the 'Paris Convention' is included despite opposition from some of the experts who discussed these guidelines.[32]

4.2.3.3 Basic Obligation

In a 'hard law' context,the obligation of States under the 'Athens Protocol'[33],for example,is to take "all appropriate measures" to

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[32] See,UNEP doc.UNEP/WG.92/4 of 2 December 1983 at 3

[33] Art.1

prevent,abate,combat and control pollution of the Mediterranean Sea Area.This obligation which is similar to the one included under the 'Helsinki Convention[34],is,in my view,weaker than the obligation contained under the 'Paris Convention'[35] which requires "all possible steps".

As to the extent of control,the obligation under the 'Athens Protocol' to "control" pollution[36]is less stringent than similar obligations under either the 'Paris Convention'[37] or under the 'Helsinki Convention'[38]where the obligation is to "control and minimize" land-based pollution.

4.2.3.4 Adoption of Measures Against Pollution From Land-Based Sources

In a 'hard law' context, under the 'Athens Protocol'for example, the system of control is embodied in Arts.5-7.It is submitted here,that this system of control clarifies the notion of "double standard" implied in relevant provisions of the LOSC referred to above and that UNEP has,under the 'Athens Protocol', taken an environmentally-positive approach to the "double standard" question.

First,as regards substances listed in Annex I,the Parties undertake to "eliminate" pollution created by them[39],following in this respect other international legal instruments such as the 'Paris Convention'[40]and 'EEC Directive 76/464/EEC'[41]

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[34] Art.6(1).

[35] Art.1(1).

[36] Art.1

[37] Art.1 of the 'Paris Convention' speaks of the obligation to "combat" land-based pollution.This obligation is conditional,however,to the words "in accordance with the provisions of the present convention".

[38] Art.6(1).

[39] Art.5

[40] Art.4(1)

[41] Art.4

Second, as regards these substances ('black list' substances) the Contracting Parties to the 'Athens Protocol' will strive to have uniform standards; Art. 5 provides,

> "1. The Parties undertake to eliminate pollution of the Protocol Area from land-based sources by substances listed in annex I to this Protocol.
> "2. To this end they shall elaborate and implement, jointly or individually, as appropriate, the necessary programmes and measures.
> "3. These programmes and measures shall include, in particular, common emission standards and standards for use."

Thus, for these substances known for their toxicity, persistence and bio-accumulation, no differentiated regime for developed and developing countries is provided. The only difference relates to the implementation of the measures and programmes. The solution retained is to adopt favourable time-tables for implementing these programmes and measures by the developing countries. In this respect, Art. 7(3) of the 'Athens Protocol' provides that the programmes and measures referred to in articles 5 and 6 shall be adopted by taking into account , *"for their progressive implementation" (emphasis added)* the economic capacity of the Parties and their need for development. It is not said here that the programmes have to set a double standard , but the time-table according to which the programmes will be implemented will need to take into account the economic capacity of the Parties and their need for development.

The approach taken by UNEP as regards annex II substances is also interesting. Art. 6 of the 'Athens Protocol' provides,

> "1. The Parties shall strictly limit pollution from land-based sources in the Protocol Area by substances or sources listed in annex II to this Protocol".
> "2. To this end they shall elaborate and implement, jointly or individually, as appropriate, suitable programmes and measures."
> .....

Furthermore, Art. 7(2) stipulates,

> "2. Without prejudice to the provisions of article 5 of this Protocol, such common guidelines, standards or criteria shall take into account local ecological, geographical and physical characteristics, the economic capacity of the Parties and their need for development, the

level of existing pollution and the real absorptive capacity of the marine environment".

It may be submitted here, that UNEP, through the 'Athens Protocol', has worked towards the adoption of an objective approach to the "double-standard" through the technical application of the quality objectives looking, in addition to the economic factor, to the receiving environment and not just adopting uniform standards.

It should be noted, however, that regulation as regards 'black list' substances under the 'Athens protocol' and the 'Quito Protocol' is less stringent than similar regulation under other relevant regional conventions[42]. Moreover, unlike other regional conventions[43], no time-limits are provided under the above referred to agreements, as regards the adoption of programmes or time-limits for the implementation of the programmes and measures aimed at eliminating pollution from land-based sources.

In a 'soft Law' context, 'Montreal Guideline' 4 provides under paragraph 1 that;

"1. States should adopt, individually or jointly, and in accordance with their capabilities, all measures necessary to prevent, reduce and control pollution from land-based sources, including those designed to minimize to the fullest possible extent the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment. States should ensure that such measures take into account internationally agreed rules, criteria, standards and recommended practices and procedures.
.....

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[42] The 'Helsinki Convention' e.g., requires Contracting Parties, under art.5 to "counteract the introduction" of hazardous substances into the Baltic Sea Area.

[43] See e.g., the 'Paris Convention' which provides under Art.4(3) that the programmes shall contain time-limits for their completion."

This provision is based on Arts.194;197 and 207 of the LOSC.The obligation under it to "prevent,reduce and control" pollution conforms generally to the obligations under the 'Athens Protocol'.

The provision under the guideline above is,however,more progressive in some of its aspects than other legal instruments related to land-based pollution.Following the LOSC, the guideline above uses the words "all measures necessary" to prevent,reduce and control pollution.These words are stronger than the ones used under such conventions as the 'Barcelona Convention';the 'Kuwait Convention';the 'Jeddah Convention';the 'Abidjan Convention' the 'Cartagena Convention' and the 'Athens Protocol' which all use "all appropriate measures"[44].

Under the guideline above,the measures necessary to prevent,reduce and control pollution from land-based sources will include "those designed to minimize to the fullest possible extent,the release of toxic,harmful or noxious substances,especially those which are persistent,into the marine environment."

This provision is based on Arts.194(3) and 207(5) of the LOSC.It is also based on such principles as principle 6 of the 'Stockholm Declaration'.This provision's aim is to ensure a minimum international standard of protection of the marine environment against those substances known for their harmfulness.

The guideline above,like relevant LOSC provisions qualifies the duty of States to adopt measures to prevent,reduce and control pollution by linking it to their 'capabilities'.Inclusion of this qualifying word in relation to all substances is,in my view,unfortunate as far as protection of the environment is concerned.

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[44] 'Barcelona Convention'(Art.8);'Kuwait Convention'(Art.6);'Jeddah Convention'(Art.6);'Abidjan Convention'(Arts.7-9);'Cartagena Convention'(Arts.7,9).

The last phrase of the guideline stipulates that "States should ensure that such measures take into account internationally agreed rules, criteria, standards and recommended practices and procedures". This provision conforms (with the addition of the word "criteria") to the relevant provision under the LOSC. It is less progressive than an earlier version which spoke of measures "...no less effective than internationally agreed rules, standards and recommended practices and procedures", but which has subsequently been eliminated.[45]

4.2.3.5 Co-operation on a Global and Regional Basis

In a 'hard law' context, one has already mentioned the part played by the 'Athens Protocol' in clarifying the "double-standard" notion in an environmentally-positive way.

Moreover, under Art.7 of the said protocol mention is made of the economic capacity of the "Parties" and their need for development and not the economic capacity of "developing States" as under Art.207 of the LOSC.

Initially, as seen earlier, the concern was about "developing States" and the need not to hamper their development.

The change brought about by the 'Athens Protocol', although not necessarily a progressive one as far as protection of the environment is concerned, is a new element which is worth mentioning[46]

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[45] See UNEP doc. UNEP/WG.92/2 at p.13.

[46] According to NANDA, 'There now seems to be a reversal in the roles of developed and developing countries in the environmental protection area, for many developing States now are seeking international action for setting international environmental standards and for more effective mechanisms for implementation'. (See Nanda and others, 'ten years after Stockholm-International Environmental Law' in A.S.I.L.Proc. (1983) pp. 411-435 at 412)). Also, HANDL, 'The Struggle for the Internationally Shared Environment: The United States Abdicates its Leadership Role' in Nanda 'Ten Years After Stockholm..' op.cit. at 418.

The 'Athens Protocol' also clarifies the notion of "characteristic regional features" by referring to "ecological,geographical and physical" characteristics.[47]

Other interesting aspects included under Art.7 of the 'Athens Protocol',not included under the LOSC,relate to the reference to a "without prejudice" clause[48],to the "level of existing pollution" and to the "real absorptive capacity" of the marine environment.

When compared to relevant regional agreements;the 'Athens Protocol' can only be said to be consistent with international law in this field.[49]

In a 'soft law' context,the 'Montreal Guidelines' provide under guideline 5(1) that,

"States should undertake,as appropriate,to establish internationally agreed rules,criteria,standards and recommended practices and procedures to prevent,reduce and control pollution from land-based sources,particularly at the local and regional level.Such rules,criteria,standards and recommended practices and procedures should take into account local ecological,geographical and physical characteristics,the economic capacity of States and their need for sustainable development and environmental protection,and the assimilative capacity of the marine environment,and should be reviewed from time to time as necessary."

The provision above is adapted from Art.207 of the LOSC.This

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[47] Art.7(2)

[48] It may be suggested that the provision of para.5 of Art.207 of the LOSC amounts to a "without prejudice" clause similar to the one included under Art.7 para.2 of the 'Athens Protocol'.Although this suggestion is not unreasonable;the provision of the 'Athens Protocol' has the merit,in my view,to state this clause more explicitly.

[49] See Art.6 of 'EEC Directive 76/464/EEC';Arts.5 and 6 of the 'Helsinki Convention' etc.,..

provision is, in some respect, slightly more progressive than the LOSC's provision. Its progressive aspect relates to the fact that, while under the LOSC's provision States shall only "endeavour" to establish global and regional rules, standards and recommended practices and procedures; under the guideline above States should "undertake..to establish..." internationally agreed rules.

Moreover, the provision under guideline 5(1), like the LOSC gives a prominence to the regional approach but a difference in language can be noted. While the LOSC's provision uses[50] the words States "endeavour" to harmonize their policies...at the appropriate regional level; the provision under guideline 5(1) above uses the phrase "with a view" to co-ordinating their policies in this connection "particularly" at the..regional level. The latter provision seems, in my view, to imply a stronger commitment than the one included under the LOSC. In fact, under the latter text, a weak wording is also used as regards , for example, regional co-operation; States bordering a semi-enclosed sea, for example, are under no obligation to co-ordinate the implementation of their rights and duties; they shall only "endeavour" to do so.[51]

The other 'new' element included in the provision of 'Montreal Guideline'5(1) is the reference to the economic capacity of "States", not "developing States". This aspect has already been discussed above.

Other elements, under guideline 5(1) which are worth mentioning include the reference to States'need for "sustainable" development and "environmental protection", and the "assimilative capacity" of the marine environment. This wording differs from the one included either under the 'Athens Protocol'[52] or Art.207(4) of the LOSC[53].

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[50] LOSC(art.207(3))

[51] LOSC(art.123 para.b)

[52] Art.7(2) of the 'Athens Protocol' uses the words "their need for development" and the words "the real absorptive capacity".

[53] Art.207(4) of the LOSC uses the words "their need for economic development" and does not mention either "assimilative capacity" or other similar terms.

The use of the words "sustainable development and environmental protection" may be explained by the fact that guideline 5(1) does not include a "without prejudice " clause and thus covers land-based pollution by all types of substances.

The use of the notion "assimilative capacity" of the marine environment has been critisized by the experts of the 'Working Group' on the grounds that sufficient information was not available on the concept;its inclusion was,therefore,questioned.[54]

Other provisions on "co-operation on a global and regional basis" are included under both UNEP' 'hard law' and 'soft law' instruments .

One should first mention provisions related to cooperation between States with regard to prevention,reduction and control of pollution which emanates from discharges of watercourses.Thus in a 'hard law' context,the'Athens Protocol' ,for example,provides under Art.11(1) that,

"If discharges from a watercourse which flows through the territories of two or more Parties or forms a boundary between them are likely to cause pollution of the marine environment of the Protocol Area,the Parties in question,respecting the provisions of this Protocol in so far as each of them is concerned,are called upon to co-operate with a view to ensuring its full application."

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[54] The UNEP Secretariat's paper(UNEP/WG.92/2),following the precedent of the 'Athens Protocol' made reference to the 'real absorptive capacity' of the marine environment.This term was criticized by the experts attending the first meeting of the 'Working Group';some experts suggesting that in considering discharges to the sea,emphasis should be placed on ecological quality requirement rather than real absorptive capacity.Also suggested was the replacement of the term "real absorptive capacity" by the term "assimilative capacity"(UNEP/WG.92/4 at p.5,para.8).At the second session of the 'Working Group',the Chairman of the working group of GESAMP,while referring to the difficulties that GESAMP has experienced in establishing scientific criteria for the quantitative assessment of the assimilative capacity of the marine environment,suggested that this concept should be kept under continuous review in the light of scientific developments.(UNEP/WG.109/4 at p.3,para.7).This matter was also discussed at the third session of the 'Working Group'(UNEP/WG.120/3 at p.7,para.23.).

This provision is clearly adapted from Art.6(7) of the 'Helsinki Convention'.The words "are called upon to co-operate" under the provision above express,in my view,a weaker obligation than "...shall in common take appropriate measures.." used under the above referred to 'Helsinki Convention''s provision.

In a 'soft law' context,'Montreal Guideline' 5 para.3 reads,

> "If discharges of a watercourse which flows through the territories of two or more States or forms a boundary between them are likely to cause pollution of the marine environment,the States concerned should co-operate in taking necessary measures to prevent,reduce and control such pollution".

This provision is similar to the one under the 'Athens Protocol' discussed above;The words "...should co-operate in taking necessary measures.." express,in my view,however,a slightly weaker obligation than the one under the 'Athens Protocol' or the 'Helsinki Convention'.

Finally,both 'hard law' and 'soft law' instruments negotiated under UNEP include provisions on co-operation between States Party to an agreement on land-based pollution and States not Party to such an agreement.The 'Athens Protocol',for example,provides under Art.11(2) that,

> "2.A Party shall not be responsible for any pollution originating on the territory of a non-Contracting State.However,the said Party shall endeavour to co-operate with the said State so as to make possible full application of the Protocol".

This provision is practically identical to Art.14 of the 'Paris Convention'[55].Like the 'Paris Convention',the obligation of a Party to co-operate with a non-Party State is weak;it is only to *endeavour* to do so.

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[55] Art.14 of the 'Paris Convention' reads;
"1.The provisions of the present convention may not be invoked against a Contracting Party to the extent that the latter is prevented,as a result of a pollution having its origin in the territory of a non-Contracting State,from ensuring their full application.
"2.However,the said Contracting Party shall endeavour to co-operate with the non-Contracting State so as to make possible the full application of the present Convention".

In a 'soft law' context,'Montreal Guideline' 5 para.2 provides that,

"2.States not bordering on the marine environment should co-operate in preventing,reducing and controlling pollution of the marine environment originating or partially originating from releases within their territories into or reaching water basins or watercourses flowing into the marine environment or via the atmosphere.To this end,States concerned should as far as possible and,as appropriate,in co-operation with competent international organizations,take necessary measures to prevent,reduce and control pollution of the marine environment from land-based sources".

The provision above,in spite of the weak language used: "States..should co-operate.."; "should as far as possible and,as appropriate..",is a positive one for,first,in contradistinction to the provisions under the 'Athens Protocol' or the 'Paris Convention',it addresses directly States not bordering on the marine environment calling upon them to co-operate in the prevention,reduction and control of land-based pollution.Second,contrary to the relevant provisions under the 'Athens Protocol' and the 'Paris Convention',it does not provide for safeguards for Contracting Parties against possible claims for damage arising from pollution of a specific environment caused by discharges originating in the territory of a non-Party State.

4.2.3.6 Assistance to Developing Countries

The 'Athens Protocol' provides under Art.10 that;

"1.The Parties shall,directly or with the assistance of competent regional or other international organizations or bilaterally,co-operate with a view to formulating and,as far as possible,implementing programmes of assistance to developing countries,particularly in the fields of science,education and technology,with a view to preventing pollution from land-based sources and its harmful effects in the marine environment".
"2.Technical assistance would include,in particular,the training of scientific and technical personnel,as well as the acquisition,utilization and production by those countries of appropriate equipment on advantageous terms to be agreed upon among the Parties concerned".

What is most remarkable about the provision above is the fact that assistance to developing countries would include the acquisition,utilization and production by them of appropriate equipment

on advantageous terms. No similar provision is included under any agreement related either to marine pollution generally or pollution from land-based sources.

4.2.3.7. Specially Protected Areas

In a 'hard law' context, a provision on specially protected areas was included under the Mediterranean Preliminary Draft protocol on pollution from land-based sources[56]. This provision was not retained however, but a protocol on protected areas was subsequently adopted for this region. This Protocol is discussed elsewhere[57].

In a 'soft law' context, 'Montreal Guideline' 7 provides;

"1. States should, consistent with international law, take all appropriate measures, such as the establishment of marine sanctuaries and reserves, to protect certain areas to the fullest possible extent from pollution, including that from land-based sources, taking into account the relevant provisions of Annex I.
"2. States should, as practicable, undertake to develop jointly or individually, environmental quality objectives for specially protected areas, conforming with the intended uses, and strive to maintain or ameliorate existing conditions by comprehensive environmental managerment practices".

The provision under paragraph 1 is based on Art. 194(4) of the LOSC. It is in some respect stricter than the LOSC'S provision in that it recommends specifically the establishment of "marine sanctuaries and reserves" which usually require the taking of very strict measures such as prohibition of the taking of endangered species and the control or interdiction or the exercise of harmful activities.

The provision above is also similar to relevant provisions included

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[56] See GOERING 'Mediterranean Protocol on Land-Based Sources: Regional Response to a Pressing Transnational Problem' in Cornell Int'l L.J. 13:329-349 (1980) at 347.

[57] See chapter 5 of this thesis.

under some regional 'framework' conventions adopted under UNEP[58].

4.2.3.8 Other Provisions

UNEP' 'hard law' and 'soft law' instruments related to land-based pollution include other provisions which, although they do not advance the law in this field, are nonetheless, worthy of mention.

One should mention, for example, provisions on "scientific and technical co-operation" included under both UNEP' 'hard law' and 'soft law' instruments[59]. These provisions are also weaker than similar provisions under relevant global and regional conventions. Under Art. 9 of the 'Athens Protocol', for example, the obligation to co-operate "as far as possible" in scientific and technological fields related to pollution from land-based sources and to "endeavour" to exchange scientific and technical information and to co-ordinate their research programmes is, in my view, weaker than the obligation under the 'Paris Convention' where Contracting Parties "agree" to establish "complementary and joint programmes of scientific and technical research.." and to "transmit to each other the information ...obtained"

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[58] 'Abidjan Convention' (Art. 11); 'Cartagena Convention' (Art. 10). It should be noted that the 'Montreal Guidelines' while recognizing that there are many activities competing to derive benefits from the marine environment; they assert, however, that "none of these activities, save the perpetuation of a marine ecosystem as a vital component of global life support, should be regarded as having guaranteed rights". ('Montreal Guidelines', Annex I) (See EPL, 14/2/3 (1985) at 79).

[59] 'Athens Protocol' (Art. 9); 'Quito Protocol' (Art. X); 'Montreal Guidelines' (guideline 8).

from research[60].

Provisions on "monitoring and data management"[60a] are also included under UNEP legal instruments related to land-based pollution; these are only consistent with international law in this field[61].

One should note however, the provision under 'Montreal Guideline' 11 which refers to the collection of data on natural conditions in a given region, as regards "its physical, biological and chemical characteristics" and which refers also to the need to "assess..the fate and effects of pollution" in it. These aspects are not specifically referred to under other relevant agreements.

Moreover, the 'Montreal Guidelines' include a provision[62] on "pollution emergencies arising from land-based sources" where States, and appropriate competent organizations are called upon not only to "deal" with marine emergencies but also to "prevent them".

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[60] 'Paris Convention' (Art. 10)

[60a] 'Montreal Guideline' 11; 'Athens Protocol' (Art. 8); 'Quito Protocol' (Art. VIII).

[61] See e.g. 'Paris Convention' (Art. 11).

[62] Guideline 14.

In addition, a specific provision on "national laws and procedures" has been included under both 'hard law'[63] and 'soft law'[64] instruments under UNEP. These provisions are merely consistent with international law in this field as reflected in Arts. 207(1) and 213 of the LOSC and Arts. 8 and 12 of the 'Paris Convention'.

'Montreal Guideline' 16 (3) includes an interesting provision on "equal access and non-discriminatory treatment"; this one is discussed elsewhere[65].

Finally, UNEP' legal texts, whether 'hard law' or 'soft law' texts, include a provision on "implementation reports". Thus, in a 'hard law' context, one should note Art. 13 of the 'Athens Protocol' and Arts. IX and XIII of the 'Quito Protocol'. No provisions similar to these ones are included under either the 'Paris Convention' or the 'Helsinki Convention'.

In a 'soft law' context, the provision under 'Montreal Guideline' 18 is consistent with international law in this field as reflected in the provisions referred to above . This provision has the merit, however, to emphasize the need for States to designate "national authorities as focal points" for the reporting of measures, results and difficulties in the implementation of applicable internationally agreed rules, criteria, standards and recommended practices and procedures[66].

The 'Montreal guidelines' also include other provisions which although not suitable for comparison purposes; should, because of their importance, be noted.

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[63] 'Quito Protocol' (Art. XIII).

[64] 'Montreal Guidelines' (guideline 16).

[65] See discussion under chapter 8 of this thesis.

[66] Under the 'Athens Protocol', for example, "procedures for the collection and submission" of information are to be determined at the Meetings of the Parties (Art. 13).

Guideline 10 ,for example,recommends to States,albeit in a weak language to develop a "comprehensive environmental management approach" to prevention,reduction and control of pollution from land-based sources."Comprehensive environmental management approach" refers to the approach taken so far by UNEP when developing its Regional Seas Programme.This approach requires the adoption of environmental assessment programmes,environmental management,including control measures and supporting measures,such as training and technical assistance,and finally institutional arrangements.Guideline 10 emphasizes one aspect that is the need to include in this comprehensive approach "the identification of desired and attainable water-use objectives for the specific marine environments".

4.2.4 Pollution From Exploration And Exploitation Of The Seabed Under National Jurisdiction

4.2.4.1 The 'Hard Law' Context

In a 'hard law' context,the performance of UNEP as regards development of international environmental law in this field has not been very significant.Regional conventions specifically include provisions[67] on prevention of pollution from exploration and exploitation of the seabed under national jurisdiction,but these are only general provisions.An attempt to have a protocol on this subject has been made under the Mediterranean Action Plan but,as shown below,has failed so far.

4.2.4.1.1 The Regional Conventions

The provisions on prevention of pollution from exploration and exploitation of the seabed under national jurisdiction included under UNEP regional conventions are,generally speaking,consistent with

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[67] 'Barcelona Convention'(Art.7);'Kuwait Convention'(Art.VII);'Abidjan Convention'(Art.8);'Lima Convention'(Art.4(c));'Jeddah Convention'(Art.VII);'Catagena Convention'(Art.8);'Nairobi Convention'(Art.).See also the more general provision under Art.11 of the 'ASEAN Agreement'.

international law in this field[68]. Some regional conventions[69] emphasize, however, the aspect of prevention of accidents and the combating of pollution emergencies much like the 'Helsinki Convention[70]

Worth noting also is Article 8 of the 'Abidjan Convention'. The provision it contains although very similar to the one included under Art.208(1) of the LOSC, includes, in my view, a more comprehensive obligation than the one included under the article referred to above[71].

Worth noting also is the provision included under the 'Kuwait Convention', which refers to pollution resulting from exploration and exploitation of the "bed of the territorial sea and its subsoil and the continental shelf".[72]

4.2.4.1.2 The Mediterranean Initiative

An IJO/UNEP Group has been working since 1978 in order to formulate a protocol regarding prevention of pollution from exploration and exploitation of the Mediterranean seabed under national jurisdiction.[73]The proposal from UNEP Secretariat, at the "Dubrovnik

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[68] For an explanation about the absence under these provisions of any reference to international rules as under the provisions on dumping, for example; see BOYLE, 'Regional Pollution Agreements ...' op.cit. at 329.

[69] See e.g. 'Kuwait Convention' (Art. VII); 'Lima Convention' (Art. 4(c)).

[70] Art. 10

[71] Art. 8 of the 'Abidjan Convention' provides for an obligation to "prevent, reduce, combat and control" seabed pollution, while the obligation under the LOSC is only to "prevent, reduce and control" such pollution.

[72] See TREVES, 'La Pollution Resultant de L'Exploration et de L'Exploitation des Fonds Marins en Droit International' in A.F.D.I. 24:827-850

[73] Meeting of Experts on the Legal Aspects of Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, Rome 11-15 December 1978 (UNEP doc. UNEP/IG.14/Inf.17)

Meeting" to convene a group of government-nominated experts, with participation from industry active in the Mediterranean as observers, to review the documentation prepared by IJO and to develop a preliminary draft protocol on the subject was, however, not endorsed by the meeting.[74].

The failure of this initiative is due to a number of factors: First, and as said earlier, people invited at the initial IJO/UNEP Meeting were individuals principally working with IJO who lacked political support. Second, although important work has been done by the IJO/UNEP Group, it came at a time when Mediterranean States were trying to resolve the land-based pollution problem and they did not want to be distracted from it. Finally, the non-endorsement by the 'Dubrovnik Meeting' of UNEP Secretariat's proposal to develop a protocol on this subject is due, in my view, also to the absence from this meeting of a sufficient number of lawyers who would specially be committed to supporting it.[75]

4.2.4.2 The 'Soft Law' Context: The 'Off-Shore Mining and Drilling Conclusions'

UNEP has had a better performance , but in a 'soft law' context regarding development of international law in this field.

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[74] See Report of the Third Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols; UNEP doc. UNEP/IG.43/6, 15 March 1983 at p.13, para.79.

[75] Most of the delegates attending the 'Dubrovnik Meeting' seem to come from foreign ministries or other technical bodies. At the 'Athens Meeting', the representative of IJO proposed that the study which the organization has prepared on the exploration and exploitation of the seabed should be updated in order to facilitate the drafting of any future protocol on that question. This proposal was subsequently accepted by the meeting which, in one of its recommendations, requested the Secretariat in co-operation with the IJO to "update the study on off-shore exploration and exploitation of the seabed and its subsoil and to submit it to the next meeting of the Contracting Parties". (See, Report of the Extraordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols, UNEP doc. UNEP/IG.49/5, 30 April 1984 at p.29).

The 'Working Group', established by the Executive Director of UNEP in pursuance of decision 91/5 of 25 May 1977[76] of the Governing Council of UNEP has ,as said earlier,prepared a Study on the Legal Aspects Concerning the Environment Related to Off-Shore Mining and Drilling Carried Out Within the Limits of National Jurisdiction which contains 42 "conclusions"[77].

It is submitted here,that the " Off-Shore Mining and Drilling Conclusions" contain progressive provisions when compared with the law (whether 'hard law' or 'soft law') in this field.The progressive aspects include the comprehensive nature of these conclusions,the provisions regarding the prior authorization system;the procedure for environmental assessment and the provisions dealing with liability and compensation.The last two aspects will not be dealt with here but under other chapters.The remaining progressive provisions are discussed below.

4.2.4.2.1 A Comprehensive Text

During the meeting of UNEP's Group of Experts on Liability for Pollution and other Environmental Damage and Compensation for such Damage[78];(hereafter the 'expert group meeting')one question on which there was broad agreement was that the avoidance and prevention of environmental damage was of primary importance in dealing with international environmental problems and that the prevention of environmental damage was an essential complement to the development of systems of liability and compensation.[79]

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[76] See discussion under chapter 1 of this thesis.

[77] Contained in UNEP document UNEP/WG.54/CRP.2/Add.2,3,10.

[78] See UNEP doc.UNEP/WG.8/3; 6 April 1977.

[79] Ibid.para.10

At its first session, the 'working group' confirmed the relevance of the conclusions drawn by "expert group meeting" and considered that "off-shore mining and drilling within the limits of national jurisdiction was an area on which the various legal questions raised in connection with preventive and corrective measures could usefully be brought to bear". It consequently, expressed a preference for a comprehensive approach to the study of this topic ranging from preventive to corrective measures including liability and compensation issues.[80]

The 42 conclusions, are indeed very comprehensive; they include the need for permit authorization systems for the construction, operation and alteration of offshore sites, the use of environmental assessment in conjunction with the permit process, the use of appropriate monitoring systems, safety measures including contingency planning and normal operational measures, and liability and compensation issues.

It is submitted here, that it is this comprehensive character of their provisions which constitute the first progressive aspect of the "Off-Shore Mining and Drilling Conclusions".

As will be shown below, no general principle of international law, no legal instrument whether global or regional contains obligations regarding preventive and corrective aspects of pollution from offshore mining and drilling activities as detailled as in the "Off-Shore Mining and Drilling Conclusions".

First, regarding general principles of international law; the first principle which has clear implication regarding pollution is sic utere tuo, ut non alienum laedas[81]. But, would this principle cover both

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[80] See UNEP doc. UNEP/WG.12/3 (para.6).

[81] Use your own property in such a manner as not to injure that of another. (See Oppenheim (ed. Lauterpacht) International Law, a Treatise (1955, 8th ed.) 346.

preventive and corrective aspects of regulation of pollution from off-shore activities? According to one author, if such matters as "environmental impact assessment, notification, or other consultative practices are the only means of avoiding serious damage to the environment of another State, then the authorizing State must undertake them"[82]. It is difficult to say, however, that this principle covers such matters as prior consultation, pollution monitoring or such issues as safety regulation and contingency planning.

The "sic utere" principle would also have a clear application as regards compensation for environmental damage. This is clearly confirmed by such cases as the "Trail Smelter" case[83] or the "Gut Dam" Arbitration[84]. To maintain, however, that this principle covers such matters as the establishment of compulsory insurance schemes would be far-reaching.

Regarding conventional law; no international legal instrument whether regional or global contains all the preventive and corrective aspects of pollution from off-shore mining and drilling activities.

Some global legal texts contain provisions which are relevant to pollution from off-shore activities but which, in addition to the fact that they lack unforceable details , do not cover all aspects of regulation of pollution arising from off-shore mining and drilling contained under the "Off-Shore Mining and Drilling Conclusions". This is the case of the 1958 Geneva Conventions on the Law of the Sea.

The 'Geneva High Seas Convention' requires States, in general terms, to "draw up regulations to prevent pollution of the sea by the

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[82] See de MESTRAL, 'The Prevention of Pollution of the Marine Environment Arising from Offshore Mining and Drilling' in Harv. Int'l. L. J. 30: 469-519 (1979) at 487.

[83] For a discussion of the "Trail Smelter" case, see, BLEICHER, 'An Overview of International Environmental Regulation' in Ecol. L. Q. 2: 1-90 (1972) at 19-25.

[84] Between Canada and the United States (1968), 8 ILM 118.

discharge of oil...from ..pipelines or resulting form the exploration and exploitation of the seabed and its subsoil.."[85].

The 'Geneva Continental Shelf Convention' provides in Art.5(1) that "the exploration of the continental shelf and the exploitation of its natural resources must not result in any unjustifiable interference with navigation,fishing or the conservation of the living resources of the sea,nor result in any interference with fundamental oceanographic or other scientific research carried out with the intention of open publication".

This convention also requires that continental Shelf installations and devices necessary for the development of natural resources and safety zones therefore shall not be established where the same would interfere with "recognized sea lanes essential to international navigation"[86], and that within the safety zones the coastal State shall take "all appropriate measures for the protection of the living resources of the sea from harmful agents"[87].

Under the 'Geneva Territorial Sea Convention',the Coastal State that decides to grant a permit to construct an artificial structure off its coasts is bound to give notice of it.This obligation applies on the territorial sea where "the coastal State shall give appropriate publicity to any dangers to navigation,of which it has knowledge..."[88]

The 'Geneva Living Resources Convention' contains a provision with some relevance to pollution from off-shore activities.According to

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[85] Article 24.

[86] Article 5(6).

[87] Article 5(7).

[88] Article 15(2).

Art.1(2) of this convention;

> "All States have the duty to adopt,or to co-operate with other States in adopting such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas."

All these provisions are general,sometimes ambiguous,not all directed towards the specific problem of pollution from off-shore mining and drilling and do not cover all the issues contained in the 'off-shore mining and drilling conclusions'

Under the 'Marpol Convention',art.2(4) defines a "ship" as meaning "..a vessel of any type whatsoever operating in the marine environment and includes hydro-foil boats,air-cushion vehicles,submersibles,floating craft and fixed or floating platforms".

This definition covers all fixed or mobile drilling or production units and therefore the convention applies to them in principle.However,the convention ,in defining the "discharges" with which it is concerned,excludes:

> "release of harmful substances directly arising from the exploration,exploitation and associated off-shore processing of sea-bed mineral resources"[89].

The convention also includes provisions regarding reporting of accidents[90].This convention is not directed,however, towards the specific problem of polution from off-shore activities.

The 'London Dumping Convention' applies to vessels and aircraft as well as to platforms or other man-made structures at sea;however,under Art.III(1)(c),

> "The disposal of wastes and other matter directly arising from,or related to,the exploration,exploitation and associated off-shore processing of sea-bed mineral resources will not be covered by the provisions of this convention".

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[89] Art.2(3).

[90] Art.8

The other category of legal instruments includes conventions of a regional character adopted outside the United Nations. It includes such conventions as the 'Oslo Convention'; the 'Helsinki Convention'; the 'Nordic Convention'; the 'Paris Convention'; the 'Off-shore Liability Convention'; the 'Bonn Agreement' and the 'Copenhagen Agreement'.

The 'Oslo Convention' takes a different approach from the one taken by the 'London Dumping Convention'. It does not exclude from the definition of dumping discharges arising from or connected with the exploration and exploitation of the seabed[91]. It defines "ships" as to include fixed or floating platforms and thus applies to such platforms.[92] This convention does not provide, however, effective control for the specific problem of pollution from off-shore activities.

The 'Paris Convention' is an instrument concerned with land-based sources of marine pollution and is limited to the North-East Atlantic Area. It does, however, regulate pollution of maritime areas from "man-made structures" under the jurisdiction of States party to the convention[93]. Also, under the convention, the Parties agree to set up "a permanent monitoring system" designed to provide information on existing levels of marine pollution and assessment of effectiveness of measures undertaken by the Parties[94].

Assistance between Parties in case of incidents is provided for[95], as is a provision for a "commission" to supervise the implementation of the convention.[96]

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[91] Art. 19(1)

[92] Art. 19(2)

[93] Art. 3

[94] Art. 11

[95] Art. 13

[96] Arts. 16, 17.

The Interim Commission set up in 1975 established two working groups: a Monitoring Group(jointly with the Oslo commission) and a Technical Working Group with sub-groups including a sub-group on oil pollution(including that from off-shore installations)[97].

In spite of all these provisions the 'Paris Convention' is concerned,mainly, with land-based sources of marine pollution .

The 'Helsinki Convention' covers the Baltic Sea Area only.It is a comprehensive agreement in the sense that it deals with all forms of pollution.It is the first regional agreement which embodies a specific provision regarding seabed pollution.Under Art.10 of the convention;

> "Each Contracting Party shall take all appropriate measures in order to prevent pollution of the marine environment of the Baltic Sea Area resulting from exploration or exploitation of its part of the seabed and its subsoil or from any associated activities thereon.It shall also ensure that adequate equipment is at hand to start an immediate abatement of pollution in that Area".

This convention also includes provisions on co-operation in the face of pollution emergencies[98];provides for the need for Parties to develop and adopt rules governing responsibility for damage resulting from contraventions of the convention[99],and provides for a "Commission" to ensure implementation of the convention and to promote research and receive and disseminate information between the Parties.[100]

In spite of all these provisions,the 'Helsinki Convention',in addition to its regional character,does not concern itself directly with pollution from off-shore activities and its provisions whether on preventive measures or on liability and compensation are not as detailed as the ones included under the "off-shore mining and drilling conclusions".

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[97] See BOEHMER-CHRISTIANSEN,'Marine Pollution Control in Europe;Regional Approaches,1972-80' in Mar.Pol'y,January 1984 , pp.44-55 at 49.

[98] Annex VI.

[99] Art.17

[100] Art.13

The 'Nordic Convention' is a very far-reaching convention;it gives persons injured in one State Party the right to seek the legal and equitable redress in the courts of another State Party.[101]

The activities covered under the convention include discharges from installations into the sea or seabed in any form which might cause a nuisance by pollution of the environment.[102]

This convention makes provision for principles of co-operation such as information,consultation..etc.,[103]

Despite its very progressive character,this convention,in addition to its regional character,is not concerned with the sole aspect of pollution from off-shore mining and drilling and therefore does not include the kind of detailed provisions included under the 'off-shore mining and drilling conclusions' and which are specific to such activities i.e.,authorization systems;safety measures;contingency planning..etc.,.

The 'Bonn Agreement' and the 'Copenhagen Agreement' have both a direct bearing on pollution from off-shore mining and drilling.

These two regional agreements cover only some aspects dealt with under the 'Off-Shore Mining and Drilling Conclusions';mainly those concerned with co-operation in cases of emergencies .they do not cover such aspects of regulation of off-shore activity as authorization systems;impact assessment;safety measures;liability and compensation etc,...

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[101] Art.3

[102] Arts.1,13

[103] Art.11

The 'Off-shore Liability Convention' is also a regional agreement, and is concerned solely with the question of liability and compensation.

Regional agreements adopted under UNEP also regulate aspects of pollution from off-shore activities. All these regional conventions include general provisions on pollution from exploration and exploitation of the seabed under national jurisdiction.[104]

General provisions on action in cases of emergencies; on notification of other Parties in cases of emergencies[105]; on monitoring[106]; on scientific and technological co-operation[107]; on liability and compensation[108] are also included under these conventions.

Some of these regional conventions also include general provisions on impact assessment.[109]

Mention of these regional conventions should also include the various 'Emergency Protocols' adopted under UNEP's Regional Seas Programme. These protocols include detailed provisions related to co-operation between States Parties in cases of emergencies.

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[104] See note 67 supra.

[105] 'Barcelona Convention' (Art. 9); 'Kuwait Convention' (Art. IX); 'Abidjan Convention' (Art. 12); 'Lima Convention' (Arts. 6; 9); 'Cartagena Convention' (Art. 11); 'Jeddah Convention' (Art. IX)

[106] 'Barcelona Convention' (Art. 10); 'Lima Convention' (Art. 7)

[107] 'Barcelona Convention' (Art. 11); 'Kuwait convention' (Art. X); 'Jeddah Convention' (Art. X); 'Cartagena Convention' (Art. 13); 'Lima Convention' (Art. 10); 'Abidjan Convention' (Art. 14).

[108] 'Barcelona Convention' (Art. 12); 'Kuwait Convention' (Art. XIII); 'Lima Convention' (Art. 11); 'Abidjan Convention' (Art. 15); 'Cartagena Convention' (Art. 14); 'Jeddah Convention' (Art. XIII).

[109] 'Abidjan Convention' (Art. 13); 'Lima Convention' (Art. 8); 'Kuwait Convention' (Art. XI); 'Jeddah Convention' (Art. XI); 'Cartagena Convention' (Art. 12); 'ASEAN Agreement' (Art. 20).

Apart from the detailled provisions contained in the 'Emergency Protocols', UNEP regional conventions referred to above fail to include the kind of detailed provisions on pollution from off-shore activities included under the 'Offshore Mining and Drilling Conclusions'

The last category of texts to be considered includes the LOSC and such legal texts of a recommendatory nature as the 'OECD Transfrontier Pollution Principles' and the 'Shared Resources Principles'.

Regarding the LOSC, the U.N. General Assembly Resolution relating to the convening of UNCLOS III[110], required that the Conference consider "ocean space as a whole" and to include prevention of pollution in the single treaty which the conference was required to produce.

The LOSC, contrary to the 1958 Geneva Conventions on the Law of the Sea, includes an important number of environmental provisions. Arts. 208 and 214 are the most relevant provisions on marine pollution deriving from off-shore activities.

Other articles relevant to pollution from off-shore activities include those urging States to "co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations in formulating and elaborating international rules...for the protection and preservation of the marine environment. taking account characteristic regional features".[111]

States must also provide for notification of imminent and actual damage[112]; promote and develop contingency plans for responding to pollution incidents[113]; promote studies and undertake programmes of

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[110] U.N. General Assembly Resolution 2750 C(XXV) of 17 December 1970. 25 U.N. GAOR Supp. 28. (U.N. Doc. A/8028(1970)).

[111] Art. 197

[112] Art. 198

[113] Art. 199

scientific research and to exchange data'[114],and undertake environmental impact assessment'[115].

Other relevant provisions include,giving the Coastal State sovereign rights to explore and exploit the natural resources of the seabed and "jurisdiction as provided for in the relevant provisions of this convention" with regard to,inter alia,"the protection and preservation of the marine environment'[116]";and provisions on responsibility and liability.'[117]

In spite of their comprehensive nature,the provisions above mentioned are too general and do not include a detailed procedure regarding each subject matter as is provided for under the 'Off-Shore Mining and Drilling Conclusions'.

As regards the 'Shared Resources Principles';although these include general principles on information,prior notification, environmental impact assessment,etc.,.The 'Off-Shore Mining and Drilling Conclusions should be seen as an instance where these principles are being refined.'[118]

The 'O.E.C.D.Transfrontier Pollution Principles',include principles on non-discrimination; equal right of access; information and consultation; mutual assistance in case of accidental pollution;environmental assessment and liability and compensation.'[119]

These principles are not directed towards the specific problem of pollution from off-shore activities in spite of the fact that they have clear implications for it.

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[114] Art.200

[115] Art.206

[116] Art.56

[117] Art.235

[118] See discussion under Chapter 8.
[119] Ibid.Also discussion under relevant chapters of this thesis.

There exists also another relevant legal text: The 'CEDE Draft Convention'. This legal text, which has been produced by a private organization[120], although as detailed as the 'Offshore Mining and Drilling Conclusions' will, not be considered here but will be referred to when dealing with specific issues under the above referred to conclusions.

4.2.4.2.2 The Prior Authorization System.

It is submitted that the prior authorization system provided for under the 'Off-Shore Mining and Drilling Conclusions' contains progressive provisions when compared to other relevant legal texts.

The relevant provisions read:

"B. Authorization system

"6. (1) The important features of operations, including construction, erection on site and major alteration of installations, should be made subject to a prior written authorization from the competent authority of the State which before granting such authorization, should be satisfied that the applicant has the technical knowledge, ability, and economic capacity as deemed to be necessary by the authority to carry out operations, as well as to apply the necessary safety measures and, whenever necessary, to take contingency action. Such authorization should be given in accordance with an appropriate procedure. For the purpose of these conclusions, "installation" means any off-shore structure or facility, whether fixed or mobile, which is used for exploring for, exploiting, storing, loading or transporting hydrocarbons or other minerals from the seabed or its subsoil, but is not considered to include a ship used for transportation of hydrocarbons or other minerals.

"2. The granting of an authorization should be preceded by an assessment of the effects of the proposed operations on the environment, unless the competent authority is satisfied that in the light of the scope, duration and technical methods employed in the operations, significant adverse effects on the environment cannot be expected.

"(3) Authorization should be refused if there are clear indications that the operations are likely to cause significant

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[120] The Conseil Europeen de Droit de l'Environnement, a non-profit making association with the purpose of promoting the development and study of environmental law with particular reference to Europe, was founded on the 19th May 1974. (See EPL, 7(1981)at 182).

adverse effects on the environment which could not be avoided by compliance with the conditions in the authorization.
.....
"7. The authorization should provide for concrete requirements on environmental protection. Such authorization should, in particular require the operator:
(a) To take all necessary measures to ensure that spillage, leakage or wastes resulting from the operations do not endanger public health, fauna and flora and coastal regions;
(b) To have an adequate contingency plan;
(c) To remove the installation upon completion of the operations in so far as this is justifiable from an economic and technical point of view;
(d) To rehabilitate, where appropriate, the environment".

No prior authorization system is included under the 1958 Geneva Conventions on the Law of the Sea. This is understandable for the competence of States to authorize off-shore activities is not disputed. The only provisions of interest are Arts. 5(5) of the 'Geneva Continental Shelf Convention' which provides that "any installations which are abandoned or disused must be entirely removed"; and the provisions contained under Art. 5(8) of the same convention which is related to scientific research and not to exploration for and exploitation of mineral resources. This provision reads,

"The consent of the Coastal State shall be obtained in respect of any research concerning the continental shelf and undertaken there..."

Furthemore, the provision contained in art. 5(5) above, does not specify whether the removal of abandoned or disused installations must be undertaken by the State or the operator.

As can be seen, these provisions are not as specific and as detailed as the ones contained in the authorization system under the 'Off-Shore Mining and Drilling Conclusions'.

The LOSC contains a number of provisions which are relevant: First, Art. 56 recognizes that the Coastal State has;

"(a) Sovereign rights for the purpose of exploring and exploiting , conserving and managing the natural resources, whether living or non-living, of the sea-bed and sub-soil and the superjacent waters...."

"(b) Jurisdiction as provided for in the relevant provisions of this convention with regard to:
"(i) the establishment and use of,installations and structures
.....
"(iii) the protection of the marine environment".

Of more importance is Art.60 which provides that,

"1.In the exclusive economic zone,the Coastal State shall have the exclusive right to construct and to authorize and regulate the construction,operation and use of:
.....
"(b) Installations and structures for the purposes provided for in article 56 and other economic purposes.
"3. due notice must be given of the construction of such artificial islands,installations or structures,and permanent means for giving warning of their presence must be maintained.Any installations or structures which are abandoned or disused must be entirely removed".

Art.79 also provides that,

"(3) The delineation of the course for the laying of pipelines on the continental shelf is subject to the consent of the Coastal State."

Furthermore,Art.194 urges States to

"(2) take all necessary measures to ensure that activities undertheir jurisdiction or control are so conducted that they do not cause damage by pollution to other States and their environment...

and that

"(3) the measures taken pursuant to this part shall deal with all sources of pollution of the marine environment.These measures shall include ,inter alia,those designed to minimize to the fullest possible extent
.....
(c) Pollution from installations and devices used in exploration or exploitation of the natural resources of the sea-bed and sub-soil,in particular measures for preventing accidents and dealing with emergencies,ensuring the safety of operations at sea,and regulating the design,construction,equipment,operation and manning of such installations or devices".

Finally,under Art.208,Coastal States

"1....shall adopt laws and regulations to prevent,reduce and control pollution of the marine environment arising from or in connection with sea-bed activities subject to their jurisdiction and from artificial islands,installations and structures under their jurisdiction".

The LOSC contains,as seen above, some detailed provisions which are similar to the ones under the 'Off-Shore Mining and Drilling Conclusions".The latter text includes,however,additional provisions.

First,under the authorization system the operator is required to have an adequate contingency plan.This is not provided for under the LOSC.

Second,the granting of an authorization should be preceded by an assessment of the effects of the proposed operations on the environment.although a general provision on environmental impact assessment is included under the LOSC[121],the obligation it contains is qualified:environmental impact assessment is to be made only "as far as practicable".

Third,the 'Off-Shore Mining and Drilling Conclusions' are more specific regarding the responsibility for the removal of abandoned and disused installations.The LOSC does not specify who shall remove these installations.

To all these differences one should add that the 'Off-Shore Mining and Drilling Conclusions' are much more detailed in their provisions than the LOSC i.e,the procedure for environmental impact assessment;liability and compensation etc.,.

The final text to be considered here is the 'CEDE Draft Convention'. The relevant provisions of this text are as follows;

Article 5

"1.All construction ,alteration or other use in the marine environment of installations referred to in paragraph 1 of Article 2 within the jurisdiction of a State shall require a licence from a national authority of that State.

"2.The licence referred to in the previous paragraph shall specify the boundaries of the area under exploitation.It shall only be issued if the installation and the use made of it are considered,in the conclusions formulated at the close of the procedure referred to in

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[121] Art.206

Article 6[122], not to cause deterioration harmful to the marine environment and in particular to areas fundamentally important for the preservation and reproduction of fauna and floral species requiring special protection..."

Article 8 provides,

"....the State competent to issue a licence shall determine the rules to apply to:
(a) the granting of licences;
.....
(d) the conditions under which a licence already issued may be modified or, in the event of such modification not being sufficient to prevent serious deterioration of the marine environment, revoked;

Article 9 also provides,

"Installations that have been abandoned or are no longer in use shall be removed by the operator himself or at his expense and under his responsibility, insofar as this is technically possible and does not risk accentuating deterioration of the marine environment. All necessary measures shall previously have been taken by the operator and under his responsibility to prevent spillage or leakage from the site in respect of which the exploration, exploitation or any other use of the seabed or its subsoil".

The 'Off-Shore Mining and Drilling Conclusions' in addition to requiring that construction, erection on site and major alteration of installations should be made subject to a prior written authorization from the competent authority of the State; requires that the authority should be satisfied that the applicant "has the technical knowledge, ability and economic capacity...to carry out operations, as well as to apply the necessary safety measures and, whenever necessary to take ocntingency action". No such a provision is included under the 'CEDE Draft Convention'.

Furthermore, under the 'Off-Shore Mining and Drilling Conclusions', the authorization should provide for concrete requirements on environmental protection including requiring the operator "..to have an adequate contingency plan". The 'CEDE Draft Convention' does not include such a requirement , it only provides that "the Contracting Parties" shall draw up, either individually or jointly with other

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[122] Article 6 refers to the impact assessment procedure.

States,and in conjunction with the operators of installations, contingency plans...

This difference can be explained by the fact that the 'off-shore mining and drilling conclusions' are of a global nature and are directed to both developed and developing States. In fact,the requirement of the operator to have an adequate contingency plan suits better developing States which do not have adequate resources of expertise and equipment to deal with emergencies and would prefer the operators to have their own plans.

Finally,while the 'CEDE Draft Convention' only requires that the State competent to issue a licence shall,in the future,determine the rules to apply to "...the conditions under which a licence already issued may be modified or,in the event of such modification not being sufficient to prevent serious deterioration of the marine environment,revoked"; the 'Off-Shore Mining and Drilling Conclusions" specifically require,and in the body of the text, that "authorizations should be refused if there are clear indications that the operations are likely to cause significant adverse effects on the environment which could not be avoided by compliance with the conditions in the authorization".

4.2.4.2.3 A Text For Off-Shore Mining And Drilling?

The 'Off-Shore Mining and Drilling Conclusions' are conclusions on aspects concerning the environment related to "off-shore mining and drilling" within the limits of national jurisdiction.

Two questions are,in my view,worth raising regarding the scope of these Conclusions: (a)whether the issue of off-shore mining has effectively been taken into account in the discussion of the 'working group' and in the elaboration of the Conclusions;(b)whether inclusion of environmental aspects of both off-shore mining and drilling in a single text is a sound approach.

Regarding the first issue, it is submitted that the question of off-shore mining has somehow been overlooked, for, first of all, background studies presented at the various meetings of the 'working group' have made it known from the beginning that off-shore mining of mineral resources within national jurisdiction is a relatively recent phenomenon, and that despite the importance of the hard mineral resources of the continental margin, no accurate assessment of their full extent has been made yet and the technology necessary for their extraction, especially in deeper waters has yet to be developed.[123]

When it was recognized that dredging and mining activities have sometimes created temporary pollution problems, it was asserted that they have not, as of yet, created any emergency situations. Consequently, it was asserted that "although the exact effects of oil pollution on the environment are still being studied, it is clear that the potential risks of off-shore oil and gas drilling are much greater than those of off-shore mining".[124]

The concentration on off-shore drilling only rather than on both aspects of off-shore mining and drilling by the consultants was to continue during elaboration of the Conclusions by the 'working group'.

The presentation made at the beginning of the work of the 'working group' by experts from mining industries kept the hope that the exercise would live truly to its name; some of the participants at the meetings of the 'working group' persisted, however, in thinking only in terms of gas and oil for the evidence brought to them was that off-shore mining was predominantly a question of dredging and that dredging as such does not cause serious environmental problems. This was questioned fairly seriously by some participants during the meeting, but the overall

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[123] See UNEP doc. UNEP/WG.14/2 at 2.

[124] Ibid.

view was that "off-shore mining of hard minerals had so far been limited to certain parts of the world oceans and in any case pollution from this kind of activity seems to be mainly local and not very hazardous in nature.."; and that "off-shore drilling for hydrocarbons had been undertaken on a very large scale in recent years and may,...present major accidental pollution.."with a high transboundary effect.[125]

The concentration on the off-shore drilling question only, rather than on off-shore mining and drilling, can also be seen in the interventions made by representatives of international organizations such as ILO on such questions as safety aspects of off-shore activities and contingency planning. These interventions were concerned only on presenting work of this organization regarding a code of practice on safety and health in the construction of off-shore installation in the petroleum industry.[126]

Having said this, how advisable was it for the 'working group' to include both aspects of off-shore mining and drilling in a single text? Can both issues be considered together?

Although the 'working group' has preferred to deal with both offshore mining and drilling in a single text the views of the consultants and the views of some experts during the early meetings of the 'working group' were not favourable to such a choice.

During the second session of the 'working group', for example, discussion of this matter saw two different approaches: some experts, constituting the majority, thought that the study should cover both off-shore mining and drilling, considering that their legal aspects would allow a certain degree of equal treatment; other experts, however, felt that the different nature of pollution problems involved might not warrant the initiation of a study on off-shore mining

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[125] See UNEP doc. UNEP/WG.14/4 at p.3, para.7. Also Interview with Mr. P. SZELL, (legal directorate, department of the environment, U.K.).

[126] Ibid. p.5, para.14.

of hard minerals simultaneously with off-shore drilling of oil.[127]

Under the work programme endorsed at its second session, while the group decided to pursue its work on both off-shore mining and drilling carried out within the limits of national jurisdiction it conceded, however, that "the development of guidelines concerning one or the other category of activities may well be undertaken separately, in particular the guidelines envisaged under Parts 2 and 3".[128]

The question of safety measures and contingency planning are not the only matters where it is better to have a separate regulation for off-shore drilling and off-shore mining; the question of liability and compensation is also considered to be another aspect where regulation should be different whether one deals with off-shore mining or off-shore drilling. This is particularly the view of a majority of experts during the IJO/UNEP Meeting[129]. In fact, at that meeting where there was discussion of the issue of liability and compensation for damage , the experts discussed the feasibility of having separate liability and compensation provisions relating to pollution caused by hydrocarbons, as distinct from other substances (e,g., sand, gravel) and because of the unique nature of such pollution and the activities of the oil industry; they widely accepted the need for separate provisions applicable to the oil industry.[130]

4.2.4.2.4 A Useful Text?

The off-shore mining and drilling legal exercise involved a

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[127] See UNEP doc. UNEP/WG.14/4 at p.3 para.7

[128] Ibid. Annex, p.1, para.3

[129] see note 102 supra.

[130] Ibid.

tremendous amount of effort ;lengthy background papers[131] were prepared after a long research in various national legislations and international legal instruments and practices;after several States involved in off-shore mining and drilling were contacted and after research was conducted on the relevant activities of various international organizations including IMO,ILO,OECD etc.,..All this effort produced a rather lengthy document containing the fourty two conclusions which was not warranted in the circumstances.In fact,the details in which this text went were unnecessary and it is doubted very much whether the practical use of these conclusions will in the final run be that great.

One of the problems involved is that,in the case of any developed country involved in off-shore mining and drilling ,there is a need for a tougher text than the one produced by UNEP's 'working group';the same would surely apply to developing countries where the value of this text as an inspiration for national action would be rather limited.These countries when faced with a problem or a need for regulation of environmental aspects of their off-shore activities would rather

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[131] Among the background papers prepared were:A.L.C. de MESTRAL,'Study of offshore mining and drilling carried out within the limits of national jurisdiction'(UNEP doc.UNEP/WG 14/2 of 23 February 1978);A.Ch.KISS,'Study of offshore mining and drilling carried out within the limits of national jurisdiction'(UNEP doc.UNEP/WG.24/2,15 December 1978).J.Mc Loughlin,'Study of offshore mining and drilling within the limits of national jurisdiction-liability to pay for compensation for environmental damage'(UNEP doc.UNEP/WG.49/2,4 September 1980).

look at relevant laws and regulations in such countries as the United States or any country where regulation of this type of activity is more advanced than the Conclusions produced by UNEP

The legal text produced by UNEP does not create a "message" for countries in need for regulation of off-shore activities;what was needed rather,is a limited number of guidelines which would clarify States'obligations in this field.

It is doubted whether the 'Off-Shore Mining and Drilling Conclusions',although consistent with international law and practice will, with the possible exception of some provisions referred to in this thesis,be regarded in the future as being one legal instrument which has developed international environmental law .The development of international environmental law in this field will rather result from other means such as bilateral agreements.

Nevertheless,inclusion in the 'Montevideo Programme' of such subjects as "Coastal Zone Management"and "Environmental Impact Assessment" might provide a good opportunity for the 'off-shore mining and drilling conclusions' to be refined and further incorporated in other legal texts.

4.3 Air and Atmospheric Pollution

4.3.1 Air Pollution

UNEP's performance regarding development of international environmental law in the field of air pollution has not been impressive.

At the regional level,mention has already been made of the provisions on atmospheric pollution(which in this case should rather be understood as air pollution) under the 'Athens Protocol' and the 'Quito Protocol'.

One should add to these provisions, the general provisions included under such 'framework' conventions as the 'Abidjan Convention'; the 'Cartagena Convention' the 'Lima Convention' and the 'ASEAN Agreement'[132].

At the global level, the leadership in this area has not been assumed by UNEP but by the ECE. In fact, in 1979, under this U.N. regional organization, the 'Geneva/ECE Convention', involving nations of Eastern and Western Europe and North America has been adopted, signed and is now in force.

This convention represents the first multilateral agreement to address specifically the transboundary air pollution problem'[133].

UNEP has, however, and as said earlier, supported the EMEP under the 'Geneva/ECE Convention', and it is significant that EMEP is referred to specifically under it'[134]. This constitutes, in my view, an important achievement towards strengthening the institutional base in legal instruments related to protection of the environment and conservation of nature and its resources much called for under the 'Shared Resources Principles'[135].

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[132] 'Abidjan Convention' (Art.9); 'Cartagena Convention' (Art.9); 'Lima Convention' (Art.4(a)(ii)); 'ASEAN Agreement' (Art.9).

[133] For a discussion of this convention, see ROZENCRANZ, 'The ECE Convention of 1979 on Long-Range Transboundary Air Pollution' in A.J.I.L., 75:975-982(1981) at 975.

[134] Art.9

[135] See discussion under chapter 9.

Moreover,"Transboundary Air Pollution" has been selected at the 'Montevideo Meeting' as one of the subjects for development and periodic review,and an "objective" and a "strategy" have been defined for it[136].

4.3.2 Atmospheric Pollution

UNEP's action in this field has had some results especially as regards regulation of depletion of the Ozone Layer and regulation of weather modification activities.

4.3.2.1 Ozone Layer Depletion

The action of UNEP in this field has been more positive for,since 1982 and in implementation of UNEP Governing Council's Decision 9/13B[137],the Ad Hoc Working Group of Legal and Technical Experts for the Elaboration of a Global Framework Convention for the Protection of the Ozone Layer (the 'working group') has been working on the elaboration of an ozone layer convention and a protocol on CFCs .While the elaboration of the convention has been finalized,the elaboration a protocol is proving quite difficult to achieve.

In the following sections one will discuss the 'Ozone Layer Convention' by underlining its most significant provisions and also give an account of the evolution towards the elaboration of a protocol on CFCs.All this,will be preceded,however,by a brief discussion of the need for regulation of this form of pollution.

4.3.2.1.1 Need For Regulation

One can find a good reason which supports the need for regulation of ozone layer depletion:contrary to other areas,and as said earlier,[138]

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[136] See Chapter 1

[137] Ibid.

[138] Ibid.

there exists no legal instrument which regulates this form of pollution;the only regulatory measures taken concern specific chemicals and are limited to a few countries.[138a]

There exists,however,a number of reasons against the regulation , especially at the present moment,of this form of pollution.

First,UNEP Governing Council's Decision 9/13B was taken with some reservations from some States who believed that it was premature to begin work on a convention,even a framework convention,since more scientific knowledge of the ozone layer and its interaction with other components of the atmosphere was needed[139].

Second,the 'Ottawa Meeting'held in 1980 in preparation for the 'Montevideo Meeting' had,as said earlier[140],not been in a position to 'agree' that ozone depletion,along with marine pollution from land-based sources and hazardous wastes,merited priority treatment;and the identification of "major subject areas"(which include depletion of the ozone layer) was achieved by the 'Preparatory Committee Meeting'for the 'Montevideo Meeting' only after "considerable discussion".[141]

The topic of depletion of the ozone layer was,in fact,promoted by Sweden along with other Scandinavian countries who not only put this subject at the 'Preparatory Committe Meeting',but also introduced documents regarding this subject-matter at the 'Montevideo Meeting'[142]

[138a] See discussion infra.

[139] See UNEP,Report of the Governing Council on the work of its Ninth Session;13-26 May 1981,GAOR:Thirty-Sixth Session,Supplement N.25 (A/36/25) at p.64 para.354

[140] See Chapter 1

[141] See,UNEP doc.UNEP/WG.60/3,18 September 1981 at 3

[142] See UNEP doc.UNEP/GC.10/5/Add.2

and continued to promote this subject by submitting a draft proposal for an international convention for the protection of the stratospheric ozone layer to the 'working group'[143].

Third, periodic assessments of the ozone layer by CCOL have produced decreasing figures for estimated rates of ozone depletion.[144]

4.3.2.1.2 The 'Ozone Layer Convention'

The 'Ozone Layer Convention', much like the ' Geneva/ECE Convention', provides merely for the sharing of information, collaborative research and systematic observations. It includes no numerical goals, limits, timetable or enforcement provisions.

The emphasis placed on the fields above mentioned finds its explanation in the substance of UNEP Governing Council's Decision 9/13B.[145] These topics of co-operation were also incorporated in the document proposed by the delegations of Finland and Sweden at the 'Montevideo Meeting' entitled "protection of the ozone layer',[146] and in the document proposed by the delegations of Finland, Sweden and Switzerland at the same meeting entitled "Draft Recommendations on Legal Aspects and Elements of a Global Framework Convention For the Protection of the Ozone Layer".[147]

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[143] See, UNEP doc. UNEP/WG.69/10 at 3

[144] See e.g., 'Executive Summary of the Recommendation of the Sixth Session of CCOL' in UNEP doc. UNEP/WG.78/12 of 11 April 1983 at p.2 para.2

[145] This decision stressed the desirability of a convention that would cover "monitoring, scientific research and development of the best available and economically feasible technologies to limit and gradually reduce emissions of ozone depleting substances...".

[146] See UNEP doc. UNEP/GC.10/5/Add.2, Appendix I

[147] Ibid. Appendix II

The 'Ozone Layer Convention' contains, however, a few positive provisions which are worth mentioning.

In addition to incorporation of Principle 21 of the 'Stockholm Declaration'[148], the 'Ozone Layer Convention' includes other positive provisions such as participation of non-governmental bodies in meetings of the "Conference of the Parties". Art.6 para.5 of the convention stipulates

> "any body or agency, whether national or international, governmental or non-governmental, qualified in the fields relating to the protection of the ozone layer which has informed the secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one -third of the Parties present object..."

This provision, is in my view, more progressive than similar provisions included under other relevant conventions. The 'Migratory Species Convention' or C.I.T.E.S. which are among the most advanced conventions in this respect, put a qualification regarding participation of national non-governmental bodies: These must be agencies or bodies "*which have been approved for this purpose by the State in which they are located*".[149] No such qualification is included under Art.6 para.5 referred to above.

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[148] See discussion under chapter 3.

[149] C.I.T.E.S. (Art.7(2); 'Migratory Species Convention' (Art.6)

Other positive provisions of the 'Ozone Layer Convention' include adoption of protocols at a "meeting of the Contracting Parties" and not at a "diplomatic conference" or at a "Conference of the Plenipotentiaries"[150]; communication by the Secretariat of the convention of amendements to the convention or to the Protocol to the *"signatories"* for information[151]. This latter provision, constitutes, in my opinion, a progressive provision when compared to similar provisions included under other legal texts which usually require that proposed amendments be communicated only to "Contracting Parties"[152]. The progressive aspect referred to may also serve a useful purpose: some amendments could be sufficient to change the mind of signatories and make them decide to become a Contracting Party to the convention or the protocols.

4.3.2.1.3 The Protocol On Chlorofluorocarbons

The legislative basis for regulation of chlorofluorocarbons can be found in UNEP Governing Council's Decision 8/7B of 29 April 1980. In this

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[150] 'Ozone Layer Convention' (Art.8).

[151] Ibid. Art.9(2).

[152] See e.g. 'Abidjan Convention' (Art.19); 'Kuwait Convention' (Art.XX); 'Barcelona Convention' (Art.16); 'Helsinki Convention' (Art.23); 'Migratory Species Convention' (Art.X), etc.,.

decision the Council confirmed the need for further co-operation on the ozone layer on a global scale, and recommended that Governments, especially those of countries where use of chlorofluorocarbons 11 and 12 was high, should achieve significant reductions in their use and encourage the development of ways to control their release into the atmosphere. The Council also recommended that production capacity for chlorofluorocarbons 11 and 12 should not be increased.[153]

Some control of CFCs has been achieved, at the regional level, under the European Communities. In fact, the EEC Council of Ministers has, on 30 May 1978, adopted a Resolution on the limitation of the production capacity of CFCs 11 and 12, the intensification of research into alternative products and alternative methods of application, and the elimination of discharges in all sectors. On 26 March 1980, the Council of Ministers adopted a decision which stipulated that the production capacity of CFCs 11 and 12 should not be increased in any Member State and that by 31 December 1981 there should be a reduction in the use of CFCs in aerosols of at least 30 per cent compared with 1976 levels[154]

Under UNEP, proposed measures to control, limit and reduce the use and emissions of fully halogenated chlorofluorocarbons for the protection of the ozone layer were drafted by Finland, Norway and Sweden and formally submitted to the second session of the 'working group'[155]. These measures called for ending all but essential uses of aerosol CFC 11 and CFC 12. They also required best practical technologies to limit chlorofluorocarbon emissions in the foam, plastic, refrigeration, solvent , and other industries and required reporting by each nation of information on production and use of chlorofluorocarbons and experience with limiting chlorofluorocarbon emissions.

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[153] See chapter 1

[154] Decision 80/372/EEC (OJ L 90 3.4.80). See also Decision 82/795/EEC (OJ L 329, 25.11.82)on the consolidation of precautionary measures concerning chlorofluorocarbons in the environment.

[155] See UNEP doc. UNEP/WG.94/4 of 3 August 1983.

Discussion of this question in the 'working group' saw two conflicting approaches: The approach of those countries which felt that there was no firm scientific basis for the control of these substances and the approach of another group of countries who supported a mandatory ban of these substances without waiting further evidence[156]

In the following sessions of the 'working group', several options for controlling chlorofluorocarbon emissions under a protocol to the 'Ozone Layer Convention' were developed. A major difference as regards the best regulatory approach developed subsequently between a group (the 'Toronto Group') represented by such countries as Canada, Finland, Norway, Sweden and the United States who favored a 'multi-optional' approach to the regulation of CFCs which included phased in cuts in aerosols uses and exports of CFCs, cuts in both aerosol and non-aerosol uses, and a production capacity cap; and the EEC who favored a 'single-optional approach' which called for a production capacity cap and less severe cuts in aerosols uses[157].

Because no agreement was reached between these two groups, both alternatives were submitted to the Diplomatic Conference which adopted the 'Ozone Layer Convention'. The Conference did not conclude a Protocol but adressed the CFCs issue in the second resolution adopted by it, in which it requested UNEP to set up a working group to continue work on a protocol on this question pending the entry into force of the convention, with a view to convening a diplomatic conference to adopt the Protocol, if possible in 1987[158].

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[156] See e.g. UNEP doc. UNEP/WG 78/13, 17 June 1983 at p.4 para.19

[157] See UNEP doc. UNEP/IG.53/4, 28 January 1985 at Annex II at p.3. See also UNEP doc. UNEP/WG.110/CRP.25, 25 October 1984.

[158] See Final Act of the Conference of Plenipotentiaries on the Protection of the Ozone Layer; Resolution 2, in EPL, 14/2/3 (1985) at 71-72.

4.3.2.2 Weather Modification

In implementation of its mandate in this field, UNEP jointly with WMO convened a meeting of selected experts in Geneva, Switzerland, in 1976 and 1978 and drafted a set of principles for guidance of nations with respect to each other in carrying out weather modification activities[159].

In September 17-21, 1979 at Geneva, there was a follow-up WMO/UNEP meeting of experts designated by governments on legal aspects of weather modification. At this meeting, delegates examined a set of principles of international conduct concerning weather modification which had been developed at the previous meetings of experts. These principles were discussed, revised and then recommended to the governing bodies of WMO and UNEP[160].

The Governing Council of UNEP endorsed these principles as "provisions for co-operation between States in weather modification", (hereafter, the 'Weather Modifications Provisions')[161].

Because the majority of the 'Weather Modification Provisions' are of a "procedural nature" , they will be discussed under an appropriate chapter[162]. In the following, one will only discuss the very few "substantive" provisions included under the provisions referred to above with a sub-section which will assess the "weather modification" legal exercise.

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[159] See Ray Jay DAVIS, WMO/UNEP Weather Modification International Law Proposals' in J. Weather Mod. 127(1980) at 127

[160] Ibid.

[161] Decision 8/7A (in UNEP, Report of the Governing Council on the Work of its Eighth Session..' op.cit. at p. 117

[162] Chapter 8.

4.3.2.2.1 Scope of the Weather Modification Provisions

One should first note the reluctance of States to designate the atmosphere and its weather system as "shared natural resources";despite the fact that the provision agreed at the first meeting bore a close resemblance to the 'Shared Resources Principles'[163].

The reluctance of States to designate the atmosphere and its weather system as a "shared natural resource" can be seen in the comments made by States on the draft principles of conduct for the guidance of States concerning weather modification. The U.S.A.,e.g. emphasized that "it should be made clear that the principles would only apply to deliberate weather modification activities conducted for the purpose of rain and snow enhancement, fog dispersal or hurricane amelioration ,and not to inadvertent weather changes resulting from high-altitude jet flights,pollutants emitted from smokestacks etc..,.".[164]

At the second meeting,the provision referred to above was dropped and replaced by a preambular paragraph "recognizing that the atmosphere is a natural resource of the earth"[165] and by the provision finally retained which stipulates that "weather modification should be dedicated to the benefit of mankind and the environment".

Also at this meeting,the scope of the principles was further limited with the inclusion of a definition of "weather modification".This was defined as "....any action performed with the intention of producing

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[163] See for a discussion of this point,RIPHAGEN,'The International Concern for the Environment as Expressed in the Concepts of the "Common Heritage of Mankind" and of "Shared Natural Resources"' in 'Trends in Environmental Policy and Law'(M.BOETHE,project co-ordinator) at 346.

[164] See U.N.doc.WMO/UNEP/WG.26/5 of 20 June 1979 at 8

[165] See note 180 supra.at 359

artificial changes in the properties of the atmosphere for purposes such as increasing, decreasing or redistributing precipitation or cloud coverage, moderate or severe storms and tropical cyclones, decreasing or suppressing hail or lightning or dissipating fog".[166]

Although the substance of the provisions retained falls short of the "shared natural resource" requirement, this should not, in my view, be counted as a serious drawback in the development of international environmental law for, as asserted by one State "development of new principles in this area will not...be easy and it is understandable that it will be some time before the proposition that the atmosphere is a global or common resource will be generally accepted"[167].

4.3.2.2.2 Assessment of the "Weather Modification" Legal Exercise

The legal exercise on weather modification has been carried out jointly by UNEP and WMO. The amount of effort put into the subject has been fairly slight and one thinks this is to do with the fact that it has been found that it is not, where law is concerned, a matter of quite such a wide priority as was originally thought.

Moreover, and as far as UNEP is concerned, the exercise on weather modification was not held under that part of UNEP which could be called the "legal part", but under one of its more general wings: "management".

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[166] Ibid.

[167] Comment made by Australia. (See U.N doc. WMO/UNEP/WG.26/5 at p.8

As regards the substance of the 'Weather Modification Provisions' adopted by UNEP, these ones while bearing a close resemblance to the 'Shared Resources Principles', which no doubt constituted the principal inspiration in this case, are a weak and less elaborate version of them.

The Group of Experts by recommending the set of provisions referred to above, has done only half the job; development of guidelines for national legislation on weather modification has yet to be addressed[168].

Since the adoption of these provisions by UNEP and WMO governing bodies, no further action seems to have been undertaken in this field; the reason may lie in the fact that, already the 1979 meeting demonstrated that the subject was one that perhaps concerns some countries rather more than others and that in any event the scientists's view was that man's capacity to modify weather for particularly crop growing purposes was really pretty rudimentary and basic[169]. Therefore there was a certain feeling in the Group of Experts' Meetings[170] and even more so in the governing bodies' meetings, that this was an activity of setting up legislative provisions to cover something that was not yet officially a problem[171].

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[168] See WMO/UNEP, Report of WMO/UNEP Meeting of Experts designated by Governments on the Legal Aspects of Weather Modification (Geneva, 17-21 September 1979) at 4.

[169] Ibid. at 2

[170] Ibid. at p.3, para. 5.2.

[171] See UNEP, Report of the Governing Council on the Work of its Eighth Session ..op.cit. at p.52. For the reaction of the Executive Committee of WMO, see UNEP, Environmental Law-An In-Depth Review (UNEP Report No.2 (1981) at p.84.

Summing-Up

UNEP performance in the development of water pollution law has been insignificant.

UNEP's achievements in the develpment of marine pollution law have been more or less important depending on the type of pollution.

As regards pollution from ships.the major achievements reside,in my view,in two aspects:First,regional conventions with provisions on pollution from ships have entered into force well before the 'Marpol Convention' or the LOSC have come into force.Second,most of the areas selected can also be seen as a development of the notion of "special areas" provided for under the 'Marpol Convention'.

As regards marine pollution by dumping,UNEP's achievements are not that important.Only a protocol on this source of pollution has been adopted in the Mediterranean Region and is now in force . This protocol which bases its regulatory system on that of the 'OSLO Convention' and the 'London Dumping Convention';provides ,however, for stricter regulatory measures dictated by the specially sensitive geographical,ecological and biological features of the Mediterranean Sea.

UNEP's achievements in the area of land-based pollution have been more important.Two protocols on this source of pollution have been negotiated for the Mediterranean Sea Area and the South-East pacific Area,with the first one in force,and global guidelines(the 'Montreal Guidelines')on this source of pollution have also been released.

Among the three legal instruments referred to above;the 'Athens Protocol' is the one that has yielded the most interesting and progressive legal provisions in this field.

The most progressive or noteworthy legal provisions included under the 'Athens Protocol' include a very comprehensive definition of land-

based sources;an interesting system of control of pollution from land-based sources which adopts an environmentally-positive approach to the "double-standard" question and an innovative provision on assistance to developing countries.Another interesting feature of this protocol,though not necessarily a progressive one,as far as protection of the environment is concerned,lies in the fact that the 'Athens Protocol',by showing a concern for "States"'capabilities or "Parties"'capabilities in general and not only "developing States"' capabilities has,in my view,signalled an important,albeit negative, shift as regards the international community's responsibilities for the protection and conservation of the environment.

In a 'soft law' context,the 'Montreal Guidelines',because they represent a "common denominator" of all the legal texts related to land-based pollution,do not represent a strong legal instrument.Under these guidelines it was made sure,however,that some of the important aspects of the control of land-based pollution are included;namely the need for a comprehensive definition of "land-based sources" and the need to include under the geographical coverage of future legal texts internal waters and areas where interaction between seawater and freshwater occurs.

Some other interesting aspects of the guidelines should be referred to,however,such as reference to the need to establish "specially protected areas" with a particular emphasis put on the creation of "sanctuaries and reserves" and the reference to the need to adopt a "comprehensive environmental approach" to the prevention,reduction and control of pollution from land-based sources.

UNEP's performance in the area of pollution from exploration and exploitation of the seabed under national jurisdiction has been more efficient in a 'soft law' context than in a 'hard law' context.While its initiative to develop a protocol on this source of pollution for the Mediterranean has not borne fruit as yet;its has succeeded in producing a set of 42 Conclusions on off-shore mining and drilling.These guidelines include progressive provisions,albeit of a 'soft law'

nature, on the prior authorization system, environmental impact assessment and liability and compensation.

Performance of UNEP in the development of international environmental law in the field of air pollution has been minor; the U.N./ECE has played the lead role, albeit in a limited geographical context, with the adoption of the 'Geneva/ECE Convention'.

In the area of atmospheric pollution, UNEP's performance has been more important with the adoption of the 'Ozone Layer Convention' and the release of the 'Weather Modification Provisions'.

The 'Ozone Layer Convention', which is the first legal instrument produced in this form in implementation of the 'Montevideo Programme', like the 'Geneva/ECE Convention' is only a "co-operation" agreement which does not include specific regulatory measures; these are being considered under a separate protocol.

The 'Ozone Layer Convention' includes, however, some positive provisions such as incorporation, in the preamble, of Principle 21 of the 'Stockholm Declaration'; the procedure regarding participation of non-governmental bodies in the meetings of the Conference of the Parties and a positive procedure for adoption of protocols and amendments of the convention and protocols.

The 'Weather Modification Provisions', while bearing a close resemblance to the 'Shared Resources Principles', which no doubt constituted their principal source of inspiration, are a weak and less elaborate version of them.

Since the adoption of these provisions by UNEP and WMO' governing bodies, no further action seems to have been undertaken in this fied.

CHAPTER 5: CONSERVATION LAW

Introduction:

UNEP's action in the field of conservation has produced mixed results.

On the positive side and in a 'hard law' context;some legal instruments,in whose support or preparation UNEP has been involved have been adopted and most of them are now in force.They are the 'C.I.T.E.S.',the 'Migratory Species Convention' ; the 'ASEAN Agreement';the 'Mediterranean Protected Areas Protocol' and the 'Nairobi Protected Areas Protocol'. Some regional "framework" conventions adopted under UNEP's Regional Seas Programme also incorporate important provisions related to conservation.

Still on the positive side,but in a 'soft law' context,UNEP has produced the "Shared Resources Principles";and a World Conservation Strategy and a 'World Charter for Nature' in whose preparation UNEP was deeply involved,have also been adopted.

Furthermore, UNEP has had some role in the fields of protection of marine mammals and the fight against degradation of soils,loss of forests cover and desertification in spite of the fact that for the latter three problems no global legal instrument has been produced to tackle them.

On the negative side,one should note the failure,so far,of an attempt to develop a protocol on the environmental aspects of fisheries for the Mediterranean Region(hereafter,the 'Mediterranean Fisheries Protocol').

The failed attempt to adopt the 'Mediterranean Fisheries Protocol' will first be briefly discussed;this will be followed by a discussion of the most important achievements in the area of conservation as could be

deduced from the 'hard law' and 'soft law' instruments referred to above.

5.1 Failure:The 'Mediterranean Fisheries Protocol'

A 'Mediterranean Fisheries Protocol" has never been proposed formally;it came out with the "protected areas" issue,with the initiative seeming to be coming particularly from Italy with some support from the EEC[1].

Delegates at the 'Dubrovnik Meeting' expressed their doubts,however,on the appropriateness and need for such a protocol,consequently,the meeting decided not to authorize the study on the feasibility and need for such a protocol proposed by UNEP for 1985[2].

If it were ever proposed that UNEP develop a protocol on this question,,there is a fair chance that FAO would be strongly opposing it;for,this organization has bodies like GFCM and a number of activities in the Area[3].

5.2 Achievements

Major achievements of UNEP in the field of conservation seem to be in two major fields:First,a concern for a better management of "shared natural resources",in other words,their "conservation and harmonious utilization";second,a better protection for "endangered species".These two aspects are developed below.

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[1] Interview with Ms.P.BLISS-GUEST (Legal Officer,Regional Seas Activity Centre,Geneva).

[2] See Report of the Third Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean...op.cit.at p.15,para.92.

[3] See CARROZ,'Institutional Aspects of Resources Management and Protection in the Mediterranean' in Ocean Man.3:235-251 (1978) at 237.

5.2.1 The 'Shared Resources Principles'

Reference to these principles has been made throughout this study; suffice it to say here, that the fifteen principles adopted by UNEP's Governing Council in 1978[4] and noted by the U.N. General Assembly in the same year[5], are "principles of conduct for the guidance of States" with respect to harmonious utilization of natural resources shared by two or more States.

This set of principles provides for the need for co-operation with a view to "controlling, preventing, reducing or eliminating adverse environmental effects" which may result from the utilization of shared natural resources[6]. Moreover, they not only restate principle 21 of the 'Stockholm Declaration' by providing for States' sovereign right to exploit their own natural resources pursuant their environmental policies, and their responsibility to ensure that activities within their jurisdiction or control do not damage the environment of other States or of areas beyond national jurisdiction; but "expound on it" [7] by providing for specific obligations such as the need to "avoid to the maximum extent possible and to reduce to the minimum extent possible" the adverse environmental effects beyond States' jurisdiction of the utilization of a shared natural resource, and by clarifying the notion of "adverse environmental effects" which in this case mean not only damage to the environment, but also the threatening of the conservation of a shared renewable resource and the endangering of the health of the population of another State.

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[4] UNEP/GC.6/17, 10 March 1978

[5] A/RES/33/87, 19 January 1979, adopted 17 December 1978.

[6] Principle 1.

[7] See BIRNIE, 'Legal Measures for the Conservation of Marine Mammals' (IUCN Environmental Policy and Law Paper No. 19, IUCN 1982) at 10.

The "Shared Resources Principles" include principles on environmental impact assessment[8];on notification,exchange of information and consultation[9],and on the carrying out,when useful,of joint scientific studies[10].

Finally these principles make provision for such important matters as transmission of information on emergencies[11];the possibility of seeking the services of competent international organizations "in clarifying the environmental problems relating to conservation or utilization of ...natural resources" shared by States[12];dispute settlement procedures[13];responsibility[14];the necessity for States,when considering under their domestic environmental policy,the permissibility of domestic activities to take into account the potential adverse environmental effects arising out of the utilization of shared natural resources without descrimination as to whether the effects would occur within their jurisdiction or outside it[15] ;and equivalent access and treatment in administrative as well as judicial proceedings for persons in other States who have been or may be adversely affected by environmental damage resulting from the utilization of a shared natural resource in another State,and make available to them the same remedies as are available to persons within their own jurisdiction[16].

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[8] Principle 4

[9] Principles 5-7

[10] Principle 8

[11] Principle 9

[12]Principle 10

[13] Principle 11

[14] Principle 12

[15] Principle 13

[16] Principle 14

With regard to the question as to the extent to which these principles can be said already to have become part of customary law, BIRNIE believes that "As yet there is insufficient evidence in the form of state practice and conventions to enable any final pronouncement on this question"[17];for his part,KISS believes,however, that "the Draft Principles on Shared Natural Resources may be considered as a good formulation of emerging principles of international environmental law, the more so as they are based on elements of positive international law existing in bilateral or multilateral frameworks'[18]

Whatever is said about this question, there is no doubt,as is shown throughout this thesis, that an important number of these 'Shared Resources Principles' have already been included ,sometimes in a more refined way,under legal agreements negotiated under UNEP in spite of the fact that these agreements do not explicitly refer to them.The only exception to this,is the 'ASEAN Agreement', Article 19 of which quite clearly reproduces a number of important 'Shared Resources Principles'.[19]

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[17] See BIRNIE,'Legal Measures...'op.cit. at 9.

[18] See KISS,'international Protection ...' op.cit.at 1082.

[19] This Article reads,
"19.Shared Resources,
1)Contracting Parties that share natural resources shall co-operate concerning their conservation and harmonious utilization,taking into account the sovereignty,rights and interests of the Contracting Parties concerned in accordance with generally accepted principles of international law.
2)To that end,they shall,in particular
(a) co-operate with a view to controlling,preventing,reducing or eliminating adverse environmental effects which may result in one Contracting Party from the utilization of such resources in another Party;
(b) endeavour to conclude bilateral or multilateral agreements in order to secure specific regulation of their conduct in respect of the resources concerned;
(c) as far as possible,make environmental assessments prior to engaging in activities with respect of shared natural resources which may create a risk of significantly affecting the environment of another sharing contracting Party or other sharing Contracting Parties;

Environmental law scholars agree, however, that the major weaknesses of these principles lie in the absence under them of a definition of "shared natural resources" and the less than positive reception they received from the U.N.General Assembly[20].

19(follows) (d) notify in advance the other sharing Contracting Party or the other sharing Contracting Parties of pertinent details of plans to initiate, or make a change in, the conservation or utilization of the resource which can reasonably be expected to affect significantly the environment in the territory of the other Contracting Party or Contracting parties;
(e) upon request of the other sharing Contracting Party or sharing Contracting Parties, enter into consultation concerning the above-mentioned plans;
(f) inform the other sharing Contracting Party or other sharing Contracting Parties of emergency situations or sudden grave natural events which may have repercussions on their environment;
(g) whenever appropriate, engage in joint scientific studies and assessments, with a view to facilitating co-operation with regard to environmental problems related to a shared resource, on the basis of agreed data.
3) Contracting Parties shall especially cooperate together and, where appropriate, shall endeavour to co-operate with other Contracting Parties, with a view to
(a)the conservation and management of
-border or contiguous protected areas;
-shared habitats of species listed in Appendix I;
-shared habitats of any other species of common concern;
(b) the conservation, management and, where applicable, regulation of the harvesting of species which constitute shared resources
-by virtue of their migratory character, or
-because they inhabit shared habitats."

20 See BIRNIE, 'Legal Measures..'op.cit.at 9; KISS, 'International Protection..'op.cit.at 1082. It should be noted that in response of a request contained in U.N.General Assembly resolution 37/217 of 20 December 1982 , the Executive Director of UNEP prepared a report on the implementation of the 'Shared Resources Principles' (UNEP doc.UNEP/GC.13/9/Add.1) based on answers to a questionnaire received from 46 Governments and 11 international organizations which he submitted to the Governing Council at its thirteenth session. The answers contained in the report were very general and did not indicate any clear implementation of the 'Shared Resources Principles'; they contained rather promises of future implementation of the said principles. The Governing Council took note of the report of the Executive Director and authorized him to transmit it on behalf of the Council, together with any comment made by delegations thereon, to the General Assembly at its fortieth session in accordance with Assembly resolution 37/217 of 20 December 1982. (See, EPL, 14/4(1985) at 111).

5.2.2 A Better Protection For Endangered Species

Legal instruments, whether 'soft law' or 'hard law', in whose elaboration or support UNEP has been involved are progressive for they include either some or all of these following aspects: (a) they are comprehensive; (b) they implement and refine existing legal instruments; (c) they include innovative concepts; (d) they protect habitats.

5.2.2.1 Comprehensive Legal Instruments

The C.I.T.E.S. and the 'Migratory Species Convention' are progressive legal instruments in that, first, they are comprehensive agreements. C.I.T.E.S, for example, unlike former treaties which included prohibition on trade in certain endangered species, regulates trade in all endangered species[21]. Likewise, the 'Migratory Species Convention' covers all migratory species throughout the world be they birds, mammals, reptiles, fish or even insects[22].

5.2.2.2 Implementation and Refinement of Existing Legal Instruments

The 'Migratory Species Convention' implements 'Stockholm Action Plan' recommendations and also the 'Shared Resources Principles'[23]. It develops also, as far as marine migratory species are

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[21] See KISS, 'La Protection Internationale de la Vie Sauvage' in A.F.D.I. 26:661-686 (1980) at 666.

[22] Ibid. at p.665 (footnote 7). Also, de KLEMM, 'Migratory Species-A Review of Existing International Instruments-in EPL, 15(1985) at 81-91.

[23] The 'Stockholm Action Plan' recommended, as said earlier, the conclusion of treaties to protect species inhabiting international waters or those which migrate from one country to another. The 'Migratory Species Convention' can also be seen as a development of Principle 2 of the 'Shared Resources Principles'. See in this respect, BIRNIE, 'International Protection of Whales' in (1983) Y.B. World. Aff. pp. 240-261 at 254.

concerned, the LOSC by providing for guidelines relating to the content of specific agreements required under the LOSC. In this respect, the 'Migratory Species Convention' can be considered, according to one author, "as an instrument giving effect, in respect of a certain number of migratory species, to the obligation to co-operate provided for in the articles of the law of the sea convention that relate to fisheries in the EEZ and in the high seas" and could be of particular importance "as a means to implement on a sound ecological basis the provisions of Articles 65 and 120 on marine mammals, of Article 64 on highly migratory species and of Article 66 on anadromous species"[24].

The 'World Charter' for Nature[25] whose objectives are considered to be complementary to those of the World Conservation Strategy, includes important provisions which develop, in a 'soft law' context, in someway, the 'Shared Resources Principles'. Principle 11 of this Charter recommends e.g., that activities which might have an impact on

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[24] See de KLEMM, 'Living Resources of the Ocean' in (JOHNSTON ed.) 'The Environmental Law of the Sea' (Erich Schmidt Verlag, 1981) at 162.

[25] As concerns the legal nature of the World Charter of Nature, KISS asserts that "Telle qu'elle se presente, la charte mondiale de la nature constitue juridiquement une recommendation de l'Assemblée Générale ; elle n'a donc pas de valeur obligatoire. Toutefois, en tant que declaration de principes, elle est appelée à exercer une profonde influence sur les activités de l'O.N.U. et sur l'opinion publique". He also notes that "..sur le plan juridique les principes qui y sont proclamés , con¢us dans des termes généraux, ne peuvent pas être directement mis en oeuvre," he believes however, that these principles "peuvent contribuer efficacement au developpement du droit de l'environnement en consacrant de nouvelles valeurs et en fournissant aux legislateurs des éléments permettant de formuler des nouvelles règles....c'est un rôle des plus importants des déclarations de principes". See, KISS, 'Droit International de L'Environnement' in R.J.E. 1-1984, pp. 43-49 at 46

nature be controlled,and the "best available technologies" that minimize significant risks to nature and other adverse effects be used[26]. Also significant is principle 11(c) which recommends that activities which may disturb nature be preceded by an assessment of their consequences,and that environmental impact studies of development projects be conducted "sufficiently in advance.."[27];principle 18 which recommends that constant efforts be made to increase knowledge of nature by scientific research and to disseminate such knowledge "unimpeded by restrictions of any kind"[28],and principle 19 which recommends that the status of natural processes,ecosystems and species be closely monitored not only to "enable early detection of degradation or threat",but also "to ensure timely intervention and facilitate the evaluation of conservation policies and methods".

Also important is the inclusion under the 'World Charter of Nature' of provisions concerning the link between nature conservation problems and the negative effects of war and other hostilities[29]. The World Conservation Strategy does not adress this issue.

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[26] Note e.g. that Principle 3 of the 'Shared Resources Principles' emphasizes quite clearly that the principle should be interpreted taking into account,where appropriate,"the practical capabilities of States sharing the natural resource".

[27] 'Shared Resources Principle' 4 uses the words "..before engaging in any activity..".

[28] The obligation to exchange information under the 'Shared Resources Principles' is only "to the extent practicable".

[29] 'World Charter for Nature' (General Principles,Principles 5). Mention has already been made under chapter 2 of this thesis to the opposition shown by experts at the 'Montevideo Meeting' to the selection as a subject of the question of 'disarmament and environment' proposed by the Soviet Union.

5.2.2.3 Innovative Concepts

Under UNEP's 'hard law' and 'soft law' instruments referred to above, important and innovative concepts of conservation are included. The recognition under C.I.T.E.S., for example, of varying degrees of endangerement and the adoption of regulatory provisions which reflect these differences constitute, according to one author, this convention's most significant innovation for the protection of wildlife[30].

Moreover the 'Migratory Species Convention' includes "harassing" as equal to capturing and killing (considered to be of great importance in whale migration and breeding); provides that "attempting" to engage in in prohibited conduct be equally culpable as is common in national criminal codes and laws[31].

The 'Migratory Species Convention' also introduces new concepts defined under the convention, such as "the Range State"[32].

The 'ASEAN Agreement' is also noteworthy for it is "the first such convention which is eco-system and not resource, oriented"[33].

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[30] See DIKTOF, 'International Trade in Endangered Species under C.I.T.E.S.; Direct Listing vs. Reverse Listing' in Cornell Int'l L.J. 15:107-120 (1982) at 118.

[31] See 'Legal Aspects of Conservation of Marine Mammals', Report of Workshop, Quissac, France, December 10-14, 1979, Centre for Environmental Education Monograph Series, at p. 19. (See however, 'Berne Convention', Art. 6).

[32] See BIRNIE, 'International Protection of Whales' op.cit. at 254.

[33] See Editorial, EPL, 15 (1985).

The 'Mediterranean Protected Areas Protocol' and the 'Nairobi Protected Areas Protocol' also include progressive concepts: A "protected area" under the 'Mediterranean Protected Areas Protocol', for example, includes a protected "core area" surrounded by "buffer areas"; this would define the ideal "biosphere reserve"[34].

The World Conservation Strategy also includes far-reaching goals; its objectives are "to maintain essential ecological processes and life support systems"; "to preserve genetic diversity" and "to ensure the sustainable utilization of species and ecosystems"[35].

5.2.2.4 Protection of Habitats

In spite of all the positive aspects discussed above, it is a recognized fact that the focus on important individual species which characterized the approach of legal instruments on conservation is inadequate; protection of habitats is considered to be the best solution to the threat facing species today. In the words of ECKHOLM, "the destruction of habitats supporting large numbers of independant species cannot be analyzed or halted using a species-by-species approach.."; the overriding conservation need for the next few decades, according to him, is "the protection of a representative cross-section of the world'

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[34] See 'Protected Areas Protocol' (Art.5).

[35] See ECKHOLM, 'Down to Earth, Environment and Human Needs' (Pluto Press, 1982) at 8-9. Note that both the 'ASEAN Agreement' and the 'Nairobi Protected Areas Protocol' include the goals cited under the World Conservation Strategy. (See, FORSTER, 'The Draft Regional Seas Agreement for East Africa' in EPL, 14 (1985) pp. 13-16 at 14). As regards the legal nature of the World Conservation Strategy, KISS believes that "La Strategie Mondiale de la Conservation est avant tout un programme d'action recommendé aux gouvernements et aux organizations internationales intergouvernementales. Sa valeur juridique reste bien loin derrière sa valeur scientifique et morale mais on peut la considerer comme la meilleure formulation d'un plan indispensable pour sauver l'avenir de l'humanité en ce qui concerne la conservation des resources naturelles vivantes ". See KISS, 'Droit International de L'Environnement' in R.J.E. 2-1982, pp. 149-153 at 151.

ecosystems"[36]. The same conclusion is arrived to by the 'UNEP Global Report' which states that the main improvement must be expected from protected areas and good land management"[37].

Some success in the protection of "habitats" and establishment of protected areas has been achieved under UNEP 'hard law' and 'soft law' instruments referred to above.

In the first context, The 'Migratory Species Convention' e.g., provides for an affirmative obligation to conserve and even to restore habitats[38]; and two protocols devoted to the establishment of protected areas have, as said earlier, been adopted for the Mediterranean and the East African Region.[39]. Protection of habitats has also had an impetus in more recent UNEP' regional seas action plans, including their legal component where an increasing emphasis has been placed on conservation, coastal management and the rational use of natural resources. This goes particularly true for the 'Abidjan Convention', the

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[36] See ECKHOLM, 'Down to Earth..' op.cit. at 194.

[37] See 'The World Environment, 1972-1982, A Report by the United Nations Environment Programme' (Holdgate & others eds.) at 240

[38] Arts. III(4)(b); V(5)(e)-(i).

[39] The significance of the 'Mediterranean Protected Areas Protocol' is further emphasized by de KLEMM when he asserts that this protocol is "the first example in the world of a regional treaty concerned exclusively with the protection of particular types of ecosystems and at the same time the first treaty ever to develop the concept that protection of the marine environment in general must be supplemented by the protection, in coastal areas or in the high seas, of unique ecosytems, critical habitats, habitats of endangered species and other areas of great ecological , biological or even aesthetic value, thus implementing Article 194(5) of the Law of the Sea Convention well before it has come into force". See de KLEMM, 'Living Resources..' op.cit. at 157. On the 'East African Protected Areas Protocol', see OKIDI, 'Nairobi Convention, Conservation and Development Imperatives' in EPL, 15(1985), pp. 43-51 at 49.

'Lima Convention' and the 'Jeddah Convention'[40].

5.2.3 Other Achievements

One would include under this title the progress made in the protection of whales in implementation of Recommendation 33 of the 'Stockholm Action Plan' and the achievements made in the fields of water protection;soils protection ;conservation of forests and the fight against desertification.

With regard to the first issue,since 1972,the year when the "moratorium" was on IWC's agenda,important conservation measures were achieved which culminated in the adoption,in 1982 of a proposal for cessation of commercial whaling in the form of "zero quotas" on all commercially exploited stocks for the 1986 coastal and 1985-86 pelagic season[41].

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[40] 'Abidjan Convention'(Arts.4(1),10,11);'Lima Convention'(Art.5);'Jeddah Convention'(Art.1(1).For a discussion of the point under the latter convention,see MEKOUAR,'La Convention de Jeddah du 14 Fevrier 1982 pour la Protection de l'Environnement de la Mer Rouge et du Golfe d'Aden:l'Innovation dans la Tradition' in R.J.E. 2-1983 pp.89-100 at 97.Also,LAND,'The Regional Seas Approach:A Focal Point for Environmental Co-operation' in CERES March-April 1982,pp.43-46 at 45.See also,the 'ASEAN Agreement'(Arts.3,5,12,13).

[41] Since 1972,the year when the moratorium on whaling was proposed,important conservation measures were achieved among which one should note the implementation,in 1975, of the 'New Management Procedure' by IWC;under this regime the global catches of whales were considerably reduced ; the decision in 1979 to ban factory ship for all whales,except the Minke;to reduce the total catch for 1979-80 by 4000,and to establish a whale sanctuary in the Indian Ocean North of 55 degree South.In 1981,the Sperm Whale quota was reduced to zero for 1982.Finally 1982 saw the adoption of a proposal for cessation of commercial whaling(in the form of zero quotas on all commercially exploited species) for the 1986 coastal and 1985/86 pelagic season.(Three States;Japan,USSR and Norway are still objecting to this decision).See for these developments, BIRNIE&SANDBROOK, 'IWC:Increasing Complexities'in Mar.Pol'y.(1979)at 69;BIRNIE, 'IWC,Survival and Growth'in Mar.Pol'y.(Jan.1980)at 72;'IWC-Bargaining and Compromise'in Mar.Pol'y (Jan.1981)at 79;'IWC-A New Era' in Mar.Pol'y(Jan.1982)at 74 ; 'Countdown to Zero' in Mar.Pol'y (Jan.1983)at 64 and 'Are Whales Safer than Ever' in Mar.Pol'y (January 1986) at 62-66.Also,Mc Gonigle," The Economizing of Ecology:Why Big Rare Whales Still Die",9 Ecology L.Q.119-237 (1980) ;FORSTER,'IWC makes some progress'in EPL,5(1979) at 170;'International Whaling Commission-Trying Hard' in EPL,15(1985)pp.8-9.

UNEP's main action in the field of water management and protection relates to its involvement in the U.N.Water Conference held in Mar del Plata,Argentina, in 1977.This conference produced an action plan aimed at heading off a future global water crisis.This action plan includes recommendations on environmental aspects of the water resources problems.[42]

The 'ASEAN Agreement' also includes a provision devoted to conservation of underground and surface waters.[43]

With regard to protection of soils[44],one should first note that some regional conventions adopted under UNEP include provisions which have a bearing on soils protection.This is the case,for example,of the 'ASEAN Agreement' ,the 'Lima Convention',the 'Abidjan Convention',the 'Kuwait Convention' and the 'Jeddah Convention'[45].

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[42] See,Guillermo J.CANO,'Water Conference' in EPL,3(1977) at 66.

[43] This provision reads;
"1) The Contracting parties shall,in view of the role of water in the functioning of natural ecosystems,take all appropriate measures towards the conservation of their underground and surface water resources.
"2) They shall to that effect,in particular,endeavour to
(a) undertake and promote the necessary hydrological research especially with a view to ascertaining the characteristics of each watershed;
"(b) regulate and control water utilization with a view to achieving sufficient and continuous supply of water for, *inter alia*, the maintenance of natural life supporting systems and aquatic fauna and flora;
"(c) when planning and carrying out water resource development projects take fully into account possible effects of such projects on natural processes or on other renewable natural resources and prevent or minimize such effects".

[44] A mandate for UNEP in this field can be found in goal 8 of the 21 goals to be accomplished by UNEP by 1982;this one reads;"Publication of guidelines to control soil degradation" and also in the 'Montevideo Programme'(See UNEP doc.UNEP/GC.10/5/Add.2 Annex).

[45] 'ASEAN Agreement'(Arts.6,7);'Lima Convention'(Art.5);'Abidjan Convention (Art.10);'Kuwait Convention'(Art.VIII).

Moreover, the World Charter for Nature includes a provision which is relevant in this respect.[46]

In implementation of its mandate , UNEP also developed an action plan on implementation of the World Soils Policy adopted by UNEP's Governing Council at its tenth session . Delegates at meetings of UNEP Governing Council were however dissatisfied with UNEP's action in this field feeling that, instead of producing guidelines, reports and maps in implementation of the policy, UNEP has to give the plan of action the form of reasonable concrete projects that can be successfully implemented in areas where they are needed[47].

In the field of protection of forests; one should note that one of the requirements for sustainable development summarized by the World Conservation Strategy, is the need for the wise management of tropical forests[48]. The World Charter for Nature also includes relevant principles[49]

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[46] Principle 10(b) provides;
"The productivity of soils shall be maintained or enhanced through measures which safeguard their long-term fertility and the process of organic decomposition, and prevent erosion and all other forms of degradation".

[47] See EPL, 11(1983) at 22. It should also be noted that the 21st session of the FAO Conference held in November 1981 adopted the World Soils Charter, "establishing a set of principles for the optimum use of the world's land resources for the improvement of their productivity and for their conservation for future generations". (See EPL, 9(1982) at 17).

[48] Note also that an International Tropical Timber Agreement was adopted by the U.N. Conference on Tropical Timber, held in Geneva from 7-18 November 1983 under the auspices of UNCTAD. The Preamble to the Agreement states that the Parties to the Agreement recognized "the importance of, and the need for, proper and effective conservation and development of the tropical timber forests with a view to ensuring their optimum utilization while maintaining the ecological balance of the region concerned and of the biosphere". This agreement is "..primarily a trade related.." agreement. (See, EPL, 12(1984) at 11.

[49] See 'World Charter for Nature' (principles 1, 3, 4, 10(d), 21(e)..).

The other legal instrument which provides for measures aimed at forests protection is the 'ASEAN Agreement'[50]

UNEP's involvement in the problem of desertification begun when in 1974 the U.N.General Assembly called for international co-operation to combat desertification and delegated the task of implementing the request to it.[51]

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[50] Art.6 of the 'ASEAN Agreement' reads;
"6.Vegetation Cover and Forest Resources
"1) The Contracting Parties shall,in view of the role of vegetation and forest cover in the functioning of natural ecosystems,take all necessary measures to ensure the conservation of the vegetation cover and in particular of the forest cover on lands under their jurisdiction.
"2) They shall,in particular,endeavour to
(a)-control clearance of vegetation;
-endeavour to prevent bush and forest fires;
-prevent overgrazing by,*inter alia*,limiting grazing activities to periods and intensities that will not prevent regeneration of the vegetation;
(b) regulate mining and mineral exploration operations with a view to minimizing disturbance of vegetation and to requiring the rehabilitation of vegetation after such operations;
(c) set aside areas as forest reserves,*inter alia*,with a view to conserve the natural forest genetic resources;
(d) in reforestation and afforestation planning avoid as far as possible monoculture causing ecological imbalance;
(e) designate areas whose primary function shall be the maintenance of soil quality in the catchment considered and the regulation of the quantity and quality of the water delivered from it;
(f) ensure,to the maximum extent possible the conservation of their natural forests,particularly mangroves with a view,*inter alia*,to maintaining maximum forest species diversity;
(g) develop their forestry management plans on the basis of ecological principles with a view to maintaining potential for optimum sustained yield and avoiding depletion of the resource capital".

[51] See EPL,3(1977) at 57. A mandate for UNEP in this field can also be found in Goal 7 to be accomplished by UNEP by 1982.This goal reads: "Concrete achievements in the implementation of the Plan of Action to Combat Desertification arising from the United Nations Conference on this subject".

In order to implement this request, a United Nations Conference on Desertification was held in Nairobi in 1977 which produced the Plan of Action to Combat Desertificaton.[52]

The Plan of Action adressed problems of halting desertification, reclaiming desertified lands,and development of natural resources of deserts.[53]

Many delegates at the thirteenth session of UNEP Governing Council while strongly supporting all efforts to control desertification expressed disappointment at the slow implementation of the Action Plan and ,more generally at the inadequate practical response of developed and developing countries alike[54].Delegates not satisfied with the programme,proposed that UNEP with the direct involvement of the Executive Director should attempt to mobilize and coordinate the important resources of large institutions and organizations such as the World Bank,UNDP,IFAD,etc.,under a re-designed strategy[55].

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[52] See EPL,4(1978)at 84.

[53] Ibid.

[54] See EPL,14/4(1985) at 96.

[55] Ibid.According to Dr TOLBA,the UNEP Executive Director,the Action Plan to Combat Desertification requires 1.8 billion U.S. Dollars to be committed yearly till the end of the century.(See EPL,9(1982) at 2).

Summing-Up

UNEP's peformance in the area of conservation has, on the whole, been positive.

Legal instruments in whose elaboration or support UNEP has been involved include progressive provisions.

In a 'soft law' context, the 'Shared Resources Principles' and to some extent, the World Conservation Strategy and the 'World Charter for Nature' usefully refine and complement the 'Stockholm Declaration' principles .

In a 'hard law' context, legal instruments adopted under UNEP are progressive legal instruments because they include one or all of these qualities: They implement and refine existing legal instruments; they are comprehensive agreements ; they include innovative concepts and they protect habitats.

No important achievements can be recorded in the development of international environmental law in such fields as conservation of water resources, the fight against desertification , protection of soils and conservation of forests. One should say, however, that although no specific legal instruments (except for relevant provisions included under some regional conventions) have been produced to tackle them; important actions have been launched in the form of conferences which produced action plans or guidelines to deal with them.

CHAPTER 6: CHEMICALS MANAGEMENT LAW

6.1 Environmentally Sound Management of Hazardous Wastes

Pursuant to UNEP Governing Council Decision 10/24 of 31 May 1982[1], the Ad Hoc Working Group of Experts on the Environmentally Sound Management of Hazardous Wastes (hereafter the "working group") was established.

The "working group" has, after holding three sessions[2], produced the "Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes" (hereafter the 'Cairo Guidelines/Principles').[3]

It is proposed here to discuss the 'Cairo Guidelines/Principles' by looking at the most interesting provisions included under them.

6.1.1 Scope of the 'Cairo Guidelines/Principles'

The 'Cairo Guidelines/Principles', like relevant OECD and EEC legal instruments, exclude radioactive wastes from their coverage[4].

Unlike 'EEC Directive 84/631/EEC', the 'Cairo guidelines/principles' do not exclude "chlorinated and organic solvents" and waste (including in particular waste, scrap, sludge, ash and dust) from non-ferrous metals which is intended for re-use, regeneration or recycling.

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1 See discussion under chapter 1.

2 See UNEP docs. UNEP/WG.95/5 and UNEP /WG.111/3.

3 These are contained in UNEP doc. UNEP/WG.111/3, Annex II

4 See 'Cairo Guideline/Principles' (partI, definitions, guidelines/principles 1 para.b); 'EEC Directive 75/442/EEC' (art.2 para.2(a)); 'EEC Directive 78/319/EEC' (art.3) and 'OECD Decision and Recommendation C(83)180 (Final)' (Appendix).

6.1.2 Definitions

Under the 'Cairo Guidelines/Principles', definitions of the following terms were provided:"competent authority"; "contingency"; "disposal";"export"; "State of export"; "hazardous wastes"; "States of import"; "management"; "pollution"; "approved site or facility"; "territory"; "transit State"; "transport" and finally "wastes".These definitions with the exception of the definition of "pollution" discussed under chapter 3,are discussed below.

The definition of "contingency", "export", "approved site or facility", "territory", "transport" included under the 'Cairo guidelines/principles' have no equivalent under either EEC directives or OECD legal texts related to hazardous waste management.

The definition of "hazardous waste" under the 'Cairo Guidelines/Principles'[248] differs from the definitions of the same term given under either the relevant EEC Directives or 'OECD Decision and Recommendation C(83)180 (Final)'.

'EEC Directive 78/319/EEC' for example,contains a list of certain toxic or dangerous substances and materials identified as requiring priority consideration.Likewise,under Article 2(1(a))of 'EEC Directive 84/631/EEC' "hazardous wastes" has been defined as "toxic and dangerous waste as defined in Article 1(b) of Directive 78/319/EEC,except for chlorinated and organic solvents referred to in points 13 and 14 of the Annex to that Directive" and "PCB as defined in Article 1(a) of Directive 76/403/EEC".

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[5] The 'Cairo Guidelines/Principles' define "hazardous waste" as "...wastes other than radioactive wastes which ,by reason of their chemical reactivity,or toxic,explosive,corrosive or other characteristics causing danger or likely to cause danger to health or the environment.whether alone or when coming into contact with other wastes,are legally defined as hazardous in the State in which they are generated or in which they are disposed of or through which they are transported".

Under 'OECD Decision and Recommendation C(83)180 (Final)',"hazardous waste" has been defined as "... any waste other than radioactive waste considered as hazardous or legally defined as hazardous in the country where it is situated or through which it is conveyed..".

The definition of "hazardous waste" under the 'Cairo Guideline/Principles',although influenced by the aformentioned legal instruments,includes other elements which are adapted from other legal instruments not principally concerned with hazardous waste. Reference, under the definition,to such terms as "chemical reactivity","explosive", "corrosive" etc.,. shows,for example the influence of the recommendations of the U.N.Committee of Experts on Transport of Dangerous Goods as well as that of provisions under national legislation[6].

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[6] See H.YAKOWITZ,'Harmonization of Specific Descriptors of Special Wastes Subject to National Controls for eleven OECD Countries' in 'Transfrontier Movements of Hazardous Wastes'(OECD,Paris 1985) at 59.The problem which is still awaiting solution is that of finding an internationally accepted definition of "hazardous waste".A first move has been made by the OECD in that direction;in fact,one of the recommendations of the OECD Conference on International Co-operation Concerning Transfrontier Movements of Hazardous Wastes,Basel,26-27 March 1985(hereafter the 'OECD Basel Conference')was that the international system for control of transfrontier movements of hazardous wastes to be developed by OECD "should adress the issues concerning transfrontier movements of hazardous wastes..." with priority given to those issues where more rapid progress appears both necessary and possible,"including the establishment of an agreed list of hazardous wastes".(C(85)100 Appendix).In an Annex to this Appendix,one issue which should be adressed in the development of an OECD system of control of transfrontier movements of hazardous wastes is that of the "definition and classification" of hazardous wastes.Under this provision it is stated "the development of an agreed system for the definition of the properties,characteristics and classification of hazardous wastes,taking account of related work in other fora",and "the harmonisation of technical standards for management,containment and control of hazardous wastes"(C(85)100,Annex to the Appendix).Also,FORSTER,'Solid Waste Disposal and Recycling' in (M.BOTHE ,Project Coordinator),'Trends in Environmental Policy and Law',Erich Schmidt Verlag,1980),pp.217-234 at 223-225.

The definition of "competent authority" under the 'Cairo Guidelines/Principles'[7] is generally speaking[8] consistent with international law in this field as reflected in Art.5 of 'EEC Directive 75/442/EEC' and Art.6 of 'EEC Directive 78/319/EEC' .

The definition of "disposal"[9] under the 'Cairo Guidelines/Principles' is different from the definition of the same term under the relevant EEC Directives[10].

The definition of "management" under the 'Cairo Guidelines/Principles'[11] is much more similar to the definition of "disposal" under the relevant EEC Directives referred to above.

The definition of "disposal" under the EEC Directives above is, in my view, however, more comprehensive than that of "management" under the

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7 "Competent authority" has been defined for the purpose of the 'Cairo Guidelines/Principles' as "...a governmental authority with appropriate qualifications designated or established by a State to be responsible, within such geographical area and with such jurisdiction as the State may think fit, for the planning, organization, authorization and supervision of the management of hazardous waste".

8 Although the definition of "competent authority" under the 'Cairo Guidelines/Principles' emphasizes that those authorities should be with "appropriate qualifications", this element is, in my view, implied in the term "competent" used in relevant EEC Directives' definitions.

9 "Disposal" means final disposal".

10 'EEC Directive 78/319/EEC' defines under Art.1(c) "disposal" as the "collection, sorting, carriage and treatment of toxic and dangerous waste, as well as its storage and tipping above or underground"; it also means "the transformation operations necessary for its recovery, re-use or recycling". The same definition is given under Art,1 of 'EEC Directive 75/442/EEC' and in the 'OECD Basel Conference''s Conclusions and Recommendations(C(85)100 Appendix).

11 Under the 'Cairo Guidelines/Principles', "management" has been defined as the "..collection, transport(including transfrontier movements), storage(including storage at transfer stations), treatment and disposal of hazardous wastes".

'Cairo Guidelines/Principles' because it includes not only transport(carriage), "storage", "treatment" and "disposal"("tipping above or underground") ,but also includes "sorting" and "the transformation operations necessary,for its recovery,re-use or recycling".

The definitions of "State of export"[12] "State of import" [13]and "transit State"[14]are consistent with international law in this field as reflected in the relevant provisions[15]of 'OECD Decision and Recommendation C(83)180 (Final)'.

The definition of "wastes" under the 'Cairo Guidelines/Principles' [16] conforms to the definition of the same word under 'OECD Decision and Recommendation C(83)180(Final)'.

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[12] ""State of export" means a State in which hazardous wastes which are the subject of an export are generated" (I(1)).

[13] ""State of import" means a State in which hazardous wastes are received for disposal".

[14] ""Transit State" means a State,not being the State of export or import ,through which a movement of hazardous wastes takes place".

[15] See 'OECD Decision and Recommendation C(83)180(Final)',Appendix.Reference under the 'Cairo Guidelines/Principles''definition of "State of export" to the word "generated" does not,in my view,affect the assessment above.In the words of H.SMETS "...in the event of the disposer subsequently deciding to export the waste rather than disposing of it as planned,he would initiate a new transfrontier movement and *would thereby become the generator of the dangerous waste*(emphasis added)See for this,SMETS,'Transfrontier Movements of Hazardous wastes' in EPL,14(1985) 16 at 18.With regard to the definition of "transit State",one should note,however,that 'OECD Decision and recommendation C(83)180(Final)' refers not only to a transfrontier movement which is initiated but also to one that is *envisaged*(my emphasis).

[16] This definition reads;""waste" means any materials considered as wastes or legally defined as wastes in the State where they are situated or through or to which they are conveyed".

6.1.3. General Principles

In addition to the provisions on the basic obligation; "non-discriminatory control of hazardous wastes";"transfer and transformation of pollution", discussed under chapter 3;other provisions are included under this title on such matters as "international co-operation"[17];and "transfer of technology"[18].

The provisions on "international co-operation"[19]and "transfer of technology"[20]add nothing new,in my view,to present international environmental law .[21]In addition,a number of qualifying words included under them,i.e.such words as "...in a manner appropriate to their needs and capabilities...";"..in accordance with their

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[17] Draft guideline 4.

[18] Draft guideline 5.

[19] This one reads;"Without prejudice to the other provisions of these guidelines and principles,States should,in a manner appropriate to their needs and capabilities,initiate and co-operate in:
(a) the achievement and improvement of the environmentally sound management of hazardous wastes;
(b) the development and implementation of new environmentally sound low-waste technologies and the improvement of existing technologies with a view to reducing the generation of hazardous wastes and achieving more effective and efficient methods of ensuring their management in an environmentally sound manner,including the study of the economic,social and environmental effects of the adoption of such new or improved technologies;
(c) monitoring the effects of the management of hazrdous wastes on health and the environment;
(d) exchanges of information,whether on a bilateral or multilateral basis,with a view to promoting the environmentally sound management of hazardous wastes.

[20] This provision reads;"States should,in a manner appropriate to their needs and capabilities,whether directly or through the appropriate international organizations,promote actively and in accordance with their legitimate interests the transfer on fair and reasonable conditions of technology related to the environmentally sound management of hazardous wastes.They should also promote the technical capacity of States,especially of developing States,which may need and request technical assistance in this field."

[21] For a progressive provision on technical assistance in the field of international environmental law,see Article 10 of the 'Athens Protocol'.

legitimate interests..",weaken the obligations of States provided under them.

One should also note that,with regard to the two provisions referred to above,all references to non-waste technologies included under the consultant's paper were thought by the experts[22]to be unrealistic and were deleted from the text of the provisions.

6.1.4. Generation and Management of Hazardous Wastes

Under this title two provisions were included under the 'Cairo Guidelines/Principles',one on "preventive measures",the other on establishment of "competent authorities";the latter provision is discussed under chapter 9.

The provision on "preventive measures"[23] is,in my view,weaker than similar provisions included under the relevant EEC[24] and OECD legal

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[22] See,FORSTER,'Hazardous waste-Toward International Agreement' in 12 EPL 64-67(1984) at 65.

[23] This one reads;
"(a) States should take such steps as are appropriate to ensure that the generation of hazardous wastes within their territories is reduced to a minimum
(b) States should ensure that persons involved in the management of hazardous wastes take such steps as are necessary to prevent pollution arising from such management and.if pollution should occur,to minimize the consequences thereof for health and the environment;
(c) In particular,States should take such steps as are necessary to promote the development and employment of low-wastes technologies applicable to activities generating hazardous wastes and the recycling and reuse of hazardous wastes unavoidably produced by such activities".

[24] Art.3 of 'EEC directive 75/442/EEC' provides,for example,that States take appropriate steps to encourage the *prevention*..of waste(my emphasis).Likewise,'EEC directive 78/319/EEC' states in its preamble the following:"whereas the *prevention*,recycling and recovery of toxic and dangerous waste and the use of recovered materials should be encouraged in order to conserve natural resources"(my emphasis).Art.4 of the same directive also urges Member States to take appropriate steps to encourage "as a matter of priority *the prevention of toxic and dangerous waste*.."(my emphasis).

instruments. These latter provisions are much more detailed, in my view, than the provision under the 'Cairo Guidelines/Principles'.[25]

6.1.5 Control over Disposal of Hazardous Wastes

Under this title a number of provisions were drafted; they concern such aspects as "disposal plans for hazardous wastes"; "separation of hazardous wastes"; "collection of hazardous wastes"; "duty to ensure safe disposal"; "use of best practicable means"; "approved sites and facilities" and finally "international listing of approved sites and facilities". Provisions related to "transfrontier effects of approved sites and facilities-pre-authorization information"; "transfrontier effects-consultation" and "transfrontier effects-equal access and treatment" are also provided for under this title; these are, however, discussed under chapter 8.

With regard to the remaining provisions , one should note the following;

Concerning the provision on "disposal plans for hazardous wastes"[26], one should note the reference to "...the participation of the public.." in the preparation of a plan for the management of hazardous waste.[27] Although participation of the public is qualified by the

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[25] 'OECD Recommendation C(76)155 (Final)', for example, considers in its preamble that "waste recycling and *prevention* can make a major contribution to resource saving policies and waste disposal policies" (my emphasis).

[26] This provision reads;
(a) States should ensure that each competent authority prepares, in its area of responsibility, in consultation with the other public authorities concerned and with the participation of the public as appropriate, a plan for the management of hazardous wastes describing the arrangements for implementing that plan;
(b) Such plans should be reviewed by the competent authorities to ensure their continuing adequacy in the light of experience in the operation of the plans and of changes in circumstances, including changes in the State of scientific knowledge".

[27] The original version referred to participation of the public in the context of that permitted under the national legislation (see UNEP/WG.111/2, p.11).

addition of the words "as appropriate", it is in my view, a more progressive provision than similar ones under other relevant legal instruments where public participation is either not referred to or provided for but ex-post-facto, i.e. after preparation of the said plans.[28].

On the other hand, one should note that other legal instruments, for example relevant EEC Directives are much more detailed in their provisions than the 'Cairo Guidelines/Principles'[29].

The provision on "separation of hazardous wastes"[30] uses the words "..should ensure.." with regard to the obligation to separate wastes whereas other legal instruments such as 'EEC Directive 78/319/EEC', use the words "..shall take the necessary steps to ensure..."[31]. Another difference between the 'Cairo Guidelines /Principles' and the Directive above is that whereas this latter text addresses "Member States"[32], the 'Cairo Guidelines/Principles' address the "competent authorities".

Both legal texts provide for separation of hazardous wastes from other wastes "where it is necessary to do so" or "where necessary". An earlier version of the guidelines and principles[33] required separation of hazardous waste wherever "it is practicable to do so"; this was, however, not accepted by the "working group".[34]

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[28] See, e.g. Art. 12(2) of 'EEC Directive 78/319/EEC'.

[29] See, e.g. Art. 12 of 'EEC Directive 78/319/EEC' and Arts. 5 and 6 of 'EEC Directive 75/442/EEC'.

[30] This provision reads;
"The competent authorities should ensure that persons concerned in the management of hazardous wastes keep them separate from other wastes where it is necessary to do so for their environmentally sound management".

[31] Art. 7

[32] Ibid.

[33] See UNEP doc. UNEP/WG.95/4 (guideline 13).

[34] See UNEP doc. UNEP/WG.95/5 at p.6.

The provision on "collection of hazardous wastes"[35] has ,to my knowledge,no equivalent in other relevant EEC or OECD legal instruments.

The provision on "duty to ensure safe disposal"[36] is, generally speaking, consistent with international law in this field as reflected in relevant provisions of 'EEC Directive 75/442/EEC'[37] and 'EEC Directive 78/319/EEC'[38].

One should note ,however,that the provision on "duty to ensure safe disposal" under the 'Cairo Guidelines/Principles',unlike the above referred to legal texts,puts explicitly the primary responsibility to ensure safe disposal on persons generating hazardous wastes.

'EEC Directive 84/631/EEC' under Art.3(3) and 'OECD Decision

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[35] This provision reads;
"States should promote the establishment of a system of collection of hazardous wastes,including those that are generated in small quantities".One should note that a very extensive provision on collection of hazardous wastes was originally included but was reduced to the provision above;see in this respect,UNEP doc.UNEP/WG.95/4.

[36] This provision reads;
"States should ensure that persons engaged in activities in the course of which hazardous wastes are generated are required to make appropriate arrangements for the disposal of those wastes in an environmentally sound manner.In particular,they should satisfy themselves as to the capability and reliability of persons and facilities involved in the management of such wastes".

[37] Art.4

[38] Arts.6,9 and 12.

and Recommendation' C(83)180(Final)'[39]refer to a special responsibility of the generators of hazardous wastes to ensure their safe disposal.

The provision on "use of best practicable means"[40]under the 'Cairo Guidelines/Principles" has,to my knowledge,no equivalent under other relevant legal instruments although some of the provisions of these legal instruments might cover such matter.[41]

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[39] In one preambular paragraph of the OECD Decision and Recommendation,for example,it is provided "considering that the *generator*of a hazardous waste has responsibilities to ensure that the disposal of its waste is carried out in a manner consistent with the protection of the environment,whatever the place of disposal"(emphasis added).Moreover,under the same legal instrument,one of the principles provides that "countries should ensure that hazardous waste situated within the limits of their jurisdiction is managed in such a way as to protect man and the environment.For this purpose,countries should promote the establishment of appropriate disposal installations and should adopt all necessary measures to enable their authorities to control the activities related to generation,transport and disposal...".Furthermore,with regard to "any specific transfrontier movement of hazardous wastes"; 'OECD Decision and Recommendation C(83)180(Final)'provides that *"the generator"*of the waste "take all practicable steps to ensure that the transport and *disposal* of its waste be undertaken in accordance with the laws and regulations applicable in the countries concerned";and in particular "obtain assurances that all entities concerned with the transfrontier movement *or the disposal*of its waste have the *necessary authorizations*to perform their activities in accordance with the laws and regulations applicable in the countries concerned" and "reassume responsibility for the proper management of its waste,including if necessary the re-importation of such waste,if *arrangements for safe disposal* cannot be completed".(emphasis added).The concern to ensure safe disposal is also emphasized by the 'OECD Basel Conference's conclusions and recommendations(C(85)100 Appendix,recommendations V and VII).

[40] This provision reads;
"States should ensure that all persons involved in the management of hazardous wastes employ the best practicable means in all aspects of such management".

[41] See 'OECD Recommendation C(76)155(Final)'(Annex:Principles 2,3 and 7).

The provision on "approved sites and facilities"[42] is, in my view, a "progressive" one . Its progressive aspects relate to the following:

First, an explicit requirement of an "assessment" before granting an authorization, with a view to ascertaining that no significant adverse effects on health or the environment are to be expected as a result of treatment, storage or disposal. Although other relevant legal texts[43] include provisions which would require the undertaking of an impact assessment; they do not require such assessment as part of the prior authorization process.

Second, no explicit mention of "financial means" of the operator are made under other legal instruments related to or relevant in this field although this could be implied in more general words provided for under them such as "technical requirements"[44] or "conditions and obligations".[45]

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[42] This provision reads,
"(a) States should take such steps as are necessary to require that the storage, treatment and disposal of hazardous wastes take place only at approved sites or facilities;
(b) An authorization or operating permit for approved sites or facilities should be granted only if:
(i) An assessment undertaken by or at the request of the competent authority has established that no significant adverse effects on health or the environment are to be expected as a result of such treatment, storage or disposal;
(ii) The competent authority is satisfied as to the suitability of the operator of the facility at which such storage, treatment or dispoal is to be carried out, including the technical knowledge and financial means of that operator to carry out the operations in respect of which the authorization or operating permit is sought to be granted and to take the appropriate safety measures in respect thereof".

[43] See e.g. Art.4 of 'EEC directive 75/442/EEC'; Art.5 of 'EEC directive 78/319/EEC'.

[44] See e.g. Art.9(2) of 'EEC directive 78/319/EEC'.

[45] Ibid., para.3.

It should be noted that under the UNEP consultant's document[46] much more detailed provisions relating to "approved sites" were drafted; these provided for a site authorization system, regulations on the qualifications of licensees, environmental impact assessment and the prohibition of disposal elsewhere than at approved sites. These provisions were reduced to the provision discussed above because the "working group" decided[47] at its first session that so extensive a treatment was inappropriate as part of the text of the guidelines. The "working group" envisaged, however, that some of the elements provided for may be profitably included in the final text of the guidelines in the form of an extended commentary.[48]

The purpose of the provision on "international listing on approved sites"[49] is also consistent with international law in this field as reflected in 'EEC directive 84/631/EEC' [50] and 'OECD Recommendation C(76)155(Final)'[51].

6.1.6. Monitoring, Remedial Action and Record Keeping

Two provisions are included under this title, one on "monitoring", the other on "public access to information".

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[46] The original document (UNEP/WG.94/5) provided for a site authorization system (guideline 17), regulations on the qualifications of licencees (guideline 19), environmental impact assessment (guideline 18) and the prohibition of disposal elsewhere than at approved sites (guideline 20).

[47] See UNEP doc. UNEP/WG.95/5, p.7, para.28.

[48] See UNEP doc. UNEP/WG.111/2, p.13.

[49] This one reads, "For the guidance of their competent authorities and to ensure the optimal use of their disposal facilities in conformity with guideline 2, States should consider the establishment, on a bilateral or multilateral basis, of lists of approved sites in their respective territories".

[50] Preamble and Art.12.

[51] Principles 6 and 7.

The provision on "monitoring"[52] is, in some of its aspects, more progressive than similar provisions included under other relevant legal texts . These progressive aspects relate principally to the recommendation that the operators of sites or facilities at which hazardous wastes are managed be required "as appropriate" to "monitor the effects of those activities" on health and the environment and to "supply the competent authorities with the results" of such monitoring[53], and the recommendation for States to ensure the continuation of protection of "abandoned sites or closed facilities" against the subsequent unauthorized disposal of hazardous wastes and the continuation of the monitoring of such sites or facilities for effects on health and the environment "after their abandonment or

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[52] This provision reads;

"(a) States should ensure that the operators of sites or facilities at which hazardous wastes are managed are required, as appropriate, to monitor the effects of those activities on health and the environment and to supply the competent authorities with the results of such monitoring , either periodically or on demand . States should ensure that the protection of abandoned sites or closed facilities against the subsequent unauthorized disposal of hazardous wastes, and the monitoring of such sites or facilities for effects on health and the environment, continue after their abandonment or closure".

"(b) States should ensure that the competent authorities have the power to enter upon the sites or facilities mentioned in paragraph (a) above and upon such other premises as may be necessary for the purposes of monitoring the effects upon health and the environment of the activities carried out at those sites or facilities. States should also ensure that the competent authorities have the power to order the cessation, limitation or modification of those activities if it is determined that adverse effects on health and the environment are taking place, or are likely to take place;

(c) States should ensure that appropriate remedial action is taken in cases where monitoring gives indications that management of hazardous wastes has resulted in adverse affects on health or the environment;

(d) States should ensure that persons involved in the management of hazardous wastes keep accurate and precise records, as appropriate, of the relevant information concerning wastes, including the type, quantity, physical and chemical characteristics, origin and location within the site or facility of such wastes".

[53] Under 'EEC directive 75/442/EEC' and 'EEC directive 78/319/EEC', no obligation for monitoring is put on the operators of facilities or sites at which are carried out activities involving the management of hazardous wastes. Provisions are however made for competent authorities to "supervise waste disposal operations and to *inspect* installations and undertakings involved in this field. (Arts. 5 and 9 of 'EEC Directive 75/442/EEC'; Art. 6 of 'EEC Directive 78/319/EEC').

closure"[54].

Other progressive aspects include the recommendation that States ensure that the competent authorities have the power to order "the cessation, limitation or modification" of activities carried out on sites or facilities if it determined that adverse effects on health and the environment are taking place and that States ensure that "appropriate remedial action is taken" in cases where monitoring gives indications that management of hazardous wastes has resulted in adverse effects on health or the environment[55].

Other legal instruments such as 'EEC directive 78/319/EEC' are, in some aspects, more progressive however. The directive referred to refers, for example, in its relevant provisions not only to installations, establishment or undertaking which holds and/or disposes of toxic and dangerous wastes but also to those which *produce* them.[56] Moreover, with regard to record-keeping ; the directive requires, in addition the keeping of records on "methods" used for disposing of wastes and also on the "dates of receipt and disposal" of wastes.[57]

The provision on "public access to information"[58] is also a positive one; the experts attending the first meeting of the "working group"

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[54] A similar, but not as explicit, provision is included under Art.5(2) of 'EEC Directive 78/319/EEC'.

[55] Art.9 of 'EEC Directive 75/442/EEC' provides for *inspection* by the competent authority of installations and undertakings involved in the management of wastes but does not state explicitly the power given to competent authorities to order the cessation, limitation, or modification of activities dealing with management of wastes. The same applies to Art.15 of 'EEC Directive 78/319/EEC'. It could reasonably be said that such powers are implied.

[56] See Arts.14 and 15.

[57] Art.14.

[58] This provision reads, "States should ensure that competent authorities keep a record of the authorization or operating permits issued by them under guideline 14, and that the public have access to information concerning the number and types of those authorizations or permits and the conditions attached thereto".

decided "after considerable discussion" to provide for public access to information on the existence and types of authorizations granted as well as conditions attached thereto. They also agreed not to retain a requirement that authorities should keep copies of all documents supplied in support of authorization applications.[59]

At the second session of the "working group", a suggestion[60] was made by one expert that the conditions necessary to facilitate public access to information concerning hazardous waste management should be elaborated in a separate supplementary document to be prepared by UNEP secretariat.

6.1.7 Safety and Contingency Planning

Three provisions are included under this title respectively for "instruction of workers"; "contingency plans" and "contingency plans-transfrontier effects". The latter provision is discussed under chapter 8.

With regard to the provision on "instruction of workers"[61]; although no provision similar to this one is included under other relevant legal texts, it is not unreasonable to say that its requirements are met by other provisions included under these latter texts such as Articles 6 to 10 of 'EEC Directive 75/442/EEC' and Article 9 of 'EEC Directive 78/319/EEC'.

It should be noted that the consultant paper included a much more

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[59] See UNEP doc. UNEP/WG.95/5 p.8, para.34.

[60] See UNEP doc. UNEP/WG.111/3 p.4, para.16.

[61] This provision reads "States should ensure that persons employed at sites or facilities at which hazardous wastes are managed receive, on a continuing basis, information on the conditions attached to authorizations or permits, and full and appropriate instruction as to the safety precautions necessary to ensure the protection of health and the environment, including the actions to be taken by them in any contingency".

detailed provision on "instruction and qualifications of workers".[62]

The provision on "contingency plans"[63]is also stated more explicitly under the 'Cairo Guidelines/Principles' than under other relevant legal instruments.[64]

6.1.8 Transport of Hazardous Wastes

A number of provisions are included under this title respectively on "transport rules";"transport documentation";"notification and consent procedure in respect of transfrontier movements of hazardous wastes";"States of export to readmit exports" and "States to co-operate in the management of hazardous wastes".

The provision on "transport rules"[65]is, generally speaking, consistent with international law in this field as reflected,for example, in Art.2 of 'EEC Directive 78/319/EEC'.[66]

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[62] See UNEP doc.UNEP/WG.95/4 guideline 28.

[63] This provision reads,"States within whose territories hazardous wastes are managed should recognize the need for studies on the risks of sites or facilities ,and contingency plans prepared by operators of sites or facilities ,or by the competent authorities,as appropriate,and the application of such plans as and when necessary.These plans should take into account any potential adverse effects on health and the environment in other States".

[64] Under Art.8 of 'EEC Directive 75/442/EEC' the "permit" which must be obtained by installations or undertaking treating,storing or tipping waste on behalf of third parties relates "in particular" to "general technical requirements" and "precautions to be taken..".The same aspects are referred to under 'EEC Directive 78/319/EEC'(Arts.9 and 13).A relevant provision is also included under Art.8(1) of 'EEC Directive 84/631/EEC'.

[65] This provision reads;"States should ensure that the transport of hazardous wastes is conducted in a manner compatible with international conventions and other international instruments governing the transport of hazardous materials or wastes".

[66] This provision reads;"When Member States which are parties to one or more international conventions concerning the carriage of dangerous goods are applying those conventions,this shall be adequate for the purpose of this Directive so far as carriage is concerned,provided that the measures being applied in implementation of the convention are at least as stringent as those required for the implementation of the Directive".

The provision on "transport documentation"[67] is, in my view, less elaborate than similar provisions under , for example, 'EEC Directive 78/319/EEC'[68] or 'EEC Directive 84/631/EEC'.[69]

A detailed provision for consignment notes was provided for under the UNEP consultant's paper[70] but was subsequently reduced to the provision under discussion because the "working group" felt the increasing number of national and supra-national consignment note systems in existence or in preparation required only to recommend to States to consider the establishment of such a system without going into

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[67] This provision reads; "To ensure that hazardous wastes are safely transported for disposal, and to maintain records of the transport and disposal of such wastes, States should establish a system by which all transport of such wastes should be accompanied by a hazardous wastes movement document from the point of generation to the point of disposal. This document should be available to the competent authorities and to all parties involved in the management of such wastes".

[68] Art. 14 paras. 2 and 3 of this directive read as follows;
"2. When toxic and dangerous waste is transported in the course of disposal it shall be accompanied by an identification form containing at least the following details:
-nature;
-composition;
-volume or mass of the waste;
-name and adress of the producer or of the previous holder(s);
-name and adress of the next holder or of the final disposer;
-location of the site of the final disposal where known
"3. Documentary evidence that the disposal operations have been carried out shall be kept for as long as the Member States deem necessary. This evidence shall, where necessary, be addressed to the relevant authorities of the Member States concerned."

[69] Arts. 3(paras. 2,3); 5; 6; 15 and Annex I

[70] UNEP doc. UNEP/WG.95/4 (guideline 40).

great details[71].

The provision on "notification and consent procedure in respect of transfrontier movements of hazardous wastes" is partially discussed under Chapter 8.What should be noted, with regard to this provision, under this sub-section is the provision that "in the absence of bilateral,regional or multilateral arrangements,States should provide that it shall not be lawful for any person to initiate a transfrontier movement of hazardous wastes until the State of import and any transit State have given their consent to that movement" and that "the consent of the State of import should take the form of an explicit consent provided always that States may,by bilateral or multilateral arrangements adopt a tacit consent procedure";and the provision that any transit State should be notified in a timely manner of a proposed movement and may "object" to it within reasonable time in accordance with its national laws and regulations.These provisions are,in my view,progressive when compared to other relevant legal texts;neither 'EEC Directive 84/631/EEC',nor 'OECD Decision and Recommendation C (83)180(Final)'include such provisions. 'EEC Directive 84/631/EEC' requires only for the shipment to be undertaken,that competent authorities of the Member State of destination "acknowledge receipt of the notification",which acknowledgement (or objection to the shipment)must be forwarded to the holder of the waste within one month of its receipt.With regard to Member States of transit,these have only a

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[71] UNEP doc.UNEP/WG.95/5,para.36.One of the recommendations of the 'OECD Basel Conference' is that the OECD system for control of transfrontier movements of hazardous wastes should include appropriate OECD instruments such as further council acts covering "notification identification and control of transfrontier movements.." (C(85)100) Appendix).The issues concerning control of transfrontier movements of hazardous wastes identified in the Annex to the Appendix,which should be adressed in the development of an OECD system of control of transfrontier movements of hazardous wastes include " establishment of an agreed OECD-wide system of notification,identification and control of each transfrontier movement of hazardous wastes".The system should include "an agreed consignment note format.."(C(85)100,Annex to the Appendix.).

period of fifteen days to formulate "conditions" in respect of the transit through their respective territories which are to be sent to the holder of the waste and to the other competent authorities concerned[72]. 'OECD Decision and Recommendation C(83)180 (Final)' requires only that Member Countries "ensure that the competent authorities of the countries concerned are provided with adequate and timely notification concerning such movements. This obligation is repeated under Principle 5(1) of the OECD Decision and recommendation referred to above. Also relevant is the provision of its Principle 8.[73].

Also noteworthy is the provision under 'Cairo Guideline/Principle' 26, para. (f), which stipulates that "the State of export should not permit a transfrontier movement of hazardous wastes to be initiated if it is not satisfied that the wastes in question can be managed in an environmentally sound manner at an approved site or facility and with the consent of the State of import". Although similar provisions are included under, for example, 'OECD Decision and Recommendation C(83)180 (Final)', they fail to provide for as clear and explicit an obligation for States as the one provided for under the 'Cairo Guidelines/Principles''provision.

The provision under the 'Cairo Guidelines/Principles' related to the right of a State to refuse to accept within its territory hazardous wastes originating elsewhere[74] is also a progressive one for, while

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[72] Art. 4

[73] This principle reads; "Countries should take all practicable steps to ensure that a projected transfrontier movement of hazardous waste is not initiated if one of the countries concerned has decided in conformity with its legislation to oppose the import or transit of the waste and has so informed the entities or authorities concerned in the exporting country". It should be noted, however, that one of the recommendations of the 'OECD Basel Conference' is that the international system for control of transfrontier movements of hazardous wastes to be developed by the OECD Member will not allow movements of hazardous wastes to non-Member Countries to occur without the consent of the appropriate authorities of the importing country and of any non-Member countries of transit.." (OECD doc. C(85)100, Appendix, Recommendation V).

[74] 'Cairo Guidline/Principle' 26 para. (h).

under this provision the right of a State to refuse imports of hazardous wastes seems to be undisputable; under 'EEC Directive 84/631/EEC' and 'OECD Decision and Recommendation C(83)180(Final)' limitations are put to it. Under the EEC Directive referred to above, objections to the shipment of wastes "must be substantiated on the basis of laws and regulations relating to environmental protection, safety and public policy or health protection which are in accordance with the provisions of th[e] Directive, with other Community instruments or with international conventions on this subject concluded by the Member State concerned prior to notification of th[e] Directive"[75]. Likewise, under 'OECD Decision and Recommendation C(83)180 (Final)', it is provided that authorities may object to entry of a consignment of hazardous wastes in their territory for disposal or transit "if the information provided is insufficient or inaccurate or the arrangements made for transport or disposal are not in conformity with their legislation"[76].

The obligation of exporting States to readmit exports, under the 'Cairo Guidelines/Principles'[77] is consistent with international law in this field as reflected, for example, in Principle 9 of 'OECD Decision and Recommendation C(83)180 (Final)'[78].

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[75] Art. 4(3).

[76] 'OECD Decision and Recommendation C(83)180(Final)' (general principles, principle 7).

[77] This one is contained in 'Cairo Guideline/Principle' 27; this one reads;
"27. States of export to readmit exports
Where a State of import or transit State, in conformity with its laws and regulations, opposes a transfrontier movement of hazardous wastes into its territory, and where the hazardous wastes which are the subject of the transfrontier movement have already left the State of export, the latter should not object to reimport of the wastes."

[78] This one reads, "When an importing or transit country opposes in conformity with its legislation a transfrontier movement into its territory and the waste has already left the exporting country, the latter should not oppose reimport of the waste."

6.2 Exchange of Information on Potentially Harmful Chemicals in International Trade

Introduction

Following UNEP's Governing Council Decision 10/24 of 31 May 1982[79] and in implementation of it, the Executive Director of UNEP established an Ad Hoc working group of experts nominated by governments and international organizations (hereafter the 'working group') in order to consider guidelines and principles on the exchange of information relating to trade in and use and handling of potentially harmful chemicals, in particular pesticides.

The "working group" has, at the time of writing, held two sessions[80]. It is proposed here to discuss the draft guidelines as revised after the first session of the 'working group[81]'; (hereafter the 'Revised Draft'); mention will be made, where necessary however, to any proposed amendments to the 'Revised Draft' made at the second session of the 'working group'.

As with other topics, the discussion which will follow will only be concerned with the "substantive law" part of the 'Revised Draft'; the parts concerned with procedural and institutional law are dealt with under chapters 8 and 9 of this thesis.

6.2.1 Scope of the 'Revised Draft'

The 'Revised Draft' concerns itself with "exchange of information" on potentially harmful chemicals (in particular pesticides) in international trade.

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[79] See discussion under chapter 1.

[80] See UNEP docs. UNEP/WG.96/5 ; UNEP/WG.112.

[81] See UNEP doc. UNEP/WG.112/3.

With regard to the element of "exchange of information", one has already mentioned[82] that decision 10/24 of the governing council of UNEP re-orientated the objective of the legal exercise from the "control of international trade" to the "exchange of information relating to trade". This latter objective is also narrower than the one included under two earlier UNEP'governing council decisions on the same subject which called for an export ban unless importing countries had obtained the required information[83] or had actually given their consent[84].

The 'Revised Draft' relates to "potentially harmful chemicals". These words have not been defined by the governing council of UNEP. Moreover, according to draft guideline 12, the guidelines should not apply to (a)narcotic drugs and psychotropic substances; (b)radioactive materials; (c)chemicals imported for purposes of research or analysis in quantities not likely to affect the environment or human health and (d) chemicals imported as personal or household effects, in quantities reasonable for these uses[85].

These exemptions are made presumably in order to avoid duplication, with regard to regulation, with other international controls in existence. This is particularly the case with regard to narcotic drugs and psychotropic substances, controlled under the '1961 U.N. Single Convention on Narcotic Drugs' and the '1971 Convention on Psychotropic Substances' and radioactive materials(chemicals)controlled

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[82] See discussion under chapter 1.

[83] Decision 6/4, 1978.

[84] Decision 85/V 1977.

[85] The exclusion of chemicals imported for purposes of research or analysis and chemicals imported as household effects is also made under other international legal texts(i.e.'EEC Directive 79/117'(Art.5/a)and C.I.T.E.S.(Art.VII/3) respectively). Note, however, that under draft guideline 12(c) a qualifying element to this exclusion is added; chemicals imported for purposes of research or analysis should be in quantities "not likely to affect the environment or human health". A similar qualification is inserted as regards chemicals imported as household effects under draft guideline 12(d).

under IAEA and by the U.N.Scientific Committee on the Effects of Atomic Radiation.

The inclusion of pharmaceuticals,medicinal products and food additives within the scope of the guidelines was also discussed by the "working group".While many experts believed that these chemicals should not be included ;there was general agreement that their inclusion should be reconsidered at a later stage.Fear of duplication(with the possible result of imposition of conflicting requirements)with the work of the various international bodies dealing with different groups of chemicals was the main reason for the opposition of experts to the inclusion of the above referred-to chemicals[86].

6.2.2 Definitions

The 'Revised Draft' provides for the definition of the following terms:"chemical";"pesticide";"potentially harmful";"banned or severely restricted";"trade";"export";and "management"[87].

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[86] See UNEP doc.UNEP/WG.96/5,p.4,para.12.

[87] Under the 'Revised Draft" it is provided;
"for the purpose of the present guidelines:
(a)"chemical" means a chemical substance,mixture or preparation,whether manufactured or obtained from nature.
(b)"pesticide" means a chemical intended for use in pest/vector control operations;
(c)["potentially harmful" means a chemical which by reason of substances (or concentration of substances) contained therein,of its reactivity or other properties may adversely affect human,animal or plant life or ecosystems,acting alone or through interaction with other chemicals;]
(d)"banned or severely restricted" m,eans any chemical that is the subject of a control action taken by a competent authority in the country of export,either to ban or severely restrict the use or handling of the chemical in order to protect human health or the environment domestically,or to refuse a required authorization for a proposed first-time use of the chemical based upon a decision in the country of export that such use would endanger human health or the environment.
(e)"trade" means export,re-export(excluding mere transit operations) or import of chemicals;
(f)"export","re-export" and "import" mean,in their respective connotations,the movement of a chemical from one country to another country.
(g)"management" means the handling, sale,transport,storage, treatment,application,consumption,disposal or other uses of a chemical subsequent to its initial manufacture or formulation.

Most of the definitions proposed are adapted from existing definitions used under other legal texts[88]. Worth noting, however, is the definition of "management"; this definition is a comprehensive one in spite of the fact that it excludes production processes.

6.2.3 Other provisions

In addition to the positive provisions on information and assistance; non-discrimination in classification, packaging and labelling of potentially harmful chemicals referred to elsewhere[89], one should mention the provision under the 'Revised Draft' for such matters as the need to to take into account the special circumstances of developing countries and the special risks of management of potentially harmful chemicals in these countries when developing and implementing national and international standards for the classification, packaging and labelling of potentially harmful chemicals in international trade[90]; the obligation for States to ensure that potentially harmful chemicals which are not registered for use in the country of export are specially labelled as "not registered for use in country of origin"[91]; that the classification, packaging and labelling of potentially harmful chemicals not registered for use in the country of export conform to recognized

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[88] The definiton of "chemical" is based on the definition of "product" in the OECD International Glossary of Key terms: Chemicals control legislation (Paris 1983). The definition of "pesticide" is based on the 1977 UNEP Overview Report No.2 on "health of the people and of the environment". The definition of "banned or severely restricted" is based on terminology used in U.N. General assembly Resolution 37/137. It conforms to the definition given under the OECD "Guiding Principles on Information Exchange Related to Export of Banned or Severely Restricted Chemicals". The definition of "trade" is similar to the definition of the same term under 'C.I.T.E.S.'. The definition of "export", "re-export" and "import" is adapted from the relevant provisions of the '1961 U.N. Single Convention on Narcotic Drugs' (art. 1 para. 1, m) and the '1971 Convention on Psychotropic Substances' (art. 1, para, h).

[89] See discussion under chapters 3 and 8.

[90] See draft guideline 7(c).

[91] See draft guideline 8(a).

international standards and practices[92] and that adequate monitoring of the types,quantities and export destinations of potentially harmful chemicals which are not registered for use in the country of export be ensured by States[93].

Summing-Up

As Concerns the topic of environmentally sound management of hazardous wastes;the 'Cairo Guidelines/Principles',like most guidelines produced by UNEP in other fields,are general ones ;this obviously, limits their potential to develop the law in this field.

In spite of this,progressive provisions have been retained;they concern the following:

With regard to control of disposal of hazardous wastes,one should mention the provision on the participation of the public in the preparation of a plan for the management of hazardous wastes;the provision of a firmer obligation for States to separate waste;inclusion of provisions on collection of hazardous wastes;and on "use of best practicable means" in all aspects of management of hazardous wastes and finally a provision on "approved sites and facilities",especially the requirement under it for an "authorization" which should not be granted before an "assessment" is made on expected effects on health and the environment.

As regards monitoring,remedial action and record-keeping,one should note ,with regard to the specific question of monitoring,the recommendation that "operators" of sites or facilities at which are carried out activities involving the management of hazardous waste be required to monitor the effects of those activities on health and the

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[92] See draft guideline 8(b)

[93] See draft guideline 8(c)

environment, and the positive recommendation for States to ensure that the protection of abandoned sites or closed facilities against the subsequent unauthorized disposal of hazardous wastes ,and the monitoring of such sites or facilities for effects on health and the environment,"continue after their abandonment or closure".
Also worthy of mention is the recommendation for an explicit power of the competent authorities to order "the cessation,limitation or modification" of activities carried out on facilities or sites if it were determined that adverse effects are taking place,or are likely to take place;and the recommendation for States to "ensure" that "appropriate remedial action is taken" in cases where monitoring gives indication that management of hazardous wastes has resulted in adverse effects on health or the environment.

As concerns the specific question of record-keeping,the provision on "public access to information" is also a progressive one.

As for safety and contingency planning,one should note the reference under the 'Cairo guidelines/Principles' of a more explicit and positive provision on "contingency plans".

Regarding transport of hazardous wastes,one should note the requirement of the explicit consent of the State of import as a condition for the initiation of a transfrontier movement of hazardous waste.This provision although retained,did not have the agreement of all the experts forming the 'working group'.In spite of this,it is not unreasonable,especially in the light of the conclusions and recommendations of the 'OECD Basel Conference', to assume that this provision will in the final run be adopted by States.

Finally,one should note the progressive provision included under the 'Cairo Guidelines/Principles' on the exercise by the State of its sovereign right to refuse to accept within its territory hazardous wastes originating elsewhere.

No final legal text has been produced by UNEP in the field of exchange of information on potentially harmful chemicals in international trade as yet.

The preliminary conclusions which can be drawn for this topic are first, on the positive side, one should observe that the guidelines being elaborated by the 'working group' on this topic are the first attempt to produce general rules applicable to international trade in potentially harmful chemicals.

On the negative side, one should note the re-orientation of the scope and objective of the draft guidelines from the "control of international trade" to the more modest objective of "exchange of information relating to trade". Moreover, a number of contentious issues still confront the 'working group"; among these the problem of whether pharmaceuticals, medicinal products and food additives should be included within the scope of the guidelines and whether the draft guidelines should focus on "banned or severely restricted chemicals" only or extend to "potentially harmful chemicals".

CHAPTER 7: LIABILITY AND COMPENSATION AND SETTLEMENTS OF DISPUTES LAW

7.1 Liability and Compensation Law

Introduction

UNEP, as stated earlier[1], bears the responsibility for developing principle 22 of the 'Stockholm Declaration' . This principle proclaims:

> "States shall co-operate to develop further the international law regarding liability and compensation for victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction".

Since this principle has been proclaimed, little progress seems to have been made towards its implementation. Outside UNEP, this principle has been either restated[2] or dropped althogether[3]. When an effort was made to develop it, the result was a preference for "private" as opposed to "public" solutions to this problem; this trend is clear in the approach taken by the Nordic countries in the 'Nordic Convention'[4], and in the OECD approach , deeply inspired by the 'Nordic' experience, in the 'OECD Transfrontier Pollution Principles"[5].

The performance of UNEP in this field will be assessed by looking at both the 'hard law' as well as the 'soft law' instruments in whose elaboration or support UNEP has been involved.

7.1.1 The 'Hard Law' Context

In a 'hard law' context, UNEP's performance in this field has been disappointing. An initiative to have, under the Mediterranean Action Plan, a protocol on liability and compensation and to create an Inter-State Guarantee Fund, or Funds has not materialized as yet, and regional

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1 See discussion under Chapter 1.

2 See e.g. Art. 10 of the 'London Dumping Convention'.

3 See footnote to Art. 8(f) of the 'Geneva/ ECE Convention'.

4 'Nordic Convention' (Art. 3).

5 See e.g. 'OECD Recommendation C(74)224'.

"framework" conventions adopted under UNEP only include general provisions which do not significantly advance the law in this field. These two points are discussed below.

7.1.1.1 Liability And Compensation Under The Mediterranean Action Plan

Basing its action on Resolution 4[6] of the Barcelona Conference of Plenipotentiaries, UNEP prepared a study[7] where it was proposed that the Mediterranean States should consider adopting a separate protocol concerning liability and compensation and that the feasibility of creating an inter-state guarantee fund, or funds, should be studied by a committee of experts in co-operation with IJO, taking into account the work done by the UNEP consultants and the studies and results of the IJO/UNEP meeting of experts.

At the 'Dubrovnik Meeting', UNEP proposed that the matter of liability and compensation be placed on the agenda of the working group on the Inter-State Guarantee Fund and be examined concurrently as a related matter. As regards the Inter-State Guarantee Fund, the Secretariat proposed to convene the committee in 1984. Moreover, this meeting agreed that the Secretariat would distribute to all Contracting Parties the study which had been prepared on the possibility of establishing an inter-state guarantee fund for the Mediterranean and that the Parties

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[6] Resolution 4 of the Barcelona Conference of Plenipotentiaries calls upon UNEP, as the organization responsible for the Secretariat functions of the Convention to : "(a) propose that a study should be made of the possibility of establishing an Inter-State guarantee fund for the Mediterranean Sea Area and the study should be entrusted to a committee of experts from the Contracting Parties to the Convention; (b) request the said Committee of experts to report to the Contracting Parties concerning the implications of the establishment of the fund, in order that, at a later stage, appropriate legal instruments may be prepared".

[7] Contained in UNEP doc. UNEP/IG.14/INF.18.

would communicate to the Secretariat their comments on the establishment of such fund. It was also agreed that a decision on the convening of a group of experts to examine this matter would be taken at the next meeting of the Contracting Parties[8].

The 'Athens Meeting' did not approve the Secretariat's proposal that an expert meeting should be held on the Inter-State Guarantee Fund. However, "in view of the shortcomings of the current compensation system"; the meeting requested the Secretariat to prepare a study for submission to the Contracting Parties at their following meeting[9].

As with the proposed protocol on pollution from exploration and exploitation of the Mediterranean seabed under national jurisdiction; the slow pace in the elaboration of a protocol on liability and compensation and the establishment of an inter-State guarantee fund can partially be explained by the absence of a sufficient numbers of lawyers, especially at the 'Dubrovnik Meeting' who would be willing to support it.

If the Mediterranean experiment succeeds, it will certainly constitute a very interesting one for it has never been proposed elsewhere.

Treatment of the question of liability and compensation stands a better chance, however, under the 'Helsinki Convention' where some Member countries are very progressive about environmental law and have already shown a specific interest in this question during relevant UNEP legal exercises[10].

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[8] See Report of the Third Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea Against Pollution and its Related Protocols (Dubrovnik, 28 February-4 March 1983) at p. 14 para. 90.

[9] See Report of the Extraordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols (UNEP/I.G.49/5, 30 April 1984 at p. 7, para. 54.).

[10] See e.g. UNEP doc. UNEP/WG.44/2 of 21 July 1980 at pp. 3-4, paras. 9-10.

7.1.1.2 The Regional "Framework" Conventions

All regional "framework" conventions adopted under UNEP meet in one point: they all include general provisions which call for the need to develop the law of liability and compensation restating in this respect Principle 22 of the 'Stockholm Declaration'[11].

Their provisions are, however, by no means identical. Provisions on liability and compensation are under some conventions more positive than under others. The provision under the 'Lima Convention', for example, which requires Parties to "ensure that recourse is available in accordance with their legal systems for compensation or other relief in respect of damage caused by pollution of the marine environment..by..persons under their jurisdiction" is certainly more positive than similar provisions under, for example, the 'Cartagena Convention' which merely obliges Parties to co-operate with a view to "adopting appropriate rules and procedures which are in conformity with international law in the field of liability and compensation for damage resulting from pollution"[12]. The same can be said of the 'Abidjan Convention''s provision[13] when compared to similar provisions under other conventions.

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[11] 'Barcelona Convention' (Art. 12); 'Kuwait Convention' (Art. XIII); 'Abidjan Convention' (Art. 15); 'Lima Convention' (Art. 11); 'Cartagena Convention' (Art. 14); 'Jeddah Convention' (Art. XIII). Note that the 'ASEAN Agreement' does not include a specific provision on liability and compensation, it includes, however, a provision which expounds on Principle 21 of the 'Stockholm Declaration' (See, Art. 20, paras. 1, 2).

[12] See BUNDSCHUH, 'Transfrontier Pollution-Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region-Agreement Involving Collective Response to Marine Pollution Incidents and Long-Range Environmental Planning-' in Ga. J. Int'l & Comp. L., Winter 1984 pp. 201-215 at 212.

[13] Art. 15 of this convention provides that "the Contracting Parties shall co-operate in the formulation and adoption of appropriate rules and procedures for the determination of liability and compensation and the payment of adequate and prompt compensation for damage resulting from pollution of the Convention area'. See for a commentary on this question, FORSTER, 'The Draft Regional Seas Agreement for East Africa' in EPL, 14 (1985) 13-16 at 13.

7.1.2 The 'Soft Law' Context

In a 'soft law' context, as will be discussed, UNEP finding that "inter-State litigation might not be the only way of dealing with reparation for damage", has put more emphasis on "low-level" solutions, that is, solutions within domestic legal systems. Moreover, finding that it was difficult to develop broad rules of liability and compensation capable of being usefully applied in all the diverse areas in which environmental problems are likely to arise, UNEP has identified a number of specific subject-areas in which it could assist governments in promoting legal regimes which include questions of liability and compensation[14].

Since 1979, provisions on liability and compensation were drafted under UNEP with more or less success depending on the nature of the environmental problem treated.

These aspects of UNEP's action are developed below.

7.1.2.1 Emphasis on "Low-Level" Solutions

UNEP has convened, in 1977, a Group of Governmental and other Experts Meeting, (hereafter referred to as the "Group of Experts Meeting") which discussed the problem of liability and compensation for pollution damage.

The most important conclusion reached by this group, in this context, was that "inter-State litigation... might not be the only way of dealing with reparations for damage"; strong emphasis was put on "low-level" solutions instead, that is solutions within domestic legal systems. These were considered as the best means of compensating the victim of environmental damage[15]. The "Group of Experts Meeting" noted

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[14] See UNEP doc. UNEP/WG.8/3, p.3, para.10.

[15] Ibid. also para.14.

in this respect, that existing conventions dealing with liability and compensation for nuclear damage and certain forms of marine pollution damage had all been developed on a private law basis[16].

Under the "Group of Experts Meeting"", and as noted by one author, the "low-level" solution "was developed not in consequence of reservations concerning the content of Principle 21 but because of a healthy appreciation of the complexities of international dispute settlement procedures"[17]. Rules of State responsibility being largely addressed to the diplomatic protection of aliens are, in fact, not well suited to remedying damage inflicted to the environment of one State by another[18].

In most of the legal exercises undertaken under UNEP, there has been a tendency among experts to avoid the issue of State liability. This issue was kept to a bare minimum; really as a promise for the future rather than as problem which needed an immediate solution.

Examples of this trend are numerous: in 1977, the "Group of Experts Meeting" selected the topic of "Responsibility and liability of States and their nationals for pollution or other damage caused to the environment beyond the limits of national jurisdiction" as an area of priority in the development of the law of liability and compensation[19]. No follow-up action was undertaken on it.

Under the "off-shore mining and drilling " legal exercise, "lack of time" prevented the "working group" from completing consideration of a draft Conclusion concerning State responsibility[20].

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[16] Ibid. para. 28

[17] See WILLHEIM, 'UNEP's Expert Meeting on Liability and Compensation for Pollution Damage' in EPL, 3:109(1977) at 111.

[18] See KISS, 'L'Etat du Droit de L'Environnement en 1981; Problems and Solutions' in J.D.I. No. 3, 1981. pp. 495-543 at 517.

[19] See note 14 supra. at p. 9 para. 33. Note also that legal exercises on States' responsibility and liability are looked at under UNEP as "academic" exercises which did not justify that money be spent on them. (Interview with Mr M.F. Surbiguet, Ministry of Foreign Affairs, France).

[20] See UNEP doc. UNEP/WG. 49/4 at p. 4 para. 11.

During the 'Montevideo Meeting', a draft resolution submitted by Uruguay and entitled "liability for polluting activities of an international nature" which defined the liability of States for transfrontier pollution caused by individuals or private judicial entities established on their territory, was withdrawn[21].

Under the "land-based pollution" legal exercise, only slight attention was paid to the topic of State responsibility[22]; and under the "ozone layer" legal exercise, this issue was not dealt with at all.

Finally, selection by the 'Montevideo Meeting' of the topic of "legal and administrative mechanisms for the prevention and reduction of pollution damage" for further development means that the issue of State liability will not be dealt with under UNEP in the near future[23].

The approach taken by the 'Nordic Convention', the 'OECD Transfrontier Pollution Principles' and finally UNEP, has led one author to remark that "the notion of a State's liability as an international legal duty to make reparation for the infliction of transnational environmental harm is progressively de-emphasized"[24]. Another author

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[21] See UNEP doc. UNEP/GC.10/5/Add.2, Annex at p.22, para.40.

[22] See UNEP doc. UNEP/WG.92/4 at p.8, para.33.

[23] The specific recommendation for initial action adopted by the 'Montevideo Meeting' for this subject-area is that "UNEP should develop principles or guidelines with regard to the concept of non-discrimination in administrative and judicial proceedings on potentially polluting activities". This implies that the "low-level" solution is still the preferred approach. (See note 361 supra.).

[24] See HANDL, 'International Liability of States for Marine Pollution' in Can.Y.B.Int'l L. pp.85-117 (1983) at 86. Note however, that the most recent draft of the American Law Institute's Restatement of The Law, Foreign Relations Law of the United States, focusses on the "Law of the Environment" and suggests principles of State responsibility regarding transfrontier pollution and marine pollution. (See 'Ten Years After Stockholm-International ..' op.cit. at 412). Note also that the I.L.C. has been working on State responsibility and on liability for injurious consequences arising from acts not prohibited by international law. (See in this respect Mc CAFFREY, 'International environmental law and the work of the International Law Commission' in 'Ten years after Stockholm..' op.cit. at 415 and ff.), and that the OECD has released a report which touches on this subject. (See EPL, 13/3/4 (1984) at 96 and 122).

speaks of "...une désétatisation des conflits voulue par les etats eux-mêmes qui renvoi[t]...dos à dos les pollueurs et les pollués..."[25].

While this trend does not seem to disturb some authors who start to speak of "soft responsibility" claiming that "les relations internationales préfèrent en general la négociation à la mise en oeuvre de la responsabilité internationale"[26];other authors strongly criticize it,however,and consider that State liability has still an important role to play.In Handl's opinion,e.g.,"...relegating the concept of State liability to the sidelines or side-stepping it completely is a serious mistake for at least insofar as accidental transnational pollution is concerned,the concept remains a cornestone in any international legal regime for the protection of the environment"[27];likewise, Beesley believes that"...somes cases require the State responsibility approach because it is unclear which party within a country may be held liable"[28].

Notwithstanding what was said earlier,one should note,however, the trend under UNEP's legal texts to recommend the submission of harmful activities to "prior authorization" .These recomendations will,if applied ,affect the whole question of responsibility and liability of States including the question of the type and nature of liability involved.In this respect,KISS believes that "il est raisonable qu'a partir du moment où un Etat a accordé une authorisation,sous quelque forme que ce soit,à une activité causant des dommages à l'environnement d'autres Etats,les actes dommageables lui seront imputables,puisqu'il les a endossés,alors qu'il avait la possibilité de les empêcher"[29].

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[25] See KISS,'Le Reglement des Differends dans les Conventions Multilaterales relatives à la Protection de l'Environnement' in 'The Settlement of Disputes on the New Natural Resources' Workshop,Hague Academy of International Law(1982) pp.119-126 at 450

[26] See KISS, 'L'Etat du Droit de l'Environnement..'op.cit.at 518

[27] See note 364 supra.at 87.

[28] See STEIN & HARGROVE,'International Environmental Protection:Policy,Legal and Trade Aspects' in A.S.I.L.Proc.of the 71st Annual Meeting,San Francisco,California,(1977),pp.48-56 at 61.

[29] See KISS,'L'Etat du Droit de L'Environnement..'op.cit. at 517

7.1.2.2 Development of the Law of Liability and Compensation for Specific Types of Environmental Harm

The "Group of Experts Meeting" selected, in 1977 areas of priority for the development of the law of liability and compensation. Among these were "liability and compensation for damage from marine pollution caused by off-shore mining";"liability and compensation for marine pollution caused by land-based sources"; "liability and compensation arising from air pollution";"liability and compensation arising from pollution of rivers",and "responsibility and liability of States and their nationals for pollution or other damage caused to the environment beyond the limits of national jurisdiction"[30].

In 1978,the UNEP Working Group of Experts on Environmental Law(hereafter the "working group") established pursuant to decision 91(V) of the Governing Council of UNEP taken at its fifth session in Nairobi,9-25 May 1977,in order to examine and further pursue the work undertaken by UNEP in the field of environmental law ,decided at its first session,that its first study would be on the legal aspects of off-shore mining and drilling carried out within the limits of national jurisdiction[31].

As has been referred to earlier,the "working group" finalized its work in 1981 by agreeing to 42 conclusions which include provisions on liability and compensation.

The conclusions reached by the "working group" on liability and compensation contain progressive aspects which,as will be shown later,have inspired subsequent action in this field especially under such topics as "land-based pollution";"transport,handling and disposal of toxic wastes" selected by the 'Montevideo Meeting' for further development.

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[30] See note 354 supra.at p.9,para.33

[31] See UNEP doc.UNEP/WG.12/3,p.2,para.6.

Before dealing with these conclusions and the liability and compensation provisions under legal texts produced under subsequent UNEP legal exercises, a brief discussion of the aspect of liability and compensation under the ' Shared Resources Principles' and the 'Weather Modification Provisions' will first be attempted.

7.1.2.2.1 Liability and Compensation Under the 'Shared Resources Principles' and the 'Weather Modifications Provisions'

'Shared Resources Principle' 12(2) does not advance the law on liability and compensation. It only restates Principle 22 of the 'Stockholm Declaration'. This principle reads:

> "2. States should co-operate to develop international law regarding liability and compensation for the victims of environmental damage arising out of the utilization of a shared natural resource and caused to areas beyond their jurisdiction."

One author has argued, however, that the concept of shared resources would tend to accept the competence of the administrative and judicial bodies both of the "place of action" and of the "place of result" and would also tend to a cumulative application of the substantive rules of both places leading to the application of the law most favourable to the victim[32].

'Shared Resources Principle' 14 is also relevant. It provides that,

> "States should endeavour, in accordance with their legal systems, and where appropriate, on a basis agreed by them, to provide persons in other States who have been or may be adversely affected by environmental damage resulting from the utilization of shared natural resources with equivalent access to and treatment in the same administrative and judicial proceedings, and make available to them the same remedies as are available to persons within their own jurisdictions who have been or may be similarly affected".

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[32] See RIPHAGEN, 'The International Concern for the Environment..' op.cit. at 350.

Reference to equivalent "treatment" in administrative and judicial proceedings, and to "the same remedies", has also been interpreted as requiring the same financial compensation to be given[33].

With regard to the 'Weather Modification Provisions'; these are silent on the question of liability and compensation. Scientific uncertainty; in this case lack of knowledge concerning the effects of weather modification; is the main reason advanced for the absence of provisions on this question[34].

7.1.2.2.2 Liability and Compensation under the 'Off-shore Mining and Drilling Conclusions'

As stated above, the UNEP "working group" undertook a study on the legal aspects of marine pollution caused by off-shore mining and drilling within national jurisdiction, and examined, inter alia, the question of liability and compensation. In the discussion which follows, one will attempt to outline what one believes to be the most significant provisions of the conclusions on liability and compensation.

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[33] Ibid. at 49.

[34] The complex nature of this problem is well illustrated in the comments received from some governments on this topic. Bolivia, for example, took the view that "..with regard to the proposed principle concerning arrangements for compensation; such arrangements would be very complicated, especially with regard to States which, although located at some geographical distance from the modification activities might be affected". Note, however, the more qualified comment made by Australia who took the view that "the apparent lack of knowledge concerning the effects of weather modification will no doubt have a bearing on the substantive provisions of any treaty regime on civil liability and compensation for damage", but who emphasized, however, that "..the experimental nature of the activity will in no way diminish the responsibility of a State, not to infringe the sovereignty of a neighbouring State, nor decrease its liability if it in fact causes damage to that State" (See U.N. Doc. WMO/UNEP/WG.26/5, 20 June 1979 at 2).

7.1.2.2.2.1 Type of Liability and Exemptions

Although "strict" liability has been adopted under agreements on liability and compensation for oil pollution damage[35] and also under conventions on liability and compensation for damage from nuclear incidents[36];it is in my opinion,significant that provisions of such a broad nature as the 'Off-shore Mining and Drilling Conclusions' make provision for such a type of liability.

Moreover,when a regime of strict liability is imposed,it is usual that exceptions to it are made.Similarly to other conventions which have provided for exceptions to strict liability,Conclusion 35(4) provides that "exceptions to or modifications of liability may be made,inter alia,when damage results from circumstances of an exceptional,inevitable and irresistible character".

Can it be said that the words "circumstances of an exeptional,inevitable and irresistible character" imply a stricter formula,than the ones included under such conventions as the 'Civil Liability Convention' and the 'Off-shore Liability Convention',and thus englobes a more advanced notion of 'strict' liability?

On the one hand,the answer would be in the affirmative for "circumstances of an exceptional,inevitable and irresistible character" would include such matters as an act of war,hostilities,civil war,insurrection,or a natural phenomenon of exceptional,inevitable and irresistible character;but would not include,in my opinion,an act or omission done with intent to cause damage by the person who suffered the damage or from the negligence of such person.If such an interpretation was right,the formula adopted under paragraph 4 of conclusion 34 would provide for a stricter form of liability than the

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[35] 'Civil Liability Convention'(Art.III);'Offshore Liability Convention'(Art.III(ii)).

[36] 'OECD Paris Convention' (Art.3);'Vienna Liability Convention'(Art.II);'1962 Brussels Convention'(Art.II).

one included under the conventions referred to above[37].

On the other hand, conclusion 36(1) does not allow for such an interpretation for, under it, it is provided that a State should assure to any person who has suffered damage as a result of operations an enforceable right to prompt and adequate compensation from the person or persons referred to in Conclusion 35(1) bearing in mind, inter alia, "the degree to which such person may have contributed to the damage".

7.1.2.2.2.2 Extent of Liability

Unlimited liability is the only system which, in any case, will guarantee full compensation to the victim, as any limitation might entail liability only for part of the damage in a given case.

The 'Civil Liability Convention' fixes a limit of liability[38]; likewise, the 'Off-shore Liability Convention' is based on the principle of limited liability, although Article 15 of it, allows a State to provide for unlimited liability for pollution damage caused by installations for which it is the controlling State and suffered in that State or in another State Party.

It is noteworthy that, while Conclusion 36(2) provides that the maximum liability "..may be limited", this should, however, be done "taking fully into account the forseeable damage and the objective of providing full compensation to the person suffering the damage". In my opinion, this formula when applied will offer a better protection to the victim and can be applied by having the limit of liability set at a sufficiently high level or by providing for a system of guarantee (e.g. a guarantee fund).

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[37] See e.g. 'Offshore Liability Convention' (Art. III, paras. 3-5).

[38] See 'Civil Liability Convention (Art. V.)

7.1.2.2.2.3 Standing To Sue

Conclusion 40 provides that,

"When it is in accordance with its legal system, a State should consider adopting special provisions by means of which a specific person or authority is entitled to sue for compensation for damage to the environment resulting from operations, in cases where otherwise no person or authority would have standing to sue".

In my opinion, this provision is a progressive one for no similar provision is included under relevant international conventions. Similar provisions have only been included under national legislation[39].

7.1.2.2.2.4 Other provisions

Worth noting is the provision of Conclusion 42, under which it is recommended to States, in any one region of operations, to "conclude an agreement on liability and compensation", which should seek "to eliminate or reduce any differences in the nature and extent of liability, the principles of determining damage, the measure of compensation available under the respective national legal regimes and the procedures for obtaining compensation".

More significant is the recommendation to States to give consideration to the establishment of "intergovernmental commissions". Provision for third party assistance is becoming an important feature of most of the 'soft law' elaborated under UNEP. Inclusion of such a provision is dictated by the possible existence of conflicts in any one region and the role of a third party in this case would be very useful.

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[39] The U.S. Deepwater Port Act of 1974 includes a provision which authorizes the Secretary of Transportation, acting "on behalf of the public as trustee of the natural resources of the marine environment", to sue and recover for damages to such resources. The U.S. Outer Continental Shelf Lands Act Amendment of 1978 includes a similar provision. (See for this, MENDELSOHN and FIDELL, 'Liability for Oil Pollution-United States Law' in J.M.L.&C. 10:4 at 487 ,489.

7.1.2.2.3 Liability and Compensation under Other UNEP Legal Texts

As said earlier, the provisions on liability and compensation included under the 'Off-shore Mining and Drilling Conclusions' have had some influence on similar provisions in subsequent legal exercises undertaken under UNEP.

This is particularly the case of the "environmentally sound management of hazardous wastes" legal exercise. The text of the guidelines as initially prepared by the UNEP consultant[40] bore a close resemblance to the relevant part of the 'Off-Shore Mining and Drilling Conclusions' and sometimes included more progressive provisions than the ones included under the former text[41].

No agreement was reached at the first meeting of the 'working group' however, on the question of liability and compensation. Because of the complex issues involved in this subject, experts required a study from UNEP Secretariat on this topic and discussion of this question was therefore postponed[42].

At the second session of the 'working group' the provisions on liability and compensation referred to above were reduced to a single provision which was finally adopted with minor changes as guideline/principle 29 and which restated in general terms the need for

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[40] See UNEP doc. UNEP/WG.95/4.

[41] The text of the draft guidelines as proposed by the UNEP consultant provided for the channelling of liability to one person (draft guideline 44); for liability to be strict (draft guideline 45); for linking the possibility of limiting liability to the necessity of *providing full compensation* to the victims of damage (draft guideline 45 para. 2); for the necessity to have insurance, to establish compensation funds or other forms of financial security in order to meet awards of compensation (draft guideline 46); equal access and treatment (draft guideline 48) etc.,.

[42] See FORSTER, 'Hazardous Wastes-Towards International Agreement' in EPL, 12 (1984) at 65.

States to ensure that provision is made in their national laws and regulations for(a) liability and (b) insurance and (c)compensation and/or other remedies for damage arising from the management of hazardous wastes.."and "...take such steps as are necessary to ensure the compatibility and,where appropriate,the harmonization of such laws and regulations"[43].

Under the 'Montreal Guidelines',the provision on liability and compensation reads,

"States should ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction.

"2.To this end,States should formulate and adopt appropriate procedures for the determination of liability for damage resulting from pollution from land-based pollution.Such procedures should include measures for addressing damage caused by releases of a significant scale or by the substances referred to in guideline 13,para.3"[44]

This provision,although not as detailed as the provisions on liability and compensation under the 'Off-Shore Mining and Drilling Conclusions',refines,in a 'soft law' context,in my view,Principle 22 of the 'Stockholm Declaration' by identifying some aspects for development of the law in this field.These aspects relate to the fact that procedures for the determination of liability for damage resulting from pollution from land-based sources which States should formulate and adopt,should include "measures for addressing damage caused by releases of a significant scale by the substances referred to in guideline 13 para.3";that is,"substances from which pollution should be eliminated"

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[43] See UNEP doc.UNEP/WG.122/L.1/Add.3/Rev.1,page 14.The provision on liability and compensation at the end of the second session of the "working group" read as follows;"States should ensure that provision is made in their national laws and regulations for (a) liability and (b) compensation and/or other remedies for damage arising from the management of hazardous wastes, and they should take steps as are necessary to ensure the compatibility and,where appropriate,the harmonization of such laws and regulations"(See UNEP doc.UNEP/WG.113/3,Annex II,page 11).

[44] Guideline 17.

and "substances from which pollution should be strictly limited".

Identification of these two aspects under the guideline above may also suggest that for pollution damage caused by these substances as opposed to pollution damage caused other substances a "stricter" type of liability should be considered.

In addition to the provision under 'Montreal Guideline' 17;one should mention the provision of 'Montreal Guideline' 16 para.3 which reads,

"Each State should,on a reciprocal basis,grant equal access to and non-discriminatory treatment in its courts,tribunals and administrative proceedings to persons in other States who are or may be affected by pollution from land-based sources under its jurisdiction or control."

What one should mention here is the reference expressly made under the guideline above to "...equal access to and non-discriminatory treatment in..courts,tribunals...to persons in other States who are...affected by pollution from land-based sources.." which clearly refers to compensation; and reference to "reciprocity" as regards equal access.. and non-discriminatory treatment which is a condition which,it is agreed,will increase the chances of application,by States,of this principle[45].

Under the ozone layer legal exercise,the initial terms of reference as contained in decision 8/13B of UNEP's Governing Council were the first indication that treatment by the 'working group' of the issue of liability and compensation would be unlikely.this decision stressed,as is known,the desirability of a convention that would cover "monitoring, scientific research and development of the best available and economically feasible technologies to limit and gradually reduce emissions of ozone depleting substances...".In fact, the 'working group' which has the responsibility for the elaboration of an ozone layer convention did not feel necessary to include provisions on liability and compensation;a priori action and control were preferred to seeking

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45 See also discussion under chapter 8 of this thesis.

ex-post facto remedies[46]. In this case, one believes that the attitude of the 'working group' was wise for, regarding the ozone layer problem, the case for taking action is fairly dubious not to mention the difficulty of linking cause and effect.

7.2 Settlement of Disputes Law

7.2.1 Protection of the Marine Environment

Under UNEP "framework" conventions on the protection of the marine environment the question of settlements of disputes has been treated differently. One can note in this respect, three categories of conventions:

First, there are agreements which do not include a provision on the settlements of disputes; this is the case, for example, of the 'Lima Convention'.

The second category of conventions includes such conventions as the 'Barcelona Convention'; the 'Abidjan Convention'; and the 'Cartagena Convention'[47]. Under these conventions contracting Parties are urged to settle their disputes "through negotiation or any other peaceful means of their own choice" and if the dispute is not settled through these means to submit the dispute to "arbitration". With regard to this latter procedure, some conventions are more progressive than others. Under the 'Barcelona Convention' and 'Cartagena Convention' a dispute can be submitted to arbitration only "upon common agreeement" between the Parties concerned[48]. No such condition is provided for, however, under the

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[46] Interview with Mr. P. SZELL, (Legal Directorate, Department of the Environment, U.K.).

[47] 'Barcelona Convention' (art. 22); 'Abidjan Convention' (art. 24); 'Cartagena Convention' (art, 23).

[48] 'Barcelona Convention' (art. 22(2)); 'Cartagena Convention' (art. 23(2)). On the 'Barcelona Convention''s provision, see KISS 'La Convention pour la Protection de la Mer Mediterranée contre la Pollution' in R.J.E. 2-1977, pp. 151-157 at 154.

'Abidjan Convention'[49].

A difference can also be seen between the 'Barcelona Convention' and the 'Cartagena Convention' in this respect. The latter convention adds that "failure to reach common agreement on submission of the dispute to arbitration shall not absolve the Contracting Parties from the responsibility of continuing to seek to resolve it through negotiation or any other peaceful means of their own choice".

The third category of conventions include the 'Kuwait Convention' and the 'Jeddah Convention'. These conventions, although providing[50], like the conventions discussed above, for settlement of disputes through negotiation or other peaceful and amicable settlement of disputes; request contracting Parties , in the event of a failure to settle their dispute through these means, to submit them to judicial bodies created under them.

As for UNEP legal instruments dealing with specific forms of pollution, one should note Art. 12 of the 'Athens Protocol' and Art. XII of the 'Quito Protocol' in the area of land-based pollution, and guideline 18 of the 'Off-Shore Mining and Drilling Conclusions'. These provisions which deal with "consultation" are discussed under Chapter 8.

All the provisions discussed above, including the most progressive of them, cannot be said to develop the law in this field. A more progressive provision is included, in my view, under Art. 21 of the 'Paris Convention' which provides for binding arbitration at any Party's request.

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[49] Under para. 2 of art. 24 of the 'Abidjan Convention' the dispute shall be submitted to arbitration "under conditions to be adopted by the Contracting Parties in an annex to th[e] convention". On the importance given to arbitration under provisions on settlement of disputes under agreements related to protection of the environment; see KISS, 'Le Reglement des Differends..' op. cit. at 130.

[50] 'Kuwait Convention' (Art. XXV); 'Jeddah Convention' (Art. XXIV). Note that the latter convention provides for the necessity to refer the matter object of the dispute to the 'Council' of the 'Organization' created under the Convention before submitting it to the 'Committee of the Settlement of Disputes'. (Art. XXIV(2)).

7.2.2 Protection of the Atmospheric Environment

In this area only the 'Ozone layer Convention' includes a provision[51] on settlement of disputes. No similar provision is included under The 'Weather Modification Provisions'.

The provision on the settlement of disputes under the 'Ozone Layer Convention' is more detailed than the one included under Art. 13 of the 'Geneva/ ECE Convention' and provides for compulsory conciliation.[52].

The absence of a provision on settlement of disputes under the 'Weather Modification Provisions' which can be considered as a regression when compared to the 'Shared Resources Principles', can be explained by the fact that usually States hold the view that for "co-operation" agreements as well as because of the fact that full

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[51] The provision reads;
"1. In the event of a dispute between Parties concerning the interpretation or application of this convention, the Parties concerned shall seek solution by negotiation.
2. If the Parties concerned cannot reach agreement by negotiation, they may jointly seek the good offices of, or request mediation by, a third Party.
3. When ratifying, accepting, approving or acceding to this convention, or at any time thereafter, a State or regional economic integration organization may declare in writing to the Depositary that for a dispute not resolved in accordance with paragraph 1 or paragraph 2, it accepts one or both of the following means of settlement of disputes as compulsory:
(a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties at its first ordinary meeting;
(b) Submission of the dispute to the International Court of Justice.
4. If the Parties have not, in accordance with paragraph 3 above, accepted the same or any procedure, the dispute shall be submitted to conciliation in accordance with paragraph 5 below unless the Parties otherwise agree.
5. A conciliation commission shall be created upon the request of one of the Parties to the dispute. The Commission shall be composed of an equal number of members appointed by each Party concerned and a Chairman chosen jointly by the members appointed by each Party. The Commission shall render a final and recommendatory award, which the Parties shall consider in good faith.
6. The provisions of this article shall apply with respect to any protocol except as otherwise provided in the protocol concerned".

[52] This Convention contains no provision for third-party settlement of disputes among signatories.

knowledge on the subject to be regulated is still lacking, inclusion of provisions on settlement of disputes is inappropriate[53]

7.2.3 Conservation

Provisions on settlement of disputes are included under such 'hard law' instruments as the 'ASEAN Agreement', C.I.T.E.S. and the 'Migratory Species Convention', and 'soft law' instruments as the 'Shared Resources Principles'.

The provision under the 'ASEAN Agreement' is quite elementary [54].

The provisions on settlement of disputes under C.I.T.E.S. and the 'Migratory Species Convention' are identical[55]. These are, in my view, less developed than similar provisions included under such conventions as the 'African Convention' or the 'Berne Convention'[56].

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[53] See however, comment made by Australia in U.N. doc. WMO/UNEP/WG.26/5 at p.11.

[54] This provision reads: "Any dispute between the Contracting Parties arising out of the interpretation or implementation of this Agreement shall be settled amicably by consultation or negotiation".

[55] The provision on the settlement of disputes under C.I.T.E.S. reads as follows:
"1. Any dispute which may arise between two or more Parties with respect to the interpretation or application of the provisions of the present convention shall be the subject to negotiation between the Parties involved in the dispute.
2. If the dispute cannot be resolved in accordance with paragraph 1 of this Article, the Parties may, by mutual consent, submit the dispute to arbitration, in particular that of the Permanent Court of Arbitration at the Hague, and the Parties submitting the dispute shall be bound by the arbitral decision."

[56] Under Art. VIII of the 'Berne Convention' , for example, any dispute between Contracting Parties concerning the interpretation or application of the convention which has not been settled through the 'Standing Committee', or by negotiation between the parties concerned "shall, unless the said parties agree otherwise, be submitted, at the request of one of them, to arbitration...". Likewise, under the 'African Convention' any dispute between the Contracting States relating to the interpretation or application of the convention which cannot be settled by negotiation, "shall at the request of any party be submitted to the Commission of Mediation, Conciliation and Arbitration of the Organization of African Unity"

Moreover, even if provisions on settlement of disputes are included under the conservation conventions referred to above, doubts are expressed as regard their use by States. The view of Cyrille de Klemm on this matter, for example, is that "although most conservation conventions contain provisions relating to the settlement of disputes, these provisions are never used". The reasons for this, according to this author, is "probably that disputes cannot really arise as long as the economic interests of parties are not directly damaged"[57].

In a 'soft law' context, one should note Principle 11 of the 'Shared Resources Principles'. What is most significant about this principle is the reference made under it to the "Declaration of Principles of International Law Concerning Friendly Relations and Co-operation between States in Accordance with the Charter of the United Nations". The significance of this reference resides first in the fact that the Declaration provides that in the event of failure to reach a solution to a dispute by any one of the peaceful means listed in Article 33 of the U.N. Charter; the parties to a dispute are "to continue to seek a settlement of the dispute by other peaceful means agreed upon by them". Second, the Declaration slightly limits the freedom of choice of these peaceful means by providing that "in seeking such a settlement the parties shall agree upon such peaceful means as *may be appropriate to the circumstances and nature of the dispute*". (my emphasis)

Moreover, one should note that paragraph 2 of Principle 11 above develops the general rule contained under the Declaration above by stating that "in case negotiations or other non-binding means have failed to settle a dispute within a reasonable time, it is necessary for States to submit the dispute to an appropriate settlement procedure which is mutually agreed by them, preferably in advance. The procedure should be speedy, effective and binding". Furthermore, the third paragraph states; "it is necessary for the States parties to such a dispute to refrain from any action which may aggravate the situation with respect to the environment to the extent of creating an obstacle to

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[57] See de KLEMM, 'Conservation of Species: The need for a New Approach' in EPL, 9(1982) at 121.

the amicable settlement of the dispute"[58].

7.2.4 Exchange of Information on Potentially Harmful Chemicals in International Trade

The UNEP Consultant's paper on this topic included a provision on settlement of disputes[59]. The wording of this provision was thought by the experts attending the first meeting of the "working group" to be suitable only for an international convention consequently its reformulation was suggested which was included in the 'Revised Draft'[60].

At the second session of the "working group" it was agreed, however, to delete the provision above from the text of the draft guidelines[61].

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[58] See RIPHAGEN, 'The International Concern for the Environment..'op.cit.at pp.351-352. Also, BIRNIE, 'Legal Measures ..'op.cit.at 11. An attempt to include an elaborate procedure for arbitration as part of the principle was strongly resisted. (See ADEDE, 'Utilization of Shared Natural Resources: Towards a Code a Conduct' in EPL, 5(1979)pp.66-76 at 72.

[59] This one reads;
"15. Final Clauses
(a)....
(b)....
(c)States should develop procedures of consultation and settlement to avoid and resolve disputes which may arise over the application or interpretation of the present guidelines".

[60] This reads;
"16. States should when entering into bilateral or multilateral arrangements for the implementation of the present guidelines, develop appropriate consultation procedures and settlement of disputes provisions to deal with problems which may arise over the application or interpretation of those arrangements".

[61] See UNEP doc. UNEP/WG.112/5 of 11 March 1985 p.28 para.26.

Summing-UP

UNEP's action in the development of the law of liability and compensation has produced mixed results.

Under UNEP, as under other fora, the issue of "State liability" has been avoided. Under UNEP, this issue has not been properly dealt with not only because of the complexity inherent to this topic, but also for financial reasons.

This having been said, one should note the potential impact the various provisions dealing with "prior authorization" by States of potentially harmful activities, included under UNEP's legal texts, may have on States' responsibility and on its nature if and when adopted by States in any agreements they may conclude between themselves.

By choosing the "low-level solutions" when dealing with liability and compensation, UNEP has achieved some success; the most obvious example being agreement under the "off-shore mining and drilling" legal exercise on guidelines on this issue. In this respect, it is remarkable that agreement on eight guidelines on this subject was achieved at all, for one has to remember that one is dealing with countries with, in some cases, incompatible judicial systems.

The guidelines on liability and compensation under the 'Off-Shore Mining and Drilling Conclusions' include positive provisions such as the ones on the extent of liability; standing to sue; third-party assistance etc..., in addition to adoption of such an advanced notion of "strict" liability.

In subsequent legal exercises, treatment of the issue of liability and compensation has been less successful. Under the "environmentally sound management of hazardous wastes" legal exercise, detailed liability and compensation provisions were drafted by a UNEP consultant; these provisions which were based on the liability and compensation provisions of the 'Off-shore Mining and Drilling Conclusions' and which, in some

cases, were more progressive than the aformentioned conclusions, were reduced, however, to a single and very general provision which now appears under the 'Cairo Guidelines/Principles'.

Under the 'Montreal Guidelines', no detailed provisions on liability and compensation were drafted. Few priority areas which refine, in a 'soft law' context, principle 22 of the 'Stockholm Declaration' have been identified however.

Finally, under such legal exercises as the ones on "weather modification" and "ozone layer"; scientific uncertainty coupled with the "co-operation" aspect of the legal instruments produced have prevented any serious consideration of the issue of liability and compensation.

No major achievements can be noted regarding development of the law in the field of settlement of disputes.

The positive performance has been in the area of protection of the marine environment , protection of the ozone layer and conservation.

In the first field, relevant legal instruments provide for settlement of disputes and some of them establish judicial bodies or recommend their establishment . Arbitration as means of settlement of disputes is also emphasized under them.

In the second field, the 'Ozone Layer Convention' includes a more detailed provision on settlement of disputes than the one under the 'Geneva/ECE Convention' and provides for third-party settlement of disputes among signatories.

In the latter field, although the provisions on settlement of disputes under 'hard law' instruments are less developed than similar provisions under relevant legal texts negotiated outside UNEP, the provision on settlement of disputes under the 'Shared Resources Principles' is worth noting mainly because of its explicit reference to

the U.N. 'Declaration of Principles of International Law Concerning Friendly Relations and Cooperation Among States'.

No contribution has been made by UNEP in the development of the law of settlement of disputes in the fields of weather modification; environmentally sound management of hazardous wastes and exchange of information on potentially harmful chemicals in international trade. The specific legal nature of the texts produced coupled with scientific uncertainty in certain fields being the main reason for this.

PART THREE: DEVELOPMENT OF PROCEDURAL AND INSTITUTIONAL LAW

CHAPTER 8: DEVELOPMENT OF PROCEDURAL LAW

Introduction:

Procedural law provides an important basis on which to exercise substantive rights.

UNEP's achievements in the development of procedural law will be assessed by looking at four procedural duties: environmental impact assessment; notification and information; consultation, and equal access and non-discriminatory treatment.

8.1 Impact Assessment

8.1.1 Conservation

In a 'soft law' context, one should first mention Principle 4 of the 'Shared Resources Principles'. This reads,

"States should make environmental assessments before engaging in any activity with respect to a shared resource which may create a risk of significantly affecting the environment of another State sharing that resource".

The language used in this provision is rather weak: States "should" make environmental assessments...

This provision is, in my view, less elaborate than similar provisions included under relevant OECD legal texts[1] or the 'EEC Directive on E.I.A.'.[2]

The 'World Charter for Nature' also includes a number of provisions related or relevant to environmental impact assessment such as the ones included under points 8; 9; 11 paras. b and c and 16.

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[1] OECD has adopted several recommendations concerning the assessment of the environmental consequences of projects: Declaration on EnvironmentalPolicy(1974), principle 9; 'OECD Recommendation (C(74)216)'; 'OECD Recommendation (C(76)161 Final)', No.23; 'OECD Recommendation (C(79)116)'. For a review of these recommendations, see SMETS 'Legal Principles Adopted by the OECD Council" EPL, 9(1982) at 110

[2] The 'EEC Directive on E.I.A.' provides for such matters as the scope of E.I.A. (Art.1); E.I.A. and transboundary effects(Art.7); consultation(art.9); public participation(Arts.6&9)and contents of E.I.A. (Art.5(2)).

In a 'hard law' context,the 'ASEAN Agreement' includes [3] explicit provisions on environmental impact assessment .Likewise,the 'Migratory Species Convention' requires under Art.V(guidelines for the conclusion of agreements on international cooperation among the signatory States) "assessment". Moreover, Art.VII para.5(a) of this convention provides for review and assessment of the conservation status of migratory species by the Conference of the Parties.The implementation of these provisions requires a de facto environmental impact assessment.

The provisions on E.I.A. included under the 'ASEAN Agreement' in spite of the qualified language used under them are,in my view,more explicit than the ones included under conventions on conservation negotiated outside UNEP[3a].

8.1.2 Pollution

8.1.2.1 Marine Pollution

8.1.2.1.1 The 'Hard Law' Context

Under UNEP,and in a 'hard law' context,no legal instrument has been negotiated which deals specifically with environmental impact assessment;only general provisions on this subject have been included under such "framework" conventions as the 'Kuwait Convention','Jeddah

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[3] See 'ASEAN Agreement'(Arts.14;20(3)

[3a] The 'Apia Convention'(art.5(4)).Also,art.3(2) of the 'Berne Convention' requires that each Contracting Party "undertakes in its planning and development policies and in its measures against pollution to have regard to the conservation of wild flora and fauna".Art.4(2) of this convention also provides that "the Contracting Parties in their planning and development policies shall have regard to the conservation requirements of the areas protected...so as to avoid or minimize as far as possible any deterioration of such areas".

Convention';'Abidjan Convention','Lima Convention' ; 'Cartagena Convention'and 'Nairobi Convention'[4].

On the one hand,the provisions referred to above include fewer conditions than does the relevant LOSC's provision[5].Under this latter provision States shall assess the potential effects of planned activities under their jurisdiction or control only when they have "reasonable grounds" that these activities may cause subtantial pollution of or significant and harmful changes to the marine environment and also "as far as practicable".

Furthermore,unlike the LOSC's provision referred to above,the provisions included in the regional conventions above have put a particular emphasis on the need to make environmental impact assessment regarding projects in the coastal areas,stressing the vulnerability of these zones and implying the need for taking special measures regarding them.

On the other hand,some of the regional "framework" conventions referred to above use a weak language as regards the obligation to make environmental impact assessment[6];Contracting parties "...shall endeavour to include an assessment..".In addition,the obligation to communicate reports of the results of such assessments is less stringent under some[7] of these regional conventions than the one included under the LOSC.

Finally,the provisions on environmental impact assessment included

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4 'Kuwait Convention'(art.XI);'Jeddah Convention'(art.XI);'Abidjan Convention'(art.8);'Cartagena Convention'(art.12);'Nairobi Convention'(Art.13).

5 Art.206.

6 This formula is used under the 'Kuwait Convention';'Abidjan Convention' and 'Lima Convention'.A stronger obligation to make environmental assessment is included under the 'Jeddah Convention' and 'Cartagena Convention'.

7 Under the 'Kuwait Convention',for example,the Contracting Parties *may*..develop procedures for dissemination of information on the assessment of the activities..(emphasis added);a similar provision is also included under the 'Jeddah Convention'.

under the regional conventions referred to above implement and develop in a specific case, in a 'hard law' context, 'Shared Resources Principles' 4 and 5 discussed earlier.

It is, in my view, significant that some regional conventions which include the progressive aspects noted above have entered into force well before the LOSC.

8.1.2.1.2 The 'Soft Law' Context

A greater effort has been made, in a 'soft law' context, with more or less success, to develop a norm of environmental impact assessment. Provisions on environmental impact assessment have been included under the 'Off-shore Mining and Drilling Conclusions' and under the 'Montreal Guidelines'. These two texts are discussed below.

8.1.2.1.2.1 The 'Off-Shore Mining and Drilling Conclusions'

It is submitted here that the procedure for environmental impact assessment incorporated under the 'Off-Shore Mining and Drilling Conclusions' includes progressive provisions when compared to similar or relevant provisions included in other legal texts.

As regards the provision on the impact assessment procedure under the 'Off-Shore Mining and Drilling Conclusions', the 'working group' declared, at its first session its preference for a comprehensive approach for the study of off-shore mining and drilling which would include preventive as well as corrective measures.[8] Furthermore, the report of the 'working group' on the work of its second session states that the group was of the opinion that

> "an impact assessment may be useful, or perhaps necessary, for the protection of the environment before any off-shore mining or drilling activities involving significant risks are engaged upon".[9]

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[8] See, UNEP doc. UNEP/WG.12/3, 3 October 1977.

[9] See, UNEP doc. UNEP/WG.14/4, 12 April 1978 at p.5, para.12

All this shows that the question of "environmental impact assessment" has had an important place in the concern of the 'working group'.

The relevant Conclusions on environmental impact assessment reads as follows:

"6.(2) The granting of an authorization should be preceded by an assessment of the effects of the proposed operations on the environment unless the competent authority, is satisfied that in the light of the scope, duration and technical methods employed in the operation, significant adverse effects on the environment cannot be expected".

.....

"8. The assessment referred to in conclusion 6(2) should cover the effects of operations on the environment, wherever such effects may occur. It should when deemed appropriate contain the following:

(a) a description of the geographical boundaries of the area within which the operations are to be carried out;...

(b) a description of the initial ecological state of the area;

(c) an indication of the nature, aims and scope of the proposed operations;

(d) a description of the methods, installations and other means to be used;

(e) a description of the forseeable direct and indirect long-term and short-term effects of the operations on the environment, including fauna, flora and the ecological balance;

(f) a statement setting out the measures proposed to reduce to the minimum the risk of damage to the environment from carrying out the operations and, in addition, possible alternatives to such measures;

(g) an indication of the measures to be taken for the protection of the environment from pollution and other adverse effects during and at the end of the proposed operations;

(h) a brief summary of the assessment that may be easily understood by the layman".

"9. Before taking its decision, the competent authority may request additional information from the applicant and may consult other public authorities concerned".

"10. Where compatible with the legal system, the assessment and/or its brief summary may be made available to persons concerned to enable them to gather information well enough in advance to make observations in an appropriate form. The applicant should be entitled to reply to any observations thus made".

How progressive is this provision when compared to other legal texts dealing with the same subject?

First, impact assessment is implied in Principle 21 of the 'Stockholm

Declaration'[10]; this principle is, however, of a general nature and the 'Off-shore Mining and Drilling Conclusions' must be seen as one attempt to refine it.

Environmental impact assessment has also been provided for in general texts related to environmental protection such as 'Shared Resources principle' 4 discussed earlier. Here also the 'off-shore mining and drilling conclusions' above are progressive in that they define, in more detail the environmental impact principle and refine it in order to facilitate its adoption and implementation by States. The refinement relates particularly to the contents of the environmental impact assessment procedure given under the conclusions above.

The 'Off-Shore Mining and Drilling Conclusions' on environmental impact assessment are also progressive when compared to relevant provisions under some regional conventions adopted under UNEP.[11]

These provisions are not concerned specifically with environmental impact assessment regarding off-shore mining and drilling operations: they apply to "any planning activities". In addition, unlike the 'Off-shore Mining and Drilling Conclusions', no details are given under the regional conventions' provisions on the contents of the environmental impact assessment.

The provisions on environmental impact assessment under the 'Off-shore Mining and Drilling Conclusions' are also more progressive than Art. 206 of the LOSC. The provision under this article is of a general nature; it applies to all planned activities and environmental impact assessment is applied "when States have reasonable grounds" and only "as far as practicable". Finally, no detailed environmental impact assessment procedure is included under it.

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[10] The language of Principle 21 of the 'Stockholm Declaration' "States have...the responsibility to ensure that activities...do not cause damage.." implies procedural duties for prevention of environmental damage which include, in my view, environmental assessment.

[11] See note 4 supra.

The OECD has, as seen earlier, made recommendations on environmental impact assessment.[12] In spite of this, no detailed procedure on environmental impact assessment similar to the one included under the 'Off-Shore Mining and Drilling Conclusions' is provided for under them.

The only texts which include a detailed description of the procedure of environmental impact assessment before the release of the 'Off-Shore Mining and Drilling Conclusions' are the principles adopted by the CEDE and included in a resolution[13], and the ones included under the 'CEDE Draft Convention'[14]. These provisions are however the product of a private body and do not carry the same weight as those produced by experts nominated by governments as is the case of UNEP's legal texts.

8.1.2.1.2.2 The 'Montreal Guidelines'

At the first session of the 'working group', the provision on environmental impact assessment as proposed by UNEP Secretariat was a very elaborate one[15]; much like the one under the 'Off-Shore Mining and Drilling Conclusions'. It included details of the extent and contents of the environmental impact assessment study and proposed that the assessment forms an integral part of the authorization process to be applied to the project.

During the above referred to session of the 'working group', some experts proposed that the sub-paragraphs providing for the contents and extent of the environmental impact study be deleted.[16] The 'Advisory

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[12] See note 2 supra.

[13] Resolution on Guiding Principles for Impact Assessment Procedure, No.7, adopted on 3 June 1978 in Colmar. (See EPL, 4(1978) at 193).

[14] Adopted by the CEDE on 1 April 1978; in particular Arts.5,6. (See EPL, 4(1978) at 137.

[15] See UNEP doc.UNEP/WG.92/2 of 23 August 1983 at pp.17-18

[16] See UNEP doc.UNEP/WG.92/4 of 2 December 1983 at p.5 para.25

Panel' also proposed the insertion of the words "as far as practicable" in the opening sentence of guideline 9[17].

At the third session of the 'working group', the provision as amended during the first and second sessions of the 'working group' and as finally adopted[18] was as follows:

"States should assess the potential effects/impacts, including possible transboundary effects/impacts, of proposed major projects under their jurisdiction or control, particularly in coastal areas, which may cause pollution fom land-based sources, so that appropriate measures may be taken to prevent or mitigate such pollution".

The obligation to make environmental impact assessment under the provision above has, as can be seen, been further weakened by the inclusion of the word "major" before "projects" and by the replacement of the word "activities" by the word "projects"[19].

When compared to the relevant provision under the LOSC, the provision above is less progressive than the former. First, the provision above speaks of "projects" whereas Art. 206 of the LOSC refers to "activities"; second, it includes the word "major" before "projects" whereas no such word is included under the LOSC.

On the other hand, the provision above, unlike Art. 206 of the LOSC and much like UNEP' regional conventions' provisions, puts a particular emphasis on coastal areas and does not include the words "have reasonable grounds" and "as far as practicable" .

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[17] See UNEP doc. UNEP/WG.92/2/Add.1 of 17 October 1983 at p.6

[18] See UNEP doc. UNEP/WG.120/3 of 19 April 1985, Part IV.

[19] At the third session of the 'working group' a number of experts still proposed to replace the words "projects" by "activities", but without success. (UNEP doc. UNEP/WG.120/3 of 19 April 1985, at p.7 para. 24.

Compared to relevant 'Shared Resources Principles';the provision above is also regressive:'Shared Resource Principle' 4 speaks of "activities" not of "projects" and does not include the word "major".

Compared to 'hard law' instruments on land-based pollution or applicable to it,such as the 'Paris Convention',the 'Helsinki Convention',the 'Athens Protocol' and the 'Nordic Convention';one believes that although an obligation to make environmental impact assessment is implied in all the legal instruments above[20];the 'Montreal Guidelines' have the merit to state this duty more explicitly.

In spite of the fact that the 'Montreal Guidelines' are a 'soft law' text,inclusion under them of a provision on environmental impact assessment contributes ,in my view,in the formation of a norm of environmental impact assessment in the field of land-based pollution.

8.1.2.2 Atmospheric Pollution

No provision dealing specifically with environmental impact assessment,has been included under the 'Ozone Layer Convention'.Parties to the convention shall,however,"in accordance with the means at their disposal and their capabilities",co-operate by means of systematic observations,research and information exchange in order to better understand and "assess" the effects of human activities on the ozone layer and the effects on human health and the environment from modification of the ozone layer[21].They shall also undertake,as appropriate,to initiate and cooperate in,directly or through competent international bodies,the conduct of research and scientific "assessment" on inter alia,the physical and chemical processes that may affect the

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[20] 'Paris Convention'(Arts.4;6;9 para.1;11..);'Nordic Convention'(Arts.2,5);'Helsinki Convention'(Arts.6 paras.2,3); 'Athens Protocol'(Arts.6 para.3;7 paras.1(c),2;12);'Lima Convention'(Art.8); 'Quito Protocol'(Arts.IV;V;VI paras.(c),(e);XII).

[21] Art.2,para.2(a).

ozone layer;the human health and other biological effects deriving from any modifications of the ozone layer, particularly those resulting from changes in ultra-violet solar radiation having biological effects,etc.,..[22].

Under the 'Weather Modifications Provisions',a provision[23] on environmental impact assessment is included which reads:

"States should ensure that an assessment is made of the environmental consequences of prospective weather modification activities under their jurisdiction or control which are likely to have an effect on areas outside their national jurisdiction,and either directly or through the World Meteorological Organization make the results of such assessments available to all concerned Sates".

A few differences can be noted between the provision above and the relevant provision [24]under 'Shared Resources Principles'.

First,under the provision above the obligation to make environmental impact assessment is relatively stronger:States "should ensure";'shared Resources Principle' 4 provides:States "should make".

Second,under the provision above it is recommended that States "make the results of such assessments available to all concerned States";no such a provision is made under the relevant 'Shared Resources Principle'.

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[22] Art.3 para.1.Under the "Draft Principles on Protection and Preservation of the Atmosphere" prepared by the Environmental Law Committee of the ILA Australia Branch,a draft Principle on environmental impact assessment was provided for as follows: "XIII.States should ensure that international environmental impact statements are prepared of any major activities under their jurisdiction or control likely to have significant effects on the atmospheric environment in areas beyond their jurisdiction" (see,I.L.A.(Belgrade,1980),Legal Aspects of the Conservation of the Environment,Report of the Committee,Appendix at p.561).

[23] Provision (e)

[24] Principle 4

Finally, the provision above, unlike 'Shared Resources Principle' 4[25] refers explicitly to third party assistance.

It is difficult to say that international law recognizes a duty of impact assessment for environmental modification activities by the mere inclusion of relevant provisions under a bilateral treaty or a 'soft law' text; it is fair to say, however, that inclusion of such a norm under these legal texts contributes to such a process.

8.1.3 Environmentally Sound Management of Hazardous Wastes

Under 'Cairo Guideline/Principle' 14 (approved sites and facilities) it is provided,

(a) States should take such steps as are necessary to require that the storage, treatment and disposal of hazardous wastes take place only at approved sites or facilities;
(b) An authorization or operation permit for approved sites or facilities should be granted only if:
(i) *An assessment undertaken by or at the request of the competent authority has established that no significant adverse effects on health or the environment are to be expected as a result of such storage, treatment or disposal;* (my emphasis)
.....

Moreover under 'Cairo Guideline /Principle' 22 (contingency plans) it is provided,

"States within whose territories hazardous wastes are managed should recognize the need for studies on the risks of sites or facilities and contingency plans prepared by operators of sites or facilities, or by the competent authorities, as appropriate, and the application of such plans as and when necessary. *These plans should take into account any potential adverse effects on health and the environment in other States*". (my emphasis)

Similarly to what occured under UNEP's legal exercise on land-based pollution[26]; a very elaborate provision on environmental impact

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[25] 'Shared Resources Principle' 10 recommends, however, to States sharing a natural resource, when appropriate, to consider the possibility of jointly seeking the services of any competent international organizations "... *in clarifying the environmental problems relating to the conservation or utilization of such natural resources*". (my emphasis)

[26] See note 16 supra.

assessment initially proposed[27], was reduced[28] to the provision which appears in guideline 14 above . This provision avoids , however, the use of the words "environmental impact assessment" and uses only the word "assessment" to allow consideration of not only the environment but also other factors as well.

The provision under guideline 14 is consistent with international law in this field as contained in such legal instruments as relevant EEC Directives[29] and OECD decisions and recommendations.[30]
It is also a progressive provision in the sense that it implements 'Shared Resources Principles' (when applicable to them); and its mere inclusion in a text on environmentally sound management of hazardous wastes helps the development and cristallization of a norm of impact assessment in this field. The importance of this latter element is further amplified by the fact that the 'Cairo Guidelines/Principles' have been developed with a view to "assisting States in the process of developing appropriate bilateral, regional and multilateral agreements and national legislation for the environmentally sound management of hazardous wastes".

8.1.4 Progress of the Working Group of Experts on Environmental Law in the Fulfilment of UNEP Governing Council Decision 11/7, Part two, Section B of 24 May 1983

As stated earlier[31], by decision 11/7, part two, section B of 24 May 1983, the Governing Council of UNEP entrusted the 'Working Group of

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[27] See UNEP doc. UNEP/WG.95/4; guideline 18

[28] See UNEP doc. UNEP/WG.95/5 of 26 April 1984 at p.7 para.28.

[29] See e.g. 'EEC Directive 75/442/EEC' (art.4); 'EEC Directive 78/319/EEC' (arts.5,6,9,12).

[30] Impact assessment is implied in Principles 1 and 5 para.2 of the Principles contained in 'OECD Decision and Recommendation C(83)180 (Final)'.

[31] See chapter 1 .

Experts on Environmental Law(hereinafter the 'working group') established under decision 91(V) of 25 May 1977 with the task of developing principles and guidelines with regard to environmental impact assessment(hereafter,E.I.A.),subject to the availability of additional funds for the purpose.

At the time of writing,the 'working group' has held one session,in Washington from 26 to 29 June 1984.[32]At the end of the meeting,the Chairman of the 'working group',following a request from the experts attending this session[33],prepared a revised draft on goals and principles of enviromental impact assessment(hereafter the 'Revised Draft') which was based on a working paper submitted by the expert from the U.S.A.[34].

It is proposed here to discuss the 'Revised Draft' referred to above.One should mention,however,that because the 'working group' made no specific recommendations on it and because it considered that "further discussion of the goals and principles would be necessary",taking into account the views expressed during the meeting referred to above[35];the discussion which will follow will only outline what one considers to be the most important features ;this will be achieved by looking at the following aspects:Goals of the E.I.A;scope of the E.I.A.; E.I.A. as part of the authorization system;E.I.A. and transboundary effects; public participation and contents of the E,I.A.

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[32] See Working Group of Experts on Environmental Law,Report of The Working Group on its First Session on Environmental Impact assessment(UNEP doc.UNEP/WG.107/3,14 September 1984).See also IRWIN,'UNEP,Impact Assessment-First Session of the Working Group of Experts'in EPL,13(1984) at pp.51-54

[33] Ibid.p.5 para.18.

[34] Ibid.Annex

[35] Ibid.page 6,para.19

8.1.4.1 Goals of E.I.A.

Three goals of E.I.A. were provided for under the 'Revised Draft'.They are;

"1.To instill the principle that before decisions are taken by the competent authority or authorities to authorize activities that are likely to significantly affect the environment,the environmental effects of those activities should be taken fully into account.

"2.To promote the implementation of appropriate procedures in all countries consistent with national laws and decision-making processes,through which the foregoing principle may be realized.

"3.To encourage the development of reciprocal procedures for information exchange,notification and consultation between neighbouring States when proposed activities are likely to have significant transboundary effects on the environment".

Discussion ,in the 'working group', of the question of the goals of E.I.A brought up the "developed-developing" countries issue with the fear that E.I.A. might be a hindrance to development.As a result of this,suggestions made during this session,whether by the Executive Director of UNEP[36]or by the experts attending the meeting[37],emphasized the need for E.I.A. principles flexible enough to fit into different economic situations and for timely and efficient consultation with the public.Even experts from developed countries(e.g.the expert from the U.K.) stressed that E.I.A. principles should strike a balance between environment and development,both necessary in their view[38].

In relation to the goals mentioned above,the principal issues discussed were whether only private,private-governmental,or governmental decisions were covered by the E.I.A process,whether the E.I.A. must be written in a document, and whether "neighbouring" States affected by transboundary impacts included States further away than across the boundary.[39]

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[36] Ibid.p.2 para.5

[37] Ibid.p.5 para.15

[38] See IRWIN 'UNEP,Impact Assessment...'op.cit. at 52-53

[39] Ibid.at 53.

8.1.4.2 Principles

8.1.4.2.1 E.I.A. As Part Of The Authorization System

The principles contained in the 'Revised Draft' seem to favour an E.I.A. as part of the authorization process. This seems to be the message included in principle one which provides that "the competent authority or authorities of a State should not authorize activities without prior consideration of their environmental effects".

This provision has been adopted under relevant UNEP-sponsored legal texts[40]. A similar procedure is also adopted under Art.2 of the 'EEC Directive on E.I.A.'. Under this latter legal instrument, however, exceptions to this procedure are provided for.[41]

8.1.4.2.2 Scope Of The E.I.A.

Principle one referred to above speaks of "activities". This word has also been used under the 'Shared Resources Principles'[42]; the 'Weather Modification Provisions'[43], as well as the LOSC[44].

Although a definition of "activities" has not been given under the 'revised draft'; it is not unreasonable to assume that "activities", in this context, mean no more than "projects". This view seems to be supported by some experts attending the first session of the 'working group' for whom the existing assessment techniques had been developed mainly for the purpose of application at the project

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[40] See e.g., Conclusion/Guideline 6 para.2 of the 'Off-shore Mining and Drilling Conclusions'; also 'Cairo Guideline/Principle' 14 discussed earlier.

[41] See Art.1 paras.4&5 and Art.2 para.3

[42] Principle 4

[43] Provision (e).

[44] Art.206

level[45] and by the provision of Principle four of the 'Revised Draft' which states that "when the scope and nature of a proposed activity is such that it may significantly affect the environment, an environmental impact assessment should be undertaken."

The word "activities" under Principle one of the 'Revised Draft' would seem to include both public and private activities. The same approach has been taken by the 'EEC Directive on E.I.A.', Article 1 of which states that "this directive shall apply to the assessment of the environmental effects of those public and private projects which are likely to have significant effects on the environment".

8.1.4.2.3 E.I.A And The Transboundary Effects

Principle 9 of the 'Revised Draft' states that

"when an environmental impact assessment indicates that the environment within another State may be significantly affected by the proposed activity, the State planning the activity should inform the affected State of the environmental effects identified by:

(a) Transmitting to the potentially affected State for its review and comments all relevant information from the environmental impact assessment;

(b) Discussing or consulting on the potential environmental effects with the potentially affected State at its request.

At the first session of the 'working group' there was general agreement on the importance of considering and formulating assessment procedure for transboundary impacts on the environment.[46] Some experts noted however, that emphasis should be placed on co-operation for finding solutions to potential problems associated with transboundary impacts.[47]

A provision similar to the one above has been included under Art.7 of the 'EEC Directive on E.I.A.'. This latter provision like the provision above speaks also of "significant" effects. In

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[45] See UNEP doc. UNEP/WG.107/1 at p.5 para.16.

[46] Ibid. para.17

[47] Ibid.

contradistinction to the provision above, however, it specifies the contents of information to be given and the timing for sending information("at the same time as it makes it available to its own nationals"). Moreover, the provision on consultation as contained in the Principle above as well as in Principle thirteen of the 'Revised Draft' is generally speaking consistent with the 'EEC Directive on E.I.A.''s provision as contained in Art.9

Principle 10 of the 'Revised Draft' also provides that "a decision as to whether a proposed activity should be authorized should not be taken until an appropriate period has elapsed to receive and consider comments pursuant to paragraphs 8 and 9". A provision similar to this one has been included under Art.8 of the 'EEC Directive on E.I.A.'.

8.1.4.2.4 Public Participation

A number of principles related or relevant to public participation in the E.I.A. procedure have been provided for under the 'Revised Draft'. They are Principles three; eight; eleven and twelve.

Thus Principle three reads;
"In considering the environmental effects of proposed activities, information from the natural and social sciences and environmental and industrial design should be taken into account".

Principle eight provides in its relevant part,

"The environmental impact assessment process should provide for the timely comment of....experts in the scientific fields of study, interested private citizens...."

Principle eleven provides,

"A decision on a proposed activity should be set out, in writing, indicating what has been decided, why the decision has been made, how the environmental analysis influenced that decision, and what mitigation measures, if any, will be taken to protect against environmental damage. This record of decision should be available to the public prior to implementation of the final decision".

Finally Principle twelve provides,

"Judicial and administrative remedies should be available to ensure that environmental impact assessment procedures are followed".

Provisions similar to the ones above have also been included under the 'EEC Directive on E.I.A.', but in a much more detailed form under such articles as Articles 6 and 9. The principles of the 'Revised Draft' emphasize, however, some aspects such as the need to take into account, in considering the environmental effects of proposed activities, "information from the natural and social sciences and environmental and industrial design"; the recommendation that the decision taken on a proposed activity be set out "in writing"; requiring that it shows "how the environmental analysis influenced" it and that the record of the decision be available to the public "prior to implementation of the final decision". Also noteworthy is the provision under Principle 12 of the 'Revised Draft' referred to above.

8.1.4.2.5 Contents Of The E.I.A

Principle 6 of the 'Revised Draft' provides;

"6. An environmental impact assessment should include, at a minimum:
(a) a description of the proposed action;
(b) a description of the potentially affected environment, including specific information necessary for identifying and assessing the environmental effects of the proposed activity;
(c) a description of practical alternatives;
(d) an assessment of the environmental impacts of the proposed activity and alternatives;
(e) an identification and description of measures available to mitigate adverse environmental impacts of the proposed activity and alternatives;
(f) a determination of whether the environment within any other State or areas beyond national jurisdiction may be affected by the proposed activity or alternatives".

A more detailed procedure for E.I.A. than the one above is provided for, as shown earlier, under the 'Off-shore Mining and Drilling Conclusions'.

The procedure of E.I.A. under the Principle above is consistent with the same procedure under the 'EEC Directive on E.I.A.'[48]

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[48] Art.5, para.2

A few differences may be noted, however, between these two texts. The principle above, in contradistinction to the relevant provision under the 'EEC Directive on E.I.A.' refers to the need for a description of the "potentially affected environment", for a description of "practical alternatives" and "a determination of whether the environment within any other State or areas beyond national jurisdiction may be affected by the proposed activity or alternative".

Article 5 of the 'EEC Directive on E.I.A.' refers, however, to some aspects not referred to under the Principles of the 'Revised Draft', such as a requirement for a description of the measures envisaged in order not only to avoid and reduce significant adverse effects but also to "remedy" them; and requirement of "a non-technical summary" of the information.

8.2 Prior Notification and Information

8.2.1 Introduction

As is by now well known, a provision on information (and consultation) was omitted by the 'Stockholm Conference'[49]. The U.N. General Assembly took up the matter, however, by adopting Resolution 2995 (XXVII) which in its provisions on prior information (and consultation) lays down the following:

> "2...co-operation between States in the field of the environment including co-operation towards the implementation of principles 21 and 22 of the Declaration of the Stockholm Conference on the human environment, will be effectively achieved if official and public knowledge is provided of the technical data relating to the work to be carried out by States within their national jurisdiction, with a view to avoiding significant harm that may occur in the environment of the adjacent area.

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[49] For a discussion of this point, see ANGSTMAN, 'Stockholm Conference: A Synopsis and Analysis' in Stan. Jnl Int'l Stud. 8:31-78, 1973 at and SOHN, 'The Stockholm Declaration on the Human Environment' in 14 (1973) Harv. Int'l L. Jnl. pp. 423-515 at 431.

> "..the technical data referred to in paragraph 2 above, will be given and received in the best spirit of co-operation and good neighborliness without this being construed as enabling each State to delay or impede the programs and projects of exploration, exploitation and development of the natural resources of the State in whose territory such programs and projects are carried out"[50]

The 'weak' wording of this resolution was subsequently re-inforced by U.N.General Assembly Resolution 3129(XXVIII) which stipulates that "co-operation between countries sharing [natural resources common to two or more States] and interested in their exploitation must be developed on the basis of a system of information and prior consultation within the framework of normal relations existing between them"[51].

A year later, the Charter of Economic Rights and Duties of States was adopted by the U.N.General Assembly[52]; Article 3 of which provides also in a strong language, that "in the exploitation of natural resources shared by two or more countries, each State must co-operate on the basis of a system of information and prior consultation in order to achieve optimum use of such resources without causing damage to the legitimate interest of others".

In the following sub-sections development by UNEP of a norm of prior notification and information will be assessed by looking at each type of environmental harm or issue separately (i.e. water pollution; marine pollution; air and atmospheric pollution ; environmentally sound management of hazardous wastes; conservation..etc.,.)and by considering in each case, where applicable, both 'hard law' and 'soft law' and by keeping the distinction between notification and information in "ordinary" cases and notification in cases of "emergency".

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[50] U.N.General Assembly Resolution 2995, in GAOR 27th Session, supp.30, at 42.

[51] U.N.General Assembly Resolution on "Co-operation in the Field of the Environment Concerning Natural Resources Shared By Two or More States", U.N.Doc.A/RES/3129(XXVIII), in 13 I.L.M.232 at 233(1974).

[52] Resolution 3281(XXIX) adopted by the U.N.General Assembly on December 12, 1974 in U.N.Doc.A/RES/3281(XXIX) ; reproduced in 14 I.L.M.251, 1975.

8.2.2 Notification and Information in "Ordinary" Cases

8.2.2.1 Conservation

8.2.2.1.1 The 'Soft Law' Context

Under the 'Shared Resources Principles' the principles of prior notification, information (and consultation) were further refined. The relevant principles read;

> Principle 5
> "States sharing a natural resource should, to the extent practicable, *exchange information* and engage in consultation on a regular basis on its environmental aspects". (My emphasis)
>
> Principle 6
> "1. It is necessary for every State sharing a natural resource with one or more other States:
> (a) *to notify in advance the other State or States of the pertinent details of plans to initiate, or make a change in, the conservation or utilization of the resource which can reasonably be expected to affect significantly the environment in the territory of the other State or States*; and
> (b) Upon request of the other State or States, to enter into consultations concerning the above-mentioned plans, and
> (c) *to provide, upon request to that effect by the other State or States, specific additional pertinent information concerning such plans*; and
> (d) if there has been no advance notification as envisaged in subparagraph (a) above, to enter into consultations about such plans upon request of the other State or States.
> "2. In cases where the transmission of certain information is prevented by national legislation or international conventions, the State or States witholding such information shall nevertheless, on the basis, in particular, of the principle of good faith, and in the spirit of good neighborliness, co-operate with the other interested State or States with the aim of finding a satisfactory solution". (My emphasis)
>
> Principle 7
> "*Exchange of information, notification*, consultation and other forms of co-operation regarding shared natural resources are carried out on the basis of the principle of good faith and in the spirit of good neighborliness and in such a way as to avoid any unreasonable delays whether in the forms of co-operation or in carrying out development or conservation projects". (My emphasis)

The 'Shared Resources Principles' also include under principle 9 a provision on notification in "emergencies" ;this shall be discussed in subsequent sections.

All the foregoing provisions clearly refine the provisions on notification contained in U.N.General Assembly Resolutions referred to above.The refinement can be seen not only in the provision of a mandatory and more detailed procedure as regards notification in "ordinary cases" that is cases of "plans to initiate or make a change in,the conservation or utilization of the resource which can reasonably be expected to affect significantly the environment in the territory of the other State or States";but also in the provision of a "special" duty to notify in "cases of emergency".

Still in a 'soft law' context,the World Charter for Nature provides in Principle 21 that,

> "States and,to the extent they are able,other public authorities, international organizations ,individuals,groups and corporations shall:
> (a) Co-operate in the task of conserving nature through common activities and other relevant actions,*including information exchange*.."

Notwithstanding the 'soft law' nature of the World Charter for Nature,the reference under the foregoing provision to entities "lower" than States constitutes,in my opinion,an important element which should be underlined.This provision has,however,been severely criticized by one scholar[53].

In spite of the positive aspects underlined under the provisions above discussed ;a better formulation of the duty to notify and inform

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[53] See e.g.REMOND-GOUILLOUD,'La Charte de la Nature' in R.J.E.,2(1982),pp.120-124 at 124.

has been provided for under ,for example,'OECD Recommendation C(77)28'[54]

8.2.2.1.2 The 'Hard Law' Context

'Hard law' instruments in whose support or elaboration UNEP has been involved include provisions on notification and information exchange. Thus, the 'ASEAN Agreement' provides under Art.20, para.3(b) that the Contracting Parties shall endeavour to "notify in advance the other Contracting Parties concerned of pertinent details of plans to initiate, or make a change in, activities which can reasonably be expected to have significant effects beyond the limits of national jurisdiction". This provision clearly implement 'Shared Resources Principle' 6 but uses the a weak obligation: Contracting Parties shall *endeavour*.

Moreover, The 'Migratory Species Convention' provides under Art.V, as guidelines for agreements to be negotiated between States in relation to migratory species that

> "5. Where appropriate and feasible, each AGREEMENT should provide for but not be limited to:
> .....
> (d) the exchange of information on the migratory species concerned; special regard being paid to the exchange of the results of research and of relevant statistics;
> .....
> (l) exchange of information on substantial threats to the migratory species".

This provision, although not a very elaborate one; implements, in my view, relevant 'Shared Resources Principles' and even refines them by providing for the type of information to be given (in this case, the

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[54] Under this recommendation it is provided that,
"(a) The Country of origin, on its own initiative or at the request of an exposed Country, should communicate to the latter appropriate information concerning it in matters of transfrontier pollution or significant risk of such pollution and enter into consultation with it.
"(b) In order to enable a Country of origin to implement adequately the principles set out in Title A of the Recommendation, each exposed Country should on its own initiative or at the request of the Country of origin , supply appropriate information of mutual concern"

results of research and of relevant statistics, and information on substantial threats to the migratory species).

Similar provisions are, however, included under such conventions as the 'African Convention'; the 'Antarctic Seals Convention' and the 'Berne Convention'[55].

8.2.2.2 Pollution

8.2.2.2.1 Water pollution

A norm of prior notification and information is already well developed in the context of river pollution[56]. The only initiative of UNEP in this context, is the inclusion, under the recommendations for regional co-operation in the development of shared water resources contained in the Action Plan produced by the United Nations Water Conference, of recommendations calling for exchange of information to avoid foreseable damage[57].

8.2.2.2.2 Marine Pollution

8.2.2.2.2.1 General Provisions

Regarding marine pollution generally, and in a 'hard law' context, norms of notification and information are included under most

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[55] 'African Convention' (Art. XVI(1)(b)); 'Antarctic Seals Convention' (Art. 5); 'Berne Convention' (Art. 10(1)).

[56] See e.g. 'Agreement Concerning the Niger River Commission and the Navigation and Transport on the River Niger' and the 'African Convention' (Art. 5(2)). Also the '1982 Montreal Rules on TWP' (art. 5(a). See in this context, BOURNE, 'Procedure in the Development of International Drainage Basins: The Duty to Consult and to Negotiate' in 10 Can. Y.B. Int'l L. 214-234 (1972).

[57] See United Nations Water Conference (March 14 to 25, 1977)-Mar del Plata Action Plan, March 25, 1977 in RUSTER, SIMMA, BOCK, 'international Protection ...' op. cit. pp. 166-229 at 203 (paras. 84-87).

UNEP sponsored regional conventions[58].

One should note that under such conventions as the 'Kuwait Convention';'Lima Convention' ;'Abidjan Convention' and 'Cartagena Convention',the duty to inform is required as regards the results of environmental impact assessments undertaken about activities in one State which may have an effect on other States or the area covered by the agreement[58a].

A more comprehensive norm of notification and information is ,in my view,provided for outside UNEP,under such agreement as the 'Nordic Convention' which establishes such a duty for all sorts of transfrontier pollution problems[59].

8.2.2.2.2.2 Land-Based Pollution

One should mention,in a 'hard law' context,Art.13 of the 'Athens Protocol' and Art.IX of the 'Quito Protocol'.Under these two provisions reference should be made to the Parties'obligation to exchange information on statistical data on the authorizations granted regarding discharges of 'grey list' substances as under the 'Athens Protocol' and discharges of 'black list' and 'grey list' substances as under the 'Quito Protocol';on data resulting from monitoring of levels of pollution along Parties'coasts in particular with regard to 'black list' and 'grey list' substances and data on quantities of pollutants discharged from Parties'territories.

One should also mention the obligation of Contracting Parties,under Art.IX(a) of the 'Quito Protocol' to exchange,among themselves,and to transmit to the 'Executive Secretariat' information on the competent

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[58] See e.g. 'Kuwait Convention'(Arts.X,XI(b));'Abidjan Convention'(Arts.13,14);'Lima Convention'(Arts.8(3),10(1)); 'Cartagena Convention'(Arts.12(3);13).

[58a] 'Kuwait Convention'(Art.XI(b));'Abidjan Convention'(Art.13(3));'Lima Convention'(Art.8(3))etc.,.

[59] 'Nordic Convention'(Art.5).

national authorities and bodies responsible for receiving information about pollution from land-based sources;this provision usefully refines the procedure for collection and submission of information left,under the 'Athens Protocol',to the 'Meeting of the Parties' to define.

The provisions on information above,although not all of a "preventive" character,usefully refine relevant 'Shared Resources Principles' by clarifying the type of information to be provided and by determining ,as under the 'Quito Protocol' the procedure for the collection and submission of information.

Compared to legal instruments related to land-based pollution,the provisions can only be said to be consistent with international law in this field[60]

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[60] See e.g. 'Paris Convention'(Art.17); 'Nordic Convention'(Art.5);'Helsinki Convention'(Arts.6(4),16).

In a 'soft law' context,'Montreal Guideline' 15 reads in its relevant part;

> "Whenever releases originating or likely to originate from land-based sources within the territory of a State are likely to cause pollution to the marine environment of one or more other States or of areas beyond the limits of national jurisdiction,that State should immediately notify such other State or States,as well as competent international organizations,and provide them with timely information that will enable them,where necessary,to take appropriate action to prevent,reduce and control such pollution."

This provision is,in my view,progressive in one aspect:it speaks of "immediate" notification regarding all releases(or even their likelihood) and not only releases following an accident(that is releases in cases of "emergencies").For this,one believes that the provision above has gone a step forward when compared,for example,to relevant 'Shared Resources Principles[61]',or Art.198 of the LOSC which speak of "immediate" notification only in cases of "emergency".

The recommendation under the provision above to provide other States as well as competent international organizations with immediate notification on releases which are likely to cause pollution to the marine environment of "...areas beyond the limits of national jurisdiction" is also a positive provision worthy of mention.

Although a duty to notify and inform is included under legal texts on land-based pollution negotiated outside UNEP;UNEP's contribution lies,in my view,in the widening of the acceptance of such a duty by a greater number of States thus facilitating the transformation of this norm from a norm of custom of regional application to a norm of custom of general application.

8.2.2.2.2.3 Off-shore Mining and Drilling

A provision on information has been included under a 'soft law' instrument:the 'Off-shore Mining and Drilling Conclusions';guideline 17

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[61] Principle 9

of which provides,

> "1. Whenever a State has reason to believe that operations could have significant adverse effects on the environment of other States or of areas beyond the limits of national jurisdiction, it should provide such other States, as well as competent international organizations with timely information that would enable them, where necessary, to take appropriate measures.
> "2. Such information should provide relevant data, the transmission of which is not prevented by national laws and regulations".

The provision above, though implementing relevant 'Shared Resources Principles' (when applicable to them) in one case, that is pollution from off-shore mining and drilling, and, although participating in the crystallization of a norm of information in this field, does not, in my view, substantially advance the law in this field.

8.2.2.2.3 Atmospheric Pollution

8.2.2.2.3.1 Weather Modification

The 'Weather Modification Provisions' include a provision on notification which reads as follows;

"States should, to the extent possible, give, either directly or through the World Meteorological Organization, adequate and timely notification to all concerned States of prospective weather modification activities under their jurisdiction or control which are likely to have an effect on areas within the national jurisdiction of such concerned States."

The language used under this provision is rather weak even when compared to the cautious language used under relevant 'Shared Resources Principles'; prior notification i.e., should be given "to the extent possible". On the positive side, however, the provision above recommends "timely" notification; "timely" would mean in this context that "the notified State is given the time to analyse the information and consult with the acting State before the activity is conducted".[62]

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[62] See Report of the WMO/UNEP Informal Meeting on Legal Aspects of Weather Modification, November 17-21, 1975, UNEP Doc. UNEP/GC 61, Annex 1, at 6-8 (1976)

The provision above also recommends that the notification be given either directly or "through the World Meteorological Organization". Provision for third party assistance in notification is, in my view, a positive one (despite the fact that the 'Shared Resources Principles' make provision for that[63]).

As regards the specific problem of weather modification, inclusion of such words may, in fact, help some countries overcome their neighbourly difficulties.[64].

A previous version of the provision above included the word "major" before "modification activities", this word was excluded, however, principally as a result of a pressure from Australia who pointed out that the size of an activity was not pertinent to the loss an individual abroad might consider he had suffered. In the Australian delegate's view, "major" was a loophole which could be used by many countries.[65]

There exists bilateral treaties on weather modification activities such as 'the U.S.A- Canada Weather Modification Agreement' which include more detailed provisions on notification and information.[66] This is, however, a bilateral treaty, whereas the 'Weather Modification Provisions' are, notwithstanding their legal nature, a global text.

While it is not possible as yet to claim that international law recognizes a duty on notification and information as regards weather modification activities by the mere existence of such a duty under bilateral agreements or by its inclusion in a 'soft law' text such as the 'Weather Modification Provisions'; it is fair to say that provision for such a duty under these legal texts contributes to this process. But for this, one believes that UNEP's contribution has been positive.

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[63] Principle 10

[64] See U.N.doc. WMO/UNEP/WG.26/4 of 30 May 1979 at 3.

[65] See U.N.doc. WMO/UNEP/WG.26/5, 20 June 1979 at 10

[66] Arts. II; IV.

Moreover, although it is important to assess the existence of an international law duty of prior notification in relation to specific activities with potential harmful results it is not unreasonable, in my view, to say that if such a duty exists in the context of marine pollution, no major problem should exist with regard to the extension of its application to different types of environmentally harmful activities, thus accepting State practice on prior notification covered by legal agreements referred to earlier as a proof of a general principle.

8.2.2.2.3.2 Depletion of the Ozone Layer

Under the 'Ozone Layer Convention', a duty of information is provided for under a number of provisions. One should note specifically Arts. 2 and 4 of the convention.

Art. 2 para. 2 provides,

> "2....the Contracting Parties shall, in accordance with the means at their disposal and their capabilities:
> (a) Co-operate by means of systematic observations, research and information exchange in order to better understand and assess the effects of human activities on the ozone layer and the effects on human health and the environment from modification of the ozone layer".

Art. 4 reads,

> "1. The Contracting Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this convention as further elaborated in Annex II. Such information shall be supplied to bodies agreed upon by the Contracting Parties. Any such body receiving information regarded as confidential by the supplying Party shall ensure that such information is not disclosed and shall aggregate it to protect its confidentiality before it is made available to all Contracting Parties,"

At the first session of the 'working group' it was agreed[67] that the convention should contain provisions for increased co-operation and the exchange of information on monitoring, research, modelling, assessment and development.

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[67] See UNEP doc. UNEP/WG.69/10, p.5, para. 12

Under information exchange the group listed subjects it thought most important; it recognized, in this respect, that there were several types of information that needed to be exchanged, in particular, scientific information (including research and assessment reports), aggregated data on production, uses, and emissions of chlorofluorocarbons, technological information on substitutes and alternatives; information on national administration and law, and socio-economic information, such as cost-benefit analyses , risk assessments of alternative strategies and impact of regulatory actions[68].

Regarding the provisions under Arts. 2 and 4 above, one should note that the obligation to exchange information is qualified: Co-operation in information exchange shall be undertaken in accordance with Contracting Parties' "means....and their capabilities".

On the positive side, however, one should note the provision under Art. 4 above, that information be supplied to "bodies agreed upon by the Contracting Parties", and the obligation for these bodies to "aggregate" it in order to protect its confidentiality[69].

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[68] Ibid. at p. 7, para. 13

[69] With regard to prior notification in this context, such a duty might be difficult to implement due to the special nature of the problem and its purpose can only be achieved through other means namely prevention. The work of the 'I.L.A. Committee on Legal Aspects of Long-Distance Air Pollution' is of interest here as will be the result of its deliberations.' (See I.L.A., Report of the Sixty-First Conference, Paris (1984) at pp. 377-413). One should also note that under the I.L.A. report of the Environmental Law Committee of the Australian Branch on Protection and Preservation of the Atmosphere presented to the I.L.A. Committee on Legal aspects of the Conservation of the Environment , draft principles were proposed which include one draft principle on prior notice or notification; this one reads;
"XII. States shall in good faith and in a spirit of good neighbourliness give adequate and timely notification to all interested States and international organizations of prospective major activities under their jurisdiction or control likely to have significant effects on the atmospheric environment in areas beyond their national jurisdiction. When requested, such States shall enter into meaningful and timely consultations concerning such activities". (See note 22 Supra)

8.2.2.3 Environmentally Sound Management of Hazardous Wastes

The 'Cairo Guidelines/Principles' include provisions on notification. Thus, guideline 16 (transfrontier effects of approved sites and facilities-pre-authorization information) provides,

"16...
(a) States should ensure that, where it is proposed to grant an authorization or operating permit under guideline 14 in respect of activities which may have significant effect on health or the environment in another State (hereinafter referred to as "the State concerned"), the State concerned is provided in a timely manner by the State entitled to grant the authorization or operating permit (hereinafter referred to as "the authorizing State") with sufficient information in conformity with the laws and regulations of the latter State, to enable it to evaluate accurately the likely effects of those activities.
(b) The State concerned should respect the confidentiality of the information transmitted under paragraph (a) above".

Moreover, guideline 26 (notification and consent procedure in respect of transfrontier movements of hazardous wastes) provides,

(a) States should establish a system which ensures that all States involved in a transfrontier movement of hazardous wastes receive full information sufficiently in advance to enable them to assess the proposed movement properly;
(b) A State of export should take such steps as necessary to ensure that a request from a State of import or transit State for relevant information concerning the transfrontier movement in question elicits a constructive and timely response;
.....
(c) In the absence of bilateral, regional or multilateral arrangements, States should provide that it shall not be lawful for any person to initiate a transfrontier movement of hazardous wastes until the State of import and any transit State have given their consent to that movement;
(d) The consent of the State of import referred to in paragraph (c) above should take the form of an explicit consent, provided always that States may by bilateral or multilateral arrangements adopt a tacit consent procedure;
(e) Any transit State should be notified in a timely manner of a proposed movement, and may object to it within a reasonable time in accordance with its laws and regulations. The consent of a transit State referred to in paragraph (c) above may also take the form of a tacit consent;
(f) The State of export should not permit a transfrontier movement of hazardous wastes to be initiated if it is not satisfied that the wastes in question can be managed in an environmentally sound manner, at an approved site or facility and with the consent of the State of import;
(g) In order to facilitate implementation of this guideline, each State should designate an agency which shall be the focal point to

which the notifications and inquiries mentioned in the foregoing paragraphs may be addressed."

.....

What should be said from the start is that very elaborate provisions on notification which have been proposed by UNEP's consultant [70] have not been retained.[71] These provisions included such matters as a requirement that the licencing State make available to the State concerned "all" the information submitted to it by the applicant; a reference to material which may be excluded from the information to be provided; a declaration that the entry by the licensing State into such process of information would not constitute an admission as to the existence of the effects in question or as to their legality or otherwise in international law, i;e. a "without prejudice" clause, etc.,.[72]

In spite of this, the 'Cairo Guidelines/Principles' referred to above still contain progressive aspects which should be underlined.

First, the 'Cairo Guidelines/Principles' above implement and refine, in my view, in a 'soft law' context, the norm of prior notification and information as expressed under U.N. General Assembly Resolutions and 'Shared Resources Principles' discussed earlier. The areas of refinement appear, in my view, in the fact that the 'Cairo Guidelines/Principles' include such a duty in two instances: in respect of "activities" which may have significant effects on health or the environment in another State and in respect of "transfrontier movements of hazardous wastes".

Moreover, the 'Cairo Guidelines/Principles' give consideration, as concerns the elements which are likely to be significantly affected by the activities to be authorized and which would "trigger" the duty to notify, not only to the environment in the concerned State but also to "health".

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70 See UNEP doc. UNEP/WG.95/4 (guidelines 22-24).

71 See UNEP doc. UNEP/WG.95/5 p.7 para.30.

72 See note 70 supra.

Although not a very significant development, the 'Cairo guidelines/Principles' also clarify, to some extent, the type of information to be given: It should be "sufficient information to enable [the State concerned] to evaluate accurately" the likely effects of the activities proposed to be authorized.

Another very important area of developement; this time as regards tranfrontier shipment of hazardous wastes; is the requirement under 'Cairo Guideline/Principle' 26(c) and (d) of "informed consent".

Finally, the recommendation under guideline 26(g) for designation by each State of an agency as a focal point to which the notifications and inquiries may be adressed, also constitutes a positive development as far as implementation of a duty to notify is concerned.

Compared to the relevant legal texts in this field , the 'Cairo Guidelines/Principles' still display positive aspects: The formula used under guideline 26(a) as regards timing of notification, "...sufficiently in advance.."is, in my view, a more concrete one than the one used under 'OECD Recommendation C(83) 180 (Final)' which uses the words "...timely information" or 'EEC Directive 84/631/EEC' which requires under Article 3(1) notification without more precision. The same observation applies with regard to 'Cairo Guideline/Principle' 26(b) where the use of the word "..timely" is , in my view, prefered to the use of the word "..diligent" under the above referred to OECD Recommendation.

Finally the principle of "informed consent" as contained under 'Cairo Guideline' 26(c) and (d) constitutes an important improvement on 'OECD Recommendation C(83)180 (Final)'and 'EEC Directive 84/631/EEC'.[73].

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[73] Under Article 4 of the EEC Directive,it is stated only that a transfrontier shipment may not be executed before the competent authority of the Member State of destination or the last Member State through which the shipment is due to pass has "acknowledged receipt of the notification".'EEC Directive 84/631/EEC' is more developed in other aspects however:It states,for example, that notification shall be made by means of a *uniform consignment note* to be drawn in accordance with Article 15 and the contents of which are set out in Annex I.(Art.3(2)).Note ,however,that one of the recommendations of the 'OECD Basel Conference' was that the system for control of transfrontier movements of hazardous wastes which OECD Member Countries should develop should recognize and implement the principle that OECD Member Countries "will not allow movements of hazardous wastes to non-Member countries to occur without the consent of the appropriate authorities of the importing country and of any non-Member countries of transit,and unless the hazardous wastes are directed to adequate disposal facilities in the importing country".(See OECD doc.C(85)100 Appendix).

8.2.2.4 Exchange of Information on Potentially Harmful Chemicals(in particular Pesticides) in International Trade

Although no final agreement has been reached as yet on this topic,one should mention the progressive provisions on notification and information contained in the 'Revised draft'.Before embarking on this,one should note that,on recommendation of the "working group"[74]the Governing Council of UNEP adopted [75]at its twelfth session, a 'Provisional Notification Scheme for Banned and Severely Restricted Chemicals'(hereafter the PNS).

In the section below,one will discuss the PNS ;this will be followed by the discussion of the notification and information guidelines included under the above referred to 'Revised Draft'.

8.2.2.4.1 The Provisional Notification Scheme for Banned and Severely Restricted Chemicals(PNS)

The PNS as adopted by the Governing Council of UNEP reads as follows;

1.Introduction

.....

2.Definition

For purposes of the present provisional notification scheme, a banned or severely restricted chemical includes any chemical that is the subject of a control action taken by a competent authority in the country of export:

(a) To ban or severely restrict the use or handling of the chemical in order to protect human health or the environment domestically;or

(b) To refuse a required authorization for a proposed first-time use of the chemical based upon a decision in the country of export that such use would endanger human health or the environment.

3.Notification of Control Action

(a) When a country has taken control action to ban or severely restrict a chemical,it should notify directly or indirectly,the

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[74] See UNEP doc.UNEP/WG.95/5,p.14,para.80.

[75] UNEP Governing Council Decision 12/14 of 28 May 1984.

designated national authorities in other countries of the action it has taken.
(b) The purpose of the notification regarding control action is to give competent authorities in other countries the opportunity to assess the risks associated with the chemical, and to make timely and informed decisions thereon taking into account local environmental, public health, economic and administrative conditions;
(c) The minimum information to be provided for this purpose should be:
(i) The chemical identification/specification of the chemical;
(ii) A summary of the control action taken and the reasons for it. If the control action bans or restricts certain uses but allows other uses, such information should be included;
(iii) The fact that additional information is available, and the indication of the contact point in the country of export to which a request for further information should be addressed.

4. Information Regarding Export

(a) if an export or re-export of a banned or severely restricted chemical occurs, the country of export should ensure that necessary steps are taken to provide the designated national authority of the country of import with relevant information;
(b) The purpose of information regarding exports is to remind the country of import of the original notification regarding control action and to alert it to the fact that an export is expected or about to occur;
(c) the minimum information to be provided for this purpose should be:
(i) A copy of, or reference to, the information provided at the time of notification of control action;
(ii) Indication that an export of the chemical concerned is expected or about to occur.

5. Channels of Notification

(a) Notification should normally be addressed to the national authority designated for this purpose in the country of import, with a copy or a summary to the International Register of Potentially Toxic Chemicals (IRPTC). IRPTC should forward to the United Nations Secretariat the information contained in such notifications;
(b) Alternatively, notifications may be addressed to IRPTC for transmission to designated national authorities.
(c) Countries should as soon as possible make available to IRPTC the name and address of their designated national authority. IRPTC in turn should prepare a consolidated list of designated national authorities and circulate it to all such authorities.

6. Timing of Notification and Information

(a) Notification of control action should be provided as soon as practicable after the control action is taken. For chemicals banned or severely restricted before the implementation of the present

provisional scheme, an inventory of prior control action should be provided to IRPTC, unless such information has already been provided; (b) Information regarding exports should be provided at the time of the first export following the control action, and should recur in the case of any significant development of new information or condition surrounding the control action. It is the intention that, in so far as possible, the information should be provided prior to export, but it is recognized that this may not always be possible, and that the procedures of the country of export should not be such as to delay or control export.

7. Feedback

Designated national authorities of importing countries should provide to IRPTC, for consideration at future sessions of the Ad Hoc Working Group authorized by the Governing Council, a summary of action taken as a result of notifications of banned or severely restricted chemicals, and information on any difficulties which they have experienced in using the present provisional notification scheme".

The notification scheme above, is certainly progressive when compared, for example, to U.N. General Assembly Resolutions or relevant 'Shared Resources Principles' referred to earlier. The PNS refines these principles in one context, that is international trade in harmful chemicals.

The areas where there is refinement of the above referred to legal instruments are the following:

First, the PNS clarifies the circumstances that call for notification: In this respect, notification should be initiated when a country "has taken control action" to ban or severely restrict a chemical and it should also be given "if an export or re-export" of a banned or severely restricted chemical occurs. The obligation to provide information in the latter case is weak, however; the country of export being asked only to take "the necessary steps" to provide information.

Second, the PNS clarifies the time at which the notification should be given. As regards notification of "control action", this should be provided "as soon as practicable after the control action is taken". It is also stated under the scheme that "for chemicals banned or severely restricted before the implementation of the present provisional

scheme, an inventory of prior control action should be provided to IRPTC, unless such information has already been provided".

As for notification of exports, this should be provided "at the time of the first export following the control action, and should recur in the case of any significant development of new information or conditions surrounding the control action". Under the scheme it is further provided that it is the intention that, in so far as possible, the information should be provided "prior to export", but it is recognized that this may not always be possible, and that the procedures of the country of export should not be such as to delay or control the export.

Third, the PNS provides for the contents of the information to be given. The "minimum information" to be provided, when a country has taken "control action" should be the chemical identification/specification of the chemical; a summary of the contol action taken and the reasons for it (the PNS further provides in this respect that if the control action bans or restricts certain uses but allows other uses, such information should be included); the fact that additional information is available, and the indication of the contact point in the country of export to which a request for further information should be adressed. The "minimum information" which should be provided regarding export includes a copy of, or reference to, the information provided at the time of the notification of control action and indication that an export of the chemical concerned is expected or about to occur.

Finally, the PNS includes provisions on the "recipient" of prior notification. In this respect, it is provided that notification of "control action" and notification in case of "exports or re-exports" should be addressed normally to the "national authority designated for this purpose" in the country of import, with a copy or a summary to the International Register of Potentially Toxic Chemicals (IRPTC). IRPTC, in its turn, should forward to the United Nations Secretariat the information contained in such notifications. It is also provided that "alternatively", notifications may be adressed to IRPTC for transmission to designated national authorities.

Compared to 'OECD Recommendation C(84)37(Final)' ,the PNS still displays progressive aspects.

First,as regards the contents of information to be provided,the PNS requires the country who has taken control action to give the reasons for it and a copy of,or reference to the information provided at the time of the notification of control action. 'OECD Recommendation C(84)37(Final)'includes a similar provision as regards the first element[76]but in a weaker way:information on the rationale for the contol action "may" be included;and does not provide for the second element(a copy of,or reference to the information provided.)

Second,there is a difference between the two legal texts in the purpose of the notification to be provided.In case of exports,under the PNS,the purpose of information regarding exports is "to remind the country of export of the original notification regarding control action.."and "to alert it to the fact that an export is expected or about to occur".The OECD Recommendation states only the latter purpose.[77]

8.2.2.4.2 The Draft Guidelines on Exchange of Information on Potentially Harmful Chemicals(in particular Pesticides) in International Trade

The 'Revised Draft' on the above mentioned topic includes a number of provisions on notification and information exchange.Thus,Draft guideline 3 (information and assistance) provides in its relevant part,

"3....

(a) States should[facilitate the exchange of][78]

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[76] 'OECD Recommendation C(84)37 (Final)',guiding principles,principle 6(iii).

[77] Ibid.guiding principle 5

[78] Text placed in [square brackets]is the one on which no consensus was reached in the 'working Group'.

scientific, technical, economic and legal information concerning the management of potentially harmful chemicals, through designated national authorities and through international institutions as appropriate;

....

(c) With regard to the export or re-export of banned or severely restricted chemicals, States should ensure that information..is provided to other States concerned regarding the environmental sound management of such chemicals;

(d) With regard to the import of potentially harmful chemicals, States should take the necessary measures to ensure that users are provided with information...for the environmentally sound management of such chemicals."

Moreover, draft guideline 4 (designated national authorities) provides

"(a) for purposes of international communication, each State should designate a national authority competent to perform the administrative functions related to the exchange of information on potentially harmful cheemicals;

(b) The designated national authority should be authorized and equipped to communicate directly with designated authorities of other States and with international organizations concerned, to exchange information and to submit reports;

(c) A register of designated national authorities should be maintained, regularly updated and disseminated by an international secretariat, to which any changes in the designations of national authorities should promptly be communicated."

Furthermore, under draft guidelines 5 and 6 very detailed functions for respectively "designated national authorities-imports" and "designated national authorities-exports" were provided for as follows;

"5. Functions of designated national authorities-imports

"It [should] be the function of designated national authorities, with regard to imports of potentially harmful chemicals:

(a) To receive notifications from countries of export or re-export, and to ensure their prompt transmittal to all other national authorities concerned.

(b) To issue and transmit information requested as required to countries of export or re-export;

(c) To provide information regarding applicable national regulations in the management of potentially harmful chemicals;

(d) To keep records of notifications received , which should be open for public inspection in accordance with national law, expect for information classified as confidential or proprietary;

(e) To ensure adequate precautionary information of persons using or handling the chemicals concerned;

(f) To monitor imports of potentially harmful chemicals, and to verify compliance of imports with notifications received, authorizations granted and applicable regulations;

(g)To provide feedback information on action taken as a result of notifications transmitted,and on any difficulties experienced in the exchange of data with countries of export.

"6. Functions of designated national authorities-exports
It [should] be the function of designated national authorities,with regard to exports or re-exports of potentially harmful chemicals:
(a) To ensure the issuance or transmittal of notifications to designated national authorities in countries of destination;
(b) To respond to information requests from countries of destination,especially as regards sources of precautionary information on safe use and handling of the chemicals concerned;
(c) To provide information regarding applicable national regulations for the management of potentially harmful chemicals;
(d) To keep records of notifications issued and transmitted,which should be open for public inspection in accordance with national law,expect for information classified as confidential or proprietary;
(e) To monitor exports and re-exports of potentially harmful chemicals,and to verify compliance with applicable regulations."

Other draft guidelines are also relevant as far as a duty of notification and information is concerned.They are draft guidelines 9,10 and 11.

Draft guideline 9(chemicals banned or severely restricted in country of export)provides;

"(a) when a country has taken control action to ban or severely restrict a chemical,it should notify directly or indirectly [through the International Register of Potentially Toxic Chemicals]the national authorities in other countries of the action it has taken;
(b) The purpose of the notification regarding control action is to give competent authorities in other countries the opportunity to assess the risks associated with the chemical,and to make timely and informed decision thereon,taking into account local environmental,public health,economic and administrative conditions;
(c) when an export or re-export of a banned or severely restricted chemical occurs,the country of export should ensure that necessary steps are taken to provide the designated national authority of the country of import with relevant information[and no such export or re-export takes place without the explicit consent of the importing country];
(d) The purpose of notification regarding exports is to remind the country of import of the original notification regarding control action and to alert it to the fact that an export is expected or about to occur;
(e) Provision of information regarding exports should take place at the time of the first export following the control action,and should recur in the case of any significant development of new information

or conditions surrounding the control action. It is the intention that, in so far as possible, the information should be provided prior to export, but it is recognized that this may not always be possible, and that the procedures of the country of export should not be such as to delay or control the export".

Draft guideline 10 (contents of notification) provides;

"(a) For the purpose of notification regarding control action, the minimum information to be provided should be:
(i) The chemical identification/specification of the chemical;
(ii) A summary of the control action taken and the reasons for it. If the control action bans or restricts certain uses but allows other uses, such information should be included;
(iii) The fact that additional information is available, and the indication of the contact point in the country of export to which a request for further information should be addressed;
(b) For the purpose of notification regarding exports, the minimum information to be provided should be:
(i) A copy of, or reference to, the information provided at the time of notification regarding control action;
(ii) Indication that an export of the chemical product concerned is expected or about to occur".

Draft guideline 11 (precautionary information) reads;

[...
(a) Any notification concerning banned or severely restricted chemicals should comprise appropriate precautionary information on the management of the chemical concerned, including the following:
(i) Recommended restrictions as to the range of authorized users;
(ii) Comprehensive instructions for safe and efficacious preparation, packing, handling and use, specifying any protective clothing and equipment required;
(iii) Instructions for transport, storage and disposal of the chemical of used containers and of contaminated material;
(iv) Warnings of possible health hazards (acute and chronic)associated with use and misuse;
(v) Warnings of possible hazards to the environment, especially animal or plant life and soil or water resources;
(vi) Recommended emergency measures in the event of accidental release or injury to persons, with information on poisoning symptoms, first aid, antidotes, decontamination measures and possible ways of rendering the chemical harmless;
(vii) Counter-indications of circumstances under which the chemical should not be used or application discontinued;
(viii) Waiting periods to be observed after application of the chemical;
(ix) Expiry dates after which the chemical should no longer be used;
(x) A contact address in the country or area of destination from which additional advice can be obtained regarding health or environmental aspects of the chemical;
(b) As far as practicable, precautionary information should be provided in the principal language or languages of the country of

destination and of the area of intended use, and should be accompanied by suitable pictorial and/or tactile aids and labels.]

Finally one should refer to draft guideline 13 (confidential data) and draft guideline 15 (institutional arrangements), particularly its paragraphs (c) to (f).

Draft guideline 13 provides;

"The provisions concerning information exchange and notification should not apply to data classified as confidential by the designated national authority concerned, unless the authority expressly agrees to make such data available for the information of the designated national authority of another State. Where confidential data are exchanged between designated national authorities, all safeguards should be taken to preserve confidentiality and proprietary rights".

Draft guideline 15 provides in its relevant part;
15...
(a)...
(b)...
(c) Notification regarding banned and severely restricted chemicals should normally be addressed to the national authority designated for this purpose in the country of import, with a copy or a summary to the IRPTC, which should forward to the United Nations Secretariat the information contained in such notifications. Alternatively, notifications may be addressed to IRPTC for transmission to designated national authorities;
(d) States should as soon as possible make available the name and address of their designated authority to the IRPTC which in turn should prepare a consolidated list of designated national authorities and circulate it to all such authorities;
(e) Notification of control action should be provided as soon as practicable after the control action is taken. For chemicals banned or severely restricted before the implementation of the present guidelines, an inventory of prior control action should be provided to the IRPTC, unless such information has already been provided;
(f) Designated national authorities of importing countries should provide to the IRPTC a summary of action taken as a result of notifications on banned or severely restricted chemicals, and information on any difficulties which they have experienced in using the present guidelines".

Draft guideline 3 (a) implements Principle 20 of the 'Stockholm Declaration' which calls for support and assistance for the free flow of up-to-date scientific information and transfer of experience to facilitate the solution of environmental problems. The exchange of information on technical regulations, standards and certification schemes is stipulated in Articles 10 to 12 of the '1979 GATT Agreement on

Technical Barriers to Trade'.

As regards draft guideline 3(d), by providing for an obligation of countries of import to take the necessary measures to have users provided with information for the environmentally sound management of potentially harmful chemicals and not being limited to stating only the obligation countries of export or re-export to provide information, goes, in my view, a step further than what is provided for under e.g., ''Shared Resources Principles' or relevant U.N. General Assembly Resolutions and even OECD Recommendations.[79]

Draft guideline 4 also develops relevant 'Shared Resources Principles' by clarifying the "destinary" of information; in this case a "national authority".

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[79] Under 'OECD recommendation C(84) 37 (Final)' (guiding principle 12), it is provided only that the "importing Member country should establish internal procedures for the receipt and handling of information from the exporting Member country". At the second session of the "working group" it was agreed to insert the term "advice" in the title, and to revise the draft guideline as follows:
"(a) States should facilitate the exchange of scientific , technical, economic and legal information concerning the management of [potentially harmful, in particular] banned or severely restricted chemicals, particularly through designated national authorities and through intergovernmental organizations as appropriate;
(b) States should facilitate the provision of technical advice and assistance for this purpose to other States upon request, on a bilateral or multilateral basis, taking into account the special needs of developing countries;
(c) With regard to the export [or re-export] of [potentially harmful, in particular] banned or severely restricted chemicals, States of export should ensure that information, advice and assistance is provided to States of import concerned regarding the environmentally sound management of such chemicals;
(d) With regard to the use of imported chemicals that [are potentially harmful, and in particular those that] have been banned or severely restricted in the State of export, States of import should take the necessary measures to ensure that users are provided with information, advice and assistance for the environmentally sound management of such chemicals". (See UNEP doc. UNEP/WG.112/5, 11 March 1985, at p. 16, para. 38).

By specifying that these national authorities should be "competent to perform the administrative functions" related to the exchange of information; and that they should be "authorized and equipped to communicate directly with designated authorities of other States and with international organizations concerned, to exchange information and to submit reports"; draft guideline 4(b) further refines the norm of notification as provided for under relevant ''Shared Resources Principles' and also as provided for under 'OECD Recommendation C(84)37 (Final)'[80].

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[80] At the second session of the 'working group', it was agreed to revise the draft guideline 4 as follows;
"(a) For purposes of international communications, each State should designate a national authority competent to perform the administrative functions related to the exchange of information;
"(b) The designated national authority should be equipped to communicate directly with designated authorities of other States and with international organizations concerned, to exchange information and to submit reports;
"(c) A register of designated national authorities should be maintained, regularly updated and disseminated by the IRPTC, to which any changes in the designations of national authorities should promptly be communicated.
"(d) States should endeavour to ensure that, to the extent possible, information regarding exports provided or received within the framework of the Provisional Notification Scheme or the implementation of these guidelines should be forwarded to the country of final destination". Other amendaments were also proposed by individual experts. (See UNEP doc. UNEP/WG.112/5, p.17, paras. 40-41).

Draft guidelines 5 and 6 are also progressive for relevant legal texts such as 'OECD Recommendation C (84)37 (Final)' do not include the kind of detailed provisions included under them[81].

As for draft guidelines 9 ,10 and 15 ,one should note that,because of the similarity between these guidelines and the PNS discussed earlier;only those aspects of the draft guidelines which are different from the relevant provisions under the PNS will be discussed here.

As regards draft guideline 9;this one makes a reference under 9(b) to a possible role of the IRPTC in the information process. Moreover, under 9(c) an important provision is included,in spite of the fact that no consensus was reached on it, where it is stated that "no...export or re-export (of a banned or severely restricted chemical) takes place without the explicit consent of the importing country".If this principle of "informed consent" of the importing country prior to export is ever retained,it will,in my view,represent a major achievement as far as development of a duty of prior notification and information is concerned.

At the second session of the "working group",while it was agreed not to re-open discussion on these draft guidelines,to the extent that they were based on the agreed provisions of the PNS;retention of the principle of "informed consent" was backed by some experts.[82]

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[81] Various amendments to draft guidelines 5 and 6 were proposed by experts at the second session of the "working group";such as a proposal to include a new initial provision on control action along the following lines:"It should be the function of designated national authorities with regard to control action taken by countries to ban or severely restrict a chemical:(a) to provide notification to other designated national authorities or the IRPTC,in accordance with these guidelines,that such control action has been taken,and (b)to receive from other designated national authorities or the IRPTC notification that such action has been taken in other countries and to ensure its prompt transmittal to all other national authorities concerned".Other revisions were also proposed during this session;the agreement among experts was that the functional provisions proposed should be combined into a single guideline,with sub-sections regarding control actions,imports,and exports.(See UNEP doc.UNEP/WG.112/5,pp.18-22.).

[82] See UNEP doc.UNEP/WG.112/5 of 11 March 1985 at p.24 para.52.

Draft guideline 11 on "precautionary information" has not been retained by the "working group"; it was agreed instead, to reflect its principles in other relevant draft guidelines as appropriate. Risk of duplication with existing specialized provisions, for example, those elaborated in the context of FAO for pesticides was the main reason for its non-retention by the experts.[83]

Draft guideline 15(c), (d), (e) and (f) on channels of notification and timing of notification and information are adapted from the PNS, discussed earlier.

The provision under draft guideline 13 on "confidential data" is generally speaking consistent with international law in this field.[84]

8.2.3 Notification and Information in "Emergencies"

8.2.3.1 Conservation

A duty of information and notification in "emergencies" has been provided for under the 'Shared Resources Principles". Thus, Principle 9 reads,

"1. States have a duty urgently to inform other States which may be affected:

(a) Of any emergency situation arising from the utilization of a shared natural resource which might cause sudden harmful effects on the environment;

(b) Of any sudden grave natural events related to a shared natural resource which may affect the environment of such States.

"2. States should also, when appropriate, inform the competent international organizations of any such situation or event.

"3. States concerned should co-operate, in particular by means of agreed contingency plans, when appropriate, and mutual assistance, in order to avert grave situations, and to eliminate, reduce or correct, as far as possible, the effects of such situations or events."

Although a duty of notification in "emergencies" is provided for under such conventions as the 'Marpol Convention'[85] or the

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[83] Ibid. at p. 25 para. 53

[84] See e.g. 'Shared Resources Principle' 6 para. 2.

[85] Art. 8

LOSC[86];reference under the provision above to notification on "sudden grave natural events" implies in my view,a wider and more comprehensive duty than the one included under either the 'Marpol Convention' or the LOSC which,in my view,is limited to cases of "pollution".

Moreover,'Shared Resource Principle' 9 above formulates the duty to warn in mandatory language "States have a duty urgently to inform.." and does not use the expression "it is necessary for States.." adopted for the duty of prior notification.In this respect,it is more progressive than the provision under title F of 'OECD Recommendation C(74) 224' which prefers only to recommends the warning of potentially affected States.

The provision under 'Shared Resource Principle'9 above is,however,weaker than the provisions under the 'Marpol Convention' or the LOSC with regard to the obligation to inform the competent international organizations of emergency situations:Whereas States,under the 'Marpol Convention' and the LOSC respectively shall relay the report "without delay" or "immediately notify" competent international organizations;the obligation for States under the 'Shared Resources Principle' above is that States "should..when appropriate" inform the competent international organization".

In a 'hard law' context,the 'ASEAN Agreement' provides under Art.20,para.3(d) for a duty to inform in emergencies but uses a weak wording:Contracting Parties shall "endeavour..".

8.2.3.2 Marine Pollution

Inclusion of a special duty to inform in "emergencies" in global instruments and principles has been followed in UNEP-sponsored regional agreements.Art.9(2) of the 'Barcelona Convention' stipulates that any Contracting Party which becomes aware of any pollution emergency in the Mediterranean Sea Area "shall without delay notify" the organization

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[86] Art.198

provided for under the convention. A similar provision is included under Art. IX(b) of the 'Kuwait Convention'; Art. 12(2) of the 'Abidjan Convention'; Art. 9(2) of the 'Cartagena Convention'; Art. 6(1) of the 'Lima Convention' etc.,... All these provisions represent, in my view, a significant achievement because they implement, in a binding language, 'Shared Resources Principle' 9 referred to above and Art. 198 of the LOSC. In the latter case, the achievement is even greater for the LOSC has not come into force as yet.

Furthermore, UNEP regional agreements go even further than global agreements and principles referred to above in that, first , they provide for advance information , second, they provide for a detailed description of the contents of, and procedure by which, the information is to be given in cases of emergency.

Regarding the first aspect, regional agreements make provision for monitoring of the areas where emergencies are likely to occur in order to have a precise information on pollution emergencies[87]; and for exchange of information on human and material means in existence for combatting emergencies, as well as information on laws and regulations and administrative structures which States should know in case of emergencies[88]

As for the second aspect, 'Emergency Protocols' negotiated under UNEP provide[89] that each Party

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[87] 'Barcelona Emergency Protocol' (art. 4); 'Kuwait Convention' (art. 10); 'Abidjan Convention' (art. 14); 'Lima Convention' (art. 7); 'Lima Emergency Agreement' (Art. V) etc.,.

[88] 'Barcelona Emergency Protocol' (arts. 6 and 7); 'Kuwait Emergency Protocol (arts. V, VI); 'Abidjan Emergency Protocol' (arts. 5, 6); 'Lima Emergency Agreement' (arts. VII, VIII)

[89] 'Barcelona Emergency Protocol' (art. 8); 'Kuwait Emergency Protocol' (art. VII); 'Abidjan Emergency Protocol' (art. 7): 'Lima Emergency Agreement' (art. IX); 'Cartagena Emergency Protocol' (art. 5).

issue instructions to ,or direct its appropriate officials to require the masters of ships flying its flag and to the pilots of aircraft registered in its territory[90]requiring them to report by the most rapid and adequate channels[91]in the circumstances either to a Party or Contracting Parties which may be affected by the danger of pollution[92]or the regional centre[93]all accidents causing or likely to cause pollution of the sea by oil and other harmful substances and the presence, characteristics and extent of spillages of oil and other harmful substances observed at sea which are likely to present a serious and imminent threat to the marine environment or the coast or related interests of one or more of the Parties.

The information collected shall be communicated to the other Parties likely to be affected[94];to the Centre[95];to the flag State of any foreign ships involved in the marine emergency[96]or to the Organization[97]

Under one regional agreement,provision is made,however,for the restriction of the dissemination of information to be transmitted.[98]

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[90] The 'Kuwait Emergency Protocol' (art.VII) and the 'Abidjan Emergency Protocol'(art.7) add persons in charge of off-shore platforms and other similar structures operating in the marine environment.

[91] The 'Lima Emergency Agreement' uses the words "the most expedious means"(art.IX);the 'Kuwait Emergency Protocol' uses a non-qualified expression:"to report"(art.VII).

[92] The 'Abidjan Emergency Protocol' requires the information to be given to "any Contracting Party"(art.7);the 'Kuwait Emergency Protocol' requires the information to be given to "the appropriate national authority"(art.VII(1)).

[93] As is the case under the 'Barcelona Emergency Protocol'(art.8(1)) and the 'Kuwait Emergency Protocol'(art.VII(1)).

[94] Under the 'Kuwait Emergency Protocol' to "all other Contracting Parties"(art,VII.para.2(b)).

[95] As under the 'Kuwait Emergency Protocol'(art.VII,para.2(a)).

[96] As under the 'Kuwait Emergency Protocol'(art.VII,para.2(c)).

[97] As under the 'Abidjan Emergency Protocol'(art.7,para.2)

[98] 'Kuwait Emergency Protocol'(art.IX).

Moreover regional agreements require countries faced with an emergency situation to assess the nature and extent of the marine emergency; to transmit the results of the assessment to any Contracting Party concerned;to determine the necessary and appropriate action to be taken with respect to the marine emergency in consultation with other Contracting Parties ;to inform immediately all other Contracting Parties of any action taken or to be taken to combat the pollution and observe the emergency situation and report on such observations.[99]

Finally,regional agreements include, generally in an annex or appendix, guidelines on the contents of the report to be drafted in cases of emergencies.[100]

All the provisions discussed above represent,in my view,a significant achievement because they implement,in a binding language (for those conventions which are in force),'Shared Resources Principles' and Art.198 of the LOSC.In the latter case the achievement is even greater for the LOSC has not come into force as yet.

Moreover,UNEP's contribution in the development of a norm of notification in emergencies in this field lies not so much in the provision for such a duty under the above referred to agreements, for other agreements adopted outside UNEP include such a duty as well,but in the definition of the contents of this duty.In this respect,the provisions included under the various "emergency protocols" are of particular importance.

In a 'soft law' context and as regards land-based pollution; reference has been made earlier to a provision under the 'Montreal Guidelines' where a unique duty to "immediately notify" has

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[99] 'Barcelona Emergency Protocol'(art.9);'Kuwait Emergency Protocol'(art.X);'Abidjan Emergency Protocol'(art.10);'Lima Emergency Protocol'(art.X);'Cartagena Emergency Protocol'(art.7).

[100] The 'Jeddah Convention' is an exception.

been included as regards releases originating or likely to originate from land-based sources within the territory of a State which are likely to cause pollution to the marine environment of one or more States or of areas beyond the limits of national jurisdiction.

A duty to notify in emergencies has also been included under the 'Off-Shore Mining and Drilling Conclusions' particularly conclusions 32 and 33.

Conclusion 32 provides;

"32.(1) Whenever a State has reason to believe that any contingency within the limits of its national jurisdiction is likely to have significant adverse effects on the environment of other States,it should provide as soon as practicable such other States as well as any competent international organization,with information that would enable them,where necessary,to take appropriate measures;
(2) Such information should provide relevant data,the transmission of which is not prevented by national laws or regulations".

Conclusion 33 provides;

33.A State should:
(A) When considered necessary,inform other States within its region of the technical expertise,trained personnel,equipment and materials kept available pursuant to conclusion 30(c) stroke 3.

By providing for a duty of notification and information in contingencies,guideline 32 above implements 'Shared Resources Principle' 9.

The duty to inform under it,"..a State..should provide as soon as practicable",is in my view,however,weaker than under 'Shared Resource Principle' 9 above where States have "a duty urgently to inform".Moreover, the obligation of States to inform under conclusion 32 is limited to the case of a contingency "within the limits of [the State's] national jurisdiction".The provision under conclusion 33 above refines,however,the 'Shared Resources Principles'.

Inclusion of a duty to notify in emergencies under the 'Offshore Mining and Drilling Conclusions';albeit in a weak language,contributes,in my view,to the formation of a norm of notification in emergencies in the field of off-shore mining and

drilling;this being said ,there is no reason not to consider state practice reviewed above in relation to conservation and marine pollution agreements as a sufficient proof of the existence of an international duty of notification in emergencies for all forms of pollution including the one from offshore mining and drilling.[101]

8.2.3.3 Environmentally Sound Management of Hazardous Wastes

'Cairo Guideline/Principle' 23 (contingency plans-transfrontier effects) provides;

"(a) If a State has reason to believe that a contingency which has arisen within its territory is likely to have significant adverse effects on health and the environment in another State,that State should as soon as practicable supply the other State with the information necessary to enable it to adopt effective countermeasures;

.....

(b)States should provide such assistance as they can reasonably make available to other States in which a contingency has occured"

This guideline implements 'Shared Resource Principle'9.It also takes account of not only environment but "health" thus including a progressive aspect.On the negative side however,and unlike 'Shared Resource Principle' 9,it includes a weaker obligation of information;the "State should as soon as practicable" supply other States with information;and the duty to inform is limited to "...a contingency which has arisen within [the State's] territory".

EEC relevant legislation does not clearly provide for such a duty.Under Art.13 of 'EEC Directive 78/319/EEC' it is stated,however,that "in cases of emergency or grave danger,Member States shall take all necessary steps,including,where appropriate,temporary

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[101] Article 9 of the '1982 Montreal Rules on TP' contains a provision on on "emergency situations" which reads as follows;
"When as a result of an emergency situation or other circumstances activities already carried out in the territory of a State cause or might cause a sudden increase in the existing level of transfrontier pollution the State of origin is under a duty:
(a) to promptly warn the affected or potentially affected States
(b) to provide them with such pertinent information as will enable them to minimize the transfrontier pollution damage.
(c) to inform them of the steps taken to abate the cause of the increased transfrontier pollution level". (See EPL,10(1983) at 27).

derogations from this Directive,to ensure that toxic and dangerous waste is so dealt with as not to constitute a threat to the population or the environment.."

The OECD,like the guideline above prefers only to recommend the warning of potentially affected States in Title F of 'OECD Recommendation C(74)224' but uses a stronger wording:Countries should "promptly warn".

The observations made with regard to 'Off-shore mining and drilling conclusions' apply here as well.

8.3 Consultation

8.3.1. Conservation

Provisions on consultation,in this field, have been included under two 'soft law' texts:The 'Shared Resources Principles' and the 'World Charter for Nature' and under a 'hard law' instrument:the 'ASEAN Agrement'.

Provisions on consultation under the first legal text are contained in Principles 5,6 and 7 referred to earlier in connection with the discussion of the duty of prior notification and information.These principles refine 'Stokholm Declaration' principles[102] as well as U.N.General Assembly Resolution 3129(XXVIII)[103]and Art.3 of the 'Charter of Economic Rights and Duties' adopted by the U.N.General Assembly on 12

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[102] Principle 3.

[103] This resolution provides in general terms,that co-operation must be developed on the basis of a system of information and prior consultation within the framework of the normal relations existing between the States concerned.

December 1974 in resolution 3281(XXIX)[104].

The Principles above provide for a duty of consultation only in a recommendatory form however[105]; much like 'OECD Recommendation C(74)224' under No.7[106].

Still in a 'soft law' context, Principle 21 of the 'World Charter for Nature' provides;

"States and, to the extent they are able, other public authorities, international organizations, individuals, groups, corporations shall:
(a) Co-operate in the task of conserving nature through common activies and other relevant actions, including...consultation".

Provision for a duty of consultation between entities "lower" than States in such a global text is, in my opinion, significant .The observation made earlier as regard this provision also applies here.

The provisions on consultation included under Arts.19 and 20 of the 'ASEAN Agreement' reproduce similar provisions included under the 'Shared Resources Principles' thus implementing them. They fail, however, to refine them.

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[104] This article provides ,also in general terms, that "in the exploitation of natural resources shared by two or more countries, each State must co-operate on the basis of a system of information and prior consultation in order to achieve optimum use of such resources without causing damage to the legitimate interest of others".

[105] According to BOTHE, "Because the negotiation of the draft principles[on shared natural resources]took place before the background of concrete environmental disputes between members of the negotiating body, the consensus which could be reached remained *below the level of actual customary law*". (My emphasis)(See I.L.A.(Montreal 1982), Report of the Committee...op.cit.at 178.).

[106] This one provides that "countries should enter into consultation on an existing or foreseeable transfrontier pollution problem at the request of a country which is or may be directly affected and should diligently pursue such consultations on this particular problem over a reasonable period of time". For a discussion of the duties of information and consultation under OECD, see DUPUY&SMETS 'Pollution Transfrontière-Information et Consultation' in EPL, 7(1981) at 3. Also SMETS 'Legal Principles..' op.cit.at 112-113.

8.3.2 Marine Pollution

In the area of marine pollution, the most important achievements have been, in my view, in the field of land-based pollution, especially in a 'hard law' context, and in the field of off-shore mining and drilling.

Thus under the 'Athens Protocol', art. 12 stipulates;

"..when land-based pollution originating from the territory of one Party is likely to prejudice directly the interests of one or more Parties, the Parties concerned shall at the request of one or more of them, undertake to enter into consultation with a view to seeking a satisfactory solution".

Moreover, paragraph 2 of the article above provides;

"At the request of any Party concerned, the matter shall be placed on the agenda of the next meeting of the Parties held in accordance with Article 14 of this Protocol, the meeting may make recommendations with a view to reaching a satisfactory solution".

A similar provision is also included under Art. XII of the 'Quito Protocol'. It provides;

"When pollution from land-based sources of one of the High Contracting Parties is likely to affect adversely the interests of one or more of the Contracting Parties to this Protocol, the Parties affected shall, at the request of one or more of them, enter into consultation with a view to seeking a satisfactory solution.

"At the sessions held by the High Contracting Parties in accordance with article XV, recommendations may be made with a view to reaching a satisfactory solution".

The two provisions above clearly refine, in a stronger and binding language, 'Shared Resources Principles'5 and 6. This refinement can be seen not only in the fact that consultation will be initiated "at the request of one or more" of the Parties concerned (not at the request of the "victim" State as provided for under 'Shared Resources Principles'), but also by the fact that the provisions above provide for a clear procedure for consultation. In this respect the provision under the 'Athens Protocol' offers a more precise formula than the 'Quito Protocol': Under the 'Athens Protocol' a time -limit for consultation is provided; it is "the next meeting of the Parties".

When compared to legal instruments related or relevant to land-based

pollution, the provisions under the 'Athens Protocol' and the 'Quito Protocol' still display progressive aspects.

Thus, in contradistinction to the 'Paris Convention''s provision[107] which applies only to non-black-listed substances, both the 'Athens Protocol' and the 'Quito Protocol''provisions apply to all discharges of substances regulated by the Protocols[108].

On the negative side, however, one should note that the 'Athens protocol' speaks of consultation only in the case where land-based pollution originating from the territory of one Party is likely to prejudice "directly" the interests of one or more of the other Parties. This would seem to exclude consultation about damage done or likely to be done to areas outside the national jurisdiction of States. No such word is included, however, under the 'Quito Protocol''s provision above.

In a 'soft law' context, the 'Montreal Guidelines' also include a provision[109] on consultation which reads as follows:

> "15. Notification, information and consultation
> "Whenever releases originating or likely to originate from land-based sources within the territory of a State are likely to cause pollution to the marine environment of one or more other States or areas beyond the limits of national jurisdiction, that State should immediately notifiy such other State or States, as well as competent international organizations, and provide them with timely information that will enable them, where necessary, to take appropriate action to prevent, reduce and control such pollution. Furthermore, *consultations deemed appropriate by States concerned should be undertaken with a view to preventing, reducing and controlling such pollution*". (my emphasis)

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[107] Art. 9

[108] See KWIATKOWSKA, 'Marine Pollution from Land-Based Sources: Current Problems and Prospects' in Ocean Dev. & Int'l L. 14:315-35 (1984) at 326-327.

[109] Guideline 15

This provision implements 'Shared Resources Principles' 5 and 6;however,even when compared to these principles the obligation to consult here is rather weak;consultations should be undertaken..when "deemed appropriate".

However,the guideline above provides that consultations should be undertaken with a view "to preventing,reducing and controlling" pollution;implying that consultations should be undertaken at the stages of prevention and reparation of pollution thus clarifying,albeit not in a very significant manner, the timing and circumstances of consultation.Moreover,unlike the 'Paris Convention';the 'Athens Protocol' or the 'Quito Protocol';the provision under the 'Montreal Guidelines' refers not only to pollution of the marine environment of States but also of "areas beyond the limits of national jurisdiction".

Still in the area of marine pollution,a provision on consultation has also been included under the 'Off-shore Mining and Drilling Conclusions'.[110]This one reads;

> "States involved should be willing to hold consultations about the measures needed to prevent,combat and reduce significant adverse effects on the environment,which operations may produce outside the limits of the jurisdiction of the authorizing State".

Like the provision on consultation under the 'Montreal Guidelines', the provision above uses a weak wording even when compared to 'Shared Resources Principles' 5 and 6:Under the provision above,States involved "should be willing" to hold consultations.

The observations made, earlier, with regard to the timing and circumstances of consultations as well as coverage of areas outside national jurisdiction under the 'Montreal Guidelines' also apply here.

8.3.3 Atmospheric Pollution

A provision on consultation has also been included under the

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[110] Conclusion/guideline 18.

'Weather Modification Provisions'[111]. The relevant provision reads,

> "A State under whose jurisdiction or control weather modification activities are planned or are taking place which are likely to have an effect on areas outside its national jurisdiction should, upon the request of a concerned State, either directly or through the World Meteorological Organization, enter into timely consultations concerning such activities".

Compared to the relevant 'Shared Resources Principles', the provision above contains progressive elements: It does not include the words "to the extent practicable", included under 'Shared Resources Principle' 5 in relation to the obligation of consultation, refers to areas outside national jurisdiction and includes the word "timely" which, in my view, adds a clarifying element to the consultation procedure, element not included under relevant 'Shared Resources Principles'.

Moreover, The 'Weather Modification Provisions' are the only text, albeit a 'soft law' text, of a global nature[112] which includes a provision on consultation in such a field. For this, and notwithstanding the conclusions reached with regard these provisions earlier[113], they contribute, in my view, to the development of a norm of consultation for weather modification activities.

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[111] Provision (g)

[112] At the bilateral level, one should note the 'U.S-Canada Weather Modification Agreement' (Art.5). Under the "Draft Principles on the Protection and Preservation of the Atmosphere" prepared by the Environmental Law Committee of the ILA Australian Branch, a principle on consultation has been provided for as follows;
"XII. States shall in good faith and in a spirit of good neighbourliness give adequate and timely notification to all interested States and international organizations of prospective major activities under their jurisdiction or control likely to have significant effects on the atmospheric environment in areas beyond their national jurisdiction". *When requested, such States shall enter into meaningful and timely consultations concerning such activities*". (my emphasis) (see ILA (Belgrade 1980), Report of the Committee on "Legal Aspects of the Conservation of the Environment", Appendix.

[113] See discussion under Chapter 4.

Furthermore, although there is insufficient State practice accompanied by a legal conviction to prove the existence of an international duty to consult in cases dealing with weather modification; there is no reason not to consider the State practice in other fields such as water pollution or marine pollution as a proof of a general principle of consultation. This seems to be the view of Bothe when he asserts that "there is nothing in known State practice which would suggest that States behave differently, that they deny a duty of consultation, when the question is air and not water pollution", according to him "th[e] duty of consultation is indeed a principle of wider application, not limited to a particular natural resource"[114].

As regards depletion of the ozone layer, no provision on consultation is included under the 'Ozone Layer Convention'; the 'long-term effects' as well as the the 'cumulative' aspect of the problem make the exercise of such a duty among a limited number of States unpractical. Consultation on a wider scale regarding this problem has been realized by UNEP's legal exercise which produced the convention.[115]

8.3.4 Environmentally Sound Management of Hazardous Wastes

'Cairo Guideline/Principle'17 provides;

"17. Transfrontier effects-Consultation

In the circumstances described in guideline 16, the authorizing State

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[114] See I.L.A. (Montreal 1982), Report of the Committee on the Legal...op.cit. at 178-79.

[115] A problem presenting some similarity with depletion of the ozone layer is that of "long-distance air pollution" under study by the I.L.A. Committee on Legal aspects of Long-Distance Air Pollution. (See I.L.A. report of the sixty-first conference, Paris(1984)). In the area of air pollution, one should note Art.5 of the 'Geneva/ECE Convention' and Article 3 of the 'U.S.-Canada Memorandum of Intent'. The conclusion of the ILA committee on the "Legal Aspects of the Conservation of the Environment" as regards the existence of a duty of consultation for cases of air pollution is that "..it is not possible to affirm the existence of an international duty to enter into consultation, due to the lack of sufficient State practice on the basis of a legal conviction". (ILA(Montreal 1982) "Legal Aspects of the Conservation of the Environment", Report of the Committee, at 176)

and the State concerned should, prior to the adoption of any decision in the authorizing State as to the granting of the authorization or operating permit, enter into consultations which shall be conducted in good faith. These consultations should take place promptly and should be concluded within a reasonable time."

The circumstances described in guideline 16 are those "...where it is proposed to grant an authorization or operating permit...in respect of activities which may have significant effects on health or the environment in another State.."

What should be said about this topic is that an elaborate provision on consultation proposed by UNEP's consultant[116] has not been retained[117] and that the provision above is an abbreviated version of it.

In spite of this, the provision above still includes progressive aspects which should be mentioned: First, the guideline above provides quite clearly that consultations should be held "prior to the adoption of any decision" in the authorizing State as to the granting of the authorization or operating permit. This, in my view, clarifies usefully the timing of the consultation and represents a progressive element when compared to similar provisions under the 'Shared Resources Principles' and 'OECD Recommendation C(74)224'. Second, the guideline above provides that these consultations should take place "promptly" and should be concluded "within a reasonable time". The importance of this clause which does not improve significantly on relevant legal texts referred above has been emphasized by experts attending the 'working group'.[118]

Having said this, one should emphasize that the mere inclusion of a provision on consultation under the 'Cairo Guidelines/Principles' contributes to the development of a norm of consultation in the field of

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116 See UNEP doc. UNEP/WG.95/4 (guideline 25)

117 See UNEP doc. UNEP/WG.95/5, para. 31

118 Ibid.

environmentally sound management of hazardous wastes; this is further amplified by the fact that the 'Cairo Guidelines/Principles' have been produced by experts emanating from both developed and developing countries and by the fact that the guidelines have been developed "with a view to assisting States in the process of developing bilateral, regional and multilateral agreements..for the environmentally sound management of hazardous wastes.'[119]

8.4 Equal Access

8.4.1 Conservation

Principle 14 of the 'Shared Resources Principles' reads,

> "States should endeavour, in accordance with their legal systems and, where appropriate, on a basis agreed by them, to provide persons in other States who have been or may be adversely affected by environmental damage resulting from the utilization of shared natural resources with equivalent access to and treatment in the same administrative and judicial proceedings, and make available to them the same remedies as are available to persons within their own jurisdiction who have been or may be similarly affected".

On the one hand, history of the discussion of this principle shows that its inclusion under 'Shared Resources Principles' has not been widely supported by UNEP experts[120]. The confirmation of this lies in the number of qualifying words used in relation to the obligation to permit equal right of access: States should "endeavour"; "in accordance with

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[119] See UNEP doc. UNEP/WG.122/3, Annex III of 9 December 1985.

[120] See for this, A.O. ADEDE 'Utilization of Shared Natural Resources: Towards a Code of Conduct' in, EPL, 5(1979) pp. 66-76. Also E. WILLHEIM 'Private Remedies for Transfrontier Environmental Damage: A Critique of OECD's Doctrine of Equal Right of Access" in Austr. YB INT'L L. 7: 174-199 (1981).

their legal systems" and "where appropriate", "on a basis agreed by them"..etc.,.

These qualifying words make, indeed, the provision above less stringent than similar provisions adopted under OECD.[121]

On the other hand, inclusion of a provision on "equal right of access" under the 'Shared Resources Principles" represents a progress when compared to relevant 'Stockholm Declaration' principles.

Furthermore, by merely providing for such a principle, UNEP contributes, in my view, to the development of a norm of equal access in international environmental law related to conservation. This having been said, the real contribution of UNEP lies mainly in the adoption by States of this principle when concluding bilateral or multilateral agreements among themselves , thus permitting the transformation of this duty from a regional principle(mainly European)[122] to a general principle of international law.

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[121] The OECD Recommendations are not only more stringent but also more detailed. (See 'OECD Recommendation (C(74) 224)' (Annex) ;also 'OECD Recommendation (C(78)77)', Annex II, paragraphs 1 and 2 .

[122] According to LUTZ,"..there has been a broad acceptance-at least among developed countries-that there ought to be equal access to and non discrimination of procedures with respect to transfrontier problems. The Organization for Economic Cooperation and Development(OECD) and the Nordic Convention as well as various domestic bilateral developments have indicated that". (See, comment by Robert E. LUTZ, II in NANDA(Chairman)"Ten Years After Stockholm.."op.cit.at 429.). The American Bar Association and the Canadian Bar Association produced in 1979 a "Draft Treaty on a Regime of Equal Access and Remedy in Cases of Transfrontier Pollution"(See for this Mc CAFFREY,"International Environmental Law and the Work of the International ..." op.cit.at 414.

8.4.2 Pollution

8.4.2.1 Marine Pollution

In the area of marine pollution, two UNEP 'soft law' texts include a provision on "equal access": the 'Off-Shore Mining and Drilling Conclusions' and the 'Montreal Guidelines'

8.4.2.1.1 Pollution from Off-Shore Mining and Drilling

Guideline 19(2) of the 'Off-shore Mining and Drilling Conclusions" provides,

> "States should endeavour, in accordance with their legal systems and where appropriate on a basis agreed with other States, to grant equal access to and treatment in administrative proceedings to persons in other States who may be affected by pollution or other adverse effects resulting from proposed or existing operations".

Like the provision on "equal right of access and treatment"" under the 'Shared Resources Principles' discussed earlier, the provision above is plagued with qualifications. Furthermore, the provision above constitutes a weaker version of relevant 'Shared Resources Principles': It speaks of equal access and treatment only "in administrative proceedings" and not in administrative and "judicial" proceedings as under the 'Shared Resources Principles'[123].

Furthermore the provision above is limited to the preventive character of "equal access"[124]. In spite of this, the 'off-shore mining and drilling conclusions' are the only text (albeit a "soft law" text) of a global nature[125], produced by experts from both

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[123] See also discussion under Chapter 7.

[124] Ibid

[125] In a private context, Art. 6, paragraph 3 of the 'CEDE Draft Convention' states that "a licence shall be issued only after a public inquiry into the information provided. Authorities and nationals of States likely to be directly by the deterioration of the marine environment shall have an opportunity to participate in the inquiry in the same basis as nationals of the State to which the application for a licence has been made".

developed and developing countries, dealing with this type of pollution which includes such a provision. But for this, it contributes, in my view, in the development of a norm of equal access regarding this specific source of pollution.

8.4.2.1.2 Land-Based Pollution

The 'Montreal Guidelines' provide under guideline 16(3) that,

"3. Each State should, on a reciprocal basis, grant equal access to and non-discriminatory treatment in its courts, tribunals and administrative proceedings to persons in other States who are or may be affected by pollution from land-based sources under its jurisdiction or control".

It should be noted from the start that the initial UNEP Secretariat paper did not contain a provision on "equal right of access".[126] It was at the first session of the 'working group' that some experts proposed the addition of a paragraph with regard to "equal access and non-discrimination" in national laws and procedures.[127]. This provision was, after undergoing few amendments[128], retained and adopted by the experts at the third meeting of the 'working group'.

The provision as adopted is progressive in more than one aspect: First, it is the first provision on "equal access" included in a

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[126] See UNEP doc. UNEP/WG.92/2 of 23 August 1983

127 See UNEP doc. UNEP/WG.92/4 of 2 December 1983 at p.8 para.35

[128] At the end of the second session of the "working group", the provision on equal access provided as follows;
[24. National laws and Procedures
....
2. States on a reciprocal basis should grant equal access to and treatment in courts, tribunals and administrative proceedings to persons in other States who are or may be affected by pollution of the marine environment from land-based sources under their jurisdiction or control".
....

global text[129] dealing with land-based pollution. Second, it is in some of its aspects more "progressive" than the relevant 'Shared Resources Principles' because it does not include the qualifying words, like "endeavour", "as appropriate", "in accordance with their legal systems", etc.,.; included under them and provides in an explicit way that equal access should be granted on "a reciprocal basis". With regard to this latter element, it should be noted that during discusion of the 'Shared Resources Principles', some experts considered that the element of reciprocity should have been referred to expressly[130], likewise, some authors agree that the principle of equal access will work only if reciprocity is ensured[131] . By including such an element in the provision under 'Montreal Guideline' 16(3) UNEP' experts have, in my view, taken account of these observations and have given this principle a better chance of being applied.

Finally 'Montreal Guideline' 16(3), unlike the relevant 'Shared Resources Principles', includes the words "non-discriminatory" before treatment, and in contradistinction to the provision on "equal access" under the 'Off-shore Mining and Drilling Conclusions' mentions access to "courts; tribunals,.." which is a clear reference to "judicial proceedings".

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[129] At the regional level, one should note Art. 3 of the 'Nordic Convention'.

[130] See ADEDE "Utilization of Shared Natural Resources.." op.cit. at p. 73.

[131] See e.g. CAPUTO, "Equal Right of Access in Matters of Transboundary Pollution: Its Prospects in Industrial and Developing Countries" in 14 Cal. West. Int'l L. J. pp. 192-220 (1984) at 215. Likewise, an OECD Report concludes that "[a]lthough equal right of access can be introduced by any [S]tate on a unilateral basis and although its application is not in principle dependent on complete reciprocity, it is apparent.. that equal right of access could be more easily implemented under such conditions". (See OECD, Report on the implementation of a Regime of Equal Access and Non-Discrimination in Relation to Transfrontier Pollution; in Legal Aspects of Transfrontier Pollution 58 (OECD 1977) at 125.

8.4.2.2 Atmospheric Pollution

UNEP's performance in the area of atmospheric pollution has not been positive. Neither the 'Weather Modification Provisions' nor the 'Ozone Layer Convention' include a provision on "equal access".

As regards the 'Weather Modification Provisions', the view of some of the experts was that the principle regarding equal access to administrative and judicial proceedings by persons in other States is inappropriate. The only condition for this principle to be acceptable would be, according to them, the existence of a prior agreement on this matter between the States concerned[132].

With regard to depletion of the ozone layer; the special nature of the problem (long-term effects of depletion; accumulation effects of the harm etc.,..) renders application of this principle doubtful.

8.4.3 Environmentally Sound Management of Hazardous Wastes

'Cairo Guideline/Principle' 18 provides;

> "18. Transfrontier effects-equal access and treatment
> In the circumstances described in guideline 16, the authorizing State should accord to the public authorities and nationals of the State concerned the same rights of participation in the administrative and judicial proceedings related to the granting of authorizations or operating permits and in any appeal or review thereof as those which are accorded to its own public authorities and nationals".

The circumstances described in guideline 16 concern "...activities which may have significant effects on health or the environment in another State.."

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[132] See WMO/UNEP Meeting of experts designated by governments on the legal aspects on the legal aspects of weather modification, Geneva, 17-21 September 1979, Summary of Comments Received from Governments on Draft Principles (U.N. Doc. WMO/UNEP/WG.26/5 of 20 June 1979) at pp. 4 and 6 respectively.

Equal access and treatment under the guideline above is limited to the "preventive" stage only:equal access and treatment is related to "the granting of authorizations or operating permits and in any appeal or review thereof.." regarding "..activities which may have significant effects on health or the environment in another State.."

However,the guideline above recommends the granting of equal access and treatment not only to "persons" but also to "public authorities";this represents an important evolution when compared to similar provisions included under other legal instruments adopted under UNEP.

When compared to relevant OECD recommendations,the guideline above can only be said to be consistent with international law in this field.In fact,with regard to the specific question of the granting of equal access and treatment to "public authorities",'OECD Recommendation C(77)28' recommends in Art.7 that the equal access provisions in RecommendationsC(74)224 and C(76)55 should apply also to public authorities from the foreign country concerned,although specific international agreements may be required for this purpose.[133]

The mere inclusion of a norm of "equal access and treatment" under a global legal text(albeit a 'soft law' one)which has been the product of a 'working group' where experts from developing countries were represented, represents a positive step in the "widening" of acceptance

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[133] See SEIDL-HOHENVELDERN 'New Steps by OECD on Transfrontier Pollution'in EPL,4(1978) pp.20-22 .Also VAN HOOGSTRATEN, DUPUY and SMETS,'Equal Right of Access:Transfrontier Pollution' in EPL 2,(1976) at at 77.

of this principle and its transformation from a "regional" principle of international environmental law to one of general application;although the real test of UNEP's contribution in this field;as in the fields above discussed, will undoubtedly lie, in the extent to which this principle is incorporated in any agreements,whether bilateral or multilateral, States may conclude among themselves in the future[134].

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[134] Note in this context that in the introduction to the text containing the 'Cairo Guidelines /Principles' it is stated that these guidelines/principles "..have been developed with a view to assisting States in the process of developing appropriate bilateral,regional and multilateral agreements ... for the environmentally sound management of hazardous wastes".(See UNEP doc.UNEP/WG.122/L.1/Add.3/Rev.1.at p.3).Note,however, that the "working group"has ,at its third session , "recognized that the implementation of the Guidelines,if adopted,will take time,*in particular in the developing countries*"(my emphasis),See, unsigned,"Management of Hazardous wastes" in EPL,16/1(1986) at 6.

Summing-Up

The following conclusions can be drawn as regards UNEP's achievements in the development of procedural law:

As concerns development of a norm of impact assessment ,one should note that provisions on this duty have been included under most legal instruments in whose elaboration or support UNEP has been involved.

The best achievements have been in the field of off-shore mining and drilling where a very elaborate procedure for impact assessment has been provided for.

While the mere inclusion of such a procedure under a legal text,even a 'soft law' text ,contributes to the development of a norm of environmental impact assessment in this field;the real impact of the 'Off-Shore Mining and Drilling Conclusions' will depend on their adoption by States when concluding bilateral or multilateral agreements.

Still in the field of marine pollution,one should note the general provisions on E.I.A. included under some regional "framework" conventions negotiated under UNEP.These provisions are noteworthy for two reasons:First,they implement,in a binding language and in a less qualified wording ,both the 'Shared Resources Principles' and the LOSC. Second,they supplement the LOSC provisions by putting a particular emphasis on the need to make E.I.A. regarding projects in coastal areas.The achievement in relation to the LOSC is even greater for this legal instrument has not come into force as yet.

In other fields UNEP's performance has been more or less successful.

In the field of conservation,and in a 'soft law' context,the provisions on E.I.A. included under such legal instruments as the 'Shared Resources Principles'' or the 'World Charter for Nature' are less elaborate and less stringent than similar provisions included under relevant OECD or EEC legal texts.However,in a 'hard law' context,the

provision on impact assessment under the 'ASEAN Agreement' not only implements the 'Shared Resources Principles' but is more explicit than similar provisions under conventions negotiated outside UNEP.

In the area of atmospheric pollution, no important achievement can be noted. The E.I.A. provision included under the 'Weather Modification Provisions' although slightly improving on the relevant provisions included under the 'Shared Resources Principles', is less stringent than similar provisions under the OECD or EEC legal instruments. Its mere inclusion under a global legal text, albeit a 'soft law' one, contributes, however, to the development of a norm of E.I.A. in this field.

As for depletion of the ozone layer, no specific provision on E.I.A. has been included under the 'Ozone Layer Convention', only very general provisions on this question have been provided for under it which refer to a "collective" impact assessment rather than one which should be undertaken by each individual State.

In the field of environmentally sound management of hazardous wastes, the wish of UNEP Secretariat to have an elaborate provision on impact assessment, similar to the one under the 'Off-Shore Mining and Drilling Conclusions' has not been realized. The provision retained is, generally speaking, consistent with international law in this field as reflected in relevant OECD and EEC legal instruments.

Like other texts discussed above, the mere inclusion of a provision on such a duty under a legal text dealing with the environmentally sound management of hazardous wastes contributes to the crystallization of a norm of impact in this field. The importance of this latter aspect is further amplified by the fact that the 'Cairo Guidelines' have been adopted by experts belonging to countries with different social and economic regimes and also by the fact that these guidelines have been developed with a view "to assisting States in the process of developing appropriate bilateral, regional and multilateral agreements..for the environmentally sound management of hazardous wastes".

UNEP's performance in the development of a norm of prior notification and information has also produced mixed results.

The best achievements have been made in the field of conservation and pollution.

In the first field, the relevant provisions included under the 'Shared Resources Principles' usefully refine both relevant 'Stockholm Declaration' Principles and U.N.General Assembly Resolutions.
The refinement lies not only in the provision of a more detailed procedure as regard notification in "ordinary cases" that is cases of "plans to initiate or make a change in the conservation or utilization of the resource which can reasonably be expected to affect significantly the environment in the territory of the other State or States";but also in the provision of a special duty to notify in cases of "emergency".

When compared to other legal texts,these provisions,in spite of their positive aspects,are only consistent with international law in this field as reflected in relevant OECD legal instruments.

In the field of marine pollution,the most noteworthy achievements were made in the field of land-based pollution,and in a 'hard law' context,especially under the 'Athens Protocol' and the 'Quito Protocol'.These achievements relate particularly to the nature of and the procedure by which information is to be exchanged .

Also noteworthy is the provision on notification and information exchange included under the 'Montreal Guidelines' which provides for "immediate notification" regarding all releases(or even their likelihood) and not only releases following an accident(releases in case of emergencies).Moreover this provision provides for immediate notification of States as well as competent international organizations on releases which are likely to cause pollution to the marine environment of "...areas beyond the limits of national jurisdiction".

The provision on notification and information under the 'Off-Shore Mining and Drilling Conclusions' although contributing to the formation of such a norm in this field cannot be counted as an important achievement of UNEP in this field.

This conclusion also applies with regard to UNEP's performance in the field of atmospheric pollution.

The performance of UNEP in the development of a norm of prior notification and information in the field of environmentally sound management of hazardous wastes has been positive, in spite of the non-retention by the experts of very elaborate provisions on this question proposed by the UNEP consultant.

The most noteworthy achievements in this field relate, first to the implementation and refinement of 'Shared Resources Principles' (when applicable). Refinement of the 'Shared Resources Principles' can be seen in the fact that the 'Cairo Guidelines/Principles' provide for such a duty in two instances: in respect of activities which may have significant effects on health or the environment in another State, and in respect of transfrontier movements of hazardous wastes.

The second achievement relates to the fact that the 'Cairo Guidelines/Principles' usefully clarify the type of information to be provided; require "informed consent" and recommend the designation by each State of an agency as a focal point to which the notification and inquiries may be adressed.

Finally one should note the very substantial achievement of UNEP in the development of a norm of notification and information in the field of exchange of information on potentially harmful chemicals (in particular Pesticides) in international trade. These achievements relate particularly to the adoption of the PNS . The 'Revised Draft' on the same subject also includes progressive provisions on the subject.

The PNS clarifies the circumstances that call for notification; the time at which the notification should be given; the contents of information and the "recipient" of information.

Although these elements are provided for under the relevant OECD legal text; the PNS provides for some supplementary matters related particularly to the contents, purpose and timing of information to be provided.

The 'Revised Draft' not only contains the same aspects contained under the PNS , but includes other progressive provisions such as its application to "Potentially Harmful Chemicals" rather than "Banned or Severely Restricted Chemicals" and provision under it for "informed consent".

The main contribution of UNEP in the development of a norm of notification in "emergencies" has been in the field of marine pollution especially with the adoption under the various "emergency protocols" of detailled provisions on notification and information.

Although, less significant , UNEP's contribution in the development of such a norm in the fields of off-shore mining and drilling and land-based pollution, albeit in a 'soft law' context, should also be noted as its contribution with regard to the development of such a norm in the field of the environmentally sound management of hazardous wastes.

In other fields, the nature of the problem itself (i.e. conservation; depletion of the ozone layer) or the non-involvement of UNEP in the development of the law in a specific field (i.e. air pollution) has prevented UNEP from playing any role in this context.

Having said this, there is no reason not to accept State practice with regard to prior notification and information in such fields as water pollution or marine pollution as a proof of a general principle.

UNEP's most positive contribution in the development of a norm of consultation has been in the area of marine pollution especially in the field of land-based pollution,and with different degrees,in the areas of the environmentally sound management of hazardous wastes;weather modification and conservation.UNEP has had less impact in influencing the development of such a norm in the area of air pollution where the ECE has taken the lead .Here also one sees no reason why not to accept State practice on consultation in such fields as water pollution and marine pollution as a proof of a general principle.

Provisions on "equal access" have been included mostly under 'soft law' texts.UNEP legal texts on off-shore mining and drilling; conservation(the 'Shared Resources Principles');and environmentally sound management of hazardous wastes all include a provision on this principle.

An evolution can also be seen when comparing these provisions:qualifications made to the obligation to grant equal access under early-adopted UNEP legal texts do not appear under more recent legal texts;a particular emphasis has been put on the element of "reciprocity" in granting equal access,and a recommendation has been made under one legal text (the 'Cairo Guidelines/Principles') to grant equal access and treatment not only to "persons" but also to "public authorities".

Even with these positive provisions;the provisions on equal access under UNEP legal texts can only be said to be consistent with international law in this field,as reflected by relevant OECD legal texts and the 'Nordic Convention'.

Notwithstanding what has been said above;it is significant that so progressive a principle as that of equal access has been included under legal texts dealing with problems where regulation is still at an under-developed stage(e.g.land-based pollution;off-shore mining and drilling;environmentally sound management of hazardous wastes etc.,.)and which were negotiated and adopted by experts belonging to countries with

different Legal systems. Because of this, and also because the mere inclusion of such a principle under UNEP legal texts contributes to the development of a norm of equal access; UNEP's contribution has been positive.

CHAPTER 9: DEVELOPMENT OF INSTITUTIONAL LAW

Introduction

As said earlier[1], institutional law means legal provisions concerned with the creation or establishment of structures, permanent or otherwise, intergovernmental or governmental and the confering upon them of special tasks in order to facilitate international cooperation for environmental protection.

In order to assess the achievements made in this field under "hard law" and "soft law" instruments in whose elaboration or support UNEP has been involved, three aspects will be considered: Intergovernmental institutions; international secretariat and national authorities.

Following the approach taken under other chapters, the discussion which will follow will assess these achievements by looking at each environmental medium separately (marine environment; air and atmospheric environment ,.etc.,.)and by considering each environmental issue (conservation; environmentally sound management of hazardous wastes..etc,.)where applicable.

9.1 Intergovernmental Institutions

9.1.1 The Marine Environment

9.1.1.1 Organs

Some achievements at the institutional level have been made outside of UNEP.

At the regional level, intergovernmental institutions in the form of commissions have been created for the North Atlantic Area under the

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[1] See general introduction

'Oslo Convention' and the 'Paris Convention', and for the Baltic Area under the 'Helsinki Convention'[2].

At the global level, one should note the establishment under the LOSC of the ISBA[3]. Although its mandate is limited to activities in the "Area"; this one has potential responsibilities regarding the protection of the environment[4].

The ISBA has no mandate , however, for the protection of the environment of the high seas and their resources. In this respect, the LOSC provides only for co-operation between States without creating a supra-national structure[5].

The achievements under UNEP, at the institutional level, have not been very impressive.

In some areas like the Mediterranean, West and Central Africa, the Caribbean and the South-East Pacific, creation of permanent supra-national structures has been avoided[6]

Under the Mediterranean Action Plan, for example, a proposal by the Spanish delegate to have , under the 'Barcelona Dumping Protocol', an ad hoc commission empowered with secretariat functions and with the task of

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[2] 'Oslo Convention' (Art. 16); 'Paris Convention' (Arts. 15, 16); 'Helsinki Convention' (Art. 12).

[3] LOSC, (Arts. 156, 157)

[4] LOSC, (Arts. 145; also Arts. 139, 162(2)).

[5] LOSC, (Arts. 192; 194; 197-200).

[6] In the Mediterranean, governments requested the Executive Director of UNEP to establish "simple co-ordinating mechanisms which use, to the greatest extent possible, existing international organizations.."; see on this, THACHER, 'The Mediterranean Action Plan', in AMBIO, Vol. 6, No. 6, 1977, pp. 308-312 at 310.

supervising the implementation of the Protocol had not been retained[7]

Under all the conventions negotiated under UNEP the main role is played by "Meetings of the Contracting Parties"[8] or "Meetings of the High Contracting Parties"[9].

"Meetings of the Contracting Parties" or "Meetings of the High Contracting Parties" are not permanent structures; "ordinary meetings" are only held periodically, usually every two years, and "extraordinary meetings" are held usually "at any other time deemed necessary" either upon the request of the "Organization" which provides the secretariat, or at the request of any Party provided that the request is supported by a sufficient number of Contracting Parties[10].

In other Areas, such as the 'Persian/Arabian Gulf Area' or the 'Red Sea and Gulf of Aden Area', 'Regional Organizations' have been established; they are the 'Regional Organization for the Protection of the Marine Environment' created under the 'Kuwait Convention'[11] and the 'Regional Organization for the Conservation of the Red Sea and Gulf of Aden Environment' created under the 'Jeddah Convention'[12].

The 'Regional Organizations' created under the 'Kuwait Convention'

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[7] See YTURRIAGA, 'Regional Conventions on the Protection of the Marine Environment' in 162, Receuil des Cours de l'Academie de Droit International de la Haye, 319-449 (1979) at 359. Also, KISS, 'La Convention pour la Protection de la Mer Mediterranée contre la Pollution' in 2 R.J.E. (1977) at 151.

[8] 'Barcelona Convention' (Art. 14); 'Abidjan Convention' (Art. 17); 'Cartagena Convention' (Art. 16)

[9] 'Lima Convention' (Art. 12)

[10] See notes 8 and 9 supra.

[11] Art. XVI

[12] Art. XVI

and the 'Jeddah Convention' are composed of a Council, a Secretariat and a judicial body (a 'Commission for the Settlement of Disputes' under the 'Kuwait Convention', and a 'Committee for the Settlement of Disputes' under the 'Jeddah Convention')[13].

Although the 'Kuwait Convention' and The 'Jeddah Convention' provide for 'Regional Organizations', it cannot be said that these organizations are permanent supra-national bodies; the 'Councils' created under both conventions are merely a version of the "Meetings of the Contracting Parties" provided for under other conventions referred to earlier. The improved periodicity of the meetings of the councils (under the 'Kuwait Convention' and the 'Jeddah Convention' ordinary meetings of the council are held once a year); or other features[14] should not, in my view, significantly affect this assessment.[15]

The provisions on institutional aspects of dispute settlement under the 'Kuwait Convention' and the 'Jeddah Convention' are, in my view,

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[13] 'Kuwait Convention' (Art. XVII, para. a); 'Jeddah Convention' (Art. XVII(2)).

[14] Under the 'Jeddah Convention', for example, the 'organization' enjoys in the territory of each Contracting Party all legal qualifications necessary for the discharge of its duties and the performance of all activities which assist in the achievements of its aims; its Council can adopt and conclude agreements with States or with organizations with similar interests within the aims of this convention and for the achievements of its purposes and which its deems necessary for the discharge of its duties; it can hold meetings at the headquarters of the 'organization' as well as at any place as prescribed by its internal regulations. This possibility which is given to the Council to meet at any place other than its headquarters is a positive provision which adapts the 'double-section' formulae included under bilateral institutional arrangements such as the ones between the USA and Canada, to multilateral arrangements (See in this respect, COHEN, 'The Regime of Boundary Waters-The Canadian-United States Experience' in Receuil des Cours de L'Academie de Droit International de La Haye, 146:219-340(1975).

[15] Under the 'Helsinki Convention', for example, meetings of the 'Commission' are held "at least once a year" upon convocation by the Chairman. (Art. 12(3)).

however, positive provisions which are worthy of mention.

In spite of the positive features outlined above, UNEP-regional agreements , like similar agreements negotiated under other fora, fail to create any permanent supra-national institutions[16].

Still in the area of protection of the marine environment, but in a "soft law" context, one should note guideline 19(1) of the 'Montreal Guidelines' which provides that "States should ensure that adequate institutional arrangements are made at the appropriate regional or global level, for the purpose of achieving the objectives of these guidelines, and in particular for promoting the formulation, adoption and application of international rules, criteria, standards and recommended practices and procedures, and for monitoring the conditions of the marine environment".

In so far as the 'Montreal Guidelines' are applicable to 'Shared Natural Resources'; the guideline above contains, in my view, progressive aspects when compared to the 'Shared Resources Principles'. One progressive aspect relates to the obligation of States regarding creation or establishmment of intergovernmental institutional arrangements: While the guideline above uses the words "States should ensure.."; 'Shared Resource Principle'2 uses weaker words, "States should consider..".

The "institutional arrangements" referred to under the guideline above have already been created, as discussed above, under a number of regional agrrements related to land-based pollution whether under UNEP or outside of it.

At the global level, no institution has been created , as yet, with the objective of "promoting the formulation, adoption and application of international rules, criteria, standards and recommended practices and procedures, and for monitoring the condition of the marine environment"

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[16] See on this point, ALHERITIERE, 'Marine Pollution Control Regulation-Regional Approaches' in Mar. Pol'y, (July 1982), pp. 162-174, at 171.

in the field of land-based pollution.

Still in a 'soft law' context, one should note the provision under guideline 42(3) of the 'Offshore Mining and Drilling Conclusions' which stipulates that "when appropriate, States should give consideration to the establishment of intergovernmental commissions" when concluding an agreement on liability and compensation. This provision, which, in my view, is a positive one because of the potential its implementation may have in solving problems between neighbours in conflict in a given region, is, however, weakened by the qualifying words included under it, such as "..should give consideration..";"..where appropriate..".

Institutional arrangements for the protection of the marine environment established under UNEP regional agreements, much like the ones established under legal agreements negotiated outside UNEP have major problems to solve. Protection of the marine environment from pollution which emanates from international watercourses is an important problem that will most certainly necessitate the establishment of an institutional link between institutional arrangements set up for a regional sea and institutional arrangements set up for lakes or rivers flowing into the sea. In the words of E. Mann Borgese, "to deal with the marine environment means, in the final analysis, the creation of an integrated system of land and water management, comprising both fresh water and sea water systems, coastal States and land-locked States"[17].

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[17] See, MANN BORGESE, 'A New Role for the Regional Seas?' in The Siren, News from the Regional Seas Programme, No. 22, December 1983 at 2. Proposals in this direction have been made by some commentators on environmental law (see, e.g. KISS, 'Vers la Creation d'Une Agence Europeènne pour la Protection de l'Environnement Marin' in EPL, 5(1979) at pp. 6-8; also, KWIATKOWSKA, 'Marine Pollution from Land-Based Sources: Current problems and Prospects" in Ocean Dev. & Int'l L., Vol. 14, No. 3 p. 315 at 326.). An effort has also been made with regard to the protection of the North Sea from contamination through rivers and coastal waters. At the International conference on the Protection of the North Sea, the ministers responsible for the protection of the North Sea of concerned governments affirmed "their strong support for further binding regulations for black and grey list substances *which should be adopted within the framework of the EEC, the Paris Commission and the River Commissions concerned..*"(my emphasis). (See, "International Conference on the Protection of the North Sea" in EPL, 14(1985) at p. 32.).

9.1.1.2. Functions

9.1.1.2.1. General functions

The functions of the "Meetings of the[High]Contracting Parties" conform generally to those of the various commissions eastablished under the 'Oslo Convention','Paris Convention' and 'Helsinki Convention' with some differences caused by the specificity of the object of each convention[18].

Likewise,because more recent regional conventions adopted under UNEP cover new fields such as environmental impact assessment,the functions of the "Meetings of the [High] Contracting Parties" have been extended accordingly.[19]

One should note,however,that when comparing the 'Athens Protocol' with the 'Paris Convention',one finds that the 'Commission' created under this latter agreement has an additional function which is "to fix,if necessary,on the proposal of the Contracting Party or Parties bordering on the same watercourse and following a standard procedure,the limit to which the maritime area shall extend in that watercourse"[20].No such function is attributed to the "Meeting of the Parties" under the 'Athens Protocol'.

9.1.1.2.2 Regulatory Functions

Under UNEP's regional conventions ,protocols are adopted either at a "diplomatic conference" or at a "conference of plenipotentiaries",that is at the highest level[21].The majority required for

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[18] See e.g.Arts.8 and 12(2(c)) of the 'Lima Convention'.

[19] Ibid.

[20] 'Paris Convention'(Art.16,para.(c)).

[21] See e.g.'Barcelona Convention'(Art.15(1));'Kuwait Convention'(Art,XIX);'Abidjan Convention'(Art.18(1));'Lima Convention'(Art.19);'Cartagena Convention'(Art.17(1).

for convening a "diplomatic conference" or a "conference of plenipotentiaries" is also rather high(an average of a two-third majority.)[22]. As concerns the majority required for adoption of the protocols, some of the conventions go to the extent of requiring unanimity of votes while other conventions do not specify the majority required for their adoption[23]. An equivalent of one third of ratifications is required on average for the entry into force of protocols[24].

With regard to amendments of conventions and protocols under UNEP's Regional Seas Agreements; proposals for these may be made by any Contracting Party[25]. While some of these conventions[26] require amendments of conventions and protocols be submitted to a "conference of plenipotentiaries" or "diplomatic conference"; other conventions[27] require for this "ordinary meetings" of the Contracting Parties only.

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[22] 'Barcelona Convention' and 'Abidjan Convention'(two-thirds majority);'Kuwait Convention'(three Contracting States);'Cartagena Convention'(requires "a majority"only).

[23] The 'Barcelona Convention', the 'Abidjan Convention' and the Cartagena Convention' do not provide for the majority required for adoption of the protocols. The 'Kuwait Convention'(Art XIX) and The 'Lima Convention'(Art.19) require unanimous vote of the Contracting Parties for the adoption of the protocols.

[24] 'Barcelona Convention'(requires at least six instruments of ratification, acceptance or approval of, or accession to, such protocol, (Art.27(3));'Kuwait convention'(requires deposit of at least five instruments of ratification, acceptance or approval of, or accession to, such protocol(Art.XXVIII(b));'Abidjan Convention'(requires the deposit of at least six instruments of ratification, acceptance or approval of, or accession to such protocol(Art.29(2)).

[25] 'Barcelona Convention'(Art.16(1),(2));'Kuwait Convention'(Art.XX(a));'Abidjan Convention'(Art.19(1));'Lima Convention'(Art.17);'Cartagena Convention'(Art.18(1),(2));'Jeddah convention'(Art.XXI).

[26] 'Lima Convention'(Art.17(1));'Cartagena Convention'(Art.18).

[27] 'Barcelona Convention'(Art.16(1));'Kuwait convention'(Art.XX(a)).

The majority required for adoption of these amendments range from "unanimous vote" to a two-thirds majority vote.[28]

The foregoing procedures are merely consistent with international law in this field.

As for amendments to annexes of the conventions or protocols; proposals for these may be made by any contracting party.[29]These proposals are generally submitted at ordinary meetings of the "Meetings of the Contracting Parties" or meetings of the "council" as the case may be.[30]

Adoption of amendments to annexes of the convention and protocols require under these conventions either unanimous vote[31];three-fourths majority vote[32]or a two-thirds majority vote[33].

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[28] 'Barcelona Convention'(requires three-fourths majority(Art.16(3));'Abidjan convention'(requires two-thirds majority (Art.19);'Kuwait convention'(requires unanimous vote(Art.XX(a)));'Lima Convention'(requires unanimous vote(Art.17(2));'Cartagena convention'(requires three-fourths majority vote(Art.18(4)).

[29] 'Cartagena Convention'(Art.19(a);'Kuwait Convention'(Art.XXI(b)(i);'Abidjan Convention'(Art.20(2));'Barcelona Convention'(Art.17(2)(i)).

[30] Ibid.

[31] 'Jeddah Convention'(Art.XXI).This procedure applies to "amendments of importance";'Kuwait Convention'(Art.XXI(b)(ii).

[32] 'Barcelona Convention'(Art.17(2)(ii);'Cartagena Convention'(Art.19(2)(b)).

[33] 'Abidjan Convention'(Art.20(2)).

As for their entry into force;some conventions provide that the amendments to technical annexes are to become effective for all Parties which have not notified their inability to approve them on expiry of a period determined by the "meeting of the parties" at the time of the adoption of the amendment.[34]

As can be seen,the procedure for amendments of annexes under UNEP's regional agreements adopt the "tacit consent" procedure;a more progressive procedure than the unanimity vote provided for under such conventions as the 'Oslo Convention' under which recommendations for amendments to annexes must be adopted by a unanimous vote and they will enter into force only after unanimous approval by the parties.[35]

The 'Regional Organization' created under the 'Jeddah Convention' has other legislative functions namely to adopt its internal constitution;to adopt and conclude agreements with States or with organizations with similar purposes or interests within the aims of the convention and for the achievement of its purposes and which the 'council' deems necessary for the discharge of its duties.[36]

9.1.2 Air and Atmospheric Environment

9.1.2.1 Air Environment

Much like and as a consequence of its performance(or the lack of it) in the area of regulation of air pollution;UNEP's achievements in the development of institutional law in this field have not been important.UNEP has,however,as said earlier,supported the EMEP under the 'Geneva/ECE Convention' and it is significant that this body is referred to under it.This,constitutes,in my opinion,an important achievement toward the strengthening of the institutional base under legal instruments concerned with environmental protection much called for under Principle 2 of the 'Shared Resources Principles'.

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[34] 'Barcelona Convention'(Art.17(2)(iv),(vi);'Kuwait Convention' (Art.XXI(b)(iv),(vi).

[35] 'Oslo Convention'(Art.18).

[36] 'Jeddah Convention'(Art.XVIII)

9.1.2.2 Atmospheric Environment

No permanent structure has been created under the 'Ozone Layer Convention';provision is only made for a' Conference of the Parties' which will carry its functions by holding 'ordinary meetings' at "regular intervals to be determined by the conference at its first meeting" and 'extraordinary meetings' "at such other times as may be deemed necessary by the conference or at the written request of any contracting party...".[37]

More interesting ,however,as far as UNEP is concerned, is the provision under the convention for a permanent function for CCOL as regard scientific matters.Article 6(4)(j) of the 'Ozone Layer Convention' provides in fact that the Conference of the Parties shall "seek ,where appropriate, the services of competent international bodies and scientific committees,in particular the World Meteorological Organization and the World Health Organization as well as the Co-ordinating Committee on the Ozone Layer,in scientific research, systematic observations and other activities pertinent to the objectives of this convention, and make use as appropriate of information from such bodies and committees."

From this provision,one can see that CCOL,a technical body created under UNEP which was not even a permanent body[38], has been given a permanent function under the convention which consists in providing 'The Conference of the Parties'with scientific information and advice.

During discussions of the draft convention, and as regard CCOL, the main problem raised was that while CCOL can analyse the problem of depletion of the ozone layer and make recommendations,it can only make

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[37] 'Ozone Layer Convention'(Art.6)

[38] See,'World Plan of Action on the Ozone Layer',adopted by the United Nations Conference on the Ozone Layer,March 1 to 7,1977,in 'International Protection of the Environment,Treaties and Related Documents'(B.Ruster,B.SIMMA;M.BOCK),Vol.XXVIII,at 390.

scientific recommendations and not policy recommendations. So, there was the question of whether there should be an intermediary between technical bodies (such as CCOL) and the governing body which is 'the Conference of the Parties'. The agreement reached was that this question should be left at large and that the 'Conference of the Parties' under the convention should have great flexibility as to what sort of services it required. If a necessity is felt that there should be an intermediary body, then a group of legal experts to convert scientific recommendations into policy form might be formed.[39]

9.1.3 Conservation

9.1.3.1 Organs

In a 'hard law' context, no 'commission' has been created under either the 'ASEAN Agreement'; 'C.I.T.E.S.' or the 'Migratory Species Convention'. These conventions make provision only for either a "Meeting of the Contracting Parties" as in the case of the 'ASEAN Agreement' or a "Conference of Contracting Parties" as in the case of 'C.I.T.E.S.' or the 'Migratory Species Convention'.

Under Art.21 of the 'ASEAN Agreement', Ordinary meetings are held "at least once in three years.." and extraordinary meetings are held "..at any other time, upon the request of one Contracting Party provided that such request is supported by at least one other Party".

Meetings of the "Conference of Contracting Parties" are held, in the case of 'C.I.T.E.S ', every two years and extraordinarily on request of one-third of the Contracting Parties; and in the case of the 'Migratory Species Convention' "at intervals not more than three years, unless the Conference decides otherwise", and extraordinarily "...at any other time on the written request of at least one-third of the Parties".[40]

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[39] Interview with Mr.P.SZELL (Legal Directorate, Dept.of the Environment, U.K., April, 1984).

[40] 'C.I.T.E.S.' (art.XI); 'Migratory Species Convention' (art.VII).

More important, the latter two conventions have permanent bodies:Both have a technical body(the Technical Committee under C.I.T.E.S[41] and the Scientific Council under the 'Migratory Species Convention');and both have an administrative body.[42]

In spite of their positive features,the conventions above are,in my view,less developed,in some of their aspects,than some conservation conventions negotiated outside UNEP[43].

In a 'soft law' context, one should note 'Shared Resources Principle' 2 which provides in its relevant part,

"In order to ensure effective international co-operation in the field of the environment concerning the conservation and harmonious utilization of natural resources shared by two or more States,States sharing such natural resources should endeavour to conclude bilateral or multilateral agreements between or among themselves in order to secure specific regulation of their conduct in this respect....or should endeavour to enter into other arrangements ,as appropriate, for this purpose.In entering such agreements or arrangements,*States should consider the establishment of institutional structures, such as joint international commissions for consultations on environmental problems*

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[41] Established as a permanent body at the 'New Delhi Meeting'(1981).For this,see,NAVID, 'C.I.T.E.S.-Conference in New Delhi' in EPL, 7(1981) at 77 .Also,LYSTER,'International Wildlife Law'(Grotius Publications limited, 1985) at p.274.

[42] A Standing Committee was established under C.I.T.E.S. at the Second Meeting of the convention(San-José,Costa-Rica)(See for this,unsigned,'C.I.T.E.S.:The Second Meeting' in EPL,5(1979) at 84.Also,LYSTER,'International Wildlife Law..'op.cit.at pp.274-275).A standing committee was also established under the 'Migratory Species Convention' at the first meeting of the conference of the Parties(See,EPL,15/3/4(1985) at 74 and 122.

[43] Under the 'Canberra Convention',for example,a 'commission for the conservation of Antactic Marine Living Resources' was established (Art.VII).This commission "shall have legal personality and shall enjoy in the territory of each of the States Parties such legal capacity as may be necessary to perform its functions and achieve the purposes of this convention"(Art.VIII).Moreover,under the 'Canberra Convention' the periodicity of the meetings of the commission is improved;according to Art.XIII(2) of the convention,"the commission shall hold a regular annual meeting".In contradistinction to the 'Migratory Species Convention' and C.I.T.E.S.,however,no administrative body such as the 'Standing Committee' is provided for under the 'Canberra Convention'.

relating to the protection and use of shared natural resources"[44]. (my emphasis)

9.1.3.2 Functions and Powers

The "Conference of the Parties"provided for under C.I.T.E.S. and the 'Migratory Species Convention'[45] has important functions.One important function of the "Conference of the Parties" under the latter convention for example,is "to receive and consider any reports presented by the Scientific Council,the Secretariat,any Party or any standing body established pursuant to an agreement".A similar provision is also included under C.I.T.E.S..In spite of this, other conventions such as the 'Canberra Convention'[46], include in my view ,more detailled and important functions and powers for their governing bodies.

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[44] In the study he prepared in implementation of U.N.General Assembly resolution 3129,the Executive Director of UNEP made proposals and recommendations which included the proposal that "the code should urge States sharing natural resources to conclude bilateral or multilateral agreements to regulate their conduct,in a legally binding manner,with respect to co-operation in the field of the environment concerning the conservation and the harmonious use and management of shared natural resources...".The Executive Director of UNEP proposed in this respect that the governing council of UNEP "..urge States to include inter alia in their agreements ,the establishment of joint institutional structures,such as joint international commissions,for joint consultations and planning on,and rational management of,the shared natural resource".In his opinion and according to replies of governments and international organizations,"the establishment of..joint commissions or other similar institutions,even in the most informal manner,has to be the most effective mechanisms for the avoidance and settlement of disputes,especially in the case of international water systems.."(See,UNEP doc.UNEP/GC/44 of 20 February 1975 at 41-42.).

[45] Art.VII para.5(d)and Art.XI,para.3(d) respectively.

[46] Under the 'Canberra Convention' one of the duties of the 'Commission' is to 'compile data on the status of and changes in population of Antarctic Marine Living Resources and on factors affecting the distribution, abundance and productivity of harvested species and dependent or related species or populations(art.IX para.1(b));to" ensure the aquisition of catch and effort statistics on harvested populations"(art.IX para.(c)); and to" analyse,disseminate and publish the information referred to in subparagraphs (b) and (c)..."(art.IX para.(d)).See,for a discussion of these functions, LYSTER 'International Wildlife..."op.cit. at pp.165-166.

With regard to regulatory powers; under the 'Migratory Species Convention', for example, decisions at a meeting of the conference of the Parties require "a two-third majority of the Parties present and voting", except where otherwise provided for by the convention[47]. This, in my view, is only consistent with international law in this field[48].

As for amendment of the convention , this may, under the 'Migratory Species Convention' be amended "at any ordinary or extraordinary meeting of the Conference of the Parties"[49]; only at "extraordinary meetings" under C.I.T.E.S.[50]. These amendments shall, for both conventions, be adopted by a "two-thirds majority" of the Parties present and voting[51]. This latter procedure is particularly progressive when compared to similar procedures under other conservation conventions.

Appendices may, under both C.I.T.E.S.[52] and the 'Migratory Species Convention'[53] be amended at any ordinary or extraordinary meeting of the Conference of the Parties. Only a two-thirds majority is needed for their

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[47] Art. VII, para. 7.

[48] Under Art. III, para. 2 of the 'ICRW', "..decisions of the Commission shall be taken by a simple majority of those members voting except that a three-fourths majority of those members voting shall be required for action in pursuance of Art. V". Also, under Art. 13(8) of the 'World Heritage convention', "decisions of the [World Heritage] Committee shall be taken by a majority of two-thirds of its members present and voting".

[49] Art. X, para. 1.

[50] Art. XVII, para. 1

[51] 'Migratory Species Convention' (Art. X, para. 1); C.I.T.E.S. (art. XVII(1)).

[52] Under Art. XV, para. 2 of C.I.T.E.S., any Party may propose an amendment to Appendix I and II for consideration between meetings by postal procedure.

[53] Art. XI, para. 1.

adoption[54]. This procedure is only consistent with international law in this field[55].

9.1.4 Exchange of Information on Potentially Harmful Chemicals(in particular Pesticides)in International Trade.

under the "Revised Draft " on this topic, it is provided under guideline 15(a) that,

(a) States should ensure that adequate intergovernmental institutions exist:
(i) To ensure co-ordination of the network of designated national authorities;
(ii) To develop, adopt and amend common standards, recommended practices and procedures, and such joint programmes and measures as may be required to make the present guidelines effective;
(iii) To keep under review the implementation of the present guidelines, on the basis of periodic reports from designated national authorities.
....."

The provisions above, although providing for the most basic functions for any intergovernmental institution to be created are, nonetheless, important especially when considering the total absence of any institutional arrangement in this field.

9.2 Secretariat

9.2.1 The Marine Environment

All UNEP regional agreements dealing with the protection of the marine environment make provision for a Secretariat[56]. Some of these agreements have designated UNEP itself to carry out

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[54] ' C.I.T.E.S' (art.XV para.1(b));'Migratory Species Convention'(art.XI para.4).

[55] 'Antarctic Seals Convention'(art.9);'Berne Convention'(art.17)

[56] 'Barcelona Convention'(art.13);'Kuwait Convention' (art.XVIII); 'Abidjan Convention'(art.16);'Lima Convention'(art.13);'Cartagena Convention (art.15);'Jeddah Convention' (art.XIX)

secretariat functions[57];under other agreements these functions have been given to other institutions.[58]

The functions attributed to the Secretariat under some UNEP regional agreements[59] are very detailed when compared to what is provided in this respect under ,for example, such conventions as the 'Helsinki Convention' or the 'Paris Convention'.[60]

An evolution can also be seen when comparing secretariat functions under more recent UNEP-sponsored legal agreements with early-adopted UNEP-sponsored legal agreements.Under the 'Kuwait Convention' for example[61],one of the Secretariat functions is to "establish,maintain and disseminate an up-to-date collection of national laws of all States concerned relevant to the protection of the marine environment" and "to arrange,upon request,for the provision of technical assistance and advice for the drafting of appropriate national legislation for the effective implementation of the Convention and its protocols";these functions are not mentioned,for example, under the Secretariat functions under the 'Barcelona Convention'.

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[57] 'Barcelona Convention'(Art.13);'Abidjan Convention' (Art.16(1));
'Cartagena Convention'(Art.15(1)).

[58] The 'Lima Convention' entrusts Secretariat functions to the 'Permanent Commission of the South Pacific', and the 'Jeddah Convention' leaves it to the 'Council' of the 'organization' to appoint the Secretary General(art.XVIII(j)).See,ALHERITIERE,'Marine Pollution Control regulation,..'op.cit.at 166.

[59] Note,for example, the functions assigned to the Secretariat under the 'Jeddah Convention'(and the 'Kuwait Convention') to "establish,maintain and disseminate up-to-date copies of national laws,systems and other legislations concerning the conservation of the marine environment of all concerned Parties";"to provide technical assistance and advice for the drafting of appropriate national legislations for the effective implementation of this Convention and its protocols;" and "to organize and co-ordinate training programmes in areas related to the implementation of th[e] Convention;its protocols and action plans." (See,'Kuwait Convention'(Art.XVIII(a)(v),(vi),(vii));'Jeddah Convention'(Art.XIX (e),(f),(g)).

[60] 'Helsinki Convention' (Art.14,paras.4,5).

[61] Art.XVIII((v),(vi)),(vii).

Discussion of the question of secretariats and their functions under UNEP-sponsored legal instruments related to the protection of the marine environment should, in my view, include a mention of the Regional Centres created under both the 'Barcelona convention' and the 'Kuwait Convention'[62]. No similar institutions have, in fact, been created in other regions.

With regard to their functions and duties; assistance to States is an important function and objective of these Centres.[63]

These Centres are to strengthen the capacities of the Contracting Parties and to facilitate co-operation among them in order to combat pollution by oil (and other harmful substances under the 'Kuwait Convention'), especially in cases of emergencies in which there is grave and imminent danger to the marine environment[64]. These Centres have also the function to assist States, which so request, in the development of their own capabilities to combat oil pollution and other harmful substances and to facilitate information exchange, technological co-operation and training.[65]

The Centres may also provide other forms of assistance to States: They collect and disseminate to the Contracting States information concerning plans, methods, techniques and research relating to marine emergency response; list of experts, equipment and materials available for marine emergency responses by Contracting States. The 'Kuwait Emergency Protocol' adds assistance to Contracting Parties, on request, in the preparation of laws and regulations concerning marine pollution and in the establishment of appropriate authorities; assistance

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[62] 'Kuwait Emergency Protocol' (art. III(1)); Resolution 7 of the Barcelona Conference regarding the establishment of a regional oil-combating Centre for the Mediterranean. See, KISS, 'La Convention pour la Mer Mediterranée contre la Pollution' in R.J.E. 2-1977, at 155.

[63] 'Barcelona Emergency Protocol' (art. 10); 'Kuwait Emergency Protocol' (art. III, para. 2(a), (b)).

[64] Ibid.

[65] 'Barcelona Emergency Protocol' (arts. 6 and 7); 'Kuwait Emergency Protocol' (art. III para. 3).

in the transmission of reports concerning marine emergencies and in promoting and developing training programmes for combating pollution, and preparing comprehensive anti-pollution manuals, etc..,.[66]

One important function of the Regional Centre created under the 'Kuwait Convention' is the possibility which is given to it under Art. III(2)(c) for "initiating operations to combat pollution by oil and other harmful substances on a regional level", when authorized by the 'Council' of the 'Regional Organization' created under the convention[67]. The Mediterranean Regional centre has no such function.[68]

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[66] 'Kuwait Emergency Protocol' (art. III para. 3(b)(i)(iv))

[68] It is important, in my view, to note the evolution which the two Centres have known. As regards the Mediterranean Regional Centre, the Intergovernmental Review Meeting of the Mediterranean Coastal States which was also the First Meeting of the Contracting Parties to the 'Barcelona Convention' gave full support to the Regional Centre , and at that meeting States were agreed that in the future the Centre'activities will focus on the gathering and dissemination of information, the training of those responsible, at the national level, for combating accidental oil pollution, and improving the reliability of communications links with national Centres dealing with oil pollution. (See, The Siren, No. 4, March 1979 at 6). A subsequent meeting , held in November 1980, of government-appointed representatives of twelve Mediterranean Countries and the EEC with representatives from IMCO(now IMO) and UNEP, in order to review the activities of the Centre and consider what modifications to make in order that the Centre be more effective, affirmed that the Centre should continue to pursue its original objectives, with emphasis on assisting Coastal States in dealing with emergencies and in responding to oil spills. It recommended that the Centre should provide Countries, on their request, with an advisory service to help them set up national emergency plans, and that regional training Centres be provided to increase the number of trained nationals. More important, the Meeting stated that the Centre should become more 'operational', that is, although it would not have its own oil combating equipment, it should be able to respond more quickly to emergency requests for assistance (see for this, 'The Siren', No. 11, Winter 1981). For an evaluation of the Centre's performance, see, LE LOURD 'ROCC; L'Idee et la Realite', in 'The Siren', No. 18, October 1982 at 15. Regarding The Kuwait Regional Centre; a meeting of experts held in 1979 in Bahrain agreed that the Centre should be a relatively autonomous operation, especially since its purpose will be to deal with emergency situations. (See, 'The Siren', No. 13, Summer 1980 at3). The 'Council' of the 'Regional Organization' which met for the first time in Kuwait in 1981 decided to proceed with the establishment of the Centre. (See, 'The Siren' No. 13 Summer1981 at 8).

This important function which is given to the Regional Centre under the 'Kuwait Convention'is easily explained by the need for a prompt response in case of pollution accidents which are very probable in this Area which is an important shipping route with a very huge amount of traffic consisting of very large tankers carrying millions of tons of oil to destinations all over the world, and an Area where there are large-scale activities of exploration and exploitation of mineral oil resources.[69]

Also noteworthy is the possibility given to States especially under the Mediterranean Action Plan to create Sub-Regional Centres.[70]

9.2.2 Air and Atmospheric Environment

Under article 7(2) of the 'Ozone Layer Convention', UNEP is designated as responsible for carrying Secretariat functions.UNEP will carry secretariat functions only until the completion of the first ordinary meeting of the Conference of the Parties;this is seen by experts who elaborated the Convention as being conform to UNEP's catalytic and co-ordinating role.[71]

The assignment to UNEP of secretariat role under the 'Ozone Layer Convention' is another instance where this body has been given such a function.A number of international treaties concerning environmental protection have included a similar provision;this will strengthen UNEP's role in assisting the implementation of international conventions concerning the protection of the environment.[72]

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69 See,'Kuwait Convention'(preamble)

70 See,KISS,'La Convention pour la Protection ..',op.cit.at 156.

71 See,UNEP doc.UNEP/WG/78/8 at p.7,para.24.

72 87.'Barcelona Convention'(art.13);'Abidjan Convention'(art.16).UNEP also assumed responsibility for the Secretariat of the 'Kuwait Action Plan and Convention in the interim period leading to the first meeting of the 'Council'.

It is expected that at the end of the interim period, the Contracting Parties will agree on the WMO taking over the Secretariat. The choice of this organization for secretariat functions would be logical for this one has, it should be recalled, been designated as lead Agency in several fields of the World plan of Action on the Ozone Layer[73].

The functions assigned to the Secretariat under the 'Ozone Layer Convention', although more detailed than those under the 'Geneva/ECE Convention' are generally speaking, consistent with the normal functions assigned to the Secretariat under a number of conventions on protection of the environment.

9.2.3 Conservation

The 'ASEAN Agreement', 'C.I.T.E.S' and the 'Migratory Species Convention' all make provision for a Secretariat .[74]

Important functions are given to the Secretariats under the two latter conventions: Under 'C.I.T.E.S.' , for example, the Secretariat can "undertake scientific and technical studies in accordance with the programmes authorized by the Conference of the Parties" as will contribute to the implementation of the Convention[75]. Also, under article XII(d), the Secretariat can study the reports of the Parties to be submitted in accordance with article VIII para.7 and can "request from Parties such further information with respect thereto as it deems necessary" to ensure implementation of the Convention. Finally, under article XII(e) the Secretariat can "invite the attention of the Parties to any matter pertaining to the aims" of the Convention.

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[73] See, GOUR-TANGUAY, 'Protection for the Ozone Layer' in EPL, 3(1977) at 62.

[74] 'ASEAN Agreement' (Art.22); 'C.I.T.E.S.' (Art.XII); 'Migratory Species Convention' (Art.IX).

[75] Art.XII, para.2(c).

Likewise, under the 'Migratory Species Convention'[76], one important function of the Secretariat is the responsibility for it "to obtain from any appropriate source reports and other information which will further the objects and implementation" of the Convention and "to arrange for the appropriate dissemination of such information"[77]. The Secretariat can also "invite the attention of the Conference of the Parties to any matter pertaining to the objectives" of the Convention[78] and "to prepare for the Conference of the Parties reports on the Secretariat and on the implementation" of the Convention. These functions are particularly progressive when compared to similar functions under other conservation conventions.[79]

One should note that co-ordination of institutional arrangements , especially Secretariats created under conservation agreements is also needed. Speaking at the opening ceremony for the signature of the 'Migratory Species Convention'; UNEP's Executive Director held the hope that "the new Secretariat[of the 'Migratory Species Convention'] will find it useful to work in close co-operation with the Secretariat of C.I.T.E.S." in order to get "the maximum benefit from the experience already gained by the C.I.T.E.S. Secretariat."[80]

A more radical proposal with far-reaching objectives has also been put by DE KLEMM; in his words, "it would seem that there would be a marked advantage in regrouping within the same organization the administration of all global conventions dealing with the conservation of wild species and ecosystems". This, according to him, "..would allow

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[76] Art. IX, para. 4(c).

[77] Art. IX, para. 4(d).

[78] Art. IX, para. 4(e).

[79] See, BIRNIE, 'Legal Measures ...' op.cit. at 23-24 also at 33-34.

[80] See EPL, 5(1979) at 148.

for the establishment of administrative links between both the governing bodies and the Secretariats of these conventions, thus providing for a better determination of conservation priorities based on co-ordinated scientific advice, improved conservation action, and reduced costs."[81]

9.2.4 Exchange of Information on Potentially Harmful Chemicals in International Trade

Although no final text has been adopted on this topic as yet, one should note the role which might possibly be played by IRTPC as an intergovernmental institutional arrangement with competence to provide supporting measures for any intergovernmental institutions to be agreed upon by States, and "to disseminate information on potentially harmful chemicals, and to maintain liaison with other intergovernmental and non-governmental organizations concerned."[82]

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[81] See, DE KLEMM, 'Conservation of Species..' op.cit. at 127.

[82] Under guideline 15(b) of the "Revised Draft" it is provided that "States should designate [the International Register of Potentially Toxic Chemicals] to provide supporting services" for the functions of the intergovernmental institutions whose establishment was recommended to States (contained in paragraphs a(i), (ii), (iii) of guideline 15), and to" disseminate information on potentially harmful chemicals , and to maintain liaison with other intergovernmental and non-governmental organizations concerned". Under paras. (c); (d); (e) and (f) a role of IRPTC is provided for with regard to reception and dissemination of notifications regarding banned and severely restricted chemicals; collection of names and adresses of designated national authorities and preparation and dissemination of a consolidated list of these national authorities (UNEP doc. UNEP/WG. 112/3 at 10). Although the reference to IRPTC under revised draft guideline 15 discussed above was shown in between square brackets (which means an absence of agreement among experts on it); an involvement of this body was supported at the second session of the 'working group' (see, UNEP/WG. 112/5 of 11 March 1985 at 27).

The IRPTC, one of the information systems whose creation was recommended under the "assessment" component of the Stockholm Action Plan, and which has been in operation since March 1976[83]; has already been given a function under UNEP's PNS . In fact, at its twelfth Session, the Governing council of UNEP endorsed the recommendation of the 'working group' made at its first session, that full use be made of the facilities of the IRPTC for the implementation of the PNS[84].

9.3 National Authorities

9.3.1 The Marine Environment

Provision for establishment or designation of national authorities is made under all UNEP-sponsored regional agreements.[85]

Under the 'framework' conventions, Contracting Parties shall designate national authorities to be responsible under some conventions for "pollution monitoring" or "pollution monitoring and research"[86] and under other conventions for "the co-ordination of national efforts " for implementing the conventions and the related protocols and "serve as the channel of communication between the Contracting Parties and the 'organization' responsible for the Secretariat"[87]. A third category of conventions which is limited to the 'Lima Convention' makes reference to

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[83] See 'Stockholm Action Plan', Recommendation 74(e). In 1976 a Central unit for IRPTC was set up in Geneva , called the Programme Activity Centre (PAC). For a discussion of IRPTC, see HUISMANS 'The International Register Of Potentially Toxic Chemicals(IRPTC): Its Present State of Development and Future Plans' in, AMBIO Vol.7 (1978)No.5-6 at 275-277. See also SMITH II 'The United Nations And The Environment: Sometimes A Great Notion ? in Tex. Int'l L.J.19: 335-364(1984) at 349.

[84] Decision 12/14 (Section II, para.5) of 28 May 1978.

[85] 'Barcelona Convention'(art.10, para.2); 'Kuwait Convention' (arts.I(b), III(c), X(b)); 'Abidjan Convention'(art.16(2)); 'Lima Convention'(arts.2(b); 7(2), 9).

[86] 'Barcelona Convention'(art.10(2)); 'Kuwait Convention'(Art.X(b)).

[87] 'Abidjan Convention'(art.16(2)).

competent national authorities responsible for combating marine pollution and competent authorities and bodies responsible for receiving information on marine pollution and/or carrying out assistance programmes of measures for the benefit of the Parties.[88]

The provisions on national authorities under UNEP-'framework conventions' ,like many other provisions,usually apply to other protocols additional to these conventions; but the protocols give usually more details about these authorities and their functions depending on the object of the protocols.

Thus,under the various 'Emergency Protocols' provision is generally made for competent national organizations or authorities responsible for combating pollution of the sea by oil and other harmful substances and competent authorities responsible for receiving reports on these questions and for dealing with matters concerning measures of assistance between Parties.[89]

As regards pollution by dumping,the 'Barcelona Dumping Protocol' also provides for the designation by each Party of one or more competent authorities to issue permits for the dumping of certain types of wastes[90].

In the area of land-based pollution,the 'Quito Protocol' makes reference[91] to "competent national authorities and bodies responsible for receiving information about pollution from land-based sources and for carrying out assistance programmes or measures among the Parties" and "the competent national organizations or authorities responsible for combating pollution from land-based sources."

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[88] 'Lima Convention'(Art.9).The same provisions are,however,included under the 'Emergency Protocols' under other regional conventions.

[89] 'Barcelona Emergency Protocol'(Art.6);'Kuwait Emergency Protocol'(Art.I);'Abidjan Emergency Protocol'(Art.1,para.1);'Lima Emergency Protocol'(Art.VII(a),(b)) 'Quito Supplementary Emergency Protocol'(Art.I(a));'Cartagena Emergency Protocol(Arts.3,9) .

[90] Art.10

[91] 'Quito Protocol'(art.IX(a)).See also,Art.V.

Still with regard to land-based pollution, but in a 'soft law' context, one should mention 'Montreal Guideline' 18 which recommends to States to designate national authorities as focal points for reporting on measures taken, on results achieved and, if the case arises, on difficulties encountered in the implementation of applicable internationally agreed rules, criteria, standards and recommended practices and procedures.

What can be said about national authorities under UNEP- sponsored legal agreements dealing with the protection of the marine environment is that first; as regards 'framework conventions', the provisions on national authorities under them show a certain progression in their functions: from a function of" pollution monitoring" to a function of "co-ordination" of national efforts for the implementation of the convention and protocols and a "channel of communication" between the Contracting Parties and the Organization responsible for the secretariat.

Although other conventions such as the 'Paris Convention' or the 'Helsinki Convention'[92] make provision for national authorities; UNEP-regional 'framework Conventions' have the merit, in my view, to state their functions more explicitly and in more details.

When taking UNEP-legal instruments dealing with specific sources of pollution one can see that with regard legal instruments dealing with pollution from dumping; the function of the national authorities under the 'Barcelona Dumping Protocol' are similar to the ones provided for under other relevant agreements such as the 'Helsinki Convention[93]

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[92] 'Paris Convention'(Art.4(2)(b);'Helsinki Convention'(Art.6(3)).

[93] Note, However, that, as originally drafted, Regulation 2(1(c))of Annex V of the 'Helsinki Convention' provided for an additional function for the national authority which is "to collect available information concerning the nature and quantities of matter that has been dumped in the Baltic Sea Area recently and up to the coming into force of the present convention, provided that the dumped matter in question could be liable to contaminate water or organisms in the Baltic Sea Area, to be caught by fishing equipment, or otherwise to give rise to harm, and the location time and method of dumping".

As regards land-based pollution, the provisions as to the type and functions of national authorities under the 'Quito Protocol' are, in my view, more elaborate than what is provided for under the 'Paris Convention'[94].

The provision under 'Montreal Guideline' 18 referred to earlier is also a progressive one. In fact, no provision similar to this one is included under either the 'Paris Convention' or even the 'Athens Protocol' or the 'Quito Protocol'.

The provisions on national authorities and their functions under the 'Emergency Protocols' are, in my view, consistent with international law in this field as reflected , for example, in Annex VI of the 'Helsinki Convention'.[95]

9.3.2 Air and Atmospheric Environment

No provision for national authorities is made under the 'Ozone Layer Convention'. Under Article 6 para. 4(a) of this Convention, however, the Conference of the Parties shall establish the "form" and the intervals for transmitting information on the measures adopted by the Contracting Parties in implementation of the Convention and protocols.

9.3.3 Environmentally Sound Management of Hazardous Wastes

'Cairo Guideline/Principle'8 provides that "each State should designate or establish one or more competent authorities as defined in guideline I."

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[94] Under Art. 4, para. 2(b) of the 'Paris Convention', provision is only made for "appropriate authorities" in relation to one function which concerns authorization of discharges of substances in Part II of Annex A of the Convention.

[95] See e.g. Annex VI (Reg. 5 para. 4; Reg. 6; Reg. 9(1(a), (c), (d)).

Guideline I(g) defines "competent authority" as "..a governmental authority with appropriate qualifications designated or established by a State to be responsible,within such geographical area and with such jurisdiction as the State may think fit,for the planning,authorization and supervision of the management of hazardous wastes."

Guideline 26(g) also provides that in order to facilitate implementation of the notification and consent procedure in respect of transfrontier movements of hazardous waste each State should designate "an agency which shall be the focal point to which the notification and enquiries about the transfrontier movements of hazardous wastes may be addressed."

The provisions under the guidelines above conform generally to relevant provisions included under legal texts negociated in other fora such as the EEC Directives 75/442/EEC [96];78/319/EEC[97] ;84/631/EEC [98] and 'OECD Decision and Recommendation C(83)180(Final)[99].

9.3.4 Conservation

The 'ASEAN Agreement', 'C.I.T.E.S' and the 'Migratory Species Convention' all provide for the establishment of national authorities.[100]

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[96] Art.5

[97] Art.6.A difference between the 'Cairo Guidelines/Principles' and the provision of Art.6 of 'EEC Directive 78/319/EEC' with regard to the extent of competence of national authorities is caused by the difference in the definition of certain terms under the two legal instruments such as "disposal" and "management.

[98] Arts.4 and 16

[99] General principles 1 and 5.

[100] 'ASEAN Agreement' (Art.23);C.I.T.E.S.(Art.IX);the 'Migratory Species Convention'(Arts.VIII(7),IX).

Under the 'ASEAN Agreement' it is provided that "in order to facilitate communications with other Parties and the Secretariat", the Contracting Parties shall designate "an appropriate national agency or institution responsible for co-ordinating matters arising from consultations and channelling communications between Contracting parties or the with the Secretariat".

Under 'C.I.T.E.S.', each State shall designate for the purpose of the Convention one or more Management Authorities and Scientific Authorities to grant permits or certificates under conditions defined under the convention. In addition to granting permits or certificates, Management Authorities provide the Secretariat with information in their periodic reports on permits issued.[101]

Under the 'Migratory Species Convention', it is provided that each agreement, which States are urged to conclude in order to protect migratory species of wild animals which have an unfavourable conservation status, should provide for each Party to "designate its national authority concerned with the implementation of the agreement."[102]

Although other conservation conventions such as the 'African Convention' make provision for national authorities[103]; they are, in my view, less specific and less detailed than , for example, relevant provisions under, 'C.I.T.E.S.' discussed above.[104]

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[101] See C.I.T.E.S. (Arts. III, IV, V, IX)

[102] Art. V para. 4(c)

[103] Art. XV of this convention provides that "each Contracting State shall establish, if it has not already done so, a single agency empowered to deal with all matters covered by this convention, but, where this is not possible, a co-ordinating machinery shall be established for this purpose.""Matters covered by this convention" include issuance of permits (arts. VII(2); VIII(1); IX(2)(a)), as well as communication of information with the 'Organization' responsible for the Convention (art. XVI(2)(a), (b), (c)). See also, art. XXIV of the 'Amazonian Treaty'.

[104] In the words of LYSTER "C.I.T.E.S. is unique in requiring its Parties to establish specific national authorities to administer the provisions of the convention and in establishing a global network of institutions which co-operate directly with their counterparts in other States unfettered by the constraints of formal diplomatic channels". See LYSTER, 'International Wildlife..', op.cit. at 272.

In a 'soft Law' context, the 'World Charter for Nature' recommends that "...administrative structures necessary to achieve the objectives of conservation of nature shall be provided."[105]

Likewise, the World Conservation Strategy recommends that governments "...take the necessary steps-including changes in legislation-to ensure that conservation policies are implemented and that the agencies concerned have the resources and the staff to carry out promptly and fully ecosystem evaluation, environmental assessments and any other measures required for the conservation of living resources."

9.3.5. Exchange of Information on Potentially Harmful Chemicals (in particular Pesticides) in International Trade

The UNEP 'Revised Draft' includes provisions on national authorities. Thus, draft guideline 4 reads,

"4. Designated national authorities

(a) For purposes of international communication, each State should designate a national authority competent to perform the administrative functions related to the exchange of information on potentially harmful chemicals;

(b) The designated national authority should be authorized and equipped to communicate directly with designated national authorities of other States and with international organizations concerned, to exchange information and to submit reports;

.....

The provision above is a positive one , bearing in mind the absence of any international agreement in this context. It is similar to the provision included under the 'Cairo Guidelines/Principle' discussed earlier.[106]

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105 World Charter for Nature (principle 17).

[106] The 'Revised Draft' also provided for very detailled functions of designated national authorities, both in cases of imports and in cases of exports (see, UNEP doc. UNEP/WG.112/3, guidelines 5 and 6). At the second session of the 'Working Group' further amendments were proposed (see, UNEP doc. UNEP/WG.112/5 at pp. 17-22.) but at the time of writing no final agreement has been reached on these guidelines as yet.

Summing-Up

The following conclusions can be reached with regard to the role of UNEP in the development of institutional law:

As far as creation of intergovernmental institutions is concerned, UNEP'achievements have not been very important.

Under conventions related to the protection of the marine environment and conservation of its natural resources; creation in some regions of permanent supra-national bodies have been avoided and 'Regional Organizations' established in such regions as the Persian/Arabian Gulf or the Red Sea and Gulf of Aden are not permanent supra-national structures in spite of some improvement in the periodicity of their meetings or other features.

The experience under UNEP in the field of institutional law does not differ from the one outside UNEP for no permanent institutional structures with supra-national authority have, in fact, been created under other conventions concerned with the protection and preservation of the marine environment including the most progressive of them; the 'Nordic Convention'.

The provisions on institutional aspects of dispute settlements under the 'Kuwait Convention' and the 'Jeddah Convention' are, however, positive provisions which are worthy of mention as is a similar provision under the 'Offshore Mining and Drilling Conclusions'.

One major problem to be yet solved is the establishment of an institutional link between institutional arrangements set up for regional seas and institutional arrangements set up for lakes or rivers flowing into the sea.

The functions of institutional arrangements set up under UNEP regional conventions conform generally to the ones of similar institutions created under conventions negotiated outside UNEP. Some

differences could still be noted between these two sets of conventions;these are due to the specificity of the object of each convention or to the fact that conventions recently adopted under UNEP cover new fields with the result that the functions of the institutions created under them have been extended accordingly.

As for regulatory powers of the institutional structures established under UNEP regional conventions;the procedure regarding entry into force of protocols and entry into into force of amendments to technical annexes ,under some of them,is worthy of mention.

In the field of protection of air and atmospheric environment;UNEP's achievements have also not been important.

In the field of protection of air environment,the only positive achievement of UNEP has been its support of the EMEP and it is significant that this one is referred to specifically under the 'Geneva/ECE Convention'.

As for protection of the atmospheric environment;no permanent structure has been created under the 'Ozone Layer Convention';the only positive achievement relates to the fact that CCOL,a technical body created under UNEP,which was not even a permanent body,has been given a permanent function under the 'Ozone Layer Convention' with regard to scientific matters.

The functions and powers of the 'Conference of the Parties' under the 'Ozone Layer Convention',although more detailed than those listed for a similar body under the 'Geneva/ECE Convention' can only be said to be consistent with international law in the field of environmental protection

The conclusions reached with regard to institutional arrangements created under agreements related to the protection of the marine ,air and atmospheric environment also apply with,few differences,to agreements concerned with conservation.In fact,no permanent supra-national body has been created under either 'C.I.T.E.S.' or the 'Migratory Species Convention'.

Creation of two permanent bodies: a technical body and an administrative body under both conventions is ,however,a positive achievement which should be noted.

Recommendations on establishment of institutional structures have also been made under such 'soft law' instruments as the 'Shared Resources Principles' ;the 'Montreal guidelines' and the 'Cairo Guidlines/Principles'.The various institutional structures established under the agreements discussed earlier should be seen as instances where some of these recommendations were implemented.

All legal instruments in whose elaboration or support UNEP has been involved provide for a Secretariat.

The functions of the secretariat under legal instruments related to the protection of the marine environment and to conservation are particularly important and more detailed than similar functions assumed by secretariats under legal instruments negotiated outside UNEP.

Creation of regional centres to deal with marine emergencies or to strengthen the capabilities of Contracting Parties to deal with them is an important institutional achievement which should be underlined.

Co-ordination of secretariats under conservation conventions is particularly needed in order not only to save on costs but also to achieve better results in conservation.

The possible role which might be played by IRPTC in the future as secretariat under any agreement to be reached by States with regard to

exchange of information on potentially harmful chemicals should be noted, especially bearing in mind that this body has already been given a function under the PNS. This, would represent an important achievement in the strengthening of the institutional base of environmental protection, and at the same time be, after the CCOL, the second institutional achievement of UNEP in this field.

National authorities are provided for under most legal instruments, whether "hard law" or "soft law" , in whose elaboration or support UNEP has been involved.

The functions of those provided for under some legal instruments concerned with the protection of the marine environment and conservation are noteworthy for they are more explicit and more detailed than similar functions of national authorities under legal instruments negotiated outside UNEP. This is particularly the case of the relevant provisions under the 'Quito Protocol' and under 'C.I.T.E.S.'.

CONCLUSIONS

CHAPTER 10: UNEP's JURIDICAL MODEL

GENERAL CONCLUSION

CHAPTER 10: UNEP's JURIDICAL MODEL

History of international environmental Law shows that some legal instruments; because they provide for a particular type of regulatory system or other feature , can be a model for other , agreements. This is the case, for example, of the 'Oslo Convention' whose system of classification of substances into 'black' and 'grey' lists is to be found in practically all subsequent international treaties and directives on marine pollution[1]

Under this chapter, it is proposed to discuss whether legal instruments, whether 'hard' or 'soft', in whose elaboration or support UNEP has been involved have also yielded a 'model'.

In order to answer this question; two issues have been identified: The 'Action Plan' and 'Framework Convention' Concepts and the 'Marine Region' Concept.

10.1 The 'Action Plan' and 'Framework Convention' Concepts

10.1.1 The 'Action Plan' Concept

The 'Stockholm Conference' outlined a 'Master Plan' for the World's environment which linked environmental assessment, environmental management and supporting measures.[2]

This approach was later adopted by UNEP and was first applied in drawing a regional sea programme for the Mediterranean.[3]

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1 See HAYWARD,"Environmental Protection,Regional Approaches" in Mar.Pol.'y,(April 1984)pp.106-119 at 111.

2 See discussion under chapter 2.

3 Ibid.

The approach was "innovative" because it addressed pollution from all sources through "an integrated, all-inclusive scheme beginning with scientific investigations to identify target problems to the final goal of elaborating policies for sustained, environmentally sound development".[4]

The success of the 'Action Plan' model can be measured by its application in other regions of the world. In this respect, this model has been applied, after the Mediterranean, in such regions as the Persian/Arabian Gulf; West and Central Africa; the Caribbean; South-East Pacific; East Africa; South-East Asia; the Red Sea and Gulf of Aden and East Africa.[5]

The experience with regard to the Red Sea and Gulf of Aden Region is particularly instructive. An environment protection programme which has been operating in this region since 1975 but which was mainly centred on aspects of training of marine scientists and strengthening of marine science institutions, has been 'remodeled' in 1982 and was brought in line with other regional seas programmes of UNEP.[6]

The application of this approach in different regions of the world does not necessarily mean that the problems to be tackled are identical. The contents of an action plan reflect the problems and needs of the environment of the region to be protected. i.e., the Caribbean Region with its distinctive tropical eco-systems and which

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[4] See BLISS-GUEST, 'The Protocol Against Pollution from Land-Based Sources: A Turning Point in the Rising Tide of Pollution' in Stan.J.Int'l L.Vol.XVII:261-279 (1981) at 265.

[5] For a discussion of the East-African action plan and its legal component; see, FORSTER, 'The Draft Regional Seas Agreement for East Africa' in, EPL, 14 (1985) at pp.13-16. Also, OKIDI, 'Nairobi Convention-Conservation and Development Imperatives' in EPL, 15 (1985) at pp.43-51.

[6] See, 'Red Sea Programme Remodeled' in, The Siren, No.12. Spring 1981 at 2. Also, MEKOUAR, 'La Convention de Jeddah du 14 Fevrier 1982 pour la Protection de L'Environnement de la Mer Rouge et du Golfe d'Aden: L'Innovation dans la Tradition' in R.J.E.2:89(1983) at 92

is constituted mainly by island nations has different problems and priorities from a semi-enclosed sea like the Mediterranean, likewise, the South Pacific region with environmental problems of small islands with limited human and other resources is fundamentally very different from the regions referred to above or from other regions like the Gulf region or central and West Africa.[7]

The difference in the contents of the action plans can be the result of, not only, the difference in characteristics or priorities of different regions, but also the maturity of the experience gained in developing these action plans: The importance given to inland as well as coastal and marine environment in action plans in such regions as the Red Sea and Gulf of Aden region, the Caribbean region; West and Central Africa etc..., is only one example of this.[8].

In spite of what has been said above, one should recognize that UNEP has had difficulties in adapting its 'Action Plan' model in some regions. The reasons for this include a lack in some regions of a marine science research tradition which would facilitate implementation of the assessment component of the Action Plan.[9] In

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[7] See, BLISS-GUEST and KECKES, 'The Regional Seas Programme of UNEP' in Environmental Conservation, Vol. 9, No. 1, Spring 1982, pp. 43-49 at 44.

[8] See, de KLEMM, 'Living Resources of the Ocean' in 'The Environmental Law of the Sea' (D. M. JOHNSTON ed.) at 156-157.

[9] See BUNDSCHUH, 'Transfrontier Pollution-Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region' in Ga. J. Int'l & Comp. L., Winter 1984 pp. 201-215.

addition, one should mention the limited success in the development of the legal component, as initially conceived - (in the form of a 'Framework' Convention and additional protocols) in some regions. An example of this latter aspect, is the issuance under the South-Pacific Action Plan of only a 'Declaration on the natural resources and the environment'.[10]

It should be noted that the 'Action Plan' Model, with the Comprehensive approach to environmental protection it underlies, has been strongly advocated by UNEP to countries concerned when negotiating legal instruments in the environmental field. Speaking at the 'Montevideo Meeting'; the Deputy Executive Director of UNEP emphasized that,

"Any legal action; if it is to be effective, must be supported by complementary programmes in such areas as scientific research, monitoring, evaluation and exchange of information, as well as policy development, economic analysis of alternatives, planning, standard-setting, education training, institutional machinery, financing and public information."

In his opinion "this 'comprehensive' approach called for by the Stockholm Action Plan, and applied by UNEP and its partners in the United Nations System ever since, continues to feature in the system-wide-medium-term Environment Programme, and should therefore underlie any Considerations of programme development."[11]

The need to adopt a 'comprehensive' approach for the prevention and preservation of the marine environment has also been stressed by the 'Montreal Guidelines'.[12] Under Guideline 10 States are urged to "undertake to develop ... a comprehensive environmental management approach to the prevention, reduction and control of pollution from Land-based sources ..."

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[10] See, The Siren, No. 16, Spring 1982 at 2. It should be noted, however, that intensive efforts are made by the States of the region to have a convention for the protection and development of the natural resources and environment of the South Pacific Region with additional protocols on co-operation in emergencies and on dumping. (See for this, The Siren, No. 26, December 1984 at 1 and 39.

[11] See, UNEP doc. UNEP/GC.10/5/Add.2, Annex at p.19.

[12] See UNEP, Protection of the Marine Environment against Pollution from Land-Based Sources, Montreal Guidelines in EPL, 14/2/3 (1985) at pp.77-83.

10.1.2 The Framework Agreement Concept

The concept of a 'Framework Agreement' in the area of protection of the marine environment has first been applied under the legal component of the Mediterranean Action Plan in 1976.

This concept has its origin in the formal consultations held in February and May 1974 at FAO headquarters in Rome where protection of the Mediterranean Sea from pollution was debated. In fact, before UNEP took over responsibility for the protection of the Mediterranean environment, the consultation decided to call for the adoption of a comprehensive framework Convention supplemented by protocols on such matters as dumping; pollution from emergencies, pollution from ships etc ... , .[13]

This approach (the 'framework agreement' approach), despite a recognized influence from the 'Helsinki Convention',[14] is quite different from earlier ones. Other regions applied either a 'piecemeal' approach by dealing with each aspect of environmental problem at a time : this is the case of the North-East Atlantic region where an agreement for co-operation in cases of emergency was first adopted followed by a convention on pollution from dumping and a convention on pollution from Land-based sources and finally by a convention on civil liability for pollution damage arising from

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[13] See de YTURRIAGA,"Regional Conventions On The Protection Of The Marine Environment" in 162 Receuil Des Cours de L'Academie De Droit International pp.319-449 (1979) at 338-339.Also ALHERITIERE,"Marine Pollution Regulation..." op.cit.at 165.

[14] See ALHERITIERE "Marine Pollution Regulation.." op.cit. at 167.

exploration and exploitation of the sea-bed under national jurisdiction; or an integrated approach, as in the case of 'Helsinki Convention which dealt with almost all sources of pollution but not in detail.

As in the case of the 'Action Plan' model; the success of the 'Framework Agreement' model is assessed by its application in other areas.

Before embarking on this, one should briefly underline the advantages of the 'framework Convention' approach. These are best described by P. Bliss-Guest; in her opinion:

"An umbrella Convention and "optional" protocols makes the system less onerous than one in which all obligations are contained in a single agreement, with a take-it-or-leave-it implication." In this way, according to her, "States may accept the general legal obligation to co-operate to protect their shared Sea and may assume progressively more specific duties as their national economic, social, and political climates mature."[15] Other advantages of this formula are cited by this author; in her view, "The negotiation of separate protocols contributes to the delicate task of building a consensus. A history of co-operation and perhaps, favourable technology transfer, creates a pattern and expectation of future success. Parties self-assurance increases with the conclusion of each successive agreement". Finally, "in contrast to rigidity of traditional treaties, the flexible structure allows revocation of only part of the co-operative effort, should circumstances dictate, while other parts remain in force."[16]

There is no doubt that this model has been successfully applied in other regions which are covered by UNEP's Regional Seas Programme. Thus 'Framework' Conventions with additional Protocols

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[15] See BLISS-GUEST "The Protocol Against Pollution From Land-Based Sources..."op.cit.at 267.

[16] Ibid. at 279.

have been adopted ,apart from the Mediterranean Region,in such areas as the Persian/Arabian Gulf;West and Central Africa;the Red Sea and Gulf of Aden;the Caribbean and the South-East Pacific.A convention for the East African Region also follows the same approach.[17]

The 'Framework Convention' model has also been applied outside UNEP's Regional Seas Programme. Thus; in the field of conservation; one should mention the 'Migratory Species Convention'. The 'framework' aspect of this convention is apparent in the text of Articles IV and V. Under Article IV it is provided that Appendix II shall list migratory species which have an unfavourable conservation status and "which require international agreements for their conservation and management", as well as those which have a conservation status which would significantly benefit from the international cooperation that could be achieved by an "*international agreement*" (emphasis added). Article V, moreover, provides for guidelines for the aforementioned agreements.

It should be noted, however, that with regard to the 'Migratory Species Convention', the concept of a 'framework convention' has already been envisaged under 'Stockholm Action Plan''s Recommendation 32.[18] This fact should not, in my view affect the rate of success of this model for, the 'Stockholm Action Plan'' recommendations form part of UNEP's Framework of activities.

The concept of 'Framework' agreement has been applied with more or less success, under other legal texts concerned with the protection of the environment and conservation of its natural resources but with a slightly different meaning. Here the framework

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[17] See, note 5 supra.Also BOCZEK,'Global and Regional Approaches to the Protection and Preservation of the Marine Environment',in Case W.Res.J.Int'l L.Vol.16,No.1 :39-70 (1984)at 62.

[18] Recommendation 32 of the 'Stockholm Action plan'. Also, NAVID "Draft International Convention On The Conservation Of Migratory Species Of Wild Fauna " in EPL,2 (1976) 116 at 117.

agreement means rather "ground rules"[19]. The legal texts referred to are mainly the different 'principles' and 'guidelines' produced under UNEP's environmental law programme.[20] Thus, under draft principle 2 of the 'Shared Resources Principles' it is provided that, in order to ensure effective international co-operation in the field of the environment concerning the conservation and harmonious utilization of natural resources shared by two or more states, states sharing such natural resources should endeavour to conclude bilateral or multilateral agreements between or among themselves in order to secure specific regulation of their conduct in this respect, *"applying as necessary the present principles in a legally binding manner"* (emphasis added), or should endeavour to enter into other arrangements as appropriate for this purpose.

Under the 'offshore mining and drilling' legal exercise; the 'framework' aspect of the text produced is clear from the fact that the working group which has produced it has considered it as containing "guidelines" and that the Governing Council of UNEP has, by decision 9/10 C of 26 May 1981 recommended that "...States consider the guidelines when formulating national legislation or undertaking the negotiations for the conclusion of international agreements for the prevention of pollution of the marine environment caused by off-shore mining and drilling within the limits of national jurisdiction."[21]

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[19] See for this, BILDER, 'The Consequences of Regionalization in the Treaty and Customary Law of the Sea' in 'Regionalization of the Law of the Sea', proceedings Law of the Sea Institute, eleventh annual conference, November 14-17, 1977, University of Hawaii, Honolulu, Hawaii (1978) (D.M. JOHNSTON ed.) at 39.

[20] Included under such legal texts as the 'Shared Resources Principles'; the 'Weather Modification Provisions'; the 'Off-Shore Mining and Drilling Conclusions'; the 'Montreal Guidelines' and the 'Cairo Guidelines/Principles'.

[21] See, UNEP, Report of the Governing Council on the Work of its Ninth Session, 13-26 May 1981 GAOR: Thirty-Sixth Session, Supplement No. 25 (A/36/25) at Annex I, p. 114.

Likewise, the 'Framework' aspect of the 'Montreal Guidelines' is contained in the introduction to the text containing these guidelines. Under it, it is provided that the 'Montreal guidelines' are addressed to Governments "with a view to assisting them in the process of developing appropriate bilateral, regional and multilateral agreements and national legislation for the protection of the marine environment against pollution from Land-based sources" and that they are suggested as "a broad framework for the development of similar agreements in those regions where such agreements are called for; for the guidance of Governments in areas which may not presently be covered by any regional agreements; and for the preparation in the longer term, should the need arise, of a global convention on pollution from Land-based sources .... ".[22]

The 'framework' nature of the legal texts discussed above can, in my view, be affected by the type of the wording included under their relevant provisions; by their legal nature and by the type of reception given to them by the Governing Council of UNEP and by States generally.

with regard to the type of the wording used; under the 'Shared Resources Principle' referred to above ,for example, the obligation of states to apply the principles when concluding bilateral or multilateral agreements is only to "endeavour" and "as necessary" [23]likewise, the 'Montreal Guidelines' are referred to as "a broad Framework".[24]

As concerns the legal nature of these texts; it is in my view, clear that reference to legal texts as "guidelines" or 'Conclusions' affect their 'Framework' nature; i.e. their capacity of being applied by states in any future agreements which they may decide to negotiate between or among them. Under the 'Montreal Guidelines', for example, the use of the guidelines to prepare a 'global Convention' is

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22 See, EPL, Vol. 14, Nos. 2-3 (1985) at 77.

23 See Principle 2.

24 See note 22 supra.

considered to be a long-term goal.[25]

Furthermore, as said above, the type of reception given to the legal texts produced also affects the 'framework' nature of these texts. Whether with regard to the "Shared Resources Principles'; the "Off-Shore Mining and Drilling Conclusions" or the 'Montreal Guidelines' ; reception of these legal texts by States has not been very encouraging[26]

Finally, it should be noted that some legal texts produced by UNEP; due to matters related to the timing of their discussion and elaboration or other elements, fail to have this 'framework' aspect/ nature. The example is given, in this respect by the legal text on weather modification produced under UNEP whose contents are referred to as 'provisions' presumably a word to be included in the lowest level of the hierarchy of UNEP's terminology used so far[26a].

The 'Framework Convention' approach of UNEP means also a special relationship between the conventions and the additional protocols. Expression of this special relationship can best be found in Article 23 (1) of the Barcelona Convention according to which "No one may become a Contracting Party to th[e] Convention unless it becomes at the same time a Contracting Party to at least one of the protocols." and "No one may become a Contracting Party to a Protocol unless it is, or becomes at the same time, a Contracting Party to th[e] Convention."

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[25] Ibid.

[26] Note e.g.that With regard to the 'Shared Resources Principles',the U.N.General Assembly only noted them(See,A/RES/33/87,19 January 1979,adopted 17 December 1978.).Likewise,the UNEP Governing Council took note of the 'Offshore Mining and Drilling Conclusions'(see,Decision 9/10 C) and took note of the adoption of the 'Ozone layer Convention'(see EPL,14/4/1985 at 109) .

[26a] Note in this respect that at the thirteen session of UNEP Governing Council one representative requested that "the Executive Director study carefully the problem of clarifying the legal status of the guidelines and principles developed under the auspices of UNEP.(See,EPL,14/4(1985) at 103.

Success of this approach can also be assessed by looking at whether this special relationship has been maintained under other agreements which have adopted the 'framework' 'Convention' approach.

Before embarking on this, one should explain the reasons behind this approach. These are best expressed by A. SCIOLLA-LAGRANGE: In his opinion the rule that no state may become a contracting party to a protocol unless it is, or becomes at the same time, a contracting party to the convention "has a legal ground, as a party's participation in a protocol could not become effective without that party also taking part in the institutional structure established by the convention." As regards the rule that no state may become a contracting party to the convention unless it becomes at the same time a contracting Party to at least one of the protocols, this according to this author "has only practical and political significance"; in his opinion, "It would have little meaning if a contracting party merely accepted the convention without taking part in any of the other instruments which lay down precise and detailed obligations for the actual measures to be taken against pollution."[27]

Going back to the question as to whether the relationship between the Convention and the protocols as expressed by Article 23 (1) of the Barcelona Convention has been maintained under other agreements; one can observe that under the 'Framework' Conventions adopted under UNEP's Regional Seas Programme this question has been treated differently.

There are regional conventions which are faithful to the 'Barcelona' Model: This is particularly the case of the 'Abidjan' and 'Cartagena' Conventions. The relevant provisions[28] under them are fairly identical to the one under the 'Barcelona' Convention.

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[27] See, SCIOLLA-LAGRANGE, 'The Barcelona Convention and its Protocols' in Ambio, Vol.6, No.6, pp.328-332 at 330.

[28] See 'Abidjan Convention', Art.25(1); 'Cartagena Convention', Art.24(1).

There are conventions which although not departing from the 'Barcelona' model state this relationship between the 'framework' Convention and the protocols in a more 'timid' way: this is the case of the 'Kuwait Convention' and 'Jeddah Convention'.[29]

The 'Kuwait Convention''s provision which is similar to the one under the 'Jeddah Convention' states this relationship in the following terms: "Any state which has ratified, accepted, approved or acceded to the present convention shall be considered as having ratified, accepted or acceded to the Protocol Concerning Regional Cooperation in combating pollution by oil and other Harmful Substances in cases of Emergency."

Finally under some other regional conventions; there is a complete departure from the 'Barcelona' model; this is particularly the case of the 'Lima' Convention. No provision stating the relationship between the 'framework' convention and the protocols is included under it, and each protocol has independent provisions regarding its signature; ratification; approval or accession.

The 'Barcelona' Model has also had some success outside the 'Regional Seas Programme' Under Article 16 (1) of the Ozone layer Convention, for example, it is stated that "A State or a Regional economic integration organization may not become a Party to a protocol unless it is, or becomes at the same time, a Party to the Convention." This, as can be seen, follows the 'Barcelona' model but only partially. Under this Article no statement of the second rule of the 'Barcelona' model as contained under article 23 of the 'Barcelona

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[29] 'Kuwait Convention' (Arts.XXVII (c);XXIX (d),(e));'Jeddah Convention' (Art.XXVI (1)).

Convention' is provided for i.e. the rule that no one may become a contracting party to the Convention unless it becomes at the same time a Party to the Protocol. The absence of this second rule from the provision of Article 16 of the ozone layer convention finds its explanation in the fact that during discussion of the draft ozone layer Convention, at the January 1984 meeting, there was some doubt among experts whether the Parties to the Convention would be required to become parties to the Protocol on CFCs.[30] This issue was solved at the twelfth UNEP's Governing Meeting where it was decided that the protocol shall be separate and the countries can become parties to the Convention alone.[31]

Similarly to the 'Ozone Layer Convention', under Art.5 para.4 of the Protocol[32] to the 'Ramsar Convention' it is provided that a state not Party to the Convention which becomes a party to the Protocol is considered a party to the Convention, as amended as of the entry into force of the Protocol by that state.

The 'Framework Convention' concept as contained in the 'Barcelona' Convention denotes also a system whereby certain of the provisions on the main 'framework convention' apply (or shall apply) to the protocols unless there is some provision in the protocols superseding that thought.[33]

Although this system has been applied successfully in most of UNEP - sponsored Regional conventions; it has, sometimes, created problems.[34]

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30 Interview with Mr. D.L. Perridge (Dept. of the Environment, U.K.).

31 See EPL, 13 (1984) at 16 .

32 See EPL, 10 (1983) at 46 and 70.

33 This is implied in Art.23(3) of the 'Barcelona Convention'.

34 One has specifically in mind the problem raised with regard to the geographical coverage of the 'Protected Areas Protocol' under the Mediterranean Action Plan. (See UNEP doc. UNEP IG.23/10). Also, 'Aires Protégées-Projet de Protocol' in EPL, 6 (1980) at 174.

This system was challenged even more during discussions of the CFCs Protocol. In fact, delegates discovered during the elaboration of the CFCs Protocol that the system referred to above can lead to difficulties i.e, if a protocol was to be handled in a way which had not been forseen when the convention was written. Consequently, experts (especially the U.K. expert) thought that the protocol should have all necessary articles written into it without reference back to the main convention.[35] All this would, in my opinion, leave us with a notion of "Framework Convention" which would be no more than a name to say that one has a convention which will need additional measures which one will relate to in Protocols but which have to be free - standing legal instruments which do not need to be read in conjunction with the Convention.

10.2. The 'Marine Region' Concept

Under this section it is proposed to show whether a clearer concept of 'marine region' for protection of the marine environment has resulted from the choice of marine areas covered by UNEP's - Regional Seas Programme.

Looking at the eleven regional seas Programmes of UNEP one cannot help note the diversity of the types of areas selected. In fact, the Regional Seas Programme of UNEP cover many kinds of sea area: It covers clearly defined 'physical regions' such as semi-enclosed seas which include the Mediterranean Sea, the Persian/Arabian Gulf and the Red Sea. It also covers 'extended portions of the Coasts of Continents bordering oceans' such as West and Central Africa: South Asian Seas, South-east Pacific, South-west Atlantic; 'islands in the midst of an ocean' such as the South Pacific and 'areas which contain a combination of these features' such as the Caribbean, East Asian Seas and East Africa.[36]

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[35] Interview with Mr. D.C. Perridge (Dept of the Environment, U.K.).

[36] See, PATHMARAJAH& MEITH, 'A Regional Approach to Marine Environmental Problems in East Africa and the Indian Ocean' in Ocean YB.5: 162-191 (1985) (Mann Borgese&Norton Ginsburg eds.) at 162.

This diversity in the kinds of sea areas selected under the regional seas programme does not seem to allow for the drawing of a clearer notion of a 'marine region' for purposes of environmental protection. The only clear conclusion to be drawn from this is the supremacy of the 'political' criterion over the purely geographical one in the selection of the areas to be protected.

This conclusion seems to constitute the view of authors and specialists in this field: For Alheritiere "the strong will to co-operate on common problems is after all what has made the regional approach successful"[37] Likewise for Lewis Alexander "A region is an intellectual concept, created by the selection of certain features that are relevant to a real interest or problem. It is a geographic generalization whose distinguishing criteria are chosen by the countries of the region in order to serve a stated objective ...."[38]

10.3. Other Manifestations of UNEP's Juridical Model

In addition to the 'Action Plan' Model and 'Framework Convention' Model discussed above: one finds other 'manifestations' of the impact of UNEP's action on other activities undertaken in other fora. The 'Shared Natural Resource' concept for example, was fabourably reviewed by the I.L.C. in its draft Articles on the Law of the non-navigational uses of international watercourses and on in its second report on international liability for injurious consequences arising out of acts not prohibited by international law.[39]

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[37] See, ALHERITIERE, 'Marine Pollution control..' op.cit. at 172.

[38] See, LEWIS ALEXANDER, 'Regionalism at Sea: Concept and Reality' in 'Regionalization of the Law of the Sea..' op.cit. at 5. Also, BOCZEK, 'Global and Regional Approaches...' op.cit. at 53.

[39] See [1980] 2 Y.B Int'l L.Comm'n, pt.2, at 120, U.N.Doc.A/CN.4/SER.A/1980 Add.1 (Part 2); also, Yearbook of the International Law Commission, 1981, Vol.II, Part I, p.113.

The I.L.A. has also made use of this concept in its Draft Delaration on the Rules of international law applicable to transfrontier pollution.[40]

Draft Article 5 provides:

"If the utilization of a shared natural resource in the territory of a state causes transfrontier pollution and conflicts with the competing utilization of this resource in the territory of another state, each state sharing the natural resource is entitled within its territory to a reasonable and equitable share of the utilization."

In the report of the I.L.A. Committee on legal Aspects of the Conservation of the Environment (Montreal 1982) it was further stated that "even without a precise definition or limitation, thiel (Shared Resource) concept is useful and should be applied ..."[41]

Likewise, one should also note the 'model' value of the 'Athens Protocol' for future agreements among states of different levels of development. This point is well put by K. Goering who believes that "... by overcoming the political and economic differences of the parties, the drafters (of the 'Athens Protocol') have successfully dealt with the same problems that arise at the global level." he believes, therefore, that "focussing on the negotiating process ..... the protocol stands as a model for international environmental co-operation,".[42]

The provisions of the 'Athens Protocol' which are most interesting in this regard, are the ones related to the control system and the ones related to assistance to developing countries.[43]

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40 See EPL,10(1983) at 2 and 27.

41 See,I.L.A.(Montreal 1982),'Legal aspects of the Conservation of the Environment',Report of the Committee at 69.

42 See GOERING, "Mediterranean Protocol On Land-Based Sources:Regional Response To A Pressing Transnational Problem" in Cornell Int'l L.Jnl.Vol.13(1980) pp.329-349 at 343.Also REMOND-GOUILLOUD "Land-Based Pollution" in "The Environmental Law of The Sea" (D.M.JOHNSTON)at 241.

43 Contained under Arts,5-7 and Art.10 respectively.

Summing-UP

With regard to the question as to whether there exists a juridical model of UNEP;one can reach the following conclusions:

Legal instruments in whose elaboration or support UNEP was involved have produced mixed results .

On the positive side,The 'Regional Seas Programme' has yielded a model which is reflected in two major concepts:The 'Action Plan' concept and the 'Framework Convention' concept.These two concepts although successfully applied within and outside UNEP have their limitations and have,on occasions, been challenged.

Moreover,the model value of the 'Athens Protocol' in any future agreement between countries of a different level of development should be noted as should be noted the positive reception the concept of "Shared Natural Resources" has had from international bodies concerned with the development of international environmental law.

On the negative side,one should note that no clearer notion of a "marine region" for purposes of environmental protection has resulted from the 'Regional Seas Programme' except the prominence of the "political" criterion over the purely "geographical" one.

GENERAL CONCLUSION

Since its creation UNEP has, along with such organizations or bodies as IMO, OECD, EEC , the U.N./I.L.C , the I.L.A. and CEDE, and in parallel with other important events with a similar purpose, such as the Third United Nations Law of the Sea Conference, been involved in the development of international environmental law.

Recognition of a mandate for UNEP in this field has never been unanimous however, although decisions taken by its Governing Council, including the one which adopted the 'Montevideo Programme', or occasionally, resolutions of the U.N. General Assembly, have firmly defined a role for UNEP in this field.

UNEP's 'catalytic' role has on the whole been positive. Some shortcomings in this field could be recorded however. Examples of these, at the regional level, include failure to develop legal instruments in such fields as liability and compensation and pollution from offshore exploration and exploitation in the Mediterranean Region. Inappropriate membership of working groups as well as bad timing of their meetings being the main reason for failure. At the global level, the main shortcomings in the 'catalytic' role of UNEP relate to the excessive speed with which the 'Montevideo Programme' is being implemented and the poor participation of experts from developing countries in the meetings of the various working groups set up in order to implement it.

As regards UNEP's achievements in the development of international environmental law, the following conclusions can be reached starting with the general ones.

UNEP's wish to develop the law in this field, as reflected by the often progressive and elaborate consultant papers prepared as discussion papers for the various 'working groups' set up by UNEP was often frustrated by a 'conservative' attitude among the majority of experts who often preferred that only general provisions be drafted in this respect.

The experience of UNEP in this field has shown that for certain environmental problems the site-specific approach(i.e the regional approach) was more appropriate than the global one.This not only vindicates the views of certain States who raised serious doubts as regards the global approach whether at preparatory meetings to the 'Montevideo Meeting',the 'Montevideo Meeting' itself,or at UNEP Governing Council sessions;but can also be seen as a confirmation of the rightness of the approach taken by other organizations competent in the field of international environmental law;such as IMO.

Lack of participation of experts from developing countries in the various UNEP's 'working groups' is a serious liability of UNEP's work in this field.States'representatives at UNEP Governing Council's meetings often pointed out that a situation in which legal instruments were formulated with minimal participation by developing countries was undesirable.

UNEP's achievements in the development of international environmental law have been realized both in a 'hard law' and in a 'soft law' context.As regards achievements made in the latter context,it is common understanding that the legal texts or the individual provisions concerned;except for those which can be said to be already part of customary law either before or after their release;do not constitute law *per se*;to be so they need to be incorporated in binding agreements.

However,although it is difficult to question the premise upon which this principle is based;it might be of interest to note that UNEP's experience in this field has shown that although distinction between 'hard law' and 'soft law' is imperative,this distinction tends to be eroded by other elements of no less importance.One such element is the utility of legal agreements produced.In this respect,experience with the 'Stockholm Declaration' and the 'Shared Resources Principles' is a telling one.

Moreover, it has been found that the distinction between 'hard law' instruments and 'soft law' instruments may well be further eroded by the agreement between States to apply provisional schemes such as the UNEP Provisional Notification Scheme on Chemicals(PNS).

However, most 'soft law' instruments produced by UNEP have had less than a positive reception by States as could be deduced from the type of reception they received from the UNEP Governing Council and the U.N.General Assembly.

Where UNEP has not succeeded in producing legal instruments whether 'hard law' or 'soft law', it has undertaken, or participated in, important actions, in the form of international conferences or other actions which produced action plans or guidelines .These relate to such fields as protection and conservation of water resources, conservation of marine mammals, the fight against desertification , prevention of soils degradation and conservation of forests.

UNEP's achievements in the development of international environmental have been realized in three fields: substantive law, procedural law and institutional law.

UNEP's achievements in the development of substantive law have been important in the fields of pollution , conservation, chemical management, liability and compensation and, to some extent, settlement of disputes.

In the first field UNEP's performance has been more substantial in the fields of marine pollution than in the fields of water, air or atmospheric pollution. This is reflected in the development by UNEP, in a 'hard law' context, of a Regional Seas Programme with "framework" conventions and "emergency protocols" and in the adoption of one protocol on pollution by dumping; two protocols on land-based pollution; and the release, in a 'soft law' context, of the 'Off-Shore Mining and Drilling Conclusions' and the 'Montreal Guidelines'.

The above referred to legal instruments are all significant as far as development of international environmental law is concerned: Most regional "framework" conventions with provisions on pollution from ships have entered into force well before the 'Marpol Convention' or the LOSC, and the areas selected under the Regional Seas Programme can also be seen as a development of the notion of "special areas" provided for under the 'Marpol Convention'.

In the area of land-based pollution, the 'Athens Protocol' is the legal instrument that contains the most progressive provisions; these relate principally to a very comprehensive definition of land-based sources; an environmentally-positive approach to the "double-standard" question and an innovative provision on assistance to developing countries. Some provisions included under the 'Montreal Guidelines' should also be noted such as the ones which call for the establishment of "specially protected areas" with emphasis put on the creation of "sanctuaries and reserves".

The 'Off-Shore Mining and Drilling Conclusions' are also progressive especially those on the prior authorization system, environmental impact assessment and liability and compensation.

In the field of atmospheric pollution, UNEP's achievements consist mainly in the release of the 'Weather Modification Provisions' and the adoption and signing of the 'Ozone Layer Convention'.

In the field of conservation; the 'ASEAN Agreement'; two "protected areas protocols" , the 'Migratory Species Convention' and the 'Shared Resources Principles' have all been adopted under the framework of UNEP and this body has played a substantial role in the elaboration and support of 'C.I.T.E.S.' the World Conservation Strategy and the 'World Charter for Nature'.

All the above referred to legal texts are progressive because they either complement and refine the 'Stockholm Declaration' principles (i.e. The 'Shared Resources Principles'; the World Charter for

Nature)or are comprehensive and include innovative concepts(i.e.The 'Migratory Species Convention';the 'Mediterranean Protected Areas Protocol';the 'Nairobi Protected Areas Protocol').

Some achievements have also been made in the area of chemicals management law .The most obvious example being the release of the 'Cairo Guidelines/Principles' on the environmentally sound management of hazardous wastes.No legal text has been released as yet on the topic of exchange of information on potentially harmful chemicals in international trade.

The 'Cairo Guidelines/Principles' include progressive provisions most noteworthy of which are the one which requires the explicit consent of the State of import as a condition for the initiation of a transfrontier movement of hazardous wastes and the one which provides for the exercise by the State of its sovereign right to refuse to accept within its territory hazardous wastes originating elsewhere.

Finally some achievements have also been made in the area of liability and compensation and settlement of disputes law.

UNEP's role in the development of the law of liability and compensation have produced mixed results.

As under other fora,the issue of "State liability" has been avoided.Under UNEP this issue has not been properly dealt with not only because of the complexity inherent to this topic but also for financial reasons;legal exercises on this topic being looked at as merely "academic exercises" which did not justify that money continue to be spent on them.This being said,the provisions on "prior authorization" included under the various legal texts produced under UNEP will ,no doubt,if and when adopted by States in any future agreements they may conclude among themselves,have an important potential on States' responsibility and on its nature.

By choosing the "low-level solutions" when dealing with liability and compensation, UNEP has achieved some success; the most obvious example being agreement under the "off-shore mining and drilling" legal exercise on eight guidelines on this issue which is remarkable in itself bearing in mind that these guidelines have been produced by experts emanating from countries with, in some cases, incompatible judicial systems. Less success has been achieved by UNEP in this field under other legal exercises due , in some cases (i.e. environmentally sound management of hazardous wastes; land-based pollution. etc.,.), to the conservative attitude of experts and in others (i.e. weather modification; ozone layer), to the nature of the problem dealt with.

No important achievements can be recorded in the area of settlement of disputes law due partly to the "framework" nature of most of the legal texts produced under UNEP. The only positive aspects to be noted include the provision under some legal instruments relating to the protection of the marine environment for judicial bodies or the recommendation made under them that they should be established, and the special emphasis they put on arbitration, and a provision on settlement of disputes under the 'Ozone Layer Convention' which is more detailed than the one under the 'Geneva/ECE Convention'.

UNEP's achievements in the development of procedural law have also been important.

One important achievement in this field relates to the fact that by succeeding in producing legal texts, englobing procedural duties on impact assessment, prior notification and information, consultation and equal access and treatment; texts in whose elaboration experts from developing countries have participated, UNEP has made a first step in "widening" the acceptance of these norms thus contributing to their transformation from "regional" (mainly European) norms to general norms of international law.

Another achievement relates to the contribution made by UNEP in extending the application of the above referred to procedural duties to

types of environmental problems where regulation(thus provision for such duties) is still at an under-developed stage,although one should say that for such duties as prior notification and information or consultation one sees no reason not to consider State practice in fields where these duties are well accepted as a proof of the existence of a general principle.

Finally,UNEP's contribution to the development of procedural law in some fields lies not so much in the provision for the duties referred to above,but in their refinement (i.e.definition of their contents, conditions of their exercise such as "reciprocity" etc.).

UNEP has also had some success in the development of institutional law.

With regard to intergovernmental institutions,the main achievements have been made in the field of atmospheric pollution where CCOL a technical body, which was not even a permanent body, has been given a permanent function under the 'Ozone Layer Convention',and in the area of conservation where permanent bodies (technical and administrative) have been created. Regulatory functions of intergovernmental institutions under some regional conventions dealing with protection of the marine environment have also been strengthened.

Provision for a Secretariat under legal texts adopted under UNEP is also a positive achievement as is the creation of Regional Centres to deal with pollution emergencies.Assumption by IRPTC of secretariat functions in any future Agreement on the topic of exchange of information in potentially harmful chemicals may well constitute another achievement of UNEP in the institutional field.

Important and detailed functions have been given to Secretariats under legal instruments related to the protection of the marine environment or to conservation.

Provision for national authorities or national focal points under legal instruments, especially those dealing with protection of the marine environment or conservation, in whose elaboration or support UNEP has been involved is also an important achievement especially when considering the detailed functions they have been granted.

Finally, although not a total success, the 'model' value of the 'Action Plan' and 'Framework Convention' concepts as well as that of the 'Athens Protocol' and the 'Shared Natural Resources' concepts should also be counted as among UNEP's achievements in the field of international environmental law.

ABBREVIATIONS OF PERIODICALS

A.F.D.I.	Annuaire Fran¢ais de Droit International
A.J.I.L.	American Journal of International Law
AMBIO	AMBIO, A Journal of the Human Environment (Sweden)
Anglo-Am.L.Rev.	Anglo-American Law Review
A.S.I.L.Proc.	American Society of International Law Proceedings
Austl.Y.B.Int'l L.	Australian Yearbook of International Law
Can.Y.B.Int'l L.	The Canadian Yearbook of International Law
Case West.Res.J. Int'l L.	Case Western Reserve Journal of International Law
Col.J.Transn'l L.	Columbia Journal of Transnational Law
Cornell Int'l L.J.	Cornell International Law Journal
Den.J.Int'l L&Pol'y	Denver Journal of International Law and Policy
Earth L.J.	Earth Law Journal
Ecol. L.Q.	Ecology Law Quarterly
EPL	Environmental Policy and law
Env.Cons.	Environmental Conservation
Ga.J.Int'l&Comp.L.	Georgia Journal of international and Comparative Law
Harv.Int'l L.J.	Harvard International Law Journal
I.C.L.Q.	The International and Comparative law Quarterly
J.D.I.	Journal de Droit international
J.Int'l Aff.	Journal of International Affairs
J.M.L&C.	Journal of Maritime Law and Commerce
J.Weather Modif.	Journal of Weather modification
J.W.T.L	Journal of World Trade law
Mar.Pol'y	Marine Policy
Nat.Res.J.	Natural Resources Journal
Neth.Y.B.Int'l L.	Netherlands Yearbook of International Law

Ocean Dev.&Int'l L.	Ocean Development and International Law
Ocean Man.	Ocean Management
Oean Y.B.	Ocean Yearbook
R.J.E.	Revue Juridique de l'Environnment
Stan.J.Int'l L.	Stanford Journal of International Law
Stan.Jnl.Int'l Stud.	Stanford Journal of International Studies
Tex.Int'l L.J.	Texas International Law Journal
U.N.B.L.J.	University of New Brunswick Law Journal
Va.J.Int'l L.	Virginia Journal of International Law
Y.B.World Aff.	Yearbook of World Affairs

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APPENDIX I

The 'Montevideo Programme'*

* Programme for the Development and Periodic Review of Environmental Law("Methods of implementation ,review and follow-up" and "general development of environmental law" included under the 'Montevideo Programme' are not reproduced here).(UNEP doc.UNEP/GC.10/5/Add.2).

O = Objective ES = Elements of Strategy
S = Strategy Ob = Observations

Marine pollution from land-based sources	O	To prevent, reduce and control pollution of the marine environment from land-based sources, including the effects of such pollution on coastal areas, and to minimize the adverse effects that have already occurred.
	S	Implementation and further development of specific regional, subregional or, as appropriate, bilateral agreements, as well as national legislation to give effect to such agreements, bearing in mind, inter alia, the results of the Third United Nations Conference on the Law of the Sea; taking account of these developments, preparation of guidelines or principles which could lead to a global convention, with a view in particular to co-ordinating the work undertaken within the framework of existing regional agreements.
	ES (i)	Utilization of elements of part XII (Protection and preservation of the marine environment) of the draft convention on the Law of the Sea.
	(ii)	Further development, conclusion, entry into force and implementation of regional, subregional or, as appropriate, bilateral agreements in co-operation with regional organizations and the governments concerned.
	(iii)	In concert with the strengthening of actions at the regional, sub-regional and bilateral levels, preparation, in particular within the framework of UNEP, of guidelines or principles at the global level based on common elements drawn from regional agreements and drawing upon experience already gained through their preparation and implementation.
	(iv)	In the longer term, preparation, if appropriate, of a global convention, based on further experience gained in the development and implementation of regional, subregional and

			bilateral agreements and taking into account guidelines or principles at the global level developed within the framework of UNEP.
		(v)	Elaboration, adaptation, development and enforcement of national laws and regulations, taking into account international rules and standards and establishment or strengthening of national institutions for this purpose.
		(vi)	Establishment, designation or strengthening of appropriate international machinery to ensure the harmonization and implementation of global and reginal rules, standards, recommended practices and procedures and to review the effectiveness of measures taken.
		(vii)	Multilateral or bilateral assistance to regional organizations and national governments in the development and application of such laws and regulations and the establishment of institutions, including training and research facilities, and exchange of information.
		(viii)	Development or strengthenling of environmental assessment mechanisms.
	Ob		UNEP released the 'Montreal Guidelines'
Protection of the stratospheric ozone layer	O		To limit, reduce and prevent activities which have or are likely to have adverse effects upon the stratospheric ozone layer.
	S		Continuation of the work already initiated by the Governing Council aimed at the elaboration and establishment of a global framework convention (decision 9/13 B).
	ES	(i)	Promotion of dissemination of information and public awareness on the protection of the stratospheric ozone layer.
		(ii)	Continuation on the basis of available scientific data of the work already initiated aimed at the elaboration of a global framework convention which would cover monitoring, scientific research and the development of best available and economically feasible technologies to limit and reduce emissions of ozone-depleting substances, as well as the

		development of appropriate policies and strategies.
	(iii)	Establishment by any such convention of appropriate international machinery to ensure the implementation and development of the convention for the protection of the stratospheric ozone layer.
	(iv)	Development and adoption of national laws and regulations to implement the provisions of the convention for the protection of the stratospheric ozone layer.
Ob		Adoption and Signing of the 'Ozone Layer Convention'
<u>Transport, handling and disposal of toxic and dangerous wastes</u>	O	To prevent, reduce and control damage, and the risk thereof, from local and international transport as well as from handling and disposal of wastes that are toxic and dangerous to human health and to the environment.
	S	Preparation, at the global level, of guidelines, principles or conventions, as appropriate; development and implementation of guidelines and principles through specific regional, subregional or bilateral agreemnts, as well as by means of national legislation.
	ES (i)	Preparation, in particular within the framework of UNEP and in co-operation with the competent international organizations, of guidelines or principles which could lead to a global convention, drawing upon the experience already gained.
	(ii)	Further development, conclusion, entry into force and implementation of regional, subregional or, as appropriate, bilateral agreements in co-operation with regional organizations and the governments concerned.
	(iii)	Establishment, designation or strengthening of appropriate international machinery to ensure the harmonization and implementation of global and regional rules, standards, recommended practices and procedures and to review the effectiveness of measures taken.
	(iv)	Elaboration, adaptation, development, harmonization and enforcement of national laws and regulations, including <u>inter alia</u> measures

			aimed at ensuring that international transfers of toxic and dangerous wastes are made without risks to human health and the environment, taking into account international rules and standards, and establishment or strengthening of national institutions for this purpose.
		(v)	Development of legal and administrative rules, procedures and guidelines which will enable the governmental authorities of the country to which toxic and dangerous wastes are destined, as well as the authorities of countries through which such wastes are being transported, and anyone temporarily having possession or control of such wastes, to be fully informed of such movement in a timely manner, to ensure the handling, storage and disposal of such wastes in an environmentally safe manner.
		(vi)	Multilateral or bilateral assistance to regional organizations and national governments in the development and application of laws and regulations and the establishment of institutions, including training and research facilities, and exchange of information.
		(vii)	Development or strengthening of environmental assessment mechanisms as a means of implementing guidelines, principles and agreements and of promoting the development and implementation of new environmental legislation.
	Ob		UNEP released the 'Cairo Guidelines/Principles'
International co-operation in environmental emergencies	O		To encourage prompt international co-operation at all levels to deal effectively with environmental emergencies.
	S		Preparation of a global code of conduct or, alternatively, a global convention; application of that instrument at the regional, subregional and national levels by means of agreements and legislation of a more specific character.
	ES	(i)	Analysis of experience already gained, particularly regarding spills of oil and other harmful substances, through multilateral (including regional and subregional) or bilateral agreements and through various forms

		of international co-operation as well as national efforts in connexion with emergencies.
		(ii) Establishment, designation or strengthening of appropriate international machinery to promote the harmonization and application of global and regional rules, strandards, recommended practices and procedures and to review the effectiveness of measures taken.
Coastal zone management	O	To limit, reduce and prevent the harmful effects of activities with respect to the marine environment, in particular in coastal zones.
	S	Preparation of international rules and standards, and the taking of appropriate action at the regional, subregional and national levels, particularly in the case of endangered areas, bearing in mind, Inter alia, the results of the Third United Nations Conference on the Law of the Sea.
	ES	(i) Analysis of the existing international and national rules, standards, practices, procedures and programmes related to coastal zone management, in particular in the context of land use planning.
		(ii) Development within the framework of UNEP of guidelines and principles, utilizing, inter alia, the elements of Part XII (Protection and preservation of the marine environment) of the draft Convention on the Law of the Sea.
		(iii) The development of regional and subregional networks of protected areas in the coastal zones.
Soil conservation	O	To prevent or control the degradation of the sustainable productive capacity of soil provoked by human activities causing consequences such as erosion, desertification, salination, deforestation, over-exploitation of the subsoil, pollution, inadequate utilization and management of soil resources, and excessive use of land by urbanization and industrialization, as well as to rehabilitate degraded soil.
	S	International encouragment at all levels of full support for the World Soil Charter, the relevant elements of the

		World Conservation Strategy and the Plan of Action to Combat Desertification; promotion at the national level of greater emphasis on measures to promote soil conservation in legislation relating to, for example, pollution control, forestry, agriculture, rural management and water management.
	ES	(i) Use of the World Soil Charter and the relevant elements of the World Conservation Strategy as principles and guidelines to reinforce those measures directed to the application of the Action Plan adopted by the United Nations Conference on Desertification.
		(ii) Promotion of co-ordination among national institutions, in order to ensure the rational utilization, administration and conservation of pedological resources.
		(iii) Promotion of education programmes for land users and the preparation, formulation and implementation of soil conservation policies.
Transboundary air pollution	O	To further international co-operation to prevent air pollution and its dangerous impact on the ecosystems of a State by causes originating in another State.
	S	Preparation of a code of conduct establishing guidelines on the subject.
International trade in potentially harmful chemicals	O	To control international trade in hazardous or inadequately tested chemicals, particularly where the sales of such substances has already been banned or restricted in the producing country.
	S	Preparation of guidelines at the global level as a first step towards a global convention; development and implementation of internationally harmonized practices, in particular for the gathering and dissemination of information.
	ES	(i) Analysis and strengthening of the experience and know-how gained through national regulations studies such as those produced by IRPTC and the WHO/UNEP/ILO Programme on Chemical Safety.

		(ii) Preparation, in particular within the framework of UNEP and in co-operation with the competent international organizations, of principles or guidelines which could lead to a global convention, especially on the exchange of information on potentially harmful chemicals.
Protection of rivers and other inland waters against pollution	O	To limit, reduce and control the degradation of fresh waters as a result of the discharge of pollutants or by reason of other harmful activities.
	S	In the case of international inland waters, preparation of guidelines, principles and, when necessary, agreements at the appropriate levels. In the case of national inland waters, promotion of the need for greater emphasis in legislation on measures to regulate strictly the discharge of pollution substances into fresh waters.
	ES	(i) Promotion of agreements between countries of the same hydrological basin for the proper utilization and management of freshwater resources so as to prevent, reduce and control pollution.
		(ii) Development and adoption of quality standards for specific uses of water resources (such as for drinking water and industrial uses). Setting of reference standards concerning discharge of harmful substances into fresh water.
Legal and administrative mechanisms for the prevention and redress of pollution damage	O	To promote, at both the national and international levels, the development of the legal and administrative measures necessary to ensure effective knowledge and control of potentially polluting activities prior to their commencement and during their continuance, as well as the further development of international law with respect ot liability and compensation, including the improvement of remedies available to the victims of pollution.
	S	Preparation of conventions, principles or guidelines, as appropriate, at the regional or global levels; implementation and monitoring of such principles and guidelines, in particular at the regional and national levels.

Environmental impact assessment	O	To promote the adoption and implementation by States of legal and other appropriate mechanisms for assessing the effects on the environment of potentially harmful activities under the jurisdiction or control, as well as the dissemination of information and the public use thereof. To foster the use of environmental impact assessment procedures (whether the impact is national or international) as an essential element for development planning.
	S	Preparation at the global level of guidelines, standards and model legislation adaptable to specific needs (taking into account the different levels of development of various countries).Implementation of these, in particular at the national level; where requested, appropriate technical co-operation in the preparation of domestic legislation as well as in its implementation, should be made available.
	ES	(i) Preparation, especially in the framework of UNEP, of guidelines, standards and model legislation adaptable to the specific needs of various contries, taking into account the existing models developed by various components of the United Nations system and other organizations. (ii) Organization of regional seminars to train national EIA experts and periodically inform them about the developments in the general state of the art relevant to their particular coutry problems.