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REGIONAL CONTROL OF OCEAN POLLUTION

Legal and Institutional Problems and Prospects

C. ODIDI OKIDI

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C. Odidi Okidi, Ph.D.

Fletcher School of Law and Diplomacy;
Research Fellow, Institute of Development Studies, Nairobi, Kenya

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CHARLES ODIDI OKIDI

Nairobi
15th May, 1977

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CHAPTER I

INTRODUCTION

One of the difficult issues facing the international community today is the problem of maring pollution and the design of a mechanism for its effective control. Part of the difficulty in designing an effective control mechanism arises from the complexity of the sources of pollution and partly from the diversity of interests which various people and states have in the marine environment. To date, however, the measures taken to remedy the problem have been episodic, that is, directed to particular aspects of the problem as they arise, and frequently such measures have been limited in scope. Because of these limitations one writer recently called for establishment of a "comprehensive, systematic approach" capable of identifying the problem and providing effective control on a continuing basis[1]. In this study our purpose is twofold: First, the study will set out the nature of the problem of marine pollution and to analyze the conventions and other legal rules which the international community has adopted to deal with it. Secondly, the study will propose a model of regulatory mechanisms consistent with the current trend of thought regarding the problem and the organization which will help further efforts toward effective control of marine pollution.

The first of these two tasks will be dealt with in the first three Chapters I-III. It will being with an examination of how the international community has defined what constitutes marine pollution. In the next part, four sources of pollution are identified: pollution from land-based sources; pollution from ships; pollution resulting from the exploitation of mineral resources; and pollution from other sources. It is against each of these

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[1] Lawrence R. Lanctot: 'Marine Pollution: A Critique of Present and Proposed International Agreements and Institutions—A Suggested Global Ocean Environment Regime', 24 *The Hastings Law Journal* 67, 108, (1972).

sources that there will be an analysis of the various international measures of control which have been adopted with a view to ascertaining the current trend of thought and practice regarding ways of designing a comprehensive regulatory system to control pollution within and beyond the jurisdiction of the coastal states.

Two facts are central to this study. The first one is that the ocean enviroment is so united that even though pollution might originate or commence in one region of the oceans, its effects may ultimately reach other parts of the enviroment unless remedial measures are taken[2]. That is to say, pollution does not obey any politically determined boundaries or other limits of national jurisdiction. Therefore, measures of control should ideally be determined by ecological considerations rather than political boundaries. The second fact is the international practice of dividing up the seas into areas of some national jurisdiction (the territorial sea, the contiguous zone and economic zone) and the areas beyond national jurisdiction[3]. It is essential, therefore, that in viewing the ecological regions any system of regulation of pollution should distinguish, conceptually at least, between the powers of control possessed by the coastal states with respect to acts of pollution occuring within areas of their jurisdiction, and the powers of the international community in the areas beyond the limits of national jurisdiction.

In view of the foregoing, Chapter II will examine the scope of the powers of the coastal states under general and conventional international law for the control of pollution originating from land and any pollution occurring within the coastal waters. The question of under what circumstances do conventional and general

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[2] United Nations: *Identification and Control of Pollution of Broad International Significance*, (A Study prepared by the Secretariat of the United Nations Conference on the Human Environment, Stockholm, June 5-16, 1972), U.N. Document A/CONF.48/8, January 7, 1972, pp. 22-25; *Pollution: An International Problem for Fisheries*, (Food and Agricultural Organization of the United Nations, Rome), (1971), pp. 4, 34-36. Sources of marine pollution are discussed below.

[3] Article 1 of the 1958 Geneva Convention on the High Seas defines seas to "*Mean all parts of the sea that are not included in the territorial sea or in the inland waters of a state*", 450 UNTS 82 (1962). However, at the Second Substantive Session of the Third United Nations Conference on the Law of the Sea at Geneva, the Second Committee dealing with the areas of national jurisdiction defined the high seas to mean "... *all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic state*", Art. 75, U.N. Document A/CONF.62/W.P.8/Rev.1/Part II, in 5 *THIRD CONFERENCE ON LAW OF THE SEAS—NEW YORK Session—OFFICIAL RECORDS*, at 165 (1975), (hereinafter cited as 5 *LOS OFF. REC.*).

international law permit a coastal state to intervene unilaterally in the seas beyond its acknowledged jurisdiction to prevent or abate marine pollution will be answered in Chapter III. That analysis will conceptually designate what should be regarded as the outermost limit of coastal state jurisdiction. In the last section of that chapter there is an appraisal of the merits and limitations of regulation of pollution in the high seas through unilateral state intervention; regulation through a single global regime; and regulation by regional organizations.

In most current discussions regarding the prevention and control of marine pollution it is generally emphasized that a combination of global, regional and national mechanisms for setting regulatory standards and enforcement of regulations is essential. For example, in 1972 the United Nations Committee on Peaceful Uses of the Seabed "stressed that marine pollution could effectively be dealt with by a combination of global, regional and national rules and procedures with the global one fixing the minimum provision ... and the regional and national ones laying down particular and stricter provisions as may be required ... in a region or country."[4] More recently, the second substantive session of the Third United Nations Conference of the Law of the Sea accepted a provision in the "Single Negotiating Text" of Draft Articles that:

> "States shall co-operate on a global basis and as appropriate on a regional basis directly or through a competent international organization, global or regional, to formulate and elaborate rules, standards and recommended procedures ... for the prevention of marine pollution, taking into account characteristic regional features."[5]

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[4] United Nations, *Official Records of the General Assembly*: Twenty-Seventh Session, Supplement No. 21 (A/8721), p. 53.

[5] The first substantive session of the Third United Nations Law of the Sea Conference was held at Caracas, Venezuela in Summer 1974 after about six years of preparation done by the United Nations Committee on the Peaceful Uses of the Seabed. At the first session there was no sufficient agreement to enable the Conference Committees to produce a single draft treaty. See John R. Stevenson and Bernard H. Oxman, "The Third United Nations Conference on the Law of the Sea: The 1974 Caracas Session", 69 *American Journal of International Law* 1 (1975): A.O. Adede, "The System for Exploitation of the 'Common Heritage of Mankind' at the Caracas Conference". *Ibid.*, p. 31. At the second session in Geneva, each of the three Committee Chairmen produced an "Informal Single Negotiating Text" as U.N. Document A/CONF.62/W.P.8/Parts I-III. *See* 4 THIRD U.N. CONFERENCE ON LAW OF THE SEA — Geneva Session — OFFICIAL RECORDS (1975), which were revised in New York to produce U.N. Document A/CONF.62/W.P.8/Rev.1/Parts I-III, in 5 LOS OFF.REC., *supra*, note 3. Part I deals with Committee I matters concerning Sea-Bed and Ocean Floor beyond the limits of national jurisdiction; Part II deals with Committee II matters namely, Territorial Sea,

A recent report from the United Nations Environment Programme (UNEP) says that under the auspices of the Programme, regional arrangements are currently being considered for the Mediterranean Sea, Red Sea and the Caribbean Sea; after which UNEP will call more meetings to seek regional agreements to prevent pollution in the Indian and Pacific Oceans.[6] There is already one regional convention dealing with the prevention of pollution in the North-eastern Atlantic Ocean only;[7] one for the protection of the Baltic Sea area;[8] and one for the North Sea.[9] The prevailing trends and the moves being initiated by UNEP would therefore suggest that the idea of regional arrangements is not confined to semi-closed seas but to the open oceans too.

In view of these developments and the trends of organization which emerge from the discussion of the international measures of control to be discussed in this Chapter, Chapters IV-VI will propose and analyze a combination of regional and global arrangements to further the efforts to alleviate the problem of marine pollution from all sources.

Chapter IV will consider the structure and functions of the regional organizations, making provisions for how such regional organizations would accommodate the desires of the coastal states;

Contiguous Zone and the Exclusive Economic Zone; Part III deals with matters of Committee III of the Conference on questions of protection and preservation of the Marine Environment, Marine Scientific Research and the Development and Transfers of Technology. For general comments on the Geneva Texts, *see:* e.g. Stevenson and Oxman, "The Third United Nations Conference on the Law of the Sea — The 1975 Geneva Session", 69 *American Journal of International Law* 763-97 (1975).

[6] See Jon Tinker's "Stockholm, Nairobi and then What?", 66 *New Scientist* 600, 602 (June 12, 1975). This is one of the six essays in that issue examining and appraising the work of UNEP since its creation in 1972.

For the Mediterranean Sea an Intergovernmental meeting was held at Barcelona, January 29-February 4, 1975 to commence negotiations towards an agreement to protect the sea from pollution. The Report of the Meeting issued as United Nations Environment Programme Document No. UNEP/W.G.2/5, February 11, 1975; January 13, 1975. Both reprinted in 14 *International Legal Materials* 464, 481 (1975). For a summary report of the Barcelona meeting see United Nations Press Release HE/232, February 5, 1975.

[7] The Convention for the Prevention of Marine Pollution from Land-based Sources signed at Paris on February 21, 1974. 13 *International Materials* 352 (1974).

[8] Convention on the Protection of the Marine Environment of Baltic Sea Area was at Helsinki on March 22, 1974. See 13 *International Legal Materials* 544 (1974).

[9] Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil was done at Bonn on June 9, 1969. 704 *UNTS* (1969).

the general interests of the international community; and the particular interests of the states not geographically located around the ocean region but which are interested in the ocean region because of navigation, exploitation of marine resources, and other activities. Among the subjects to be considered in relation to the structure will be the criteria for determining the boundaries and the basis for eligibility to membership. The functions discussed will include the procedure for assessing the problem of pollution on a continuing basis; a system for promulgation of appropriate regulations in the light of the problem and the general universal standards; some options for the enforcement mechanism; and the settlement of disputes related to the prevention of pollution.

Chapter V will examine the possible functional and jurisdictional relationships between the coastal states and the regional organization. A determination of this relationship is necessitated by the fact of the unity of ocean environment pointed out above. Some suggestions will be made for a system by which regional organization would be informed of what measures the coastal states take to comply with the protection standards applicable to the ocean region.

Chapter VI will consider the functional and jurisdictional arrangements between the regional organizations and the global agencies which would, as suggested earlier, provide global minimum standards of protection for global application. As will be seen shortly, the Inter-Governmental Maritime Consultative Organization (IMCO) and UNEP are two such global institutions currently involved with development of such global standards. The current negotiations at the Law of the Sea Conference have also proposed the creation of a Law of the Sea Authority to deal with problems related to exploitation of seabed resources.[10] The purpose of this Chapter will be to examine the role of these agencies, among others, as the ultimate fora of the international community concerned with the development of effective measures of pollution control; their options for dealing with recalcitrant states; and their functions in harmonizing possible differences in regional standards and procedures.

The final Chapter will give a summary of the major features of the study and some of the salient conclusions regarding the problem of marine pollution and the framework for its prevention.

To set the context, we shall seek some understanding of how the international community has defined the problem of pollution, then examine the major sources of pollution with analysis of conventions and other legal arrangements which have either been taken

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[10] According to Article 21 of the Revised Single Negotiating Text, an International Sea-Bed Authority is established as the organization through which States shall organize and control the activities in the international Sea-Bed area. *See* LOS OFF.REC. *supra, note 3 at 131.*

or recommended.

0. DEFINITION OF POLLUTION

Before arriving at a working definition for this study, which is concerned with the pollution of the marine environment, it is useful to review some of the ways in which various international opinions have characterized the problem of pollution. For that purpose the following oft-cited international opinions will be discussed briefly: the *Trail Smelter* Arbitration,[11] which dealt with environmental injuries caused by industrial fumes; the Helsinki Rules, dealing with pollution of international rivers;[12] and the standard United Nations definition of marine pollution.[13]

The *Trail Smelter* dispute is significant for this study because it involves trans-territorial environmental injuries caused by activities in one state. The Tribunal in that dispute was charged by a *compromis* between the United States and Canada to arbitrate complaints by the United States that sulfur dioxide fumes from a privately-owned copper, zinc and lead smelting plant at Trail in British Columbia had crossed the border in sufficient quantities to cause considerable damage to farms belonging to Americans in the State of Washington.[14] One of the Questions which the Tribunal was directed to decide was "whether the Trail Smelter should be required to refrain from causing damage in the State in the future ... ".[15]

In their response the Arbitrators recognized the "great progress" which had been made by science during the preceding years to control such fumes and concluded that "under principles of international law ... no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons

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[11] (United States v. Canada) 3 *United Nations Report of International Arbitral Awards 1907*, 1941 (hereinafter *UNRIAA*).

[12] International Law Association, 'Uses of Waters of International Rivers: The Helsinki Rules', Report of the 52nd Conference, Helsinki (1966), pp. 447-533 (hereinafter referred to as Helsinki Rules). Also reprinted in Garretson, Hayton and Olmstead, *The Law of International Drainage Basins* (Dobbs Ferry, N.Y.: Oceana Publications, 1967), pp. 779, 791.

[13] United Nations, *The Sea: Prevention and Control of Marine Pollution*, E/5003 (Report of the Secretary General), May 7, 1971, p. 20 (hereinafter referred to as *The Sea: Prevention and Control of Pollution E/5003 (1971)*).

[14] See the Compromis in 3 *UNRIAA*, p. 1907, and some discussions of the facts in John E. Read, "The Trail Smelter Dispute", 1 *The Canadian Yearbook of International Law* 213 (1963), and Alfred P. Rubin, "Pollution by Analogy: The Trail Smelter Arbitration", 50 *Oregon Law Review* 259 (1971).

[15] 3 *UNRIAA* 1907.

therein ... ".[16] In effect, the Tribunal enunciated the age-old maxim *sic utere tuo ut alienum non laedas*, or the general obligation to every state not to use its own resources to cause injuries to another state.[17] Or, for that matter, that every state should take measures to prevent activities within the area of its jurisdiction from causing injuries beyond the limits of its jurisdiction.

Had the Tribunal stopped with the foregoing pronouncement the ruling would have had sufficient import for a preventive regime where the parties desire to desist from any activities which may cause any magnitude of injuries either instantly or over a period of time. However, the Tribunal added that the activities are only prohibited "... when the case is of serious consequence and the injury is established by clear and convincing evidence."[18] The qualification limits the *prima facie* utility of the ruling in any context where the goal of the parties is the prevention of any possible environmental injuries. In the first place, the suggestion that the case must be of serious consequence raises the question of how much consequence is serious enough to require protective measures? One may wonder as to how many people must be poisoned or crops destroyed before events can be deemed to be of serious consequence. Secondly, the injury must be established by clear and convincing evidence, which is to say that the polluters need not worry so long as there is some doubt as to the nature and magnitude of the injuries at a particular point in time.

Surely, where the intention of the parties is to prevent either short-term or long-range effects on the environment the characterization of what constitutes pollution should reflect that concern. The determination of "pollution" for purposes of fixing international liability in Trail Smelter denies propriety of the label until actually "serious consequences" are proved. Therefore, accepting such a definition, for purposes of a preventive regime, seems inappropriate because many commonly shared resources such as rivers, lakes and seas could be already biologically irreversibly deteriorated in quality before "clear and convincing" proof is obtained.[19]

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[16] *UNRIAA*, p. 1965.

[17] See for some comments on the principle, A.P. Lester, "River Pollution in International Law", 57 *American Journal of International Law* 828, 830-833 (1963); Charles C. Humpstone, "Pollution: Precedents and Prospects", 50 *Foreign Affairs* 325 (1972); Handl, "Territorial Sovereignty and the Problem of Transnational Pollution", 69 *American Journal of International Law* 50-76 (1975).

[18] 3 *UNRIAA*, p. 1965.

[19] Laylin and Bianchi appropriately cautioned that "(a) man dying of thirst cannot be revived with monetary compensation for his water, even if tendered in advance." See John Laylin and Rinaldo Bianchi, "The Role of Adjudication in International River Disputes", 53 *American Journal of International Law* 30-31 (1959). See co-operation in the Field of Environment Concerning Natural Resources

The second definition of pollution was provided by the International Law Association in what is best known as The Helsinki Rules on "Uses of Waters of International Rivers."[20] The relevant article provides that "the term 'water pollution' refers to any detrimental change resulting from human conduct in the natural composition, content or quality of the water of an international river basin."[21] For a clear understanding of this definition two key concepts: "detrimental change" and "human conduct" require some examination.

Just what change is detrimental and how is it to be determined? In explaining the meaning of detrimental change the official commentary said that it meant any "changes that render the water either unusable or less usable for a beneficial use or other changes that are of a detrimental nature."[22] Thus, the criterion for determining detrimental change is the extent to which such a change interferes with the "beneficial" uses to which the basin states may desire to put the water. Rivers, like ocean water, can be put to many uses. The commentary adds, for example, that a change may be considered detrimental if it endangers the health of subsequent consumers as well as render the water distasteful for drinking or recreation.[23]

Despite the foregoing explanations, however, the determination of standards at which detrimental change begins and when the law should offer protection is still not provided by the definition or the official commentary. The commentary recognized correctly that "the nature and effect of pollutants are in such a state of change (that) it is advisable to adopt a definition of pollution comprehending any detrimental alteration in the natural composition or quality of the water irrespective of its effects on subsequent users."[24] This suggests then that there ought to be a clearly understood standard of purity which river water should meet at all times in order to protect subsequent users. As Professor Charles Bourne, who himself participated in the drafting of the Rules has pointed out, there ought to be some standards by which to judge whether the particular change is illegal under the definition.[25] Such a standard is not provided for the Helsinki Rules,

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shared by Two or More States", UNEF/GC/L.37/add.2 of 10th April 1976, and "Report of the Inter-governmental Working Group of Experts on Natural Resources Shared by Two or More States ... ", UNEF/GC/74 of 9th April, 1976. The last meeting of the Intergovernmental Working Group of Experts was held in Geneva in Sept/October 1976.

[20] See: *supra* note 12.

[21] *Ibid.*, Chapter 3, Article IX, p. 494.

[22] *Ibid.*, p. 495.

[23] Chapter 3, Article IX, p.495.

[24] *Ibid.*, p.496.

[25] Conference discussion, *50 Oregon Law Review*, 294-295 (1971); "Chairman" was Professor Bourne.

Professor Bourne points out that the tendency is for such standards to be set in "particular regions" according to how a group of states desire to use the water, rather than by universal prescription.[26]

It seems then that the determination of the kind of change which the law should prohibit under the Helsinki definition is still problematical. By recognizing that the nature and effects of pollutants are in a state of change and that it is advisable to adopt a definition of pollution which protects the water irrespective of subsequent users, the authors of the commentary seem to have recognized the need for some sort of preventive standard — a standard of water quality which prevents detrimental consequences.

The term "human conduct" as used in the Helsinki definition is intended to exclude those changes which result from "purely natural occurrences of which international law takes no cognizance."[27] To illustrate the distinction the commentary offers the following two hypothetical cases:

> "1. X, a cattle rancher in State A waters his cattle daily in the waters of international drainage basin Pure, with the result that the wastes cause a detrimental change in the composition and quality of the water. Such conduct is pollution within the meaning of this Article.
>
> 2. Underground percolation of water in State A washes minerals lying in their natural state into the waters of international drainage basin Murky, causing a detrimental change in the composition and quality of the water. Such a change is not pollution within the meaning of this article."[28]

Similarly, if changes in the quality of water occurred as a result of oil seepage due to widening geomorphic cleavages, that would not be pollution. Thus, the thrust of the definition is not limited to the change in the quality and composition of water but there must also be a human being, a perpetrator of the change, in order that the change can be called pollution.

This limited meaning of pollution may be useful for fixing liability in the event of environmental injury; but it surely ignores the general problem of other changes which may impede beneficial uses of the water, irrespective of the perpetrators. Admittedly the changes that may result from "acts of God" may be infrequent or they may be considered matters of policy not to be covered in a legal definition. Yet if the central concern is with the preservation of the quality of the water, the definition should be such that a witness standing by the water, or equipped with the proper testing devices, can come out after examining the water and return a report that the quality and composition of the water is, indeed, changed, and that interested parties should either go

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[26] Conference discussion, *50 Oregon Law Review*, p. 295.
[27] See official commentary, *supra* note 24 *loc.cit.*
[28] *Ibid.*