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David VanderZwaag

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## A GLOBAL TREATY TO ADDRESS LAND-BASED SOURCES OF MARINE POLLUTION

*Dr. David VanderZwaag\**

PROTECTING THE MARINE ENVIRONMENT FROM LAND-BASED SOURCES OF POLLUTION: TOWARDS EFFECTIVE INTERNATIONAL COOPERATION. By *Daud Hassan*. Burlington VT, Ashgate 2006. Pp. 233.

Land-based sources of pollution are estimated to be the source of approximately eighty percent of all marine pollution. In *Protecting the Marine Environment from Land-Based Sources of Pollution: Towards Effective International Cooperation*, Daud Hassan outlines the major sources of Land-Based Sources of Marine Pollution (LBSMP), examines the current legal framework for control of LBSMP, and highlights the obstacles to creating more effective control measures. Additionally, Hassan presents a case study focusing on LBSMP control in the Bay of Bengal region and then concludes with a recommendation for the creation of a global treaty to more effectively address the impacts of LBSMP on the marine environment.

Hassan's timely text first reviews the effects of land-based pollutants that come from household, industrial, and agricultural activities. Special attention is given to the widespread problem of untreated or poorly treated sewage with disturbing geographical statistics provided for various areas including the Mediterranean, West and Central Africa, the United Kingdom, the South Pacific, East Asia, and the Wider Caribbean. Inputs of six major contaminants—plastic litter, nutrients, heavy metals, sediments, oil, and radioactive wastes—are also summarized.

Hassan provides an overview in chapter three of the major scientific, economic, and legal obstacles in the way of controlling land-based sources of marine pollution. He highlights the lack of data on the plethora of land-based sources of marine pollution—especially non-point source pollution—

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\* Canada Research Chair, Ocean Law and Governance; Professor of Law, Dalhousie Law School; B.A. Calvin College, 1971; M.Div. Princeton, 1974; J.D., University of Arkansas, 1980; LL.M., Dalhousie, 1982; Ph.D., University of Wales, Cardiff, 1994.

and the scientific limitations in quantifying environmental damage and determining cause-effect relationships. The perceived economic costs of pollution control measures, particularly in developing countries and economies in transition, are viewed as undermining international cooperation in addressing land-based sources. Hassan outlines two major legal conceptual problems: (1) the varying approaches used to define the threshold of acceptable harm; and (2) the ongoing debate over how far national sovereignty should be restricted in light of ecological considerations.

Chapter four provides a brief review of key international principles relevant to land-based pollution control. The author describes the basic meanings and implementation challenges for the principles and techniques of sustainable development, integrated coastal zone management, environmental impact assessment, polluter pays, and cleaner production.

Hassan next gives a synopsis of the global legal framework for control of LBSMP; chapter five summarizes the customary international law principles of good neighbourliness and reasonable use. The narrow application of these principles to transboundary or international impacts creates a serious deficiency, seeing as domestic aspects of marine pollution control are largely left to the will of sovereign states. The author highlights the general and vague provisions of the 1982 Law of the Sea Convention on protection and preservation of the marine environment. In particular, he criticizes Article 207 for only setting out a general obligation to cooperate in trying to establish global and regional rules/standards to control land-based marine pollution and not requiring adherence to any minimum international standards established by international organizations.

Although governing ocean dumping, the London Convention of 1972 and its 1996 Protocol are also analyzed by Hassan, largely to emphasize their limitations in addressing land-based sources of pollution, particularly the failure to explicitly include coastal outfalls and output from sewage pipelines as forms of dumping. The author outlines the promises and shortcomings of "soft law" documents relevant to LBSMP and provides a detailed analysis of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA).

Chapter six provides a survey of regional land-based pollution frameworks. Hassan analyzes efforts by European countries including the Convention for the Protection of the Marine Environment of the North-East Atlantic, the Convention on the Protection of the Marine Environment of the Baltic Sea, North Sea Conference declarations, and European Community Directives relevant to LBSMP. A comparison is made between the eleven regional sea conventions initiated by the United Nations Environment Programme (UNEP) and their attempts at addressing land-based

pollution. The general and rather vague obligation on states to take appropriate measures to prevent, abate, and combat land-based pollution is common, as demonstrated by the Barcelona Convention for the Mediterranean. The author also critiques (in chronological order) five regional LBSMP protocols, adopted under UNEP regional seas conventions, for the Mediterranean, South-East Pacific Ocean, Kuwait Region, Black Sea, and the Wider Caribbean.

Chapter seven provides perhaps the most original and interesting perspective: a case study on land-based marine pollution control in the Bay of Bengal region. Hassan describes a harrowing picture of environmental conditions in the region and includes detailed tables on the large amounts of heavy metals, sediments, and persistent organic pollutants estimated to enter the Bay each year.

The Hugli Estuary in West Bengal, fed by waste discharges of almost half a billion liters per day from ninety-six major factories, is characterized as probably the most polluted estuary in the world. The author blames limited political will for the lack of a legally binding framework convention for the South Asian region and the preference for a more informal approach to cooperation through the Action Plan for the Protection and Management of the Marine and Coastal Environment of the South Asian Seas Region, adopted in 1995. After reviewing the national legislation and policies of India and Bangladesh in relation to LBSMP control, this chapter then includes a summary of the major obstacles to pollution control in the Bay of Bengal sub-region including: poverty; management incapacity; lack of economic incentives such as pollution fees and taxes; and sub-regional conflicts, particularly the unresolved maritime boundary between India and Bangladesh.

Hassan offers a final perspective in chapter eight: a recommendation for a global treaty to promote control of LBSMP. Potential components of such an agreement include: an environmental liability regime, development of detailed and enforceable pollution standards, a specific dispute resolution procedure for land-based pollution conflicts, a special fund to assist developing countries increase management capacities and adopt appropriate technologies, and a commitment by parties to promote public participation and education. The author suggests that the United Nations Convention to Combat Desertification is a possible model to follow with its emphasis on cooperation at local, national, regional, and international levels and a commitment by developed countries to financially support the development of plans and strategies to combat desertification.

This text should not be considered a “complete guide” to international cooperation relating to land-based marine pollution. Scant attention is paid to international efforts to address chemical pollution, with only a brief

mention of the 2001 Stockholm Convention on Persistent Organic Pollutants and no discussion of the 1998 Protocol on Persistent Organic Pollutants adopted under the auspices of the United Nations Economic Commission for Europe. Implications of the ecosystem approach to land-based pollution control are also not explored. The roles of globalization and consumerism are not emphasized. Furthermore, the competing visions of science-based and ethics-based decision-making are not examined in detail, and the differing views about the foundations of international law, positivistic (based upon state consent) and natural law (for example, following common-sense principles and the laws of nature), are not discussed.

The final chapter suggests constructive ways forward to address LBSMP with a global framework convention considered key, but may leave the reader “wanting.” While the author acknowledges the lack of political will in many countries to enter into a binding agreement on land-based marine pollution because of sovereignty and economic concerns, he provides little in the way of guidance on how countries might be coaxed into accepting a “hard law” regime. While Hassan calls for an environmental liability component in a global agreement, he is sparse on details and does not fully explain the hesitancy of states to embrace state responsibility and liability for transboundary pollution damage. Instead, the final chapter rather hastily jumps to the recommendation of a global LBSMP treaty without fully considering the broader context of environmental governance options.

The establishment of a U.N. Environment Organization or a World Environment Organization with possible standard-setting and compliance/enforcement functions is not discussed as a broader avenue for governance. Nor is attention paid to the more incremental paths to addressing land-based marine pollution, such as: (1) the negotiation of a comprehensive chemicals convention adopting a reverse-listing approach where only chemicals on a global safe/accepted list would be allowed; or (2) the completion of a global instrument on heavy metals or at least mercury, one of the most serious concerns to be addressed.

In light of the fast-evolving global and regional developments relevant to land-based marine pollution, a sequel volume may soon be necessary. The Second Intergovernmental Review Meeting on the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities occurred in October 2006 after the book’s publication, and spawned a wealth of further documentation relevant to LBSMP. Documents include, among others, the Beijing Declaration on the Implementa-

tion of the GPA,<sup>1</sup> state of marine environment reports,<sup>2</sup> a financing guide for implementing conventions/plans for regional seas,<sup>3</sup> and an overview report comparing implementation of the GPA at the regional level.<sup>4</sup>

Additionally, at the International Conference on Chemicals Management in Dubai, on February 4-6, 2006, participants adopted the Strategic Approach to International Chemicals Management with three core texts: the Dubai Declaration on International Chemicals Management, the Overarching Policy Strategy, and the Global Plan of Action.<sup>5</sup> Furthermore, three additional regional protocols dealing with land-based pollution/activities are being developed for the Caspian Sea, East Africa, and West and Central Africa; the Black Sea protocol is under revision.<sup>6</sup>

Dr. Hassan has provided several useful snapshots regarding land-based marine pollution but LBSMP initiatives continue to roll across the global and regional seascapes. Whether the author's advocacy for a global LBSMP treaty will eventually be needed remains to be seen.

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1. U.N. Environment Programme/Global Programme of Action for the Protection of the Marine Environment from Land-based Activities [hereinafter UNEP/GPA], *Report of the Second Session of the Intergovernmental Review Meeting on the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities*, Annex V, UNEP/GPA/IGR.2/7 (Oct. 23, 2006) (delivered to Second Intergovernmental Review Meeting on the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities).

2. UNEP/GPA, *The State of the Marine Environment: Trends and Processes* (2006), available at [http://www.gpa.unep.org/documents/global\\_so\\_e\\_webversion\\_english.pdf](http://www.gpa.unep.org/documents/global_so_e_webversion_english.pdf); UNEP/GPA, *The State of the Marine Environment: Regional Assessments* (2006), available at [http://www.gpa.unep.org/documents/regional\\_so\\_e\\_part\\_1\\_english.pdf](http://www.gpa.unep.org/documents/regional_so_e_part_1_english.pdf).

3. UNEP/GPA, *Financing the Implementation of Regional Seas Conventions and Action Plans: A Guide for National Action*, UNEP Regional Seas Reports and Studies No. 180 (2006), available at [http://www.gpa.unep.org/documents/financing\\_the\\_implementation\\_of\\_english.pdf](http://www.gpa.unep.org/documents/financing_the_implementation_of_english.pdf).

4. UNEP/GPA, *Implementation of the GPA at Regional Level: The Role of Regional Seas Conventions and Their Protocols* (2006), available at [http://www.gpa.unep.org/documents/lbsa\\_protocols\\_for\\_the\\_english.pdf](http://www.gpa.unep.org/documents/lbsa_protocols_for_the_english.pdf).

5. UNEP, *Summary of the Strategic Approach to International Chemicals Management Comprising the Dubai Declaration on International Chemicals Management, the Overarching Policy Strategy, and the Global Plan of Action*, <http://www.chem.unep.ch/saism> (last visited Mar. 5, 2007).

6. UNEP/GPA, *supra* note 4, at 8-9.