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Multidisciplinary Perspectives on the Improvement of International Environmental Law and Institutions

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MULTIDISCIPLINARY PERSPECTIVES ON THE IMPROVEMENT OF INTERNATIONAL ENVIRONMENTAL LAW AND INSTITUTIONS

ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS (Edith Brown Weiss ed.) Tokyo: United Nations University Press, 1992. xv + 493 pp.

INSTITUTIONS FOR THE EARTH: SOURCES OF EFFECTIVE INTERNATIONAL ENVIRONMENTAL PROTECTION (Peter M. Haas, Robert O. Keohane, & Marc A. Levy eds.) Cambridge, Massachusetts: The MIT Press, 1993. xi + 448 pp.

JAMIE CASSELS, THE UNCERTAIN PROMISE OF LAW: LESSONS FROM BHOPAL. Toronto: University of Toronto Press, 1993. xiv + 364 pp.

*Reviewed by Linda C. Reif**

The international dimensions of effective environmental protection and conservation have been increasingly recognized as the twentieth century has unwound. However, the international substantive, procedural, and institutional means to move closer to the goal of conservation of the environment have recently come into sharper focus as the implications of our industrial age have been brought home to us. Of immediate concern are the cumulative effect on our atmosphere of ozone-depleting substances and emissions contributing to climate change, the degradation of our marine and terrestrial environments by pollutants from various sources, and the destruction of wildlife and its habitat. Periodically, there are also industrial catastrophes with transboundary environmental impact or which involve a multinational corporation operating in a host country — Chernobyl, Bhopal, the Sandoz chemical spill in Basel, Switzerland, and the Exxon-Valdez oil spill come to mind. In reaction to the real interdependence of States and transnational actors in modern times, a web of international and domestic legal regulation has been spun which extends to cover aspects of environmental protection, yet many gaps remain that draw the attention of lawmakers and scholars.

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The pace of international legal regulation has accelerated considerably since the 1972 Stockholm Conference on the Human Environment alerted the international community to the need for prompt action.¹ The 1992 United Nations Conference on Environment and Development held in Rio de Janeiro (UNCED) was a rite of passage, signalling the maturation of the international environmental law movement and aiding in the mapping of its fault lines. The form and substance of the international instruments resulting from the UNCED process² evidence the practical and legal difficulties intrinsic to the advancement of both environmental protection and economic development, and the differing interests and needs of States and actors within States. The 1972 Stockholm Conference also engendered interest in institution-building to improve international governance of environmental matters, leading to the establishment of the United Nations Environment Programme (UNEP).³ The 1992 UNCED process rejuvenated action in this domain.⁴

Paralleling these developments, the last two decades have seen a burgeoning scholarship on international environmental protection emanating from a variety of disciplines, including international law and political science. Throughout this period, international law publicists have focused on specific aspects of the environment, such as marine and atmospheric pollution, international watercourses, and wildlife conservation.⁵ As the body of international law on environmental protection has grown, works

1. See Stockholm Declaration on the Human Environment, U.N. Doc. A/CONF.48/14/Rev.1 (1973), *reprinted in* 11 I.L.M. 1416.

2. Treaties were concluded on biological diversity and climate change: Convention on Biological Diversity, *opened for signature* June 5, 1992, 31 I.L.M. 818; Framework Convention on Climate Change, *opened for signature* May 9, 1992, 31 I.L.M. 851. Nonbinding instruments were also adopted: The Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/5/Rev.1 (1992), *reprinted in* 31 I.L.M. 876 [hereinafter Rio Declaration]; Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation, and Sustainable Development of All Types of Forests, U.N. Doc. A/CONF.151/6/Rev.1 (1992), *reprinted in* 31 I.L.M. 882 [hereinafter Statement on Sustainable Development of Forests]; and Adoption of Agreements on Environment and Development: Agenda 21, U.N. Doc. A/CONF.151/4 (1992) [hereinafter Agenda 21] (an action plan for the realization of sustainable development).

3. See generally Mark A. Gray, *The United Nations Environment Programme: An Assessment*, 20 ENVTL. L. 291 (1990).

4. One example of this rejuvenation is the creation of the Commission on Sustainable Development, established to oversee the implementation of environmental treaties and action taken on Agenda 21 items, under the aegis of the U.N. Economic and Social Council. See Agenda 21, *supra* note 2, ch. 38. Other examples include establishment of subsidiary bodies in the Convention on Biological Diversity, *supra* note 2, and the Framework Convention on Climate Change, *supra* note 2.

5. See, e.g., JAMES BARROS & DOUGLAS M. JOHNSTON, *THE INTERNATIONAL LAW OF POLLUTION* (1974); J.G. LAMMERS, *POLLUTION OF INTERNATIONAL WATERCOURSES* (1984); SIMON LYSTER, *INTERNATIONAL WILDLIFE LAW* (1985); JUTTA BRUNNÉE, *ACID RAIN AND OZONE LAYER DEPLETION: INTERNATIONAL LAW AND REGULATION* (1988).

on a consolidated field of "international environmental law" have appeared.⁶ Similarly, a body of scholarship on the international system and the environment has been established in the political science sphere. International relations scholars have addressed the same sectoral, geographic, and global concerns through the theoretical lenses used in their field.⁷

The texts discussed in this Review are an eclectic selection of recent publications on international aspects of environmental protection, broadly conceived. Each text is written predominantly from the standpoint of either law, international or domestic, or the international relations specialization of political science. In isolation and contraposition, they illustrate the diversity of current offerings examining international environmental protection, highlight similarities and differences in concerns about the future contours of international environmental cooperation, and illustrate how diverse theoretical frameworks result in differing degrees of insight and creativity with respect to the evolving international environmental system.

I. THE PERSPECTIVE OF INTERNATIONAL ENVIRONMENTAL LAW

Produced as an initiative of the United Nations University, the papers contained in *Environmental Change and International Law: New*

6. Some traditionalists might deny that a discrete area of international environmental law has coalesced out of the general corpus of international law principles; other commentators either refer to a subset called "international environmental law" without further reflection or point to distinctive extant or evolving norms and procedures. See, e.g., PATRICIA W. BIRNIE & ALAN E. BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* (1992); ALEXANDRE KISS & DINAH SHELTON, *INTERNATIONAL ENVIRONMENTAL LAW* (1991); *ENVIRONMENTAL PROTECTION AND INTERNATIONAL LAW* (W. Lang et al. eds., 1991); JAN SCHNEIDER, *WORLD PUBLIC ORDER OF THE ENVIRONMENT* (1979); *INTERNATIONAL ENVIRONMENTAL LAW* (Ludwik A. Teclaff & Albert E. Utton eds., 1974). For documentary compilations see, e.g., *THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL AGREEMENTS: A SURVEY OF EXISTING LEGAL INSTRUMENTS* (Peter Sand ed., 1992); HARALD HOHMANN, *BASIC DOCUMENTS OF INTERNATIONAL ENVIRONMENTAL LAW* (3 vols. 1992); EDITH BROWN WEISS ET AL., *INTERNATIONAL ENVIRONMENTAL LAW: BASIC INSTRUMENTS AND REFERENCES* (1992); *INTERNATIONAL ENVIRONMENTAL LAW: PRIMARY MATERIALS* (Michael Molitor ed., 1991); *INTERNATIONAL PROTECTION OF THE ENVIRONMENT* (Bernd Ruster et al. eds., Series 1 (1975-82) & 2 (1990-)).

7. See, e.g., *THE STATE AND SOCIAL POWER IN GLOBAL ENVIRONMENTAL POLITICS* (Ronnie D. Lipschutz & Ken Conca eds., 1993); *THE INTERNATIONAL POLITICS OF THE ENVIRONMENT: ACTORS, INTERESTS, AND INSTITUTIONS* (Andrew Hurrell & Benedict Kingsbury eds., 1992); *PRESERVING THE GLOBAL ENVIRONMENT: THE CHALLENGE OF SHARED LEADERSHIP* (Jessica Tuchman Mathews ed., 1991); LYNTON K. CALDWELL, *INTERNATIONAL ENVIRONMENTAL POLICY: EMERGENCE AND DIMENSIONS* (2d ed. 1990); GARETH PORTER & JANET WELSH BROWN, *GLOBAL ENVIRONMENTAL POLITICS* (1991); RICHARD E. BENEDICK, *OZONE DIPLOMACY: NEW DIRECTIONS IN SAFEGUARDING THE PLANET* (1991); PETER M. HAAS, *SAVING THE MEDITERRANEAN: THE POLITICS OF INTERNATIONAL ENVIRONMENTAL COOPERATION* (1990); see also *infra* part II for further discussion.

*Challenges and Dimensions*⁸ were contributed by publicists from various nations to assist in the development of international law in the face of the changing global environment. Although the papers were written prior to the 1992 UNCED and the Gulf War, they illustrate the current and emerging outlines of international law and organizations relating to the environment. The predominant subject matter of *Environmental Change and International Law* is the elucidation of substantive and procedural international law as it is developing to deal with global environmental change. As the editor notes, six themes echo through the chapters in the book: "the growing common interest in the environment, the recognition of the scientific uncertainty about the environment, the adoption of an anticipatory approach, the relevance of human rights, the relationship between economic development and environmental protection, and the new approaches in implementing international environmental agreements."⁹ Since these themes are being given concrete form in international legal instruments arising out of the 1992 UNCED¹⁰ (and are also appearing in other international environment-related instruments), the text serves as a helpful source for review and analysis of these developing areas.

In the first section, "Issues in International Environmental Law," authors deal with a host of norms that are evolving in this sphere. In his paper *International Norm-Making*, Paul C. Szasz examines both the creation of "hard" international environmental law, in its treaty and customary international law forms, and "soft law."¹¹ The phenomenon of soft environmental law has recently become a topic of interest in the literature,¹² and Szasz focuses on its expanding use — as a harbinger of

8. ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS (Edith Brown Weiss ed., 1992) [hereinafter ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW].

9. Edith Brown Weiss, *Global Environmental Change and International Law: The Introductory Framework*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 3, 13.

10. See instruments cited *supra* note 2.

11. Soft law is generally accepted to mean (1) treaty provisions, capable of entailing legally-binding obligations, that are drafted in weak substantive terms, and (2) declarations, guidelines, standards, and other international materials adopted by States, intergovernmental organizations, or their organs that are not normative in character but which have some pre- or subnormative effect, usually on the immediate behavior of States or on the future formation of principles of customary international law. See, e.g., C.M. Chinkin, *The Challenge of Soft Law: Development and Change in International Law*, 38 INT'L. & COMP. L.Q. 850 (1989); Tadeusz Gruchalla-Wesierski, *A Framework for Understanding "Soft Law"*, 30 MCGILL L.J. 37 (1984); Prosper Weil, *Towards Relative Normativity in International Law*, 77 AM. J. INT'L L. 413 (1983); R.R. Baxter, *International Law in "Her Infinite Variety"*, 29 INT'L & COMP. L.Q. 549 (1980); Michel Bothe, *Legal and Non-Legal Norms—A Meaningful Distinction in International Relations?*, 11 NETH. Y.B. INT'L L. 65 (1980).

12. See, e.g., Panel, *Environmental Law: When Does it Make Sense to Negotiate Agreements?*, 87 AM. SOC'Y INT'L L. PROC. 377 (1993); Geoffrey Palmer, *New Ways to Make*

future treaty-making, as a catalyst for the formation of customary international law, and, standing alone, as a persuasive symbol that molds State conduct. Although not included in the overarching themes of the book, the interest in soft law reappears later in the text.¹³ The engagement with soft law has deepened since UNCED. Nonbinding documents concluded at UNCED — the Rio Declaration on Environment and Development,¹⁴ Agenda 21,¹⁵ and the Statement of Principles for a Global Consensus on the Management, Conservation, and Sustainable Development of All Types of Forests¹⁶ — are archetypical of contemporary soft law on the environment,¹⁷ and it can be anticipated that each will play an important role in expanding international and domestic environmental governance.

It is this mix of hard and soft international law, together with relevant intergovernmental organizations, that has caught the fancy of international relations scholars in recent years and has led to the search for explanatory theories. Until recently, the virtual absence of interdisciplinary scholarship to reconcile or compare the approaches in the fields of law and political science has resulted in two streams of analysis that parallel one another but do not interact. The contemporary movement to promote interdisciplinary international relations and law research will find the possibilities of intersections between hard and soft international law on the environment and political theories of international cooperation to be projects worthy of further investigation.¹⁸ In this respect, *Institutions for the Earth: Sources of Effective International Environmental Protection*, as discussed further below, is a valuable project that provides criteria for evaluating international cooperation for environmental protection. In contrast, *Environmental Change and International Law* is a relatively traditional law-oriented offering.

Several chapters in *Environmental Change and International Law* explore the preventive or palliative approaches which call for State conduct

International Environmental Law, 86 AM. J. INT'L L. 259, 269–70 (1992); Pierre-Marie Dupuy, *Soft Law and the International Law of the Environment*, 12 MICH. J. INT'L L. 420 (1991); BIRNIE & BOYLE, *supra* note 6, at 26–30.

13. See Alexandre Kiss, *The Implications of Global Change for the International Legal System*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 315.

14. Rio Declaration, *supra* note 2.

15. Agenda 21, *supra* note 2.

16. Statement on Sustainable Development of Forests, *supra* note 2.

17. Maurice Strong, *Beyond Rio: Prospects and Portents*, 4 COLO. J. INT'L ENVTL. L. & POL'Y 21, 31–32 (1993) (Rio Declaration and Agenda 21).

18. See, e.g., Anne-Marie Slaughter Burley, *International Law and International Relations Theory: A Dual Agenda*, 87 AM. J. INT'L L. 205, 222–23 (1993) (suggesting that the distinction between legal and nonlegal regimes and the connections with soft law are interesting questions for interdisciplinary work).

to reduce the likelihood or impact of activities detrimental to the environment, given the reality that once environmental harm has actually occurred it may be irreparable. These norms are coalescing in the procedural sphere in the areas of exchange of environmental information, giving notice of activities possibly involving significant transboundary environmental impact, consultations between acting and affected States, performance of environmental impact assessments, the precautionary approach, and giving warning prior to and assistance after an emergency/disaster with transboundary implications.¹⁹ These developments have been crystallized in both hard and soft law in some UNCED instruments.²⁰ Thus, *Environmental Change and International Law* acts as a basic research source for the historical-legal backgrounds to such provisions and also illustrates a trend in international environmental law toward the development of procedural norms.

Francisco Orrego Vicuña has contributed a comprehensive, readable paper on State responsibility in international environmental law, a notoriously murky area. In *State Responsibility, Liability and Remedial Measures Under International Law: New Criteria for Environmental Protection*, he surveys customary and treaty law in both its mature and formative configurations. His discussion on the increased reliance on preventive mechanisms echoes the theme of the anticipatory approach in modern international environmental law. It is Peider Könz, however, who highlights some of the weaknesses of the international environmental and transnational legal frameworks comprising environmental norms and civil liability,²¹ a theme that is mirrored in Jamie Cassels' book, discussed below. Könz looks at the limitations of the traditional tort law paradigm when applied to instances of environmental harm and the resulting movement, domestically and internationally, to the preventive approach. Könz briefly notes other limitations in domestic law that affect private civil actions seeking compensation for environmental damage, principally

19. Discussed in Peter S. Thacher, *Changing Requirements for International Information*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 81 and Toru Iwama, *Emerging Principles and Rules for the Prevention and Mitigation of Environmental Harm*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 107.

20. See, e.g., Rio Declaration, *supra* note 2, *princs.* 15 (precautionary approach), 17 (environmental impact assessments for proposed activities likely to have significant adverse impact), 18 (inter-State notification of natural disasters, emergencies likely to produce sudden harmful effects in those other State(s)), 19 (inter-State notification and information on activities that may have significant adverse transboundary effect, consultation); Framework Convention on Climate Change, *supra* note 2, arts. 3(3), 4(1), 6, 12 (precautionary measures and various information activities); Convention on Biological Diversity, *supra* note 2, arts. 7 (identification and monitoring), 14 (impact assessments), 17 (exchange of information).

21. Peider Könz, *Law and Global Environmental Management: Some Open Issues*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 159.

the problems created by various domestic conflict of laws systems and the difficulties encountered under corporate law in imposing liability on a parent corporation for the acts of its subsidiary. However, Jamie Cassels' book should be consulted for a much fuller and more critical treatment of these transnational legal and litigation issues.

Another cluster of chapters in *Environmental Change and International Law* addresses the intersection of international human rights law and the environment, discussing mainly the idea of the development of an international human right to a healthy environment — another popular topic in contemporary international environmental law scholarship. The authors in this section²² tend to take the usual scholarly approach, a building block methodology that attempts to construct a new third-generation right out of existing political, civil, and social rights (specifically, the right to life and the right to health), buttressed with a variety of domestic constitutional developments.²³ By and large, the papers in this section avoid directly confronting the issue of the current normative quality of a human right to a healthy environment.²⁴

The final section in *Environmental Change and International Law* is entitled "Future Directions in International Regimes." However, despite the title's connotations, only one paper in this section really focuses on institutional-organizational aspects of the international environmental law framework. In *Restructuring the International Organizational Framework*, Paul C. Szasz provides a handy compendium of the various international organizations and their organs which are involved in environmental matters.²⁵ He also provides functional criteria with which to evaluate the operational scope of an intergovernmental organization. Other authors in this assemblage have taken a wider approach, contemplating the development of new international norms through new vehicles. For example,

22. R.S. Pathak, *The Human Rights System as a Conceptual Framework for Environmental Law*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 205; A.A. Cançado Trindade, *The Contribution of International Human Rights Law to Environmental Protection with Special Reference to Global Environmental Change*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 244.

23. See, e.g., Dinah Shelton, *Human Rights, Environmental Rights, and the Right to Environment*, 28 STAN. J. INT'L L. 103 (1991); Melissa Thorne, *Establishing Environment as a Human Right*, 19 DEN. J. INT'L L. & POL'Y 301 (1991); Alexandre Kiss, *Concept and Possible Implications of the Right to Environment*, in HUMAN RIGHTS IN THE TWENTY-FIRST CENTURY: A GLOBAL CHALLENGE 551 (Kathleen E. Mahoney & Paul Mahoney eds., 1993).

24. Cf. Pathak, *supra* note 22, at 222 (stating that "[t]he right to a healthful environment is an emerging human right . . . it is perhaps difficult to deny now that the right to a healthful environment has a significant status in international law").

25. ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 340.

Alexandre Kiss²⁶ devotes attention to soft law and to mechanisms for the implementation of international legal obligations, ranging from domestic measures to international devices such as surveillance by and reporting to international organizations. Also, Edith Brown Weiss revisits her recent scholarship²⁷ in a paper entitled *Intergenerational Equity: A Legal Framework for Global Environmental Change*.²⁸

The papers in *Environmental Change and International Law* are uneven in their quality, depth of coverage, and depth of analysis. The selection of papers has resulted in some duplication between chapters and some cursory treatment of topics that are, due to their more frequent appearance in international instruments, worthy of further discussion. Some of the papers are rather difficult to wade through, by virtue of their dry and formalistic style; others are quite accessible, without forsaking thoroughness. However, this is not a text to consult if one is looking for deep substantive treatment of any of the different sectors of the environment. And though the papers and their authors have, in many cases, anticipated the evolving contours of principles of international environmental law with clarity, there are important omissions in coverage. The editor expressly recognizes the absence of two subjects that are increasingly important: the issue of compliance with international legal obligations and the interrelationship between international trade and the environment. One unnoted omission is the lack of attention to the relationship between South and North nations and the effect that this will have on future environmental law making.²⁹ This omission is surprising given that the various development and financial resource concerns of Third World nations were already apparent prior to the 1992 UNCED.

II. THE INTERNATIONAL RELATIONS PERSPECTIVE ON ENVIRONMENTAL CONCERNS

*Institutions for the Earth: Sources of International Environmental Protection*³⁰ is a recent example of work in the field of international

26. Kiss, *supra* note 13, at 315.

27. EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY (1990); Edith Brown Weiss, *Our Rights and Obligations to Future Generations for the Environment*, 84 AM. J. INT'L L. 198 (1990).

28. ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 385.

29. *But see* Lai Peng Cheng, *The Legislation and Implementation of International Environmental Law and the Third World: The Example of China*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW, *supra* note 8, at 179.

30. INSTITUTIONS FOR THE EARTH: SOURCES OF INTERNATIONAL ENVIRONMENTAL PROTECTION (Peter M. Haas, Robert O. Keohane, & Marc A. Levy eds., 1993) [hereinafter

relations that explores cooperation in the international system through the broadly defined agency of institutions. Produced under the auspices of the Harvard Center for International Affairs, it is the result of a collaborative research effort on the part of the editors and five other contributors to analyze the effectiveness of international environmental institutions. It consists of seven case studies as well as opening and closing chapters discussing the approach employed in the case studies and summarizing and analyzing the results of the research.

Making a distinction between institutions and specific formal organizations, scholarship on "international organization" has evolved in recent decades, moving from an interest in form to process.³¹ In addition, from the early 1980s onward, the development of regime theory has provided a new focus for dissecting cooperative behavior. International regimes are commonly defined as "sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations."³² Indeed, regime theory has proved to be a fruitful avenue for examination of the forms of international cooperation in the environmental sector.³³ In *Institutions for the Earth* the concept of "institutions" is drawn expansively to encompass

persistent and connected sets of rules and practices that prescribe behavioral roles, constrain activity, and shape expectations. They may

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31. Burley, *supra* note 18, at 217-18. Burley states that

the scholarly focus in this area shifted from a preoccupation with formal institutions, to an emphasis on institutional processes, to a more general inquiry into how international organizations work in a larger process of international governance. The last step in this progression was the reconceptualization of the entire field of international organization as the study of "international regimes,"

Id.; see also Friedrich Kratochwil & John G. Ruggie, *International Organization: A State of the Art on an Art of the State*, 40 INT'L ORG. 753 (1986); ORAN R. YOUNG, INTERNATIONAL COOPERATION: BUILDING REGIMES FOR NATURAL RESOURCES AND THE ENVIRONMENT 31-37 (1989) (distinguishing institutions and organizations).

32. INTERNATIONAL REGIMES 2 (Stephen D. Krasner ed., 1983); see also Kenneth W. Abbott, *Modern International Relations Theory: A Prospectus For International Lawyers*, 14 YALE J. INT'L L. 335, 338 (1989). International regimes may or may not include an international organization. YOUNG, *supra* note 31, at 13.

33. See, e.g., POLAR POLITICS: CREATING INTERNATIONAL ENVIRONMENTAL REGIMES (Oran R. Young & Gail Osherenko eds., 1993); Don Munton & Geoffrey Castle, *Air, Water, and Political Fire: Building a North American Environmental Regime*, in CANADIAN FOREIGN POLICY AND INTERNATIONAL ECONOMIC REGIMES 311 (A. Claire Cutler & Mark W. Zacher eds., 1992); YOUNG, *supra* note 31; Karen Litfin, *Eco-Regimes: Playing Tug of War with the Nation State*, in THE STATE AND SOCIAL POWER IN GLOBAL ENVIRONMENTAL POLITICS, *supra* note 7, at 94.

take the form of bureaucratic organizations, regimes (rule-structures that do not necessarily have organizations attached), or conventions (informal practices).³⁴

The stated institutional focus of *Institutions for the Earth* includes:

both organizations and sets of rules, codified in conventions and protocols that have been formally accepted by states. It is convenient to use the word "institutions" to cover both organizations and rules, since clusters of rules are typically linked to organizations, and it is often difficult to disentangle their effects.³⁵

For the editors of *Institutions for the Earth*, numerous international environmental institutions are available for examination since their concept of institutions is more inclusive than that employed by international lawyers. It encompasses intergovernmental organizations (based on a constituent multilateral treaty), treaty law (one accepted source of international law), and what appears to be nonbinding or prenormative practice. From a legal perspective, there would appear to be only a small number of intergovernmental organizations directly involved in international environmental protection. However, the expansive flexibility inherent in the institutionalist construction of the international system may prove useful to the international law school. In particular, environmental treaties are increasingly establishing subsidiary bodies to assist in the operation and amendment of the treaty relationship, but without a formal organizational framework, so that the law of international organizations is of limited relevance. Certainly there are parallels between institutionalist concepts and those of international law. For example, Anne-Marie Slaughter Burley, overcoming the divergent vocabularies of the different disciplines, has formulated interdisciplinary connections by comparing the functions and benefits of international regimes and international law, as enunciated by scholars in their respective fields.³⁶ Similarly, the wider framework of the international institution and its constellation of cooperative vehicles — moving from organizations at the center, then through regime-type arrangements, and finally to informal practices at the periphery — is a model that may help explain affirmative State behavior to protect the environment that occurs without binding legal norms.

34. Robert O. Keohane et al., *The Effectiveness of International Environmental Institutions*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 4–5.

35. *Id.* at 5.

36. Burley, *supra* note 18, at 220 (concluding that "[p]olitical scientists have rediscovered international law, explaining its function and value to their fellow scholars in terms very similar to those long used by international lawyers").

Institutionalist thought should become a valuable tool in the analysis of international environmental law as a complement to the notion of "soft law" prevalent in the field of international law.

In addition, although *Institutions for the Earth* is not designed as an interdisciplinary work, the three functions that its researchers found to enhance the effectiveness of international environmental institutions in building international cooperation will be valuable tools for lawyers working in the field. The three influential institutional roles isolated are termed the "three Cs": (1) increasing governmental *concern* that international action needs to be taken in a specific area; (2) enhancing the *contractual* environment, leading States to negotiate and observe international agreements; and (3) building national political and administrative *capacity*.³⁷

In speaking to an audience composed mainly of international lawyers, Marc Levy, one of the book's editors, applied the researchers' results to questions asking whether it is more effective to pursue the creation of hard treaty law or soft law in a particular environmental protection situation. Levy indicated that they did not find a large differential between hard and soft law in enhancing the "three Cs" of concern, contractual environment, and capacity.³⁸ However, hard law was found to be essential

when facing a condition in which short-term steps are required that become costly to undertake unless they are immediately reciprocated. Measures undertaken that are not quickly reversible and are not reciprocated incur a high price. The one clear case we found involved the ozone layer. . . .³⁹

They also found that in other situations soft law could be very helpful:

A common obstacle with the problem of "concern" is the ability of laggard countries to slow down the entire community. We call this the "slow boat" problem. Soft law creates a situation that discourages laggard countries — they can be pressured to stop slowing things down. As for "capacity," many countries want to increase their capacity-building functions through soft law, for example, through standard-setting organizations. . . . The intrusiveness is less direct, and countries are more willing to accept it. On the "contractual environment," sometimes you need to move very fast. Because hard law often takes too long, the soft-law route can be a vehicle for moving faster.⁴⁰

37. Marc A. Levy et al., *Improving the Effectiveness of International Environmental Institutions*, in *INSTITUTIONS FOR THE EARTH*, *supra* note 30, 397 at 398–408.

38. See *Remarks by Marc A. Levy*, 87 AM. SOC. INT'L L. PROC. 389 (1993).

39. *Id.*

40. *Id.*

Institutions for the Earth does address the issue of State compliance with international legal obligations under one of the "C" functions, national capacity, i.e. national legal and administrative policy responses to international obligations. Their findings on compliance suggested the establishment of four categories of State compliance action⁴¹ and, in separating them into two groups of "laggards" and "leaders," they found that international institutions assisted in moving States along the compliance scale.⁴² Depending on the category, different motivations for affirmative State compliance activity were observed in the case studies, including the leverage of international law, financial and technical assistance, and negative publicity from nongovernmental organizations (NGOs).⁴³ Their conclusions complement contemporary interdisciplinary research on the theme of treaty compliance⁴⁴ and could lead to further interconnecting lines of inquiry on the subject — an issue of increasing importance in the wake of the negotiation of numerous environmental treaties in recent decades.

The chapters in *Institutions for the Earth* evaluate the effectiveness of international institutions active in the transboundary and commons issue areas of protection of the ozone layer, European acid rain, the Baltic and North Seas, intentional oil pollution of the oceans, and international fisheries management. Also examined, though classified as intranational problems (but which surely have international implications), are the management of pesticide use in developing countries and international population institutions. Augmenting the solid contribution of the text to the theoretical canon, all of the chapters contain a wealth of information on the political and legal history of the particular environmental sector under scrutiny. Moreover, the author of each case study has her or his own particular insight into the reasons for the level of international institutional cooperation found therein.

41. "Some countries simply avoid international obligations by failing to sign treaty commitments. Others accept commitments but fail to live up to them. A third group accepts commitments and achieves compliance. Finally, a fourth group goes significantly further than explicit obligations require." Keohane et al., *supra* note 34, at 16.

42. *Id.*

43. "Laggard" States tended to respond to a mix of international law obligations, unfavorable publicity of their noncompliance by NGOs, persuasion, scientific reasoning, and financial and technical assistance. "Leader" States complied because of domestic political and environmental group pressure, progressive domestic policies, and the fact that they are often the first States to experience environmental harm. *Id.* at 16–17.

44. See, e.g., Abram Chayes & Antonia Chayes, *On Compliance*, 47 INT'L ORG. 175 (1993); Burley, *supra* note 18, at 223–24.

The chapters on the ozone layer⁴⁵ and European acid rain⁴⁶ both illustrate the success of international cooperation stemming from a framework treaty/protocol combination that uses a progression of escalating treaty requirements, moving from weak substantive provisions in the framework agreement to stronger emission control commitments in follow-up protocols. In both cases, the institutional mechanisms, instituted over time and arising out of the treaty relationships, positively influenced the strengthening of the international regulation.

The three chapters discussing protection of the marine environment and its living resources⁴⁷ show that there is a diversity both of forms of international cooperation and degrees of success. The chapter on the Baltic and North Sea areas indicates that there is considerable institutional organization in this sector, characterized by an interacting transformation of both institutional and State action over time. In contrast, the subject of another chapter, intentional vessel-source oil pollution, is characterized by the presence of one intergovernmental organization and a number of treaties. However, both sectors saw the development of international environmental cooperation from the early 1970s, due to differing domestic and international factors. The chapter on international fisheries management, which focuses on overfishing as the core environmental issue, gives the quality of international cooperation low marks.

The chapters on pesticide use and population institutions both address subjects of considerable import to countries of the South. Robert Paarlberg examines the state of international cooperation regulating pesticide use, specifically as it applies to developing countries.⁴⁸ The risks of pesticide use — to the environment and to human health through the consumption of pesticide residues in food or through occupational use — are growing most rapidly in developing countries; this growth can be attributed to the combination of lack of national governmental capacity to regulate appropriately and to the behavior of multinational corporations.⁴⁹ Thus, while the Bhopal tragedy discussed below is a well-publicized example of the

45. Edward A. Parson, *Protecting the Ozone Layer*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 27.

46. Marc A. Levy, *European Acid Rain: The Power of Tote-Board Diplomacy*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 75.

47. Peter M. Haas, *Protecting the Baltic and North Seas*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 133; Ronald Mitchell, *Intentional Oil Pollution of the Ocean*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 183; M.J. Peterson, *International Fisheries Management*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 249.

48. Robert L. Paarlberg, *Managing Pesticide Use in Developing Countries*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 309.

49. *Id.* at 310–11.

hazards of pesticide manufacture in a developing State, it is quotidian pesticide use in South countries that is an ongoing, yet relatively unheeded, danger. Paarlberg details the tardy effort of the international community to respond to the problem. It was not until the 1980s that international institutions faced the issue squarely. Even then, during the early part of the decade, movement was slow and there was little cooperation. Nonbinding instruments were adopted by the relevant international organizations, and these forms of soft law were eventually strengthened as institutional cooperation improved in the latter part of the decade.⁵⁰ However, Paarlberg recognizes, as does Cassels (see the review of his book below), that key to improving the situation is legal and behavioral change in the user countries and the mobilization of financial assistance.⁵¹

The chapter by Barbara Crane on international population institutions⁵² is important for its examination of an issue, population growth, that is often mentioned by commentators in the international environmental community because of its impact on the environment and other sectors, but which rarely receives the sort of systematic attention it deserves.⁵³ The 1994 United Nations Conference on Population and Development will heighten interest and, in particular, will have to deal with the potential conflicts and alliances between women's rights advocates, environmentalists, developing countries of the South, religious institutions, and others.⁵⁴ Population growth into the next century will occur predominantly in developing countries.⁵⁵ As the women's movement has

50. *Id.* at 330-48.

51. *Id.* at 348-49.

52. Barbara B. Crane, *International Population Institutions: Adaptation to a Changing World Order*, in INSTITUTIONS FOR THE EARTH, *supra* note 30, at 351.

53. *But see, e.g.*, RICHARD GARDNER, NEGOTIATING SURVIVAL: FOUR PRIORITIES AFTER RIO (1992); PAUL HARRISON, THE THIRD REVOLUTION: ENVIRONMENT, POPULATION, AND A SUSTAINABLE WORLD (1992); UNITED NATIONS POPULATION FUND, POPULATION AND THE ENVIRONMENT: THE CHALLENGES AHEAD (1991) [hereinafter POPULATION AND THE ENVIRONMENT]; WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE (1987).

54. From a large body of literature in the social sciences, see, e.g., RUTH DIXON-MUELLER, POPULATION POLICY & WOMEN'S RIGHTS: TRANSFORMING REPRODUCTIVE CHOICE (1993); BETSY HARTMANN, REPRODUCTIVE RIGHTS AND WRONGS: THE GLOBAL POLITICS OF POPULATION CONTROL AND CONTRACEPTIVE CHOICE (1987); STANLEY P. JOHNSON, WORLD POPULATION AND THE UNITED NATIONS (1987). In the law literature on refugee and human rights issues, see, e.g., Susan Y. Slaton, *Hard Decisions: Asylum Protection as Applied to Aliens Opposing Population Control Policies*, 16 NOVA L. REV. 955 (1992); E. Tobin Shiers, *Coercive Population Policies: An Illustration of the Need for a Conscientious Objector Provision for Asylum Seekers*, 30 VA. J. INT'L L. 1007 (1990); Symposium, *The Civil Liberties and Human Rights Implications of United States International Population Policy*, 20 N.Y.U. J. INT'L L. & POL. 1 (1987); see also note 56 *infra*.

55. POPULATION AND THE ENVIRONMENT, *supra* note 53, at 8.

grown over the past two decades, attempts to establish and implement population policies now face sensitive issues of women's international human rights to reproductive autonomy and access to contraception, free of coercive measures.⁵⁶ This particular interface between international human rights law and the environment has not been widely recognized by mainstream scholars. Further, the international environmental law and policy movement has renewed an interest in the matter since the 1980s, with some commentators overtly recognizing the interrelated impacts on women and on development.⁵⁷ Crane's chapter tracks, in all its complexity, the changing political interests in population policy formation in international governmental and nongovernmental organizations from their inception to the present era. Population control is an area characterized by myriad international institutions but with little hard normative content. Crane can tolerate this international configuration since her conclusions are that decisions on population programs will be made at the national level in South countries "and will reflect the increasing social and economic differences among them,"⁵⁸ although "broader norms and guidelines formulated at the international level will continue to play a role in national policy making."⁵⁹

Finally, the research reported in *Institutions for the Earth* is also useful in its scrutiny of the influence of domestic actors on the international system. Despite the reluctance of international law to recognize the subjecthood of non-State actors, such as NGOs and individuals, and the traditionally opaque paradigm of the State in international relations, private actors have clearly influenced the evolution of contemporary forms of international environmental law and institutions. This observation is buttressed by the finding in *Institutions for the Earth* that a crucial variable backing changes in international policy is "the degree of domestic environmentalist pressure in major industrialized democracies, not the decision-making rules of the relevant international institution"⁶⁰

56. See HARTMANN, *supra* note 54; Maria I. Plata, *Reproductive Rights as Human Rights: The Colombian Case*, in *WOMEN'S INTERNATIONAL HUMAN RIGHTS LAW* (Rebecca J. Cook ed., forthcoming 1994); Rebecca J. Cook, *International Protection of Women's Reproductive Rights*, 24 N.Y.U. J. INT'L L. & POL. 645 (1992); Berta E. Hernandez, *To Bear or Not to Bear: Reproductive Freedom as an International Human Right*, 17 BROOKLYN J. INT'L L. 309 (1991).

57. See, e.g., Susan A. Cohen, *Competition, or Consensus?*, (Oct. 1993) POPULI 11; JODI L. JACOBSON, *GENDER BIAS: ROADBLOCK TO SUSTAINABLE DEVELOPMENT* (Worldwatch Paper 110, Sept. 1992); Robert Houseman, *The Muted Voice: The Role of Women in Sustainable Development*, 4 GEO. INT'L ENVTL. L. REV. 361 (1992).

58. Crane, *supra* note 52, at 393.

59. *Id.*

60. Keohane et al., *supra* note 34, at 14.

— especially if there are effective lines of communication between the pressure groups and governments.

Certainly this aspect of international environmental law and policy development raises issues for further interdisciplinary research, for example, using the concept of liberal internationalism, based on political theories of liberalism applied to international relations⁶¹ and personified by the liberal State.⁶² Anne-Marie Slaughter Burley has articulated the three fundamental assumptions underlying liberal theory.⁶³ In brief, liberal theory holds that private actors are the essential players in international society who, in seeking to promote their own interests, influence the national policies of States which, in turn and in differing degrees, represent parts of their constitutive society. Consequently, the quality of State interaction is informed by State preferences as constituted by their particular domestic sociolegal structures. Arguably, in liberal States private individual and group actors promoting environmental protection will have influence on State interests and, accordingly, on State policy in the international sphere. Thus, successful international environmental lawmaking may be positively influenced by cooperation between liberal States in multilateral or regional fora. For example, in the case studies contained in *Institutions for the Earth*, private actors were influential in

61. Burley, *supra* note 18, at 227–39; Anne-Marie Burley, *Toward An Age of Liberal Nations*, 33 HARV. INT'L L. J. 393 (1992) [hereinafter Burley, *Liberal Nations*]. Burley also states:

liberalism refers to the international dimension of domestic liberal political theory. . . liberalism looks beyond states to individual and group actors in domestic and transnational civil society; emphasizes the representativeness of governments as a key variable in determining state interests; and focuses less on power than on the nature and strength of those interests in international bargaining. In contrast to realism, liberalism distinguishes among relations between different types of states.

Anne-Marie Slaughter Burley, *Are Foreign Affairs Different?*, 106 HARV. L. REV. 1980, 2001 (1993) [hereinafter Burley, *Are Foreign Affairs Different?*] (reviewing THOMAS FRANCK, *POLITICAL QUESTIONS/JUDICIAL ANSWERS: DOES THE RULE OF LAW APPLY TO FOREIGN AFFAIRS?*).

62. Burley, *Are Foreign Affairs Different?*, *supra* note 61, at 2001 (liberal States are defined as those with some type of representative government, market economy, and constitutional protection of civil and political rights).

63. (1) "The fundamental actors in politics are members of domestic society, understood as individuals and privately constituted groups seeking to promote their independent interests. Under specified conditions, individual incentives may promote social order and the progressive improvement of individual welfare." . . . (2) "All governments represent some segment of domestic society, whose interests are reflected in state policy." . . . (3) "[T]he behavior of states — and hence levels of international conflict and cooperation — reflects the nature and configuration of state preferences."

Burley, *supra* note 18, at 227–28 (quoting Andrew Moravcsik, *Liberalism and International Relations Theory* (working paper, Center for International Affairs, Harvard University, 1992), at 6–11).

enhancing the character of international cooperation in the case of the Baltic and North Seas, fisheries management, pesticides, and population.⁶⁴

In sum, in both its general theoretical contribution and its individual offerings on issue areas, *Institutions for the Earth* is a fine collection, of utility to those working in either political science or law. The chapters are of consistently high quality, and the case studies contain both detailed historical-legal information and useful analysis of each issue area based on the three roles of concern, contractual environment, and capacity. Also, as was noted above, it should provoke interdisciplinary research projects in international environmental politics and law.

III. A STUDY OF THE INTERACTION BETWEEN TRANSNATIONAL LAW AND POLITICS

Unlike the works just discussed, which take a macroscopic view of the ability of the international system to protect the environment, Jamie Cassels' *The Uncertain Promise of Law: Lessons from Bhopal*⁶⁵ looks microscopically at the Bhopal catastrophe as an example of the limitations of existing international and domestic law in their ability, alone or in combination, to redress damage to human health and the environment caused by toxic accidents. The text employs a skilful interdisciplinary blending of domestic and international law, political economy, and business/management practices. In its coverage of existing international business and environmental law, domestic tort law systems, environmental protection, industrial safety, and conflicts of law, *The Uncertain Promise of Law* illustrates the unsatisfactory nature of the transnational and domestic legal systems' ability to prevent environmental accidents or to mitigate their harmful consequences.

Cassels, as pathologist, conducts an autopsy of Bhopal to determine that "in the end, the Bhopal story is about the limitations of law"⁶⁶ in responding to environmental accidents. He believes this situation exists in most, if not all, States, although it may have been exacerbated in the Bhopal context. With respect to toxic accidents in general, he accentuates the importance of affirmative legislative and regulatory action, together with the mobilization of adequate financial support. He argues that this

64. Keohane et al., *supra* note 34, at 14. Domestic actors also influenced international cooperation in the case of international regulation of intentional vessel-source oil pollution of the ocean. See Mitchell, *supra* note 47, at 222-47. The editors recognize the significance of the actions of non-State actors on the international system and call for further research on the relationships between international institutions and non-State actors. See Levy et al., *supra* note 37, at 420.

65. JAMIE CASSELS, *THE UNCERTAIN PROMISE OF LAW: LESSONS FROM BHOPAL* (1993).

66. *Id.* at xi.

combination is not being realized in nations regardless of their level of development, and that the lack of such support combines with the disproportionate power of industry relative to host State governments to produce weak preventive and response systems. Cassels is a skeptic and his diagnosis isolates the gap between the "promise of law" to protect the environment and human health, and the "reality" of governmental under-enforcement and corporate noncompliance.

The message of *The Uncertain Promise of Law* for international environmental law and politics is its challenge to the relevance or utility of the international system with respect to the problem of environmental accidents, specifically those involving multinational entities and which result in intranational damage to health and the environment. For Cassels, environmental protection and human health can be maintained in the presence of industrial operations only if there is stringent domestic law and means to obtain satisfactory compliance with it. Implicit in Cassels' analysis is the view that such a state of affairs will result mainly from domestic reform rather than international norms or institutions.

Cassels replays the story of the 1984 toxic gas leak from the Union Carbide plant in Bhopal, India with a stark precision that hammers the horrific human toll of the disaster into our consciousness. The factory, which manufactured pesticides and insecticides, was owned by Union Carbide of India Ltd.; 50.9% of the shares of the Indian company were owned by its U.S. multinational parent, Union Carbide Corporation, with the Indian government also holding shares in the subsidiary.⁶⁷ Cassels lays out the very different views of the cause of the accident posed by the government and the company and reviews the poor state of the corporate and governmental procedures both prior and subsequent to the accident.

Cassels examines the circuitous relationships among the various players in the international economic system.⁶⁸ He describes the symbiotic relationship between multinational corporate enterprises and the countries that host their foreign investment projects — often developing nations eager for foreign investment in the current international climate of economic liberalism. Cassels scrutinizes the ambivalence of developing host States towards the concept of sustainable development and the view of some hosts that there is a "trade-off" between economic development and poverty alleviation on the one hand, and the environment and human

67. *Id.* at 13.

68. See generally *id.* at 33–53 (ch. 2: *The Political Economy of Industrial and Environmental Disasters*).

safety on the other hand.⁶⁹ He views both the international system and the domestic sphere as hierarchical in nature, with Third World nations and the poor as the losers in the environment/safety and development game. He states:

The massively unequal distribution of global wealth and resources therefore places even the most welfare-sensitive host states in an inherently contradictory position when they seek to regulate industrial safety and environmental quality. Industry provides not only the materials of development but also a large portion of state finance. Domestically, the government is under pressure to create jobs and wealth, while at the same time protecting the environment and worker safety. Thus, the state seeks to regulate industry in a manner suited to the welfare of the citizen, without alienating the owners of capital. At the very least, these two functions create tensions in the formation of public policy.⁷⁰

While Cassels is pragmatic concerning the benefits that foreign investment may bring to a host State, he points to the domestic inequities in their distribution, where, in a vertical cost-benefit tradeoff, élite groups obtain the monetary rewards of the technology, but the costs, measured in the currency of harm to human health and the environment, are visited on the poverty-ridden living close to the accident site.⁷¹ Cassels' reading of Bhopal, set against the economic realities of the so-called global economy, acts as an effective critique of the supposed benefits of economic liberalism and international investment.

The sketchy and soft nature of the international law framework applicable to Bhopal-type incidents is reviewed, with Cassels revisiting the well-recognized subject matter of the failure of international and domestic law, jointly or singly, to comprehensively regulate the conduct of multinational corporations. Cassels cites the following shortcomings of the international and domestic law applicable when a multinational corporation is involved in domestic environmental damage: the nonbinding nature of the codes of conduct or guidelines applicable to multinational corporations,⁷² the fact that States are averse to enforcing compliance with

69. *Id.* at 36-39.

70. *Id.* at 37-38.

71. *Id.* at 38-39.

72. *See, e.g.*, OECD Declaration on International Investment and Multilateral Enterprises, June 21, 1976, 15 I.L.M. 967, 970; OECD Clarification of the Environmental Concerns Expressed in Paragraph 2 of the General Policies Chapter of the OECD Guidelines for Multinational Enterprises, Nov. 1985, 25 I.L.M. 494, 494; International Labor Organization: Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, Nov. 16, 1977, 17 I.L.M. 422, 422. *See generally* TRANSFERRING HAZARDOUS TECHNOLOGIES

them, the problems surrounding the extraterritorial application of the home State law of multinationals, and the circumscribed nature of international law on the export of hazardous products and technology transfer. Here, in contrast to the favorable view of the effectiveness of soft environmental law held by the contributors to *Environmental Change and International Law*, Cassels illustrates the limitations of soft law in attempting to control the conduct of multinationals in host States. In the end Cassels quickly canvasses the areas of international law where reform is required, targeting the codes of conduct, the state of international law on liability and compensation, and the status of preventive measures. Although his coverage is brief, the complexities involved in increasing the regulation of multinational activities is apparent. At heart, though, Cassels feels that the source of difficulties in reaching international agreement is socio-economic in nature, so that the development of States and an international redistribution of financial resources are prerequisites to the success of any truly international initiative. Although Cassels does not take the 1992 UNCED and its explicit acknowledgments of the interconnection of environment and development into account, his book is the best of those reviewed in examining the complexities of future international agreement between North and South countries on environmental protection.

However, it is the inadequacy of both domestic law and the interaction of domestic legal systems through transnational civil litigation that lies at the core of Cassel's book and his thesis on the limitations of law in coping with the human and environmental damage wrought by industrial catastrophes. Cassels uses Bhopal as a springboard for discussing the major failings of tort law in common law systems when faced with the task of responding to environmental disasters or "toxic torts." He sees tort law as a nineteenth century legal construction that cannot adapt quickly enough to the contemporary reality of complex "systems accidents." In such accidents there are multiple defendants, proof of a legally sufficient causal link between the accident and the harm is problematic, the adversarial system is based on an unrealistic "meeting of economic equals" model, and compensation is based on the market value of the defendant. Cassels' critique of the political economy of tort law returns in the end to Bhopal. Since the price put on human life, and thus the cost of accidents, is lower in India than it is in North America according to the market calculus used by law and economic systems, then

[t]o the extent that the expected cost of accidents is a factor in the decision of where to locate a dangerous plant, and how much to

spend on supervision, updating, and safety, the calculations will be very different in the two locations. . . . Thus, by accepting the current distribution of income and wealth as the basis for determining social costs, law and economics both reproduce and aggravate the basic problem of distributive justice and the inequitable distribution of risks to human health and safety.⁷³

Thus, Cassels shows how the Bhopal litigants saw their plight in the broader context of the differences in political and economic power between the Third World and the "developed" nations, yet, paradoxically, relied on domestic legal processes for redress, a contest in which the deck was systematically stacked against them.

Cassels also probes the role of conflict of laws rules in litigating jurisdictional issues in the Bhopal post-disaster tragedy. In doing so he illustrates both the ability of litigators to manipulate conflict of laws principles and the ability of the rules themselves to obfuscate larger issues of justice in the determination of the forum for an action involving multinational corporate conduct.

The Indian government's decision to pursue compensation in U.S. courts initially implicated the conflict of laws regime of the United States.⁷⁴ The doctrine of *forum non conveniens* was used by the U.S. courts to decline to exercise jurisdiction.⁷⁵ Thus, according to Cassels, "the politics of choice of forum" introduced into the litigation factors such as the perspective of the judge rendering a decision on the appropriate forum, judicial assumptions on how the international economy operates, including, for example, "the empirical assumption that businesses are autonomous, and the normative assumption that developed countries are not implicated in the problem of health and safety in the developing world."⁷⁶ Yet Cassels does try to take a balanced view. On the one hand, he sees the final decision of the U.S. courts in refusing to exercise jurisdiction as a rational one based on the facts connecting the litigation with India and the political ramifications of a U.S. court rendering judgment on Indian law and policy. On the other hand, Cassels sees the final outcome as producing, *inter alia*, "a substantive principle denying that home states have *any* interest in the activities of their corporations

73. CASSELS, *supra* note 65, at 108.

74. Furthermore, the conflicts of interest involved in the Indian government's decision to take over the litigation on behalf of the individual claimants do not escape Cassels' notice.

75. See *In re Union Carbide Corp. Gas Plant Disaster at Bhopal, India* in Dec. 1984, 634 F. Supp. 842 (S.D.N.Y. 1986), *aff'd as modified*, 809 F.2d 195 (2d Cir. 1987), *cert. denied*, 484 U.S. 871.

76. Cassels attributes these assumptions to Judge Keenan's understanding of the facts. See CASSELS, *supra* note 65, at 139.

abroad, or even to ensure that those corporations submit to the foreign jurisdiction and honour judgments given."⁷⁷

Similarly, Cassels delves into the political and economic factors influencing the law as the Bhopal litigation moved to India. His theme on the "uncertain promise of law" reappears here. Cassels sees the differences between the appearance of the legal system of India and its systemically limited reality to be manifested in the substantive problems of the common law tort system and the procedural problems engendered by an overloaded and underfunded court system. Furthermore, the strategic move by the Indian government to pursue compensation from the asset-rich parent, Union Carbide Corporation, raised legal problems regarding liability, especially the corporate law principles of separate legal identity and liability as between parent and subsidiary. Cassels discusses the attempt of the Indian government to argue for the application of the principle of "multinational enterprise liability" to pierce the corporate veil and attach liability to the parent Union Carbide. In doing so Cassels provides arguments both for and against the evolution of such a doctrine, although he finally expresses a preference for the application of such a doctrine when appropriately circumscribed.⁷⁸ In addition, Cassels nicely analyzes the approaches taken by the Indian courts, placing their dynamics within the particular context of modern India, including what he sees as the greater propensity of Indian courts to promote social justice in light of the realities underlying a particular case. In the end, after protracted litigation in two countries, the parties settled. As ever, the thematic idea of the uncertain promise of law reappears as the inadequacies of the settlement amount and the process for its distribution are described.

Aspects of the Bhopal disaster emphasized by Cassels can be compared to themes raised in *Environmental Change and International Law* and *Institutions for the Earth*. For example, although his discussion of international regulation or cooperation is brief, Cassels explicitly recognizes the political aspects of the international system and the structural disparities between the South and North. In effect, Cassels' approach is one of historical materialism, as extended to the environmental and human health sectors, as the ramifications of the systemic inequities play out in

77. *Id.* at 143-44. The conditions imposed by Judge Keenan in deciding to decline jurisdiction on grounds of *forum non conveniens* included the requirements that Union Carbide submit to the jurisdiction of the courts of India and waive statute of limitation defenses, satisfy any judgment rendered against it by an Indian court, and, after demand by the plaintiff, submit to discovery based on U.S. discovery rules. On appeal, the second and third conditions were overturned. *In re Union Carbide Corp. Gas Plant Disaster at Bhopal, India* in Dec. 1984, 809 F.2d 195, 203-206 (2d Cir. 1987).

78. CASSELS, *supra* note 65, at 209-12.

countries on the periphery of the international system. In contrast, systemic political and economic constraints that may affect the development of international environmental law and its compliance or enforcement are not the focus of attention in *Environmental Change and International Law*, and, while these factors are considered in *Institutions for the Earth*, not all of the case studies involve North-South issues. Thus, although Cassels addresses only one event, his eloquent book is a penetrating examination of the potentially intractable difficulties involved in avoiding or redressing harm to the environment and human health in many countries.