

BOOK REVIEW ESSAY

TEACHING INTERNATIONAL ENVIRONMENTAL LAW — TOOLS OF THE TRADE: A SURVEY OF MATERIALS*

Michael J. Kelly**

I.	INTRODUCTION	1199
II.	COURSE BOOKS	1200
	A. GURUSWAMY, PALMER & WESTON, INTERNATIONAL ENVIRONMENTAL LAW AND WORLD ORDER (West 1994)	1200
	B. HUNTER, SALZMAN & ZAELEKE, INTERNATIONAL ENVIRONMENTAL LAW AND POLICY (Foundation Press 1998)	1208
	C. Comparison	1214
III.	TREATISES	1215
	A. KISS & SHELTON, INTERNATIONAL ENVIRON- MENTAL LAW (Transnational Publishers 1991) ..	1215
	B. NANDA, INTERNATIONAL ENVIRONMENTAL LAW & POLICY (Transnational Publishers 1995) .	1216
	C. BIRNIE & BOYLE, INTERNATIONAL LAW AND THE	

* © 1999, Michael J. Kelly. All rights reserved.

** B.A., J.D., Indiana University; LL.M. International & Comparative Law, Georgetown University. Mr. Kelly is the Director of Legal Research, Writing & Advocacy at Michigan State University's Detroit College of Law, where he also teaches international and domestic environmental law courses.

EDITORS' NOTE: Within the text and citations of Professor Kelly's article, the *Stetson Law Review* deviates from our strict adherence to the rules contained in the Sixteenth Edition of *The Bluebook*. These alterations are necessary in the context of this article to provide as much information as possible to better assist readers in locating these educational materials.

1198	<i>Stetson Law Review</i>	[Vol. XXVIII]
	ENVIRONMENT (Oxford Univ. Press 1992)	1216
IV.	TOPICAL BOOKS	1217
	A. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS (Oxford Univ. Press 1994)	1217
	B. BOWMAN & REDGWELL, INTERNATIONAL LAW AND THE CONSERVATION OF BIOLOGICAL DIVERSITY (Kluwer Law Int'l 1996)	1218
	C. ESTY, GREENING THE GATT: TRADE, ENVIRONMENT, AND THE FUTURE (Institute of Int'l Econ. 1994)	1219
V.	WEB SITES	1219
	A. University Affiliated Web Sites	1220
	1. Center for International Environmental Law (CIEL)	1220
	2. Global Environment and Development Institute (G-DAE)	1220
	3. Pace Virtual Environmental Law Library	1221
	B. Governmental & Inter-Governmental Organization (IGO) Web Sites	1221
	1. United Nations Environment Programme (UNEP)	1221
	2. World Conservation Union (IUCN)	1222
	3. Council on Environmental Cooperation (CEC)	1222
	C. Non-Governmental Organization (NGO) Web Sites	1223
	1. World Wildlife Fund (WWF)	1223
	2. Greenpeace	1224
	3. World Resources Institute (WRI)	1224
VI.	ELECTRONIC DATABASES	1224
	A. Westlaw	1225
	B. LEXIS-NEXIS	1226
VII.	CONCLUSION	1226

*Upon the education of the people of this country
the fate of this country depends.*

Benjamin Disraeli¹

I. INTRODUCTION

Extrapolated globally and applied in the context of international environmental law, Prime Minister Disraeli's observation turns out to be both a wise and literal one. Indeed, the very fate of the world depends upon the success of global environmental protection efforts. Consequently, vesting the next generation with a working knowledge of international environmental law and policy is vital to the continuing success of those efforts. Teaching this subject, however, is a tricky prospect, for this is both an emergent legal field in its own right and a hybrid subject, blended of two distinct legal fields: public international law and environmental law.

Therefore, as a teacher designs a course on global environmental law and policy, he or she must decide at the outset whether a prerequisite will be established requiring prior courses in public international or environmental law. For practical reasons, and because professors want students to take their elective course offerings, such prerequisites are rare for this subject. That reality necessitates dedication of the first portion of a "well-rounded" course to some basic instruction in the two aforementioned areas. Thus, only two-thirds of a typical, one-semester, two- or three-credit international environmental law course is left for discussion of the advertised topic. Unfortunately, there are so many diverse substantive

1. British Prime Minister, Speech Before the House of Commons (June 15, 1874), in THE OXFORD DICTIONARY OF QUOTATIONS 247 (4th ed. 1992).

sub-topics in this area (from trans-boundary acid rain deposition to global warming to biodiversity depletion) that the remainder of the semester is spent as a “survey course” touching on each of these issues without delving into any of them at great length.

Be that as it may, demand is growing across the curriculum for more course offerings on global environmental law and policy, and there is evidence that law schools are moving to meet this demand. A recent survey noted that in 1996 there were 265 new course offerings in international and comparative law² and 103 new course offerings in environmental law,³ and that “[i]nternational and comparative law courses on the environment were especially common.”⁴

The purpose of this article is to review the materials that are available to teachers of international environmental law, describe their presentation formats, weigh their respective strengths and weaknesses, and assess their relative worth to the professor in a typical law school lecture or seminar classroom setting. The scope of this survey is confined to non-periodical printed and electronic materials. It does not include a review of the many excellent professional and academic journal articles published each year, except insofar as they are cited as particularly well-suited to supplement or update one of the works analyzed. Course books are considered first, followed by treatises, topical books, Web sites, and then electronic databases.

II. COURSE BOOKS

Course books are in the nature of what law professors and students alike have come to know as “casebooks.” They are designed to serve as the main text in a class on the subject. Following is a review of the two course books currently on the market for international environmental law. They are from West Publishing and Foundation Press. In addition, look for upcoming rivals to enter the market within the next three years from Aspen Publishing, LEXIS (under the Michie title), and Matthew Bender & Co.

After considering these two primary texts, a third section com-

2. Deborah Jones Merritt & Jennifer Cihon, *New Course Offerings in the Upper-Level Curriculum: Report of an AALS Survey*, 47 J. LEGAL EDUC. 524, 538 (1997).

3. *See id.* at 547.

4. *Id.* at 548.

1999] *Teaching International Environmental Law* 1201

compares the relative strengths and weaknesses of each. It is important to state at this point, as a matter of perspective, that I actually use the Guruswamy text to teach international environmental law, whereas the Hunter text is too new to have been used for a “test drive” at the time of this writing. Consequently, while the Guruswamy text is reviewed from first-hand classroom experience, the Hunter text is not.

A. GURUSWAMY, PALMER & WESTON, INTERNATIONAL ENVIRONMENTAL LAW AND WORLD ORDER (West 1994)

The Guruswamy, Palmer, and Weston work was the first major casebook published on the topic, and as such, it indeed broke new ground. Prior to the publication of this text five years ago, teachers of international environmental law were condemned to piece together news clippings, treaties, and law journal articles to create a classroom text. This book spans 1150 pages and has a sizable (1300 page) soft-cover supplement of “basic documents,” which may be purchased in conjunction with the hard-cover text. According to West Publishing, the Guruswamy text had fifty-seven adoptions across the country for the 1996–97 school year, and that figure was expected to rise due to the increased demand for electives in this area. The publishers anticipate a new, second edition to come out for the 1999–2000 school year during the summer of 1999.⁵ Departing from the ubiquitous casebook format, this is a self-styled “problem-oriented” course book that poses extensive, detailed hypotheticals for students to ponder in conjunction with topical readings.

Part One lays the groundwork for Part Two. The first 215 pages (three chapters) are devoted to a painfully detailed “mini-course” in public international law. It is comprehensive in its treatment of public international law and presupposes that the typical student has not taken a traditional international law course prior to enrolling in an international environmental law class. The Teacher's Guide to this book recommends that the first month of class be spent equipping students with a solid understanding of public international law.

5. Because I used the 1994 edition, it was necessary to update portions of the readings. Therefore, throughout this review of the Guruswamy text, footnotes are included that provide references to those materials.

In that regard, the authors do an excellent job of treating the sources of public international law listed in Article 38 of the Statute of the International Court of Justice; however, the pages dealing with the theoretical foundations of international law prove too much for the students to grasp in a limited time-frame such as the one that is required for a course like this. That space could have been better used to explain something like the traditional sources of jurisdiction that states may exercise internationally, which does not appear in this book.⁶

The next 100 pages of Part One, constituting Chapter 4 — titled “The Global Environmental Problématique” — are a mish-mash of sociology, ethics, economics, eco-feminism, and other “perspectives.” This part, organizationally, is indeed “problematic,” but presentation of this type of material is always difficult to break down logically. Nonetheless, the treatment is useful to provide an overview of the area before delving into issue-specific topics.

While the authors elected to delay their discussion of non-governmental organizations (NGO's) to the end of the book, I chose to discuss it here before getting into the topical material as the students need to have a solid understanding of the various actors before delving into the substantive material.⁷ One criticism of this chapter is that more space should have been dedicated to the “North-South debate” between developed and developing countries, since it recurs

6. I found journal articles helpful in explaining both the territorial and extra-territorial (nationality, effects, universality, passive personality, and protective principle) bases of jurisdiction. See Wade Estey, *The Five Bases of Extraterritorial Jurisdiction and the Failure of the Presumption Against Extraterritoriality*, 21 HASTINGS INT'L & COMP. L. REV. 177 (1997); Geoffrey R. Watson, *Offenders Abroad: The Case for Nationality-Based Criminal Jurisdiction*, 17 YALE J. INT'L L. 41 (1992); Geoffrey R. Watson, *The Passive Personality Principle*, 28 TEX. INT'L L.J. 1 (1993). These articles I supplemented with RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 402, 403 (1986), and a required briefing of the Lotus Case (France v. Turkey), 1927 P.C.I.J. (Ser. A) No. 10 (Sept. 7). Moreover, the 1998 conviction of Jean-Paul Akayesu by the Rwanda War Crimes Tribunal for genocide, the American military strikes against Sudan and Afghanistan, and the vote to extradite Chilean General Augusto Pinochet from Britain to Spain provided much additional material from newspaper clippings to illustrate points made on jurisdiction from lecture and the readings.

7. Two articles presented themselves to assist here: Stephan Hobe, *Global Challenges to Statehood: The Increasingly Important Role of Non-Governmental Organizations*, 5 IND. J. GLOBAL LEGAL STUD. 191 (1997); and Barbara J. Bramble & Gareth Porter, *Non-Governmental Organizations and the Making of U.S. International Environmental Policy*, C990 ALI-ABA 407 (1995).

1999] *Teaching International Environmental Law* 1203

in almost every global multilateral environmental setting and tends to result in more watered-down treaty language than would otherwise likely be drafted.

Part Two, addressing the various topics that arise under international environmental law, is the largest portion of the book. Throughout this part, I found World Watch Institute's trend-spotting annual publication, *Vital Signs*, extremely useful for graphic support and "thumbnail" scientific explanation.⁸ While Part Two has many good points, these tend to get lost in the theoretical organization that is designed around having students do hypothetical "problem sets." This part begins with a chapter on "international environmental wrongs," followed by a chapter on Antarctica.⁹ Organizationally, a new "part" should have been broken out here to deal with "commons regimes" that covered both Antarctica¹⁰ and the High Seas, because these are two very large subject areas that are folded into other sections of the book, but might have been better treated conceptually in a separate manner.

The authors then move into the problem sets on a topical basis: Chapter 7 is geared toward the Atmosphere, and poses fact patterns that deal with acid rain, the ozone layer, and a nuclear accident;¹¹ Chapter 8 is geared toward the Hydrosphere, and poses complex fact scenarios dealing with run-off pollution in the Indian Ocean, an oil spill, and groundwater contamination; Chapter 9 is geared toward the Lithosphere, and develops fact patterns based on hazardous

8. On the point of sustainable development, an article I found very useful was by Gary D. Meyers & Simone C. Muller, *The Ethical Implications, Political Ramifications and Practical Limitations of Adopting Sustainable Development as National and International Policy*, 4 BUFF. ENVTL. L.J. 1 (1996).

9. The section on Antarctica is large (about 90 pages), and much of the material is repetitive — reemphasizing points already made. If the authors wished to keep this huge chunk of material, it could have been better organized in a separate part on the commons; otherwise, trimming down the breadth of material would have been advised.

10. The Antarctica lecture and readings were supplemented with Christopher C. Joyner, *Recommended Measures Under the Antarctic Treaty: Hardening Compliance with Soft International Law*, 19 MICH. J. INT'L L. 401 (1998).

11. The nuclear safety lecture and readings were supplemented with the following web material explaining the cause and results of the accident and providing schematics of the reactor explosion at Chernobyl: Charles Recknagel, *Part I: The World's Worst Nuclear Accident* (visited Feb. 3, 1999) <<http://www.rferl.org/nca/special/chernobyl/F.UKR.96041919372836.HTML>>, and *Chernobyl and Soviet Reactors* (visited Feb. 3, 1999) <<http://www.uic.com.au/nip22.htm>>.

waste, toxic pollution, and desertification;¹² Chapter 10 is geared toward the Biosphere, and creates problems around driftnet fishing, poaching,¹³ and rainforest protection; Chapter 11 is geared toward “Particular Human Behaviors” and discusses problems based on GATT versus environmental protection,¹⁴ overpopulation,¹⁵ and “environmental warfare.” Some areas not covered in depth by this book, such as whaling, deforestation, and biodiversity, I included in lectures with supplemental materials.¹⁶

12. The desertification lecture and readings were supplemented with two articles: William C. Burns, *The International Convention to Combat Desertification: Drawing a Line in the Sand?*, 16 MICH. J. INT'L L. 831 (1995), and Kyle W. Danish, *International Environmental Law and the “Bottom-Up” Approach: A Review of the Desertification Convention*, 3 IND. J. GLOBAL LEGAL STUD. 133 (1995).

13. The poaching materials were supplemented with a fantastic video, WILDLIFE WARRIORS (National Geographic 1996), which details the challenges faced by Botswana's national wildlife anti-poaching patrols.

14. The trade versus environment lecture and readings were spread over two classes and divided into treatment of GATT and then NAFTA. The NAFTA portion was supplemented with Canada-Mexico-United States: North American Agreement on Environmental Cooperation, Sept. 8–14, 1993, 32 I.L.M. 1480 (the environmental side accord to NAFTA); Joseph F. DiMento & Pamela M. Doughman, *Soft Teeth in the Back of the Mouth: The NAFTA Environmental Side Agreement Implemented*, 10 GEO. INT'L ENVTL. L. REV. 651 (1998); Michael J. Kelly, *Bringing a Complaint Under the NAFTA Environmental Side Accord: Difficult Steps Under a Procedural Paper Tiger, but Movement in the Right Direction*, 24 PEPP. L. REV. 71 (1996); and Bradley Mall, Comment, *The Effect of NAFTA's Environmental Provisions on Mexican and Chilean Policy*, 32 INT'L LAW. 153 (1998).

15. The overpopulation lecture and readings were supplemented with Paul R. Ehrlich & Anne H. Ehrlich, *The Population Explosion: Why We Should Care and What We Should Do About It*, 27 ENVTL. L. 1187 (1997); Robert M. Hardaway, *Environmental Malthusianism: Integrating Population and Environmental Policy*, 27 ENVTL. L. 1209 (1997); Cynthia Kennedy, *Cairo, Beijing, and the Global Environmental Crisis: The Continuing International Dialogue on Population Stabilization and Sustainable Development*, 8 GEO. INT'L ENVTL. L. REV. 451 (1996); and Arnold W. Reitze, Jr., *Population, Consumption and Environment Law*, 12 NAT. RESOURCES & ENV'T 89 (1997).

16. The whaling discussion was supplemented with William C. Burns, *The International Whaling Commission and the Future of Cetaceans: Problems and Prospects*, 8 COLO. J. INT'L ENVTL. L. & POL'Y 31 (1997); Leesteffy Jenkins & Cara Romanzo, *Makah Whaling: Aboriginal Subsistence or a Stepping Stone to Undermining the Commercial Whaling Moratorium?*, 9 COLO. J. INT'L ENVTL. L. & POL'Y 71 (1998); Dylan A. MacLeod, *International Consequences of Norway's Decision to Allow the Resumption of Limited Commercial Whaling*, 6 INT'L LEGAL PERSP. 131 (1994); and Sam Howe Verhovek, *Protesters Shadow Tribe's Pursuit of Whales and Its History*, N.Y. TIMES, Oct. 2, 1998, at A1. The deforestation discussion was supplemented with United Nations: International Tropical Timber Agreement, Jan. 26, 1994, 33 I.L.M. 1014; Emilio F. Moran, *The Law, Politics, and Economics of Amazonian Deforestation*, 1 IND. J. GLOBAL LEGAL STUD. 397 (1994); and Heather A. Wolf, *Deforestation in Cambodia and Malaysia: The Case for an*

1999] *Teaching International Environmental Law* 1205

While the idea of organizing a casebook along the lines of “areas that need protection” has merit, the authors really muddy the waters with their problem sets instead of explaining each issue forthrightly in clear terms and then following through with a succinct identification of policy choices and legal responses. After such an introduction, problem sets would be useful, but not beforehand. Pedagogically, I understand, and even somewhat sympathize with, the strategy of assimilating information in the context of a fact pattern; however, I believe that facts themselves can be better understood from an “issue-spotting” viewpoint after a good deal of structural, or framework, information is absorbed. This is especially true when hard sciences are involved, as is the case with topics found under the penumbra of global environmental law and policy.

Finally, Part Two's Chapter 12 contains a rather useful treaty negotiation simulation based on the problem of global warming.¹⁷ This well-designed exercise, ably crafted by Professor David Wirth of Washington & Lee, ties together most of the course, and is a great idea to complement the lecture on environmental treaty-making while simultaneously crystalizing some of the more amorphous concepts discussed. Not only does the exercise invest the students in the process, but it gives them the chance to sharpen their bilateral and multilateral negotiation skills as ambassadorial delegations from hypothetical countries with divergent perspectives on global warming.

I have used this exercise in class and found it to be very effective in conveying to students the logistical difficulty and sheer frustra-

International Legal Solution, 5 PAC. RIM L. & POL'Y J. 429 (1996). The biodiversity discussion was supplemented with Daniel Vice, *Implementation of Biodiversity Treaties: Monitoring, Fact-Finding, and Dispute Resolution*, 29 N.Y.U. J. INT'L L. & POL. 577 (1997).

17. The lecture and readings on climate change were supplemented with Richard N. Cooper, *Toward a Real Global Warming Treaty*, 77 FOREIGN AFF. 66 (1998), available in 1998 WL 12052520; Chiara Giorgetti, *The Role of Non-Governmental Organizations in the Climate Change Negotiations*, 9 COLO. J. INT'L ENVTL. L. & POL'Y 115 (1998); Margie Ann Gibson & Sallie B. Schullinger, *Answers from the Ice Edge: The Consequences of Climate Change on Life in the Bering and Chukchi Seas*, GREENPEACE USA (Arctic Network/Greenpeace Alaska, Anchorage, AK), June 1990; *The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis* (visited Feb. 25, 1999) <http://www.epa.gov/oppeoeel/globalwarming/reports/pubs/wh_econ/index.html>; and United States Environmental Protection Agency, *Global Warming* (last modified Jan. 4, 1999) <<http://www.epa.gov/globalwarming/html>>.

tration of reaching consensus in an international atmosphere where majority rule is anathema to the convention negotiation process. Unfortunately, the Guruswamy text itself does not contain much useful material on environmental treaty-making beyond this exercise; consequently, I have supplemented my treatment of this topic with material from the Susskind text¹⁸ (reviewed below) and a flowchart that visually depicts the basic structural flow of the process (Figure 1 below).

18. I use specifically Chapters 2 and 3 of the Susskind text.

1999] *Teaching International Environmental Law* 1207

1999] *Teaching International Environmental Law* 1209

Part Three, the last 100 pages, is devoted to the “future” of international environmental law, but is now over five years out of date. It basically functions as a platform for the authors to present their views on pet issues within this field of study.¹⁹ I would expect the new edition to answer some of the problems posed in this Part²⁰ and then move on to develop new hypotheses about the “future” of international environmental law and world order. Perhaps this will include an analysis of how correct or incorrect their prior prophecies turned out to be. The authors may also wish to revisit their institutional recommendations on increasing the effectiveness of environmental treaty regimes once they are implemented.

Overall, the Guruswamy text is a very useful one, despite some organizational problems and weak treatment of some issues, such as deforestation. The book facilitates in-class participation in that the professor can divide up exercises based on the problem-sets in conjunction with the treaty negotiation simulation and either an exam or a short paper. If the prospective teacher is inclined to follow this model while using the Guruswamy book, I would recommend dividing and weighting the assignments thus: treaty negotiation, either individually or with partners (10%); preparation of a problem-set, either individually or with partners (10%); a twenty to thirty minute in-class presentation based on a problem-set, either individually or with partners (10%); a final exam or short paper completed individually on a different topic from the one tackled in the problem-set (65%); and class participation (5%). In this way, the students are exposed to at least three of the many topics addressed in a typical international environmental law course: global warming with the treaty exercise and two other substantive areas each for the problem-set preparation and presentation and for the exam or paper.

19. My students found Sir Geoffrey Palmer's material on creating a new international environmental institutional structure particularly thought-provoking.

20. The readings on overcoming the inherent problems of implementation were supplemented with my article: Michael J. Kelly, *Overcoming Obstacles to the Effective Implementation of International Environmental Agreements*, 9 GEO. INT'L ENVTL. L. REV. 447 (1997).

B. HUNTER, SALZMAN & ZAELKE, *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* (Foundation Press 1998)

The Hunter, Salzman, and Zaelke course book, which adopts the more typical “casebook” format commonly used in law school classes, is literally the new kid on the block, published only this year — too late for Fall 1998 semester adoptions, but in time for Spring 1999 semester adoptions. It is truly a mammoth undertaking; its twenty-one chapters span 1500 pages of text with another twenty-five pages of information contained in three “annexes.”

One of the innovative aspects of this publication is that the authors established the book's own Web site.²¹ I think this is extremely important, especially for course books on subjects as transient and quick to develop as international environmental law. Moreover, while the Hunter text, like most course books, includes short bibliographies after each topical section suggesting materials for further reading, it also includes Web sites that are identified as good sources of relevant information. The addition of an electronic dimension to a text is an idea whose time has come, and the Hunter book has seized the day on this point.

Getting into the material proper, Part One of the book contains much very good information, but it is organizationally confused and, consequently, its effectiveness is thereby impaired. Unfortunately, Chapter 1 of Part One receives my strongest critique of any chapter in the book. It is really the presentation that cripples Chapter 1 as it attempts to tackle “The Wild Environmental Facts” in about forty pages. The authors here insist on introducing topic after topic in a relentless wave of succession that does indeed convey the breadth of international environmental problems, which I believe was their intention, but this proves to be too overwhelming even if it achieves the desired effect.²² This is a “stream of consciousness” type of introduction that either assumes too much prior knowledge or seeks to shock the reader into caring about the subject — both of which are

21. See *International Environmental Law and Policy* (visited Feb. 2, 1999) <<http://www.wcl.american.edu/pub/IEL>>.

22. The reader is led wading into ozone depletion and global warming on pages 2 and 3. Perhaps I have a philosophical difference of opinion with the authors on this strategy of immediate immersion education, but I prefer to lay a more generalized groundwork and then move into the more specific and complicated issue items.

1999] *Teaching International Environmental Law* 1211

misguided objectives for an introductory chapter. Furthermore, Chapter 1 falls down in its attempt to ground the novice in the idea of the “interconnectedness” of international environmental issues through linking them via “human activity” without further explanation.

Chapter 2 is an overview of consumption, technology, and population issues. Although this chapter collapses many disparate topics together, the information contained therein is, nonetheless, solid. In about sixty pages, the authors manage to describe the environmental consequences of the consumer society run amok and explain how this operational paradigm has been exported from the developed world to the developing world. This is followed by a chapter focusing on development issues in the environmental context that wrestles with the slippery concept of sustainable development and another, rather sociologically oriented chapter that deals with the environmental impacts of human behavior vis-a-vis religion, politics, education, ethics, and culture.

Chapters 5 through 9 of Part One should ideally constitute their own Part. Again, this book's organizational problems are apparent. Chapter 5 presents international environmental lawmaking — the first half deals with treaties and customary law generally, while the latter half deals with international environmental law specifically; Chapter 6 details the fascinating, yet misplaced here, history of international environmental law from the 1972 Stockholm Conference to the 1992 Rio Conference; Chapter 7 lays out the principles and concepts of international law from liability to the precautionary principle; Chapter 8 surveys the many international organizations; and Chapter 9 wraps up Part One with discussion on how to make international environmental law work.

A more logical and reasoned ordering would have split Chapter 5 apart and placed the first half of Chapter 5 (public international law) at the beginning, followed by Chapter 7 (principles/concepts of international environmental law), then the latter half of Chapter 5 on international environmental lawmaking itself, followed by Chapter 6 on Stockholm and Rio, Chapter 8 on organizations, and Chapter 9 on making it all work.

Much of my difficulty with Chapter 5 is that it tries to do too much in too little space. Only seventy-seven pages are dedicated to basic instruction in public international law *and* the international

environmental lawmaking process. Either of these topics alone could easily fill that scanty number of pages. The short shrift given these areas by the authors is particularly puzzling since these two processes undergird the entire subject of global environmental law and policy negotiation, formulation, and evolution. Moreover, the suggested reading offered at the end of the chapter fails to include a very important work by Susskind (reviewed below) on environmental diplomacy.

To their credit, the authors do actually warn the reader in the introduction to the book on page v, paragraph 3 that they will be de-emphasizing the role of state actors to reflect the increased stature and participation of non-governmental and other organizations in the creation of international environmental law. Consequently, the brevity with which public international law is treated is not surprising. However, I view this as a disservice to the reader because the authors are moving out in front of reality here. While it is true that increasing numbers and types of non-state actors are participating in the creation of international environmental law, it is also still very much the case that only nation-states have standing on the international plane and, as sovereign entities, must still consent to be bound by obligations arising out of consensual agreements.

On this point, I believe that the authors of the Hunter text lose sight of their mission. It is not the function of a casebook to push the development of a legal field in a certain direction; that is the proper function of a treatise or law journal article or essay. The proper function of a casebook is to present the material honestly and objectively and as comprehensively as possible. Questions and notes for discussion included in the text are certainly designed to provoke thought on such matters, but altering the text to de-emphasize the current state of affairs should be frowned upon when writing a casebook that purports to treat a subject completely.²³

Moving on to Part Two, this portion of the book generally follows Guruswamy's organizational model of atmosphere, lithosphere, and biosphere by grouping discussion of the topics contained therein

23. The authors of the Guruswamy text, as noted above, are guilty of preaching their own views in an attempt to push the law in a certain direction as well; however, Part Three of the Guruswamy book is clearly dedicated to this aim and does so in the context of predicting the future of international environmental law. It does not purposely misrepresent current reality via de-emphasization.

1999] *Teaching International Environmental Law* 1213

loosely in that order. Chapter 10 pulls together the topics of air pollution, acid rain, ozone depletion, and climate change, all in about 160 pages. Chapter 11 contains material on issues related to “oceans” and discusses the U.N. Convention on the Law of the Sea (UNCLOS), fisheries, deep seabed mining, and marine pollution from both ships and land sources in about 100 pages, while Chapter 12 is limited to around fifty pages on freshwater resources.

Chapter 13 treats hazardous waste, but does so in a rather lopsided manner. About thirty pages are dedicated to transboundary movement, about twenty pages concern the manufacture and export of chemicals, and only fifteen pages discuss issues related to nuclear energy. In this respect, I find it remarkable that such limited space is given over to nuclear energy, waste, and safety at a time when those issues are expanding in importance around the world. Such treatment indicates that the authors are somewhat out of touch on this particular topic. Full explanation and review of the Chernobyl incident *alone* deserves fifteen pages of treatment.

Moreover, for a 1998 publication, current issues on this topic are neglected. The dismantling of the Russian nuclear submarine fleet and dumping of reactors in the Arctic sea,²⁴ and the use and transfer of nuclear energy technology to leverage political accords between the U.S. and North Korea²⁵ are not identified, outlined, or discussed. In a 1500-page work that bills itself as a casebook, this is inexcusable, and the authors should rectify this oversight by linking to appropriate information on their Web site along with developments that have occurred immediately after publication such as the proliferation of nuclear testing and weapons production in India and Pakistan.

The last two chapters of Part Two concern biosphere issues. Chapter 14 deals with wildlife and biodiversity protection in about 120 pages and does so fairly, comprehensively, and with scholarly insight. Although the discussion regarding the Convention on the

24. See Patrick E. Tyler, *Soviets' Secret Nuclear Dumping Causes Worry for Arctic Waters*, N.Y. TIMES, May 4, 1992, at A1; *U.S. Agrees with Norway to Aid Russia in Atom Plan*, N.Y. TIMES, Oct. 8, 1996, at A1. The authors do allude to problems with Russian nuclear dumping briefly on pages 919 and 1103, but the issue is not treated with the degree of seriousness and depth that it deserves.

25. See David E. Sanger, *Clinton Approves a Plan to Give Aid to North Koreans*, N.Y. TIMES, Oct. 19, 1994, at A6.

International Trade in Endangered Species could have been developed a bit more thoroughly, the chapter as a whole hangs together quite well. Chapter 15 concerns itself with habitat protection, a topic overlooked in many books on international environmental law, but one that received 100 pages of extremely good treatment here in the Hunter text. This chapter is cleanly divided into logical breakage points: wetlands, polar regions, forests, and desertification.

Finally, Part Three seeks to wrap up in six chapters the loose ends that do not fit neatly into the other subject headings of the book; but, indeed, it fails to offer a final chapter to wrap up the book itself and conclude the work in its entirety. That said, the six chapters in Part Three are very good ones, albeit unbalanced in their space allocation. Chapter 16 is one of the better analyses of the international trade versus environmental protection debate that I have seen. Its 140 pages manages to encapsulate both sides of this raging debate under two of the most interesting trading regimes: GATT and NAFTA.

Chapter 17 represents a good discussion of the increasingly common intersection of human rights concerns and environmental issues. However, within the sixty pages allocated for this subject, more discussion of allowable "species takings" by aboriginal peoples should have been included, perhaps relocating or re-emphasizing to this section some of the thought-provoking material contained in Question #4 on pages 1022–23 in the wildlife portion of the book on the maintenance of traditional cultures and/or subsistence.²⁶

Chapters 18 through 20, three short but intriguing chapters, concern environmental protection in the context of warfare, corporate standards, and the extraterritorial application of domestic law, respectively. This last topic, extraterritorial application, is one that is very much of the moment, especially in light of efforts by NGO's to stretch application of the U.S. National Environmental Policy Act, requiring Environmental Impact Statements, to activities abroad. Because this relevant topic is often overlooked, its inclusion is particularly welcome.

The book's final chapter concerns the ever important subject of

26. This very issue has concerned wildlife preservationists for years, and has recently erupted in to a huge controversy surrounding the permitted "taking" of gray whales by the Makah Indian tribe of Washington State. See Verhovek, *supra* note 16.

1999] *Teaching International Environmental Law* 1215

finance. Although this is an extremely dry subject compared to the other topics that arise in the context of global environmental law and policy, finance is extremely important and worthy of a separate chapter because it underlies the effectiveness of international environmental regimes. Moreover, financial support is a contentious issue that recurs regularly in the form of articles contained in most modern environmental treaties providing for transfer of funds from developed to developing nations.

The three annexes to this work are helpful ones. The first annex contains pointers on researching international environmental law in traditional paper-bound form, electronically, and via the internet. This is particularly useful if the teacher has designed a class wherein a paper is required and student research must be initiated. The second annex offers a selective listing of international organizations (governmental, NGO, and IGO) active in the field of international environmental policy and their e-mail or Web site contact addresses. The last annex constructs a chronology of environmental treaties, beginning with the obscure 1902 Convention for the Protection of Birds Useful to Agriculture and ending with the 1997 Kyoto Protocol to the United Nations Framework Convention on Climate Change.

C. Comparison

One irony that emerges from a direct comparison of these two very good course books lies in the selection of the people asked to write the “forewords.” The foreword to the Guruswamy text is written by Maurice Strong, architect of the U.N. Stockholm Conference in 1972 and the U.N. Rio Conference in 1992 — arguably the grand creator of the consensus-building “soft law” that is a benchmark of international environmental law. The foreword to the Hunter text is by another well-known global environmentalist, Paul Ehrlich, who is the director of the international non-governmental organization, Zero Population Growth, and an advocate of population control to positively impact environmental protection worldwide. The strange irony is that the Guruswamy text dedicates more space to population issues (forty pages) than “soft law,” and the Hunter text dedicates more space to “soft law” issues (forty-five pages between Chapters 5 and 6) than population. Consequently, it would make sense for them to switch the authors of their respective forewords,

given the reversed emphasis that the authors dedicate to the topics represented by those authors.

The documentary supplements offered by the two texts are quite different, both in depth and breadth of coverage. Of course, the strength of the Hunter book is that its documents are more recent, with inclusion of the 1997 Kyoto Protocol and the 1997 Decisions of Parties to the Montreal Protocol, while the Guruswamy book is crippled in this regard by the mere date of its publication — 1994. The weakness of the Hunter supplement is its size; however, the Hunter text can afford to have a smaller documentary supplement (thirty documents) than the Guruswamy text (over 150 documents)²⁷ because the Web site for the Hunter text can be used to link directly to the documents themselves as well as to links for further commentary on international environmental conventions and their implementation status. Moreover, the links can be changed and updated more readily than going to press with another supplement. So on that score, the Hunter book will always be ahead of the Guruswamy book (even the new edition of the Guruswamy text) vis-a-vis documentary supplements unless Guruswamy likewise dedicates a Web site to support the text.

III. TREATISES

Treatises analyze a legal field from the unique perspectives of the author(s) and, therefore, differ from course books both in coverage and presentation. Treatises are much shorter works, and they typically do not offer the “raw material” of text taken directly from cases, statutes, treaties, or articles that course books generally do. However, they can be useful as teaching tools or supplements and are reviewed here in that light.²⁸

27. The types of documents contained in the Guruswamy Documentary Supplement are not confined to bilateral or multilateral treaties; indeed, they range from treaties to U.N. Resolutions to declarations and arbitral/judicial decisions.

28. Professor D'Amato's anthology of collected essays and articles on international environmental law, while not qualifying either as a course book or a treatise, is also a good source of material that can be drawn upon to buttress a weak portion of one of the aforementioned course books or to further flesh out a particularly vexing topic in class. See INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY (Anthony D'Amato & Kirsten Engel eds., 1996).

1999] *Teaching International Environmental Law* 1217

A. KISS & SHELTON, INTERNATIONAL ENVIRONMENTAL LAW
(Transnational Publishers 1991)

The Kiss and Shelton work was the first treatise on the subject, and as such, it is somewhat outdated. It is a 600-page work that tends to focus on international law and liability for environmental harm, with a very large portion dedicated to environmental regulation. A 250-page supplement was made available in 1994 to consider the developments after the Rio Earth Summit, but this is now dated as well. While generally informative to a practitioner, this treatise is not well suited to classroom usage other than for deep topical background or supplementary purposes.

The chapters on international institutional cooperation and sources of international environmental law are well-presented and offer a decent overview of these areas; however, the chapter on international “common law” of the environment, focusing primarily on trans-frontier pollution, while providing a basic understanding, is based upon too much supposition to be useful. Chapter 6 is the heart of the text, dealing with regulation of “environmental sectors.” It manages to very briefly survey many of the topics that arise in the context of global environmental law and policy in about 150 pages.

The chapter on “transsectoral problems” treats toxic and hazardous wastes quite well, but the treatment of ozone depletion and global warming are understandably short given the date of publication for this work. The 1994 softcover update offers a few insightful developments along with the text of the Rio Declaration, climate change, and biodiversity treaties. Nonetheless, other than for general overview purposes, this text requires re-publication in a new edition for it to be truly useful. Too much has happened in the past eight years with international environmental law to safely rely heavily on a work published before the Rio Summit in 1992.

B. NANDA, INTERNATIONAL ENVIRONMENTAL LAW & POLICY
(Transnational Publishers 1995)

The 470-page book by Ved P. Nanda integrates a lengthy discussion of legal, political, economic, and scientific issues with a much shorter discussion of traditional international environmental “problem areas” like marine pollution and climate change. As such, it would ideally be used to supplement a main text to provide his-

torical and developmental perspective. Again, a book of this sort is good reading, but not well suited for classroom usage by itself.

Organizationally, the Nanda text lays out several thought-provoking chapters early on about the global commons, a review of the perspectives represented in the trade versus environment debate, and then a linkage of human rights to environmental protection. These are followed by a brief history of international environmental law and then separate chapters dedicated to Stockholm, Rio, the International Law Commission, and European Union (E.U.) environmental law. The only substantive areas addressed are ozone depletion, global warming, high seas protection, and international water-courses.

C. BIRNIE & BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT*
(Oxford Univ. Press 1992)

Although the utility of the Birnie and Boyle text is somewhat crippled by its 1992 publication date, this 550-page book does a superior job of outlining the principle problem areas in the international environmental arena. Perhaps uniquely, the authors draw heavily from case law to support their material along with a traditional emphasis on treaty and statutory law. The first five chapters are very well done, concentrating on international organizations, the global environmental lawmaking process, state obligations, enforcement, compliance, dispute settlement, and creation of "rights."

The rest of the book is dedicated to the familiar topical areas and, as a result, needs updating via a new edition or a supplement. Nonetheless, the text does contain some interesting aspects not found in the other books, such as treatment of outer space and civil liability for nuclear damage. Climate change and ozone depletion are considered so cursorily that they might as well not have been included. However, the material on high seas, species protection, and hazardous waste are informative and fairly complete.

IV. TOPICAL BOOKS

Topical books are those that present a specific "slice" of international environmental law. These books are particularly good at offering a deeper look into a portion of a course on global environmental law and policy than is typically presented in limited form by

1999] *Teaching International Environmental Law* 1219

a course book or treatise. As such, they are often adopted as supplements to a main text on the specific topics that they cover or are recommended as optional texts.²⁹

A. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS (Oxford Univ. Press 1994)

Due to the insufficiency of the Guruswamy coursebook on the international environmental lawmaking process, I drew heavily from the Susskind text to complement my lecture on the process. This book dedicates 150 pages to all of the nuances involved in the convoluted and tedious environmental treaty-making process and still manages to remain simultaneously interesting and informative. In this regard, it is an ideal text for classroom usage on this topic.

After outlining the weaknesses of the current system, Susskind then delves into the murky waters of representation and voting, addressing the ever-present developed-developing world dichotomy and the operational requirement of consensus. This is followed by an analysis of the balance between science and politics that ultimately gives rise to the law, and a discussion of current and emerging “linkage theory.” Finally, the problems revolving around implementation (monitoring, enforcement, and sovereignty) are addressed together with some final proposals geared toward reforming the system.

The appendix contains a well-organized table delineating in separate columns the environmental threat targeted, the proposed response, major points of contention, year of signing, number of signatories, entry into force, secretariat, major adjustments, and monitoring arrangements for several “high profile” environmental treaties. This is an excellent visual aid and quickly demonstrates the variant nature of the many treaties operating in this area of public international law. Indeed, the appendix alone is worth buying the book.

29. One very good topical book that is highly recommended, although not reviewed here due to editorial space considerations, is *THE INTERNATIONALIZATION OF ENVIRONMENTAL PROTECTION* (Miranda A. Schreurs & Elizabeth Economy eds., 1997). It is a collection of excellent materials on a broad range of topics that can serve as a supplementary resource book if the collected chapter-essays are used to support classroom topics.

B. BOWMAN & REDGWELL, INTERNATIONAL LAW AND THE
CONSERVATION OF BIOLOGICAL DIVERSITY
(Kluwer Law Int'l 1996)

True to its title, this collection of articles and essays from British scholars focuses on the many aspects and difficulties of protecting biological diversity. The fourteen very well-written pieces that comprise the text address topics under the penumbra of biodiversity such as the impact of the Rio Conference, the Biodiversity Treaty, terrestrial species, marine species, ecosystems, Antarctica, plant genetic resources, intellectual property rights, U.S. conservation efforts, E.U. conservation efforts, biodiversity protection in the developing world, relation to indigenous peoples, and financial mechanisms used to engineer further protection.

The Biodiversity Treaty itself is contained in the appendix, which offers a handy reference for the points made in the book. While I agree with most of what the various contributors have to say on this topic, perhaps one weakness of the book is that they all tend to share the same perspective. Inclusion of variant perspectives on the many sub-issues addressed would have contributed to a more well-rounded compilation; however, fairness may not have been the intent and since the underlying theme of this work is "conservation" and not exploitation, the authors cannot be fully expected to argue for the opposition.

C. ESTY, GREENING THE GATT: TRADE, ENVIRONMENT, AND THE
FUTURE (Institute of Int'l Econ. 1994)

The Esty book was published just as the GATT was morphing into the WTO, and is therefore a bit dated; however, the insight provided by the author, Daniel Esty, due largely to his former positions as chief NAFTA negotiator and special assistant to the EPA Administrator, infuses this text with a knowing accuracy from an inside perspective that is impossible to duplicate. Therein lies the value of the book. Moreover, the appendix offers thumbnail descriptions of key trade and environment cases from a variety of fora (U.S., E.U., GATT, etc.) that serves as a useful reference tool. Updating these cases and describing them in more detail could be a new book for this author in itself.

Substantively, the 240 pages of text and five appendices provide

1999] *Teaching International Environmental Law* 1221

an excellent supplement to a course book on the issues and sub-issues that are raised in the context of international trade and environmental protection.³⁰ The history of the conflict and its subsequent development and recommendations for an ultimate resolution underlie the book's organizational flow that is peppered with the author's "realpolitik" asides and notes. Clearly, the smooth readability of this work reflects the refreshingly un-academic approach and background of the author.

V. WEB SITES

Web sites, while sometimes transient and/or changeable, are great sources of teaching material and ensure currency of topic better than any printed material could hope to accomplish. The Web sites that are listed here are considered fairly "stable," in that they are each affiliated with well-grounded institutions that will not soon disappear. Moreover, they have all been drawn upon time and again to update material found in the texts reviewed above. Following is a brief overview of only a selected few of the many excellent sites that I have visited.

A. University Affiliated Web Sites

University sponsored sites are usually the most stable, like the universities from which they emanate. Therefore, a degree of reliability that characterizes these Web sites is not found in other, unaffiliated sites. Such sites will typically collect both scientific and legal information, as well as propose policy alternatives and present papers, monographs, and studies on various issues and topics related to international environmental law in a scholarly format.

1. *Center for International Environmental Law (CIEL)*

30. Another book on the trade versus environment conflict, though not as deft nor as complete in its presentation as the Esty text, is C. FORD RUNGE ET AL., *FREER TRADE, PROTECTED ENVIRONMENT: BALANCING TRADE LIBERALIZATION AND ENVIRONMENTAL INTERESTS* (Council on Foreign Relations Press 1994).

CIEL is the research and publication arm on international environmental law topics at American University's Washington College of Law in Washington, D.C. This site has a wide variety of information available on a broad range of international environmental law topics. Its URL is <<http://www.econet.apc.org/ciel/>>. Coincidentally, the authors of the coursebook from Foundation Press, *International Environmental Law and Policy*, hail from CIEL, which in turn sponsors that book's official Web site.

Some of the subject-specific areas on which one may obtain more detailed information from various subpages by navigating through the homepage menu buttons are trade and environment, biodiversity and wildlife, international financial institutions, the global commons, and law and communities. Also, other access buttons lead to helpful materials like the "North American Environmental Law Database," other resources, fellowships, and publications.

2. Global Environment and Development Institute (G-DAE)

G-DAE operates within Tufts University at the Fletcher School of Law and Diplomacy. It was created in 1993 by the merger of the Program for the Study of Sustainable Change and Development and the research component of the International Environment and Resource Policy Program. Subsequently, this institute has joined the vanguard of emerging thought on "ecological economics." The Web site contains access to publications, newsletters, and articles on many aspects of the intersection of environmental policy, developmental policy, and economic cost-benefit analysis. The advertised mission of this institute is to emphasize "the correlation between social and economic well-being, on the one hand, and ecological health on the other."³¹ Its homepage is located at <<http://www.tufts.edu/gdae/>>.

3. Pace Virtual Environmental Law Library

31. *Global Development and Environment Institute Mission* (visited Feb. 15, 1999) <<http://www.tufts.edu/gdae/INTRO.HTML>>.

1999] *Teaching International Environmental Law* 1223

Pace University's Virtual Environmental Law Library has a distinct international flavor to it, offering subsites on "National Comparative Environmental Laws," a site dedicated to global warming, and special topical databases on Nigerian and Albanian environmental law. Moreover, the subject areas that are covered under the banner of international environmental law include: Antarctica, climate change, treaties, hazardous wastes, impact assessments, nature and biodiversity, pollution control, and "seas, fish & fisheries." There are also useful links to the International Council on Environmental Law, based in New Delhi, and a database on Brazilian state environmental laws. The URL for this site is <<http://willy.law.pace.edu/env/vell6/html>>; it contains links to many sites with both specific and generalized IEL information.

B. Governmental & Inter-Governmental Organization (IGO) Web Sites

Governmental and IGO Web sites typically do not seek to raise public awareness on particular issues to the same level and with the slanted perspective of NGO's. Their focus is more on information dissemination and education in an explanatory format. Consequently, one is likely to find more treaty text, working draft documents, meeting sites/agendas, and "governmental" material on these Web sites.

1. *United Nations Environment Programme (UNEP)*

The environmental arm of the U.N., established twenty-five years ago, after the Stockholm Conference on the Human Environment in 1972, UNEP, maintains an easily navigated Web site from its headquarters in Nairobi, Kenya. The URL for this site is <<http://www.unep.org/>>. It is a well-organized site with many connections to other U.N. Web areas. Moreover, it contains useful subsites, such as the International Environmental Technology Centre, located at <<http://www.unep.or.jp/>>, that facilitate the technology transfers called for in most modern global environmental treaties between the developed and the developing world. The links to official U.N. documents, conventions, and secretariats is truly invaluable for solid transnational legal research in the field.

2. *World Conservation Union (IUCN)*

This “union” serves as a clearinghouse of contact and background information for many NGO's, IGO's, and domestic government agencies throughout the world. The IUCN is very much an IGO in function — its self stated purpose is to collect and disseminate as much information from as many sources as possible on topics related to international environmental law and policy. Its URL is <<http://www.iucn.org/index.html>> and its mission statement represents a global perspective:

As a conservation organization, IUCN is unique in that it is a union of other organisations [sic]. It brings together 74 governments (such as the governments of the US, China, Japan, the UK, Brazil, Panama, Zimbabwe, Guinea-Bissau, etc.), 105 government agencies (such as the US Environmental Protection Agency, the Ministry of Tourism and Wildlife in Kenya, the Chilean Forest Service, and the National Council for the Conservation of Wildlife in Pakistan), and more than 700 non-governmental organisations [sic] (ranging from Friends of the Earth and Wetlands International to the Wildlife Clubs of Uganda) Altogether the members of IUCN make up a global network of 895 institutions and organisations [sic] representing people from all walks of life, working together towards the common goal of nature conservation.³²

3. *Council on Environmental Cooperation (CEC)*

Pursuant the Environmental Side Accord to the North American Free Trade Agreement (NAFTA), the CEC was created to implement the agreement and resolve disputes amongst the NAFTA parties, Canada, Mexico, and the United States. Its headquarters is in Montreal, Quebec, and its URL is <<http://www.cec.org/>>. The material on this site is essential for understanding current developments in the ongoing trade versus environment debate. Additionally, the site contains an important guidelines and registry subsite for citizen submissions against a state party to NAFTA for failure to enforce its environmental laws. This subsite provides not only the parameters

32. *More About IUCN* (visited Feb. 5, 1999) <http://www.iucn.org/info_and_news/about_iucn/index.html>.

1999] *Teaching International Environmental Law* 1225

required for a submission, but also allows for the tracking of submissions already filed.

C. Non-Governmental Organization (NGO) Web Sites

While NGO's, by their very nature, push a given agenda to raise public awareness and instigate action by governmental and private bodies on their particular areas of interest and competence, they are, nevertheless, ripe repositories of vast amounts of information relating to the issue that is their prime concern, be it biodiversity conservation or ozone depletion or overpopulation. Increasingly, this information is available to the public via internet access to NGO Web sites. Moreover, because NGO's have an interest in fostering a perception of legitimacy, thereby increasing the effectiveness of their advocacy, the information found on these NGO Web sites is increasingly compiled by reputable, well-degreed scientists and other academic authors. Included here are three of the very best out of several extremely good NGO Web sites that provide the researcher with reliable and insightful, albeit argumentative and persuasively-oriented, material as well as links to other international environmental Web sites.

1. *World Wildlife Fund (WWF)*

The WWF is one of the most active NGO's in the world and one of the most successful at raising public awareness on both a local and global scale on issues of wildlife and viable habitat depletion. Its very interactive and visually appealing homepage is located at <<http://www.panda.org/>> and is full of useful information. Because of the focus of WWF, this site is not geared towards addressing issues beyond plant and animal biodiversity, habitat protection, and nature-related topics. The subpage for TRAFFIC is well-done and contains both scientific, economic, and legal information on endangered species traded internationally that the group monitors.³³ However, it should be noted that the fund-raising arm of WWF is also prevalent, appearing with appeals and offers throughout the site.

33. The URL for the TRAFFIC subpage is <http://www.panda.org/resources/factsheets/species/ftc_traffic.htm>.

2. *Greenpeace*

Greenpeace is another very active international NGO that maintains a Web site on international environmental topics at <<http://www.greenpeace.org/>>. While its most vigorous area of activity is oceans and cetacean protection, the other areas that are covered in the website are forests, climate change, toxics, genetic engineering, and nuclear safety (the anti-nuclear position). In the early years, this organization was known as a radical “take no prisoners” sort of group; however, as indicated by the treatment of topics on their Web site, Greenpeace has matured into a more thoughtful group, and although their approach to solving global environmental problems is not as measured as that of other organizations, they have moderated themselves over time. The Greenpeace site is also affiliated with another, more legally-oriented, site dedicated to international environmental treaties and agreements at <<http://www.globelaw.com/sources.htm>>.

3. *World Resources Institute (WRI)*

This scientific information-gathering NGO is very effective in the field of monitoring resource consumption and depletion. It operates on the paradigm of the “think tank,” and publishes the critically acclaimed *Vital Signs* series, the annually updated *World Resources* almanac, and an independent monthly magazine. Tracking trends in natural resource utilization and depletion is the focus of this organization. The sheer wealth of information available from this site is staggering; however, it is all very good, up to date, and definitely worth a visit. If a teacher is in need of facts, charts and graphs, this is the place to download that kind of statistical data. WRI's homepage is located at <<http://www.wri.org/wri/>>.

VI. *ELECTRONIC DATABASES*

While Web sites provide graphically appealing and somewhat interactive information, the electronic databases, Westlaw and LEXIS-NEXIS, provide raw data — and lots of it. Of course, one must be able to identify the correct library code containing the relevant information in each database and then construct an effective boolean or natural word search string to actually retrieve that information. Following is a brief identification of libraries containing

1999] *Teaching International Environmental Law* 1227

international environmental legal materials, along with suggested strategies for utilizing the clipping services available from each provider that will do the work of automatically running search strings on a daily or weekly basis.

A. Westlaw

Westlaw's most informative database is Bureau of International Affairs International Environment Daily (BNA-IED). This is a daily publication that contains short articles, updates, meeting notices and the occasional longer, in-depth report on the entire array of international environmental topics and subject fields. The most effective way to access this incredibly informative material is to utilize Westlaw's "clipping service," and have the publication e-mailed directly to one's computer every morning. However, the down-side to this lies in the back-up of twenty reports waiting in the e-mail buffer if one is away for three weeks. Still, in my estimation, that is a small price to pay for staying completely current on global environmental law and policy developments around the world.

Moreover, the versatility of the clipping service idea is part of its strength. Articles and editorials touching on international environmental legal issues appear in national newspapers like the *New York Times* quite often. Consequently, a clipping service that sets up a search string for articles on this subject should be established either in the *New York Times* library or another newspaper library from the closest metropolis, like Chicago, D.C., Miami, or Los Angeles. One thing to note here, Westlaw and LEXIS-NEXIS have cleverly split the market on the *New York Times* such that Westlaw has it the day it is published; however, LEXIS-NEXIS archives it beginning the day after publication. Consequently, if a researcher wants to utilize the most current clipping service, he or she will run it on Westlaw, but if a broader search is required for past articles from past editions, it should be run on LEXIS-NEXIS. Westlaw also offers access to U.N. treaties, International Legal Materials collected in I.L.M. by the American Society for International Law, the *Environmental Law Reporter*, etc.

B. LEXIS-NEXIS

While the electronic interface with LEXIS is a bit more clumsy and not as intuitive as that of Westlaw, LEXIS does offer a diverse range of materials on global environmental law and policy. Most databases can be accessed through the Environmental Law Library (ENVIRN). Under this heading, one may access foreign environmental law statutes and regulations from Brazil, France, Indonesia, the European Union, Italy, Mexico, Spain, and the United Kingdom. As for news publications, one can pull information on specific areas from industry newsletters such as *Coal Week International*, *European Environment*, and the *International Petrochemical Report*, which are useful on their subject-specific topics.

However, a switch must be made to the International Law Library (INTLAW) to access the *International Environmental Report*, which has coverage from 1987 to present. Beyond these offerings, there are the usual group of academic law journals in this area, like Colorado and Georgetown, that are also available on Westlaw, as well as the Bureau of National Affairs offerings. Overall, I found LEXIS too cumbersome to navigate; nonetheless, its newspaper offerings are generally outstanding and worth running search strings on regularly. LEXIS also has a clipping service.

VII. CONCLUSION

The quantity of reading materials, visual aids, availability of print and electronic information, and sophistication of policy data has risen and multiplied exponentially since the earlier days when I sat as a student in international environmental law class, reading the only available papers (photocopied and bound) and relying on my professor's personal command of the subject as he drew many diagrams on the chalkboard. This information explosion has paralleled the international environmental treaty explosion as literally hundreds of new agreements have been negotiated in this decade alone.

Now, as a teacher, I am presented with a plethora of excellent choices from which to select when designing my own seminar on this subject, and am thankful for it. As international environmental law courses are constructed at law schools around the country by new teachers to meet the growing student demands for electives in this area, I hope that this survey proves helpful. Moreover, I sincerely hope that students leave those classes with a profound sense of purpose and perspective, along with a newfound desire to act whenever

1999] *Teaching International Environmental Law* 1229

and however they can to increase the effectiveness of global environmental protection efforts. Our future, and the future of those to come, literally relies on these educational endeavors, for environmentally conscious attorneys, policymakers, and government officials are those who are empowered to change the world for the better.