

Wrestling with an Elephant: A Selected Bibliography and Resource Guide on Global Climate Change

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This article explores the vast and overwhelming amount of resources on global warming and climate change. It unravels the intricate relationships between federal, state, and local governments as well as introducing the researcher to both general and legal materials on this critically important subject.

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Introduction

¶1 After seeing Al Gore's movie, *An Inconvenient Truth*,¹ in 2006, I began to change my life in small ways to combat climate change. In April 2007, I began commuting to work by train. I use environmentally friendly light bulbs. I walk for exercise and to do errands close to home (that means long walks in Southern California).

¶2 Over the summer of 2007, I read and reviewed a new book about weather and the law.² The book demonstrated clearly how weather affects all areas of our lives all the time. Since global warming affects weather, every one of us will be affected by global warming in the most basic ways.

¶3 I began to think about what I could do to enlighten myself and others professionally. I concluded that the best contribution I could make to combating climate change as a law librarian would be to gather and organize resources about climate change for legal researchers. The task was daunting. That is why the title of this article is *Wrestling with an Elephant* and the resources in it are all "selected."³

¶4 When I was first gathering sources for this bibliography, I received the October 2007 issue of *National Geographic*. On its cover was an ear of corn used for making alternative fuel. An essay, *Carbon's New Math*,⁴ preceded the main article about fuel from crops. This essay reported the bad news in a gentle way: we will reach the limit of our tolerable threshold of parts of CO₂ per million in about thirty-five years. This "new math" means that we must accept the transition to energy sources that are more expensive and difficult to develop than those we have now. At the same time, we must regulate our current practices more closely, both personally and through our communities.⁵

¶5 The bibliography begins with a section of sources giving an overview of global climate change. The United Nations Framework Convention on Climate Change and its amendment, the Kyoto Protocol, are the background to any discussion of implementing solutions to global warming and climate change. The section

1. AN INCONVENIENT TRUTH: A GLOBAL WARNING (Paramount Pictures 2006).

2. Isa Lang, *Book Review*, 100 LAW LIBR. J. 173, 2008 LAW LIBR. J. 7, ¶14 (reviewing MARSHA L. BAUM, WHEN NATURE STRIKES: WEATHER DISASTERS AND THE LAW (2007)).

3. I would like to update this bibliography on a regular basis and would appreciate contributions from users. At this writing, I am investigating possibilities for creating a web site on global climate change at Chapman Law Library. Please contact me at ilang@chapman.edu if you have ideas for the contents of this web site.

4. Bill McKibben, *Carbon's New Math*, NAT'L GEOGRAPHIC, Oct. 2007, at 32.

5. S. Pacala & R. Socolow, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies*, 305 SCIENCE 968 (2004). The authors recommend fifteen "stabilization wedges" or ways we can help solve the climate problem.

includes a few selected articles contemporaneous with the Kyoto Protocol, as well as books focusing on global implications of climate change. It also reviews the most important web sites for a global audience.

¶6 The bibliography continues with a selective, annotated review of nonlegal books on climate change. The books in this section were selected among many for their informative and reader-friendly qualities. After reading one or two books from this section, a researcher will understand the terminology used in and the problems addressed by legislation and case law.

¶7 Our government agencies are making significant efforts to provide all the information available regarding global warming and climate change. The section on federal government agencies summarizes each agency's functions and lists their web sites. The Environmental Protection Agency monitors actions of state and local governments; a state-by-state section on significant statutes and web sites follows the EPA information on state and local climate change action plans.

¶8 Climate change litigation is in its infancy. The section on litigation provides examples of cases using different legal theories to justify standing to sue and different causes of action. Now that legal precedents have been established, litigation is likely to expand rapidly. The section on current legal scholarship analyzes existing cases and policy. The legal scholarship is vast, and this section is necessarily selective.

The Best Resources

¶9 This article contains many resources on global climate change. Below is a short list of resources that should always be accessible to researchers. These resources are described in more detail in later sections.

The Best General Interest Book—Flannery, Tim. *The Weather Makers: How Man Is Changing the Climate and What It Means for Life on Earth*. New York: Grove/Atlantic, 2005.

The Best Complete Idiot's Guide (No kidding—it's available at your local super-market checkout counter next to the dieting and astrology books.)—Tennesen, Michael. *The Complete Idiot's Guide to Global Warming*. 2nd ed. Indianapolis: Alpha Books, 2008.

The Best Legal Book—Gerrard, Michael B. *Global Climate Change and U.S. Law*. Chicago: American Bar Association, 2007. Updates available at <http://www.abanet.org/abapubs/globalclimate>.

The Best Newsletter for Legal Developments—*Environment Reporter (Newsletter)*. Washington, D.C.: Bureau of National Affairs, 1970–.

The Best Directory—*Environmental Resource Handbook*. 4th ed. Millerton, N.Y.: Grey House Publishing, 2007–2008.

The Best Web Site for Federal, State, Local, and Regional Actions—U.S.

Environmental Protection Agency. "Climate Change." <http://www.epa.gov/climatechange> (accessed June 13, 2008).

Global Climate Change: An Overview

The UN Framework Convention on Climate Change and the Kyoto Protocol

¶10 Although scientists were aware by the mid-twentieth century that carbon dioxide and other chemical emissions had the potential for changing the earth's climate, global concern did not manifest itself until the 1980s. In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC), whose task it was to issue assessment reports.⁶ In 2007, the IPCC concluded its fourth global climate change assessment. Three working groups, each consisting of many contributors, issued separate reports on climate change observations, climate models, and climate projections. A summary for policymakers as well as a full copy of the latest report is available online at the IPCC web site.⁷

¶11 The first IPCC assessment triggered a framework treaty, the United Nations Framework Convention on Climate Change⁸ (FCCC), finalized in 1992 and signed by 154 nations. The parties to the Convention held conferences throughout the 1990s.⁹ The work of these conferences eventually resulted in the 1997 Kyoto Protocol to the FCCC,¹⁰ a legally binding treaty under which the participating countries agreed to specific limits on greenhouse gas emissions. The United States did not sign the Kyoto Protocol. Rather than accept the 2012 deadline imposed by the Protocol, it adopted a policy of gradual limitations on emissions, which could take decades.¹¹

¶12 Because the United States has not signed the Kyoto Protocol, our country is thrown upon itself to create a binding legal framework for regulating our responses to climate change. No one piece of federal legislation has squarely addressed the issue. Nonetheless, piecemeal efforts, such as state alternative energy tax incentives and voluntary greenhouse gas control programs, are in place. The Framework Convention and the Kyoto Protocol are included in this bibliogra-

6. Intergovernmental Panel on Climate Change, About IPCC, <http://www.ipcc.ch/about/index.htm> (last visited June 30, 2008).

7. Intergovernmental Panel on Climate Change, Assessment Reports, <http://www.ipcc.ch/ipccreports/assessments-reports.htm> (last visited June 30, 2008).

8. United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 165.

9. Peter Duncanson Cameron, *The Kyoto Process: Past, Present and Future*, in *KYOTO: FROM PRINCIPLES TO PRACTICE* 3-23 (Peter D. Cameron & Donald N. Zillman eds., 2002) (providing a helpful timeline for the conferences).

10. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22.

11. Andrew C. Revkin, *U.S. Planning Gradual Curb on Emissions, Taking Years*, N.Y. TIMES, Feb. 6, 2002, at A5.

phy because they are the legal foundations of world climate control, providing a model for U.S. laws and policies.

¶13 In December 2007, an international conference on climate change at Bali, Indonesia, discussed the revision of the “aging” treaties.¹² It was planned that the agreement would stress the urgency of international action and would seek commitments by both developing and developed countries on lowering emissions. However, the developing countries remained firm in their attitude that the developed countries should bear the financial burden of lowering emissions. Significantly, the United States became more flexible as the conference progressed.¹³ The IPCC site listed below contains information about the Bali Conference.

¶14 A sampling of the huge body of literature on the Kyoto Protocol is included in this section. Books and articles were selected either because they contain basic information about the Protocol or because they discuss the reasons why the United States did not sign it. The articles here are contemporary with the Protocol (1997–2000); more recent articles on legal aspects of climate change in the United States can be found in later sections of the bibliography. The following web sites include basic documents, reports, and proceedings in this area:

Intergovernmental Panel on Climate Change, <http://www.ipcc.ch> (accessed June 30, 2008).

The Intergovernmental Panel on Climate Change (IPCC) publishes Climate Change Assessments and other reports on climate change.

United Nations. United Nations Framework Convention on Climate Change, <http://unfccc.int/2860.php> (accessed June 30, 2008).

Texts of the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and materials on subsequent conferences (click on “Documentation” for an introductory guide to the documents and their abbreviations). The parties to the Kyoto Protocol meet annually at the Conference of the Parties. Conference proceedings are published on the same web site (click on “Meetings,” then click on “More” for archives).

Global Organization Web Sites

International Council for Science, <http://www.icsu.org> (accessed June 30, 2008).

This organization works closely with a number of United Nations organizations and with scientific bodies around the world. It funds grants for interdisciplinary scientific research and supports conferences worldwide. Its report, *ICSU and Climate Science: 1962–2006 and Beyond*, is available in PDF format at http://www.icsu.org/10_icsu75/PDF/Climate_Change.pdf.

International Institute for Sustainable Development, <http://www.iisd.org> (accessed June 30, 2008).

12. See United Nations, The United Nations Climate Change Conference in Bali, http://unfccc.int/meetings/cop_13/items/4049.php (last visited Aug. 18, 2008).

13. Thomas Fuller & Andrew C. Revkin, *Deal on Reviving Climate Treaty Seems Close, but Is Elusive*, N.Y. TIMES, Dec. 15, 2007, at A9.

Climate change and energy is the first theme on this organization's list. It sponsors research and publications in this area and also has a lively blog. The IISD also publishes a biweekly newsletter, *Linkages*.

Pew Center on Global Climate Change, <http://www.pewclimate.org> (accessed June 30, 2008).

Although the Pew Center is based in the Washington, D.C., area and works with Congress and the U.S. corporate community, its research reports have a global focus. Pew Center reports are in four series: solutions, economics, environmental impact, and policy, and are available on the web site.

United Nations. Gateway to the UN System's Work on Climate Change, <http://www.un.org/climatechange> (accessed June 30, 2008).

A portal to the actions of all United Nations organizations and commissions. The portal also contains links to important documents and videos of the latest climate change meetings at the United Nations.

World Resources Institute. Climate, Energy, & Transport, <http://www.wri.org/climate> (accessed June 30, 2008).

The Climate, Energy, & Transport section of the WRI is a group of "partners" from worldwide companies such as BP, retail companies such as Staples and Target, think tanks, political action groups, international law firms, and national banks. The WRI also has an extensive list of publications on climate change and energy, including legal issues.

¶15 The following organizations monitor worldwide legal developments in global climate change:

Environmental Law Alliance Worldwide, <http://www.elaw.org> (accessed June 30, 2008).

Climate Justice, <http://www.climatelaw.org> (accessed June 30, 2008).

Greenpeace (*Briefing* newsletter), <http://www.greenpeace.org/usa> (accessed June 30, 2008).

Friends of the Earth, <http://www.foe.co.uk> (accessed June 30, 2008). (British and European emphasis.)

Books with a Global Focus

Aldy, Joseph E., and Robert N. Stavins, eds. *Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World*. New York: Cambridge University Press, 2007.

This collection of essays and commentaries on each essay, all by prominent contributors and sponsored by the Harvard Environmental Economics Program, studies present and future world policy on greenhouse gas emissions nearly ten years after the Kyoto Protocol. Some writers find the Kyoto Protocol emissions targets too stringent, especially on developing countries. Most of the essays focus on implementing worldwide greenhouse gas emissions in a practical way; some provide excellent bibliographies.

Betsill, Michele M., and Elizabeth Corell, eds. *NGO Diplomacy: The Influence of Nongovernmental Organizations in International Environmental Negotiations*. Cambridge, Mass.: MIT Press, 2008.

This book has three goals: to provide an analytical framework for assessing the extent of NGO influence on international environmental negotiations, to test this analytical framework in actual cases, and to identify factors that enable NGO negotiators to influence negotiations. One of the essays in this book, written by Michele Betsill, evaluates NGO influence during the pre-Kyoto Protocol negotiations from 1995 to 1997.

Cameron, Peter D., and Donald Zillman, eds. *Kyoto: From Principles to Practice*. International Environmental Law and Policy Series v.60. The Hague: Kluwer Law International, 2001.

This collection of essays provides a succinct analysis of the Kyoto process and a summary of developments after Kyoto. A chapter on the United States perspective discusses the future of U.S. policy as a nonsignatory.

Doelle, Meinhard. *From Hot Air to Action? Climate Change, Compliance and the Future of International Environmental Law*. Toronto: Thomson Canada, 2005.

An examination of the reactions to the Kyoto Protocol. The book's thesis is that the Kyoto Protocol attempts to tackle issues that affect the daily lives of everyone in the world. With each passing year, the stakes for our future rise. An important book legally because it discusses the influence of the Kyoto Protocol on international environmental law.

Grubb, Michael, Christiaan Vrolijk, and Duncan Brack. *The Kyoto Protocol: A Guide and Assessment*. London: Royal Institute of International Affairs, 1999.

This book takes a comprehensive look at the scientific background of and political influences on the Kyoto Protocol. The final section of the book is devoted to the economic consequences of the cleanup measures adopted by the Protocol.

International Trade and Climate Change: Economic, Legal, and Institutional Perspectives. Washington, D.C.: The World Bank, 2007.

A study by an international team working for the World Bank, this small volume contains a wealth of information on the global economics of climate change. After a summary of climate change policies and international trade, the study focuses on the future, both in developing countries and in international trade. Recommendations are in a chapter appropriately called "Opportunities for Win-Win-Win." The book also contains clear explanations of measures to combat climate change and models of the economic effects of carbon taxes.

MacKenzie, James J. *Climate Protection and the National Interest: The Links Among Climate Change, Air Pollution, and Energy Security*. Washington, D.C.: World Resources Institute, 1999.

This is a pre-Kyoto analysis of greenhouse warming, air pollution, and oil security. It is still a valuable study because its graphs, tables, and illustrations clearly analyze the issues.

Mallon, Karl, ed. *Renewable Energy Policy and Politics: A Handbook for Decision-Making*. London: Earthscan, 2006.

A collection of essays by international experts on renewable energy, including the American Wind Energy Association executive director, Randall Swisher. Two significant essays in this book are about the politics of enacting legislation on renewable energy and about renewable energy policies in the United States.

Nocera, Fabrizio. *The Legal Regime of Nuclear Energy: A Comprehensive Guide to International and European Union Law*. Antwerp, Netherlands: Intersentia, 2005.

This book is in two parts: 1) regulation of the safe use of nuclear energy and 2) prevention of the nonpeaceful use of nuclear energy. The outline discusses the specifics of these two areas; the rest of the book is a collection of documents.

Organization for Economic Co-operation and Development. *Action Against Climate Change: The Kyoto Protocol and Beyond*. Paris: Organization for Economic Co-Operation and Development, 1999.

This report focuses on the economics of climate change and outlines the issues raised by the Kyoto Protocol for its signatories. The report also discusses the process and economic effects of emissions trading. It contains many illustrations in boxes, graphs, and tables.

Yamin, Farhana, and Joanna Depledge. *The International Climate Change Regime: A Guide to Rules, Institutions, and Procedures*. New York: Cambridge University Press, 2004.

This meticulous guide explains the international legal regime created by the Kyoto Protocol. The book contains an introduction to international legal processes, a multi-chapter discussion of the climate change rules, and an analysis of the institutions formed to implement those rules.

Zillman, Donald N., Catherine Redgwell, Yinka O. Omorogbe, and Lila K. Barrera-Hernández, eds. *Beyond the Carbon Economy: Energy Law in Transition*. Oxford: Oxford University Press, 2008.

This collection of essays on the global legal implications of moving beyond the carbon economy is a product of meetings of the International Bar Association Section on Energy, Environment, Natural Resources, and Infrastructure Law. The book covers international, regional, and national legal responses to exploring alternative energy sources. The concluding essay by the editors describes the major role players in the world's nations, including national legislatures, subnational units (states and cities in the United States), and the judiciary. One interesting area mentioned briefly is that of property rights in oil and gas law. On the international law front, emissions trading seems to be the direction in which the developed nations are headed, with clean development mechanisms a possible direction for the developing nations.

Articles Contemporary with the Kyoto Protocol (1998–2000)

Breidenich, Clare, Daniel Magraw, Anne Rowley, and James W. Rubin. "Current Development: The Kyoto Protocol to the United Nations Framework Convention on Climate Change." *American Journal of International Law* 92 (1998): 315–31.

This piece explains the commitments required by the Kyoto Protocol, summarizes the negotiations that led to it, and provides a general introduction to global climate change.

Driesen, David M. “Free Lunch or Cheap Fix?: The Emissions Trading Idea and the Climate Change Convention.” *Boston College Environmental Affairs Law Review* 26 (1998): 1–87.

This article criticizes emissions trading as a “cheap fix” for global warming problems. The author views emissions trading as providing short-term economic benefits for developed countries, while interfering with the development of alternative energy sources and reducing accountability. Published almost ten years ago, this article opened the door to further scholarship on the economics of emissions trading.

Driesen, David M. “Choosing Environmental Instruments in a Transnational Context.” *Ecology Law Quarterly* 27 (2000): 1–52.

This companion article to the one listed above analyzes the emissions trading requirements of the Kyoto Protocol. The author again argues that emissions trading is a short-term fix that will undermine the leadership of the developed countries in global climate change policy and place undue burdens upon the developing countries.

Eisen, Joel B. “From Stockholm to Kyoto and Back to the United States: International Environmental Law’s Effect on Domestic Law.” *University of Richmond Law Review* 32 (1999): 1435–1502.

A review of selected literature on international compliance in environmental law. The author debunks some of the “myths” about the difficulties of domestic compliance. He advocates a mixture of compliance strategies and legal institutions to enforce those strategies.

Hanafi, Alex G. “Joint Implementation: Legal and Institutional Issues for an Effective International Program to Combat Climate Change.” *Harvard Environmental Law Review* 22 (1998): 441–508.

This article is a thorough examination of the joint implementation provisions of the Kyoto Protocol with some scientific analysis and data. It includes a discussion of the legal aspects (including private law) of joint implementation for the developed signatories, with an eye on future implications for the United States.

Nonlegal Books on Climate Change

¶16 Anyone interested in climate change should read at least one general, nonlegal book on the subject. Such books abound, and some are definitely more readable than others. Most are somewhat apocalyptic—but this is an apocalyptic issue!

¶17 The selections in this section contain solid research and a reasoned balance between fearful projections and concrete current data. They run the middle course between personal “journeys” into global warming issues and scholarly works for experts. They are all fairly recent, since the research and thinking in the area changes as we learn more.

¶18 A number of books refer to “Gaia” or the “Gaia Hypothesis.” Initially propounded by Dr. James Lovelock in the 1960s, this hypothesis has been controversial among scientists, but has been used as a metaphor for environmental threats to human security. Dr. Lovelock was investigating the forces that keep the earth’s

environment hospitable to living organisms. He concluded that these organisms support themselves through intricate symbiotic systems and feedback mechanisms.¹⁴ According to Dr. Lovelock, these symbiotic systems and feedback mechanisms maintain human security, and they are outlined in his book, *The Revenge of Gaia*, summarized below.

¶19 Praeger Publishers has a current series of books called Praeger Politics and Environment which explores the impact of political and security concerns on the environment. The series director, P.H. Liotta (who is also the author of one of the recommended books below), explains that security issues have become “creeping vulnerabilities.”¹⁵ Climate change is one security issue that does not appear to be an emergency today or tomorrow, but must be addressed.

¶20 There is one valuable directory that could be called the “*Whole Environmental Catalog*” (like the “*Whole Earth Catalog*” of a different era¹⁶). It is a biennially published volume, currently in its fourth edition (2007–2008). Called the *Environmental Resource Handbook*, it is published by Grey House Publishing and is available for \$155. It includes contact information for numerous governmental agencies and NGOs (with a separate section on environmental law), followed by all manner of environmental statistics and place rankings. Nowadays, it is a must for every library.

Blatt, Harvey. *America’s Environmental Report Card: Are We Making the Grade?* Cambridge, Mass.: MIT Press, 2005.

This book is a comprehensive topical analysis of the environment in the United States. The author approaches each topic from the public’s viewpoint and also includes issues raised by scientists. Some of the topics are: water (enough?), garbage (smelly), global warming (of course). This book is sometimes humorous and eminently readable by the average layperson (me!).

Braasch, Gary. *Earth Under Fire: How Global Warming Is Changing the World.* Berkeley: University of California Press, 2007.

This photographically rich book contains essays and explanatory inserts by environmental and climatological experts. In 1999, the author, a photographic journalist, began the worldwide journey illustrated in his book. He believes that global climate change is advancing more quickly than most people realize and that it is the most important event to face humanity. The photos in the book are visual evidence of his belief.

Conkin, Paul K. *The State of the Earth: Environmental Challenges on the Road to 2100.* Lexington, Ky.: The University Press of Kentucky, 2006.

This book provides a competent and readable analysis of the global warming situation and its issues. Chapters cover our resources and the threats to them, and

14. James Lovelock, *The Living Earth*, 426 NATURE 769 (2003).

15. P.H. Liotta, *Foreword*, in DAVID HOWARD DAVIS, *IGNORING THE APOCALYPSE: WHY PLANNING TO PREVENT ENVIRONMENTAL CATASTROPHE GOES ASTRAY*, at x (2007).

16. WHOLE EARTH CATALOG (1968–71).

the warming and cooling influences on climate change. This is a good introductory book for legal scholars and law students researching the area.

Cowie, Jonathan. *Climate Change: Biological and Human Aspects*. Cambridge, U.K.: Cambridge University Press, 2007.

This book explains the ecological and biological aspects of climate change in language that is simple enough for a beginning researcher. While conceding that there is no conclusive evidence tying human activity to climate change, the author demonstrates that there are many little pieces of evidence that together create the big picture. His thesis is that if all living things flourish within a certain temperature and climatic range, any disruption to that range will upset the cycle of living things on earth. The book contains an excellent glossary.

Cox, John D. *Climate Crash: Abrupt Climate Change and What It Means for Our Future*. Washington, D.C.: Joseph Henry Press, 2005.

This is a scientific but readable study focusing on ice investigation and climate change throughout the earth's history. The book contributes to the multitude of works on climate change policy from a scientist's perspective. We need to understand the potential for abrupt and unpredictable changes in climate, because such changes may be beyond computer modeling.

Fagan, Brian. *The Great Warming: Climate Change and the Rise and Fall of Civilizations*. New York: Bloomsbury Press, 2008.

A study of the last dramatic climate-change era, beginning in the early 1000s and lasting for several centuries. The author studies the existing data from this epoch to learn how mankind adapted to earlier climate changes, and particularly to the drought resulting from them.

Davis, David Howard. *Ignoring the Apocalypse: Why Planning to Prevent Environmental Catastrophe Goes Astray*. Westport, Conn.: Praeger, 2007.

This book examines apocalyptic rhetoric in climate change literature and politics. The author focuses on the four major apocalyptic threats: energy, overpopulation, nuclear war, and global warming. He discusses how national governments and international bodies plan to combat these threats based on prior situations. He notes that experience derived from those situations may not be relevant to what is now facing us from global warming, and concludes that while treaties are necessary to establish a global regime, the organizations that draft treaties will always implement the cheapest and easiest solutions.

Flannery, Tim. *The Weather Makers: How Man is Changing the Climate and What It Means for Life on Earth*. New York: Grove/Atlantic, 2006.

Tim Flannery is an Australian journalist, an experienced and talented writer as well as a knowledgeable scientist. He presents the vast history of climate change on earth, distinguishing what is now facing us from past cycles of climate change. He also illustrates, in touching ways, the demise of animals and plants, both great and small. He raises issues pertaining to mankind's future with passion and grim clarity. This book is informative, moving, and frightening.

Liotta, P. H., and Allan W. Shearer. *Gaia's Revenge: Climate Change and Humanity's Loss*. Westport, Conn.: Praeger, 2007.

This book focuses on the threat to human security of an abrupt climate change. The authors extensively analyze the concept of human security. To them, it means

not only protection from violence, but from disease and deprivation of life's necessities. The book contains a number of grim scenarios.

Lovelock, James. *The Revenge of Gaia: Earth's Climate in Crisis and the Fate of Humanity*. New York: Basic Books, 2006.

Dr. Lovelock considers himself to be a "planetary physician" who bears the bad news that Earth is diseased. The picture he paints of our future in a "hot state" is truly apocalyptic. Some of the solutions he recommends to stave off the apocalypse are original: for example, putting a layer of carbon dioxide-reducing sulfuric acid into the stratosphere by requiring airplanes flying at that height to mix small amounts of sulfur into their jet fuel.¹⁷ This book is the product of years of creative, if unconventional, thinking.

Pearce, Fred. *With Speed and Violence: Why Scientists Fear Tipping Points in Climate Change*. Boston: Beacon Press, 2007.

Written with the clarity of an environmental journalist, this contrarian book is skeptical about the apocalyptic effects of climate change. The author has many questions about climate models and their predicted effects and maintains that there are still many climate surprises in store for us.

Podobnik, Bruce. *Global Energy Shifts: Fostering Sustainability in a Turbulent Age*. Philadelphia: Temple University Press, 2006.

The industrial world has depended on a series of energy sources since the late eighteenth century. This book explains the reasons for our dependence on each energy source and demonstrates how this dependence is at different critical stages throughout the world. The author also explores the alternatives of hydro-electric and fuel cell energy systems.

Scheer, Hermann. *Energy Autonomy: The Economic, Social and Technological Case for Renewable Energy*. London: Earthscan, 2007.

The author discusses the false premises that denigrate renewable energy use throughout the world as compared with continued use of fossil-fuel-based energy resources. His thesis is that there must be mobilized support for and use of renewable energy sources from a multitude of sources before waiting for a worldwide consensus on renewable energy.

Shearman, David, and Joseph Wayne Smith. *The Climate Change Challenge and the Failure of Democracy*. Westport, Conn.: Praeger, 2007.

Written by two Australians, one of whom is a doctor, this book focuses on the effects on climate change of rampant consumerism and self-interest in the United States. The authors' thesis is that liberal democracy, while upholding individual rights and freedoms, has created a climate where corporate greed can prevail. They suggest that the only way for mankind to survive is in a government (possibly authoritarian) based on ecology rather than on economics.

Tennesen, Michael. *The Complete Idiot's Guide to Global Warming*. Indianapolis: Alpha Books, 2008.

This well-organized pocket guide begins with the weather-related reasons for

17. It will be interesting to see if Dr. Lovelock's suggestions about jet fuel will be raised in the budding litigation with the EPA on jet fuel emissions. See Margot Roosevelt, *Aircraft Emission Cuts Urged: California Joins Others in Petitioning the EPA for New Restrictions*, L.A. TIMES, Dec. 5, 2007, at C1.

global warming, and continues with sections on the effect of global warming on the different regions of the earth. Following that are suggestions on how to mitigate global warming on an individual basis. Boxes contain definitions, “climatoids” (like factoids), “hot” debates, and global warnings.

Tietenberg, T. H. *Emissions Trading: Principles and Practice*. 2nd ed. Washington, D.C.: Resources for the Future, 2006.

According to the author of this basic study of emissions trading, the practice has become a firmly entrenched method in environmental policy. The author discusses the history of emissions trading (it was originally not widely accepted) and compares projections with actual results. While the book is heavily slanted toward economics (as is emissions trading!), it is for the most part an understandable read. A chapter on enforcement raises legal considerations, as does the discussion of allocation and privatization of emissions permits.

Wagner, Viki, ed. *Endangered Species*. Detroit: Greenhaven Press, 2008.

This book is part of the Opposing Viewpoints Series and is organized in a unique way. Each chapter asks a question, and answers it from different viewpoints. The pertinent question in this book is in chapter 2: “Is Global Warming Endangering Plant and Animal Species?” (pp.63–101). The reader-friendly answers are insightful.

Federal Legislation and Regulations

Introduction

¶21 Congress does not have a specific legislative agenda with respect to climate change.¹⁸ The massive expenditures on climate change by numerous federal agencies are the result of comparatively few laws and regulations (listed below). Despite the lack of direction in our major legislative body, it produces bills and committee reports as if the end of the world is at hand. The Congressional Research Service and other organizations monitor this activity; their web sites are listed following the legislation and regulations.

¶22 The best free web sites for monitoring congressional activity are GPO Access (<http://www.gpoaccess.gov>) for committee prints, hearings, and congressional debates, and the Library of Congress’s Thomas (<http://thomas.loc.gov>) for bills and committee reports. Both these web sites have materials from the mid-1990s and are as complete in coverage as LexisNexis or Westlaw. For older legislative research, consult the *CIS Index and Abstracts*.

Major Legislation and Regulations

The following list is of the major legislation and regulations in energy policy:

Clean Air Act Amendments, Public Law 101-549, *U.S. Statutes at Large* 104 (1990): 2399.

18. Zachary Coile, *Congress Stumbling on Climate Legislation*, S.F. CHRON., Sept. 24, 2007, at A1.

Energy Policy and Conservation Act, Public Law 94-163, *U.S. Statutes at Large* 89 (1975): 871.

Energy Policy Act of 1992, Public Law 102-486, *U.S. Statutes at Large* 106 (1992): 2776.

Energy Policy Act of 2005, Public Law 109-58, *U.S. Statutes at Large* 119 (2005): 594.

Global Change Research Act of 1990, Public Law 101-606, *U.S. Statutes at Large* 104 (1990): 3096.

National Environmental Policy Act of 1969, Public Law 91-190, *U.S. Statutes at Large* 83 (1970): 852, codified at 42 U.S. C. § 4332 (2000).

Voluntary Greenhouse Gas Reporting Program, *Code of Federal Regulations*, title 10, §§ 300.1-300.13 (2008).

Protection of Stratospheric Ozone, *Code of Federal Regulations*, title 40, pt. 82 (2007).

Congressional Research Service

¶23 The Congressional Research Service (CRS), part of the Library of Congress, prepares reports for Congress on a variety of subjects. The National Council for Science and the Environment has almost two thousand Congressional Research Service reports on its web site, which is one of the few places where the reports are available to the public.¹⁹ According to the Council, the CRS reports are checked for accuracy and objectivity and are useful for people involved in environmental policy.²⁰

National Council for Science and the Environment. CRS Reports, <http://www.ncseonline.org/nle/crs> (accessed June 30, 2008).

Close to 2,000 CRS reports are available, with subject searching as well, at no cost on the Council's web site.

World Resources Institute. Reports on Congressional Activity, <http://www.wri.org/publication/usclimatetargets> (accessed June 30, 2008).

The World Resources Institute closely monitors legislation, and publishes annual reports on congressional activity in environmental law.

19. National Council of Science and the Environment, CRS Reports, <http://www.ncseonline.org/NLE/CRS> (last visited June 30, 2008). *See also* Open CRS, <http://opencrs.com/>; University of North Texas, CRS Reports, <http://digital.library.unt.edu/govdocs/crs/>; National Agricultural Law Center, <http://www.nationalaglawcenter.org/crs>.

20. Two examples of relevant CRS reports are JONATHAN L. RAMSEUR & BRENT D. YACOBUCCI, CLIMATE CHANGE LEGISLATION IN THE 110TH CONGRESS (2007), available at <http://ncseonline.org/NLE/CRSreports/07Nov/RL34067.pdf>, and BRENT D. YACOBUCCI & LARRY PARKER, CLIMATE CHANGE: FEDERAL LAWS AND POLICIES RELATED TO GREENHOUSE GAS REDUCTIONS (2006), available at <http://www.ncseonline.org/NLE/CRSreports/06Mar/RL31931.pdf>.

Federal Agencies

¶24 Our federal government's activities in the areas of climate change and global warming can be summed up as "Everyone is trying." Perhaps that should be our climate change motto in the United States! The result of all the cooks in the broth is an (over?)abundance of information. This section is organized by government agency. For each there is first a listing for the enabling legislation, followed by relevant agency web sites. There is also an executive order mandating energy saving by all federal departments;²¹ legislation carrying out this order is scattered throughout the *U.S. Code* but is not discussed here.

Department of Agriculture (USDA)

Global Climate Change Prevention Act of 1990, 7 U.S.C.A. §§ 6701-6711 (West 1999 & Supp. 2008).

The statute establishes a Global Climate Change Program within the Department of Agriculture. The program supports research on the effects of global climate change on agriculture and forestry. Specific areas of research include tropical and urban forests, biomass energy, and carbon cycle research.

National Agricultural Law Center, <http://www.nationalaglawcenter.org/farmbills> (accessed July 1, 2008).

Publishes the text of and resources for all farm bills since 1933.

U.S. Department of Agriculture. Agricultural Research Service, http://www.ars.usda.gov/research/programs.htm?NP_CODE=204 (accessed July 1, 2008).

USDA research includes a national program focusing on the carbon cycle, trace gases, agricultural ecosystem impacts, and changes in weather and the water cycle at farm, ranch, and regional levels.

U.S. Department of Agriculture. Cooperative State Research, Education, and Extension Service, <http://cris.csrees.usda.gov> (accessed July 1, 2008).

Research produced in cooperation with state agricultural extension programs, land grant universities, and other cooperating state institutions.

U.S. Department of Agriculture. National Agricultural Library, <http://www.nal.usda.gov> (accessed July 1, 2008).

Contains a "laws and regulations" section with an "environmental laws" subsection.

U.S. Department of Agriculture, Office of the Chief Economist, http://www.usda.gov/oce/global_change/index.htm (accessed July 1, 2008).

Web site of the Department's Global Climate Change program.

U.S. Forest Service. Strategic Planning and Resource Assessment, <http://www.fs.fed.us/plan> (accessed July 1, 2008).

Forest Service division focusing on ecosystem management for renewable resources.

21. Exec. Order No. 13,123, 64 Fed. Reg. 30,851 (June 3, 1999), mandates energy reduction in all federal agencies by 35% in 2010, relative to 1985 levels.

Department of Commerce

National Climate Program Act, 15 U.S.C. §§ 2901–2908 (2000).

The statute establishes a National Climate Program to assess the effects of climate on the environment, to aid understanding of climate and forecasting, and to coordinate interagency and intergovernmental climate studies. The Climate Program Office is within the jurisdiction of the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA).

National Oceanic and Atmospheric Administration. Climate, <http://www.noaa.gov/climate.html> (accessed July 1, 2008).

A detailed web site from the Climate Program Office combining news from the Office of Global Programs, the Arctic Research Office, and the Climate Observations and Services Program.

National Oceanic and Atmospheric Administration. Climate Program Office, <http://www.climate.noaa.gov> (accessed July 1, 2008).

NOAA's climate program web site.

National Oceanic and Atmospheric Administration Satellite and Information Service. Global Climate Change, http://www.ncdc.noaa.gov/oa/climate/climate_extremes.html (accessed July 1, 2008).

Archive of weather data collected worldwide.

National Oceanic and Atmospheric Administration Satellite and Information Service. World Data Center for Meteorology, <http://www.ncdc.noaa.gov/oa/wdc/index.php> (accessed July 1, 2008).

Operated by the National Climatic Data Center, this site maintains climate data and makes it available to the world scientific community.

World Data Center System. World Data Center for Paleoclimatology, <http://www.ngdc.noaa.gov/wdc/usa/paleo.html> (accessed July 1, 2008).

Also operated by the National Climatic Data Center, the site estimates past environments based on tree rings, ice cores, marine sediments, and other signs in nature.

National Oceanic and Atmospheric Administration Satellite and Information Service. Exploring Weather and Climate Change by the Powers of 10, <http://www.ncdc.noaa.gov/paleo/ctl> (accessed July 1, 2008).

This site contains the Climate TimeLine Tool—an interactive research tool designed for examination of climate at a given point in history. Begin with the *Summary of Climate TimeLine*.

Department of Energy (DOE)

Energy Policy Act of 1992, 42 U.S.C.A. §§ 13381–13389 (West 2005 & Supp. 2008).

The *Energy Policy Act of 1992* and the *Energy Policy Act of 2005* are the federal government's most ambitious attempts to address renewable energy and global climate change. The comprehensive laws establish a number of offices within the Department of Energy charged with investigating alternative fuels, cleaning coal, reducing oil vulnerability, and studying global climate change. Web sites of the specific offices within the Department of Energy are listed below.

Energy Information Administration. Official Energy Statistics from the U.S. Government, <http://www.eia.doe.gov> (accessed July 1, 2008).

Site contains a wealth of statistics and information on all energy sources and uses. Also has the guidelines for voluntary reporting of greenhouse gas emissions.

U.S. Climate Change Science Program, <http://www.climatechange.gov> (accessed July 1, 2008).

Supports four areas of research consisting of climate and hydrology, the carbon cycle, ecological processes, and human interactions.

U.S. Department of Energy. Energy Efficiency and Renewable Energy, <http://www.eere.energy.gov/> (accessed July 1, 2008)

DOE works with NGOs, such as universities and businesses, on developing new energy technologies.

U.S. Department of Energy. Office of Fossil Energy, <http://www.fossil.energy.gov> (accessed July 1, 2008).

Develops strategies to reduce global climate issues resulting from the use of fossil fuels.

U.S. Department of Energy. Office of Policy & International Affairs, <http://www.pi.energy.gov> (accessed July 1, 2008).

The Office of Policy and International Affairs is responsible for implementing presidential initiatives including the voluntary reporting discussed above. Contains links to interagency programs.

Department of State

Energy Policy Act of 2005, 22 U.S.C.A. §§ 7901–7908 (West Supp. 2008).

This statute mandates the Department of State assist developing countries in reducing the intensity of greenhouse gas emissions.

U.S. Department of State. Climate Change, <http://www.state.gov/g/oes/climate/> (accessed July 1, 2008).

Environmental Protection Agency (EPA)

Clean Air Act, 42 U.S.C.A. §§ 7401–7671q (West 2003 & Supp. 2008).

42 U.S.C.A. § 7521 is the enabling statute for establishing emission standards, by regulation, for all new motor vehicles and trucks. 42 U.S.C.A. §§ 7602–7607 are the enforcement provisions for curbing emissions under the *Clean Air Act*. 42 U.S.C.A. § 7651k requires producers of acids (nitrogen oxides and sulfur dioxides) to install emissions monitoring systems and mandates record keeping.

U.S. Environmental Protection Agency. Climate Change, <http://www.epa.gov/climatechange> (accessed July 1, 2008).

The climate change section of the EPA's web site is comprehensive, aimed at all ages and levels of education. News is kept current. A daily "must" for environmental researchers. See the section on state and municipal legislation for specific EPA web sites.

National Aeronautics and Space Administration (NASA)

Carbon Cycle Remote Sensing Applications Research Program Public Law 106-391, Title III, Sec. 315, *U.S. Statutes at Large* 114 (2000): 1577, 1595 (reprinted in 42 U.S.C.A. § 2451 nt. (West 2003)).

The statute enables NASA to develop a remote sensing program that locates, maps, and monitors carbon sequestration sites and vegetation conditions throughout the United States.

National Aeronautics and Space Administration. Earth, <http://science.hq.nasa.gov/earth-sun/science/carbon> (accessed July 1, 2008).

Focuses not only on carbon distribution on land, in the oceans, and in atmospheric reservoirs, but also on ecosystems and on human-climate interaction. NASA hopes to predict atmospheric carbon concentrations over the next century.

National Science Foundation (NSF)

National Science Foundation, <http://www.nsf.gov> (accessed July 1, 2008).

The National Science Foundation works primarily in the weather-related aspects of global climate change. It is a participant with other government agencies in the Climate Change Science Program. The NSF web site is not easy to browse, but searching under "publications" or "discoveries" may pay off.

Interagency Programs

History of the Programs

¶25 In June 2001, the President announced a Climate Change Research Initiative (CCRI).²² Its mission is to pinpoint areas of uncertainty and to prioritize areas where investment can make a difference. Prior to the Climate Change Research Initiative, the U.S. Global Change Research Program (USGCRP), established by the Global Change Research Act of 1990, was charged with the mission of investigating human-induced climate change.²³ Its publications were impressive.²⁴ Now, the Climate Change Research Initiative evaluates the work of the U.S. Global Change Research Program for possible investment in research projects.

¶26 In the same June 2001 speech, the President announced a National Climate Change Technology Initiative. The Climate Change Technology Program (CCTP) and the Climate Change Science Program (CCSP) were established under this Initiative. The CCSP and the CCTP collaborate: the CCSP does the scientific and technological research and the CCTP evaluates it based on economic and social cost and technological performance and efficiency.

22. *In President's Words: 'A Leadership Role on the Issue of Climate Change,'* N.Y. TIMES, June 12, 2001, at A12.

23. Pub. L. No. 101-606, 104 Stat. 3096 (codified at 15 U.S.C. §§ 2921-2961 (2000)).

24. *See, e.g.,* NATIONAL ASSESSMENT SYNTHESIS TEAM, U.S. GLOBAL CHANGE RESEARCH PROGRAM, CLIMATE CHANGE IMPACTS ON THE UNITED STATES: THE POTENTIAL CONSEQUENCES OF CLIMATE VARIABILITY AND CHANGE (2001), available at http://www.usgcrp.gov/usgcrp/Library/national_assessment/foundation.htm.

¶27 A cabinet-level office, the Committee on Climate Change Science and Technology (CCSTI) makes recommendations to the President and works with the Office of Management and Budget (OMB) on funding. The Undersecretary for Energy, Science and Environment (Department of Energy) supervises the CCTP.

¶28 A web site called ClimateVISION is produced and maintained by four agencies: the Department of Energy, the Department of Agriculture, the Department of Transportation, and the Environmental Protection Agency. This web site resulted from the Department of Energy's Guidelines for Voluntary Reporting of Greenhouse Gas.²⁵

Interagency "Cast of Characters"

ClimateVISION, <http://www.climatevision.gov> (accessed July 1, 2008).

U.S. Climate Change Science Program (CCSP), <http://www.climatescience.gov> (accessed July 1, 2008).

U.S. Climate Change Science Program. Climate Change Research Initiative (CCRI), <http://www.climatescience.gov/about/ccri.htm> (accessed July 1, 2008).

U.S. Climate Change Technology Program (CCTP), <http://www.climatetechnology.gov> (accessed July 1, 2008).

U.S. Global Change Research Program (USGRCP), <http://www.usgrcp.gov/usgrcp/default.php> (accessed July 1, 2008).

State, Regional, and Local Actions

Introduction

¶29 The most comprehensive resources for research on state activities to combat climate change and global warming are on the EPA web site. The EPA monitors state and local activities, provides guidelines for implementing action plans and greenhouse gas emission inventories, and maintains statistics on state greenhouse gas emissions. The EPA *Guide to Action* is the bible for state implementation of clean energy plans. The EPA also sponsors a clean energy municipal network and has programs and resources to support local best practices.

¶30 States have also been active in implementing economic incentives for the development of alternative energy sources, including but not limited to wind, geothermal, and solar energy. These economic incentives are in the form of exemptions from business, personal, sales, or property taxes. Significant state legislation implementing these incentives is included in this section.

25. 10 C.F.R. §§ 300.1–300.13 (2008).

¶31 Online assistance is available to any municipality desiring to implement environmental action.²⁶ A number of cities and regions have climate change web sites. A survey of such web sites found a lack of consistency in updating and information, so they are not listed. A specific municipal and regional search should yield relevant web sites. Nongovernmental web sites that monitor state activities follow the fifty-state survey.

Environmental Protection Agency State and Local Web Sites

Clean Energy-Environment Guide to Action, http://www.epa.gov/cleanenergy/documents/gta/guide_action_full.pdf (accessed July 1, 2008).

Summarizes sixteen energy policies used by states participating in the Clean Energy-Environment state partnership.

Portal to State and Local Government Actions, <http://epa.gov/cleanenergy/energy-programs/state-and-local/index.html> (accessed July 1, 2008).

Provides details on actions by state and local governments and agencies to deal with climate change issues. This site is a portal to detailed state and local information.

State Legislation, Articles, and Web Sites

¶32 Significant state legislation on climate change, greenhouse gases, global warming, and alternative energy development as of late 2007 is listed below by state. Also listed are relevant state-related web sites. This information may overlap with the EPA matrices. Asterisks (*) by state names indicate that there has been some legislative action that was not considered significant enough to cite separately. In such cases, a researcher should search the statutes of that state for more information. Legal scholarship pertaining to activities within a given state is listed under that state.

¶33 The American Wind Energy Association did a survey of state incentives for wind energy in 2002.²⁷ I updated this survey in spring 2007 and include any significant state legislation below. Tax incentives run the gamut from personal income to business, sales, and use taxes. Some were repealed during the five-year period from 2002 to 2007. Use the *BNA Environment Reporter* as well as the general news web sites listed on the following pages to update state and local developments. Their weekly newsletter may be more current than a state, regional, or local web site and is certainly more reliable.

26. NATURAL CAPITALISM SOLUTIONS, CLIMATE PROTECTION MANUAL FOR CITIES (2007), available at <http://www.climatemanual.org/Cities/index.htm>.

27. AMERICAN WIND ENERGY ASSOCIATION, INVENTORY OF STATE INCENTIVES FOR WIND ENERGY IN THE U.S.: A STATE BY STATE SURVEY (2002), available at <http://www.awea.org/policy/documents/inventory.pdf>.

Alabama

Ala. Code § 22-28A-2 (2007)—Kyoto Protocol Response.

Ala. Code § 41-6A-2 (2007)—Legislative Declaration on Alternative Energy Development.

Ala. Code § 41-6A-4 (2007)—Clean Energy Programs.

Geological Survey of Alabama: Carbon Sequestration Research, <http://www.gsa.state.al.us/CO2/CO2.htm> (accessed July 1, 2008).

Alaska

Alaska Stat. § 45.88.010 (2006)—Alternative Energy Revolving Loan Fund.

Climate Change in Alaska Project, <http://www.alaskaclimatechange.org> (accessed July 1, 2008).

Arizona

Ariz. Rev. Stat. Ann. § 41-1510 (2006)—Solar Energy Advisory Council.

Ariz. Rev. Stat. Ann. § 40-1083 (2007)—Wind Energy Tax Credit.

Arizona State Climate Action, <http://www.azclimatechange.gov> (accessed July 1, 2008).

Arkansas

Ark. Code Ann. tit. 15 nt. (2007)—Creation of Governor's Commission on Global Warming.

Ark. Code Ann. §§ 15-4-2101–15-4-2105 (2007)—Arkansas Emerging Technology Development Act of 1999.

Arkansas Climate Awareness Project, <http://www.arclimate.org> (accessed July 1, 2008).

*California**

Cal. Gov't Code §§ 12890–12893 (West 2007)—Greenhouse Gas Reduction Report Card.

Cal. Health & Safety Code §§ 38500–38599 (West 2007)—Global Warming Solutions Act of 2006.

Abate, Randall S. "Automobile Emissions and Climate Change Impacts: Employing Public Nuisance Doctrine as Part of a 'Global Warming Solution' in California." *Connecticut Law Review* 40 (2008): 591–630.

This article discusses the effect of public nuisance doctrine on power companies and auto manufacturers. The author dissects the legal positions against lawsuits applying this doctrine. He also evaluates the litigation strategies of injunction versus damages and concludes that asking for damages is the appropriate way to litigate public nuisance.

Colangelo, Sarah. "The Politics of Preemption: An Application of Preemption Jurisprudence and Policy to California Assembly Bill 1493." *Environmental Law* 37 (2007): 175–200.

The bill in question imposes stricter emission standards than the federal law, raising preemption issues. The author reviews environmental law preemption cases and concludes that politics will play a role in preemption law, despite the statute and substantial body of cases in this area.

Owen, Dave. "Climate Change and Environmental Assessment Law." *Columbia Journal of Environmental Law* 33 (2008): 57–119.

The *California Environmental Quality Act* (CEQA) can be a model for legislation affecting climate change, according to the author of this article. This law requires administrative agencies to prepare environmental impact reports for any project that may endanger the environment. The report must also offer less damaging alternatives. The author suggests many ways in which CEQA and statutes like it in other states can help mitigate adverse environmental impacts.

Stavins, Robert N., Judson L. Jaffe, and Todd Schatzki. "Too Good to Be True? An Examination of Three Economic Assessments of California Climate Change Policy." AEI-Brookings Joint Center Working Paper No. 07-01; KSG Working Paper No. RWP07-16 (2007), *available at* <http://ssrn.com/abstract=973836>.

This working paper analyzes the reasoning in three California studies claiming that the state could reduce its greenhouse gas emissions by 2020 to the 1990 levels at no net cost. The authors found that the studies substantially underestimated the costs of such a reduction.

Visick, Matthew. "If Not Now, When? The California Global Warming Solutions Act of 2006: California's Final Steps Towards Mandatory Greenhouse Gas Regulation." *Hastings West-Northwest Journal of Environmental Law & Policy* 13 (2007): 249–81.

The author analyzes the Global Warming Solutions Act of 2006, noting that it will change greenhouse gas emissions levels in California even though it will be open to many challenges.

California Climate Change Portal, <http://www.climatechange.ca.gov> (accessed July 1, 2008).

Colorado

Colo. Rev. Stat. Ann. §§ 25-1-1301–25-1-1303 (2007)—Climate Change Markets Act.

Ozone Action Plan, <http://www.raqc.org> (accessed July 1, 2008).

Connecticut*

Conn. Gen. Stat. Ann. § 22a-200-201c (West 2007)—Greenhouse Gas Initiative.

Connecticut Climate Change, <http://www.ctclimatechange.com> (accessed July 1, 2008).

Delaware

Center for Energy and Environmental Policy, <http://www.ceep.udel.edu> (accessed July 1, 2008).

*Florida**

Fla. Stat. Ann. §§ 377.801–377.806 (West 2007)—Florida Renewable Energy Technologies and Energy Efficiency Act.

Gebert, Laura Thomas. “A Survey of Selected Government-Sponsored Energy Plans and Recommendations for Florida’s Future Energy Policy.” *Barry Law Review* 2 (2007): 149–79.

This article focuses on solar energy plans in California, Colorado, Japan, and Florida.

Florida Climate Change, <http://www.floridaclimatechange.com> (accessed July 1, 2008).

Georgia

Ga. Code Ann. §§ 12-6-220–12-6-232 (2006)—Carbon Sequestration Registry.

*Hawaii**

Haw. Rev. Stat. Ann. §§ 128D-1–128D-41 (2006)—Environmental Response Law.

Idaho

2007 *Idaho Sess. Laws* 143—Wind Energy Tax Incentive.

*Illinois**

415 *Ill. Comp. Stat. Ann.* §§ 140/1–140/99 (West 2004)—Kyoto Protocol Act.

Illinois Climate Change Advisory Group, <http://www.epa.state.il.us/air/climatechange> (accessed July 1, 2008).

Indiana

Ind. Code Ann. §§ 8-1-2.4-1–8.1.2.4-5 (West 2001)—Alternate Energy Production.

Indiana State Climate Office (Iclimate.org), <http://www.agry.purdue.edu/climate/research.asp> (accessed July 1, 2008).

Iowa

Iowa Code Ann. §§ 476B.1–476B.10 (West Supp. 2008)—Wind Energy Production Tax Credit.

Iowa Code Ann. § 455B.851 (2007)—Iowa Climate Change Advisory Council.
Iowa DNR Air Quality, <http://www.iowadnr.gov/air/index.html> (accessed July 1, 2008).

Kansas

Dietz, Brian. "Turbines vs. Tallgrass: Law, Policy, and a New Solution to Conflict Over Wind Farms in the Kansas Flint Hills." *Kansas Law Review* 54 (2006): 1131–63.

There is much conflict in Kansas over using lands for wind farms. The author advocates temporarily repealing Kansas's tax laws granting economic incentives for wind farm development pending a decision about how to encourage such development.

*Kentucky**

Ky. Rev. Stat. Ann. §§ 152.710–152.725 (West 2006)—Alternative Fuel Technologies.

Ky. Rev. Stat. Ann. §§ 154.27-010–154.27-090 (West 2007)—Incentives for Energy Independence.

Louisiana

La. Rev. Stat. Ann. § 51:3061 (West 2003)—Louisiana Renewable Energy Development Act.

Louisiana Coastal Wetlands Conservation and Restoration Task Force, <http://www.lacoast.gov> (accessed July 1, 2008).

*Maine**

Me. Rev. Stat. Ann. 38 §§ 574–579 (West 2007)—Lead-By-Example Initiative (to reduce emissions).

University of Maine. Climate Change Institute, <http://climatechange.umaine.edu> (accessed July 1, 2008).

*Maryland**

Md. Code Ann., Agric. §§ 1501–1507 (LexisNexis 2007)—Credit for Production of Renewable Fuels.

Joint Global Change Research Institute (University of Maryland and Pacific Northwest National Laboratory), <http://www.globalchange.umd.edu> (accessed July 1, 2008).

*Massachusetts**

Mass. Gen. Laws. Ann. ch. 40J § 4E (West 2007)—Massachusetts Renewable Energy Trust Fund.

Mass. Gen. Laws Ann. ch. 25A § 11F (West 2004)—Renewables Portfolio Standard.

Massachusetts Climate Action Network, <http://www.massclimateaction.org> (accessed July 1, 2008).

Massachusetts Department of Environmental Protection, <http://www.mass.gov/dep/air> (accessed July 1, 2008).

*Minnesota**

Minn. Stat. Ann. § 116D.02 (West 2005)—Declaration of State Environmental Policy.

Minn. Stat. Ann. § 216B.1612 (West 2005)—Community-Based Energy Development.

Minn. Stat. Ann. § 216B.2422 (West 2005)—Resource Planning and Renewable Energy.

Minnesota Climate Change Advisory Group: <http://www.mnclimatechange.us> (accessed July 1, 2008).

Missouri

Mo. Rev. Stat. §§ 348.430–348.439 (West 2001)—Renewable Energy Tax Credits.
Missouri Department of Natural Resources, <http://www.dnr.mo.gov> (accessed July 1, 2008).

*Montana**

Montana Climate Change Advisory Committee, <http://www.mtclimatechange.us> (accessed July 1, 2008).

*Nebraska**

*Nevada**

Nevada Climate Change Advisory Committee, <http://gov.state.nv.us/Climate/Calendar.htm> (accessed July 1, 2008).

*New Hampshire**

N.H. Rev. Stat. Ann. § 125L:1–125L:3 (2006)—Voluntary Greenhouse Gas Registry.

New Hampshire Department of Environmental Services, <http://www.des.state.nh.us> (accessed July 1, 2008).

University of New Hampshire. Climate Change Research Center, <http://ccrc.unh.edu> (accessed July 1, 2008).

*New Jersey**

N.J. Stat. Ann. §§ 26-2C-37–26-2C-44 (West 2007)—Global Warming Response. State of New Jersey. Global Warming, <http://www.nj.gov/globalwarming> (accessed July 1, 2008).

*New Mexico**

2007 *N.M. Laws* 3—Renewable Energy Transmission Authority Act. New Mexico Climate Change Advisory Group, <http://www.nmclimatechange.us> (accessed July 1, 2008).

*New York**

N.Y. Env'tl. Conserv. §§ 19-1101–19-1105 (McKinney 2007)—Vehicle Global Warming Index Labels.

*North Carolina**

Bell, Steven G. “The Way the Winds Are Blowing These Days: The Rapid Growth of Wind Energy and Legal Hurdles of North Carolina’s General Statutes.” *North Carolina Journal of Law and Technology* 8 (2006): 117–56.

The author analyzes the North Carolina statutes that govern placement of wind turbines and concludes that they would not prevent the siting of wind turbines in protected areas, as long as the wind energy project is environmentally sound.

North Carolina Climate Change Advisory Group, <http://www.ncclimatechange.us> (accessed July 1, 2008).

*North Dakota**

North Dakota Climate, <http://www.ndclimate.org> (accessed July 1, 2008).

Ohio

Cotter, Christopher E. “Comment: Wind Power and the Renewable Portfolio Standard: An Ohio Analysis.” *University of Dayton Law Review* 32 (2007): 405–39.

In this article, the author focuses on drafting a viable renewable portfolio standard for electricity producers in Ohio. He considers the place of wind energy in this standard. The article contains a detailed analysis of wind energy production and wind turbine placement.

Ohio Environmental Council, <http://www.theoec.org> (accessed July 1, 2008).

*Oklahoma**

Oklahoma Climatological Survey, <http://climate.ok.gov> (accessed July 1, 2008).

*Oregon**

Or. Rev. Stat. § 468A.215—Oregon Global Warming Commission.

Or. Rev. Stat. § 468A.250—Mandate of Oregon Global Warming Commission.

Sustainable Oregon. Climate, <http://www.oregonsolutions.net/climate> (accessed July 1, 2008).

Sustainable Oregon. Oregon's Sustainability Resource, <http://www.sustainableoregon.net> (accessed July 1, 2008).

*Pennsylvania**

Pennsylvania Environmental Council, <http://www.pecpa.org> (accessed July 1, 2008).

*Rhode Island**

Rhode Island Climate Coalition. Clean Water Action, <http://www.cleanwateraction.org/ri/climate.html> (accessed July 1, 2008).

South Carolina

South Carolina Climate, Energy and Commerce Advisory Committee, <http://www.sccclimatechange.us> (accessed July 1, 2008).

*South Dakota***Tennessee***Texas***Utah**

Utah Department of Environmental Quality. Climate Change Work Group, http://www.deq.utah.gov/Issues/Climate_Change/index.htm (accessed July 1, 2008).

*Vermont**

Vt. Stat. Ann. tit. 32, § 5930k (2007)—High-tech Growth Incentives.

Vermont Governor's Commission on Climate Change, <http://www.vtclimatechange.us> (accessed July 1, 2008).

*Virginia***Washington**

State of Washington. Department of Ecology. Climate Change, <http://www.ecy.wa.gov/climatechange> (accessed July 1, 2008).

West Virginia

W. Va. Code Ann. § 22-5-22-19 (2007)—Net Greenhouse Gas Inventory.

*Wisconsin***Wyoming**

Fershee, Joshua P. “Levels of Green: State and Regional Efforts, in Wyoming and Beyond, to Reduce Greenhouse Gas Emissions.” *Wyoming Law Review* 7 (2007): 269–93.

A comprehensive review of efforts to reduce greenhouse gas emissions, with excellent footnotes citing resources on state and local initiatives.

Wyoming State Climate Office, <http://www.wrds.uwyo.edu/wrds/wsc/wsc.html> (accessed July 1, 2008).

Web Sites Monitoring State Activities

DSIRE: Database of State Incentives for Renewable Energy, <http://www.dsireusa.org> (accessed July 1, 2008).

The web site also contains information about federal, local, and utility incentives. Searchers can access information through either the renewable energy or the energy efficiency databases.

National Institutes for Water Resources, <http://niwr.montana.edu> (accessed July 1, 2008).

Related to the program listed above, the National Institutes for Water Resources are located at the state university in each state or territory. They are the bodies that conduct the research; publications and reports are available on the state institute web sites. Click on a state map at the web site for the institute in your state.

Nature Conservancy. Where We Work, <http://www.nature.org/wherewework/northamerica/states> (accessed July 1, 2008).

With an emphasis on conservation, the Nature Conservancy has chapters in every state. The organization focuses on protecting specific places or species within the state.

Next Generation Earth, <http://www.nextgenerationearth.org> (accessed July 1, 2008).

Click on the drop-down to see how climate change will impact your state. You will see a capsule summary and links to regional organizations.

United States Geological Survey. State Water Resources Research Program, <http://water.usgs.gov/wrri> (accessed July 1, 2008).

Run by the U.S. Geological Survey, the State Water Resources Research Institute Program is a federal-state partnership. The program sponsors research and disseminates technology, acting as a liaison among the state water resources agencies and the federal government.

U.S. Litigation on Climate Change

Introduction

¶34 So far, the body of U.S. case law on climate change has been small, but it is growing. General areas of litigation are the Clean Air Act (agency's authority to regulate greenhouse gas emissions);²⁸ National Environmental Policy Act (NEPA) (requiring government agencies to look at global warming consequences of their policies and actions);²⁹ nuisance litigation (activities contributing to climate change represent a nuisance under tort doctrine);³⁰ and preemption (federal vs. state activities to curb global warming).³¹ Insurance law will change as a result of increased risks from climate change manifestations, such as more powerful hurricanes or wildfires resulting from drought.³²

¶35 What procedural issues arise from climate change litigation? The threshold question is whether the plaintiffs have standing to sue. Once that is determined, does the court have legal authority to hear the case and make a determination (justiciability)? Assuming that the court has the legal authority to hear the case, does it have the scientific expertise to evaluate the factual issues and to make an informed judgment?

¶36 Do federal statutes that do not address global warming apply to problems of global warming or climate change? To answer this question, courts are now adding policy considerations to the strictly legal mix. Recent environmental law scholarship raises all these issues with abundant footnotes to studies and cases.

¶37 Below is an annotated list of the most significant cases. Use the *BNA Environment Reporter* or the databases on Lexis or Westlaw to keep current with litigation. Web sites and blogs that cover litigation are listed following the cases.

Cases

Barasich v. Columbia Gulf Transmission Co., 467 F. Supp. 2d 676 (E.D. La. 2006).

This was a class action suit in tort filed by residents of seventeen Louisiana parishes claiming damages for erosion to Louisiana's coastal wetlands, the natural buffer against hurricane winds and storm surges. The court held in favor of the plaintiffs on justiciability but dismissed plaintiffs' claim in tort.

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28. *Massachusetts v. EPA*, 549 U.S. 497 (2007) (states and NGOs had standing to sue EPA for not regulating greenhouse gas emissions under the Clean Air Act).
 29. *Friends of the Earth, Inc. v. Mosbacher*, 488 F. Supp. 2d 889 (N.D. Cal. 2007) (injunction denied to environmental group seeking to stop corporate support of international fossil fuel projects emitting greenhouse gases because NEPA's extraterritorial jurisdiction did not apply).
 30. *Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005) (court had jurisdiction over claims of public nuisance, among others).
 31. *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295 (D. Vt. 2007) (Vermont regulations establishing greenhouse gas emission standards were not expressly preempted by Energy Policy and Conservation Act).
 32. See generally Symposium, *Climate Change Liability and the Allocation of Risk*, 26A STAN. ENVTL. L.J. (2007).

California v. Gen. Motors Corp., 2007 U.S. Dist. LEXIS 68547 (N.D. Cal. 2007).

California sued various automakers for damages resulting from the public nuisance of global warming caused by emissions from new motor vehicles. The causes of action were public nuisance under federal common law or, in the alternative, public nuisance under California law. The district court dismissed the suit under federal common law because the policy issues it presented were held nonjusticiable as being beyond the court's jurisdiction. Plaintiff can still file suit in California court.

Cent. Valley Chrysler-Jeep v. Witherspoon, 2007 U.S. Dist. LEXIS 3002 (E.D. Cal. 2007).

In an interesting reversal of plaintiff and defendant, the car dealer plaintiffs sought to enjoin California from enforcing regulations limiting greenhouse gas emissions from new vehicles. Defendants conceded preemption under the Clean Air Act and argued that the suit should be stayed pending the Supreme Court's decision in *Massachusetts v. EPA*. The district court agreed in a memorandum opinion. The district court had issued a previous opinion on plaintiffs' production of documents about global warming in *Cent. Valley Chrysler-Jeep v. Witherspoon*, 2006 U.S. Dist. LEXIS 67933 (E.D. Cal. 2006).

Connecticut v. Am. Elec. Power Co., 406 F. Supp. 2d 265 (S.D.N.Y. 2005).

Plaintiffs, including states and cities, sued the power company to abate the public nuisance of global warming. The district court dismissed the complaint on the grounds of lack of justiciability, stating that the policy considerations in the suit were a matter for the legislative and executive branches of government.³³

Ctr. for Biological Diversity v. Brennan, 2007 U.S. Dist LEXIS 65456 (N.D. Cal. 2007).

Plaintiffs sued officials of the U.S. Climate Change Research Program on the grounds that the defendants violated the Global Change Research Act and to compel them to issue an updated climate change assessment and a new research plan as required by the Act. Plaintiffs had standing to sue based on injury to research activities and lack of participation in the program. Plaintiffs successfully enjoined defendants to issue a new assessment in a timely manner.

Friends of the Earth, Inc. v. Mosbacher, 488 F. Supp. 2d 889 (N.D. Cal. 2007).

Plaintiff sued the Overseas Private Investment Corporation (OPIC) under NEPA to enjoin it from funding international fossil fuel projects that emitted greenhouse gases and to require it to file environmental impact statements for all projects.³⁴ Defendants contended that NEPA does not apply because the projects in question were in foreign countries. The court found that NEPA did apply, because domestic projects may have been affected as well. However, plaintiff's request for an injunction was denied under NEPA's wording.

33. See Symposium, *The Role of State Attorneys General in National Environmental Policy*, 30 COLUM. J. ENVTL. L. 335 (2005) (panel discussions about this case); Matthew F. Pawa & Benjamin A. Krass, *Global Warming as a Public Nuisance: Connecticut v. American Electric Power*, 16 FORDHAM ENVTL. L. REV. 407 (2005).

34. See Joseph M. Stancati, Note, *Victims of Climate Change and Their Standing to Sue: Why the Northern District of California Got it Right*, 38 CASE W. RES. J. INT'L L. 687 (2006/2007).

Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie, 2007 U.S. Dist. LEXIS 67617 (D. Vt. 2007).

Vermont regulations on greenhouse gas emission standards were not preempted by the Energy Policy and Conservation Act.

In Re Otter Tail Power Company, 744 N.W.2d 594 (S.D. 2008).

The nonprofit organization intervenors opposed a permit granted by the South Dakota Public Utilities Commission (PUC) to construct a coal-fired energy conversion facility. They asserted that the new facility's greenhouse gas emissions would pose a serious threat to the environment. The South Dakota Supreme Court upheld the permit, asserting that the PUC and the trial court were not clearly erroneous. While acknowledging the immediacy of global warming, the court stated that the PUC was the most appropriate body to assess the facility's environmental impact.

Massachusetts v. EPA, 549 U.S. 497 (2007).

Petitioners, a combined group of states and NGOs, had standing to sue the EPA for refusing to regulate greenhouse gas emissions from new motor vehicles under the Clean Air Act, because rising sea levels were causing injury to some of the petitioners. The EPA had authority to regulate greenhouse gas emissions under the Clean Air Act by definition of greenhouse gases as an "air pollutant." Moreover, the EPA did not have to examine the policy of regulating greenhouse gas emissions from new motor vehicles because it was undisputed that those emissions caused harm.³⁵

Web Sites and Blogs

ACS Publications. Environmental Science and Technology, <http://pubs.acs.org/journals/esthag> (accessed July 1, 2008).

Online news available daily.

EnviroLink, <http://www.envirolink.org> (accessed July 1, 2008).

Archives of news stories from major newspapers for the past two months.

Environmental and Energy Study Institute, <http://www.eesi.org> (accessed July 1, 2008).

Weekly climate change news publication covering legal developments.

Environmental Legal Blogs, <http://www.environmentallegal.blogs.com> (accessed July 1, 2008).

Run by Stephen Holzer, an environmental lawyer in southern California.

Environmental News Network, <http://www.enn.com> (accessed July 1, 2008).

Daily news of energy and climate developments as well as legal commentary by experts.

35. For detailed analyses of this case, see Lisa Heinzerling, *Climate Change in the Supreme Court*, 38 ENVTL. L. 1 (2008) (analysis by writer of winning brief); Arnold W. Reitze Jr., *Controlling Greenhouse Gas Emissions from Mobile Sources: Massachusetts v. EPA*, 37 Env'tl. L. Rep. (Env'tl. Law Inst.) 10,535 (2007), available at <http://ssrn.com/abstract=1001039>.

Van Ness Feldman. Alerts and Events, <http://www.vnf.com/news.html> (accessed July 1, 2008).

Weekly legal updates from a law firm focusing on energy, environmental, natural resources, and transportation law.

Legal Scholarship on Climate Change

¶38 There are so many interesting law review articles and studies on climate change that it was very difficult to select those that were appropriate for this bibliography. Those selected were readable, had comprehensive footnotes, and were relatively current. Articles and studies that pertained to issues in a single state are listed under that state in the “State Legislation, Articles, and Web Sites” section, *supra*.

¶39 A number of recent symposia are also included. They provide a breadth of research opportunities and commentary in one issue. Articles on a specific subject of interest included in a symposium are cited in footnotes. The *Sustainable Development Law and Policy* journal, published by American University’s Washington College of Law, is entirely devoted to the issues covered in this article.

¶40 There are as yet no treatises entirely devoted to climate change. A few treatises now include chapters on the area, and those are cited in the final section below.

Articles

Adams, Gregory M. “Bringing Green Power to the Public Lands: The Bureau of Land Management’s Authority and Discretion to Regulate Wind-Energy Developments.” *Journal of Environmental Law and Litigation* 21 (2006): 445–507.

This article analyzes the effect of the Bureau of Land Management’s “unnecessary or undue degradation” of the land standard on wind farms. The author discusses the potentially negative environmental impact of wind farms and proposes ways to mitigate its effects so that wind farms can be developed.

Bertagna, Blake. “Comment: ‘Standing’ Up for the Environment: The Ability of Plaintiffs to Establish Legal Standing to Redress Injuries Caused by Global Warming.” *Brigham Young University Law Review* 2006: 415–71.

A review of the requirement that plaintiffs in global warming suits show injury-in-fact to establish standing to sue. The author notes that plaintiffs with procedural injuries fare better on the standing issue than those with substantive injuries. The author’s research on cases through 2006 is meticulous.

Carleyolsen, Sanya. “Tangled in the Wires: An Assessment of the Existing U.S. Renewable Energy Legal Framework.” *Natural Resources Journal* 46 (2006): 759–92.

This policy-oriented article discusses the history of renewable energy policy in the United States and reviews the significant programs that are in place. The

author notes that although the federal government consistently expresses its support of renewable energy development and use, specific legal issues are not being addressed.

Carlson, Ann E. "Heat Waves, Global Warming, and Mitigation." UCLA School of Law Research Paper No. 07-20 (2007), <http://ssrn.com/abstract=998899>.

The author suggests that heat waves will become more common as temperatures increase because of climate change. Although plans to deal with the impact of heat waves are already in place, we do not take them seriously enough to implement those plans. The author recommends ways to implement such plans to decrease potential heat wave emergencies and deaths.

Charpentier, Arthur. "Insurability of Climate Risks." *The Geneva Papers* 33 (2008): 91–109.

After explaining how climate change and human actions are to blame for the increased frequency and potency of natural catastrophes, the author states that these disasters are now virtually uninsurable. The article continues on this premise, discussing alternatives such as transferring the risks to reinsurers. It focuses on questions such as the nature of legal insurability and how insurance companies evaluate future risks based on climate change forecasts.

Crofton, Peter M. "Emerging Issues Relating to the Burgeoning Hydrogen Economy." *Energy Law Journal* 27 (2006): 39–64.

A thorough analysis of the many issues relating to hydrogen as an alternative energy source. In the author's discussion of the role of federal agencies and the participation of state governments in regulating this new energy source, he also touches on numerous legal issues in antitrust, patent, and environmental law.

Czarnecki, Jason J., and Mark L. Thomsen. "Advancing the Rebirth of Environmental Common Law." *Boston College Environmental Affairs Law Review* 34 (2007): 1–35.

Federal agencies may be ill-equipped to enforce federal environmental law because of statutory omissions, inconsistent enforcement, or administrative problems. As an alternative, the authors suggest that state common law, including but not limited to the nuisance doctrine in tort, could be used in global warming injury suits, with part of the damages going to a state restoration fund.

Dernbach, John C., and Seema Kakade. "Climate Change Law: An Introduction." *Energy Law Journal* 29 (2008): 1–31.

This article introduces the concept and the growing field of climate change law. After explaining the rudiments of climate change science, the authors demonstrate how climate change affects laws from global to local, with many stops in between. This is a good, comprehensive introduction to the legal aspects of climate change.

Dinnell, Adam M., and Adam J. Russ. "The Legal Hurdles to Developing Wind Power as an Alternative Energy Source in the United States: Creative and Comparative Solutions." *Northwestern Journal of International Law and Business* 27 (2007): 535–90.

The authors' thesis is that current U.S. environmental laws have been used to curb the development of alternative energy sources, particularly wind power.

They review current statutes and suggest that the United States look to statutes of foreign countries to aid this development. Specific recommendations include streamlining the permit process, reducing construction time, and centralizing decision making.

Engel, Kirsten. "Mitigating Global Climate Change in the United States: A Regional Approach." *New York University Environmental Law Journal* 14 (2005): 54–85.

The author believes that regional climate change efforts will eclipse those on a state and local level. She discusses the potential impacts of and legal issues relating to regional cooperation in lowering greenhouse gas emissions.

Grimm, Daniel J. "Global Warming and Market Share Liability: A Proposed Model for Allocating Tort Damages Among CO₂ Producers." *Columbia Journal of Environmental Law* 32 (2007): 209–50.

This article discusses the economic efficiency of allocating tort damages when greenhouse gas emissions are linked to injuries in tort cases. After reviewing the causation issue, the author demonstrates how the allocation could work, based on an identification of permissible greenhouse gas emissions from producers and allocating damages among those who exceed them. Footnotes provide a good review of the litigation.

Hsu, Shi-Ling. "The Identifiability Bias in Environmental Law." *Florida State University Law Review* 35 (2008): 433–504.

This public policy article analyzes *identifiability*, the idea that we have a stronger desire to help identifiable individuals and groups as opposed to unnamed ones. Incidental identifiability focuses on discrete individuals, groups, or events to further a specific policy. Structural identifiability, on the other hand, discounts effects on specific groups; it is a "status quo" argument for continuing to pursue a policy that may damage those groups. The article has particular relevance to the standing arguments in climate change cases.

Hymel, Mona. "The United States' Experience with Energy-Based Tax Incentives: The Evidence Supporting Tax Incentives for Renewable Energy." *Loyola University of Chicago Law Journal* 38 (2007): 43–80.

The author suggests economic/tax incentives for using renewable energy sources, including supporting research on viable sources and helping develop efficient use of the sources.

Kunreuther, Howard, and Erwann Michel-Kerjan. "Climate Change, Insurability of Large-Scale Disasters and the Emerging Liability Challenge." NBER Working Paper No. W12821 (2007), <http://ssrn.com/abstract=956860>.

A working paper on the impact of natural disasters on the insurance industry. After discussing what would determine insurability of a disaster-related loss, the authors recommend that insurance companies offer financial incentives to their customers to reduce insurable risks.

Olinger, Sarah. "Filling the Void in an Otherwise Occupied Field: Using Federal Common Law to Regulate Carbon Dioxide in the Absence of a Preemptive Statute." *Pace Environmental Law Review* 24 (2007): 237–70.

The author analyzes the issue of federal statutory law preemption of the federal

common law and concludes that there is no preemption. This article is useful for its extensive footnotes.

Paul, Noel C. "The Price of Emission: Will Liability Insurance Cover Damages Resulting from Global Warming?" *Loyola Consumer Law Review* 19 (2007): 468–504.

Focusing on the exclusions for toxic tort damage by energy producers to property and persons in commercial general liability insurance policies from 1973 on, the author looks to case law interpreting the exclusions. He concludes that insurers should cover liability of energy producers to the public rather than placing the burden of damages on an energy producer.

Posner, Eric A., and Cass R. Sunstein. "Climate Change Justice." University of Chicago Law & Economics, Olin Working Paper No. 354 (2007), <http://ssrn.com/abstract=1008958>.

This article focuses on the global economic impact of greenhouse gas reductions. Large reductions would impose enormous costs on the wealthier nations, although those nations are more responsible for the emissions than poorer ones. The authors suggest that, in order to establish distributive justice in this area, wealthy nations ought to give poorer nations cash compensation rather than reducing greenhouse gas emissions. In addition, the arguments from corrective justice are unfair to the populations of wealthier nations: innocent people in the wealthy nations are forced to compensate populations in the poorer nations. The authors believe that the United States and other wealthier countries should not draft treaties and other international laws based on a serious reduction of greenhouse gas emissions in their countries.

Schatz, Andrew B. "Regulating Greenhouse Gases by Mandatory Information Disclosure," <http://ssrn.com/abstract=997836>.

The author recommends a mandatory greenhouse gas emission information disclosure program for all countries.

Toder, Eric. "Eliminating Tax Expenditures with Adverse Economic Effects." Brookings Institution Policy Brief (2007), <http://www.brookings.edu>.

The author believes that the tax law provides incentives for the use of fossil fuels, and examines four such incentives. He recommends eliminating them or scaling them back.

Toder, Eric. "Energy Taxation: Principles and Interests" (2007), <http://www.taxpolicycenter.org/publications>.

This paper discusses tax and energy policy issues that can reduce global warming and energy security.

Westin, Richard A. "Energy and Environmental Tax Changes in the Flood of Recent Federal Revenue Laws and What They Imply." *Penn State Environmental Law Review* 15 (2007): 171–294.

A thorough summary of many of the tax law changes relating to alternative energy sources and their revenue effects. Through this extensive analysis, the author evaluates the direction of federal legislation in this area.

Zdeb, Sara. "From *Georgia v. Tennessee Copper* to *Massachusetts v. EPA*: Parens Patriae Standing for State Global-Warming Plaintiffs." *Georgetown Law Journal* 96 (2008): 1059–81.

This article develops the ruling by the Supreme Court at the beginning of the twentieth century in *Georgia v. Tennessee Copper*³⁶ that states have standing to sue on behalf of the health and well-being of their citizens in environmental cases. The author contrasts the *parens patriae* doctrine with the three-pronged standing test (suffering an injury-in-fact; injury traceable to challenged conduct; relief must redress wrongs). She concludes that the *parens patriae* doctrine is still viable and meets the states' need to establish justiciability in global warming cases.

Symposia

“Symposium: Global Climate Change: Individual, Private Sector, and State Responses.” *Virginia Environmental Law Journal* 26 (2008): 1–393.

Articles in this symposium cover the gamut on climate change, including state action (and non-action),³⁷ congressional- and self-control of individual choices,³⁸ and corporate responsibility.³⁹ The entire issue is worth a “browse.”

“Symposium: The Domestic Response to Global Climate Change: Federal, State, and Litigation Initiatives.” *University of San Francisco Law Review* 42 (2007): 1–404.

This symposium begins with an article discussing the global impact of human actions on climate change,⁴⁰ continuing the theme of global climate change from an article in the previous volume.⁴¹ Both articles stress the urgency of action at all levels. Other articles focus on national responses, particularly federal environmental law,⁴² and state vs. state emissions issues under the Commerce Clause.⁴³

“The Business of Climate Change: Challenges and Opportunities for Multinational Business Enterprises.” *Pacific McGeorge Global Business and Development Law Journal* 20 (2007): 1–206.

Although the title of this symposium sounds international, several of these articles

36. 206 U.S. 230 (1907).

37. Robert L. Glicksman, *Nothing Is Real: Protecting the Regulatory Void Through Federal Preemption by Inaction*, 26 VA. ENVTL. L.J. 5 (2008); Kevin L. Doran, *U.S. Sub-Federal Climate Change Initiatives: An Irrational Means to a Rational End?*, 26 VA. ENVTL. L. J. 189 (2008).

38. John C. Dernbach, *Harnessing Individual Behavior to Address Climate Change: Options for Congress*, 26 VA. ENVTL. L.J. 107 (2008); Andrew Green, *Self Control, Individual Choice, and Climate Change*, 26 VA. ENVTL. L.J. 77 (2008).

39. Perry E. Wallace, *Climate Change, Fiduciary Duty, and Corporate Disclosure: Are Things Heating up in the Boardroom?*, 26 VA. ENVTL. L.J. 293 (2008).

40. Stephanie B. Ohshita, *The Scientific and International Context for Climate Change Initiatives*, 42 U.S.F. L. REV. 1 (2008).

41. Elizabeth Burleson, *Multilateral Climate Change Mitigation*, 41 U.S.F. L. REV. 373 (2007).

42. Alice Kaswan, *The Domestic Response to Global Climate Change: What Role for Federal, State, and Litigation Initiatives?*, 42 U.S.F. L. REV. 39 (2007); Lisa Heinzerling, *Climate Change and the Clean Air Act*, 42 U.S.F. L. REV. 111 (2007); Kevin T. Haroff & Katherine Kirwan Moore, *Global Climate Change and the National Environmental Policy Act*, 42 U.S.F. L. REV. 155 (2007).

43. Patricia Weisselberg, Comment, *Shaping the Energy Future in the American West: Can California Curb Greenhouse Gas Emissions from Out-of-State, Coal-Fired Power Plants Without Violating the Dormant Commerce Clause?*, 42 U.S.F. L. REV. 185 (2007).

deal with issues in the United States. Two focus on legal actions in the states,⁴⁴ and one discusses the consequences of tax incentives for global warming.⁴⁵

“Thirteenth Annual Symposium: Reducing Greenhouse Gases: State Initiatives and Market-Based Solutions.” *Fordham Environmental Law Review* 17 (2006): 101–286.

This symposium includes two panel discussions with participants from law schools and business as well as articles on the conflicts between nuclear power and coal as energy sources and between citizens and business in global warming litigation. It focuses on policy issues.

“Climate Change Liability and the Allocation of Risk.” *Stanford Environmental Law Journal* 26A (2007): 3–334.

Two articles on allocation of risk in the insurance industry are included in this symposium on global allocation of risk. One article evaluates studies on recent natural disasters. The second article examines the potential sources of legal liability of insurers to third parties as a result of climate change and the role of insurers once these situations occur.⁴⁶

“Responses to Global Warming: The Law, Economics, and Science of Climate Change,” *University of Pennsylvania Law Review* 155 (2007): 1353–2049.

This book-length symposium includes articles on United States climate change regulation and litigation in addition to materials on international climate change policy. The articles on U.S. climate change law cover emissions trading,⁴⁷ compensation to victims of climate change,⁴⁸ duty of care in climate change tort litigation,⁴⁹ and insurability of large-scale disasters.⁵⁰ One of the commentaries focuses on legal liability as an incentive for implementation of climate change measures.⁵¹

“The Role of State Attorneys General in National Environmental Policy.” *Columbia Journal of Environmental Law* 30 (2005): 293–471.

44. Robert B. McKinstry, Jr. & Thomas D. Peterson, *The Implications of the New “Old” Federalism in Climate-Change Legislation: How to Function in a Global Marketplace When States Take the Lead*, 20 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 61 (2007); Hari M. Osofsky, *Local Approaches to Transnational Corporate Responsibility: Mapping the Role of Subnational Climate Change Litigation*, 20 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 143 (2007).

45. Roberta Mann, *Another Day Older and Deeper in Debt: How Tax Incentives Encourage Burning Coal and the Consequences for Global Warming*, 20 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 111 (2007).

46. See Ernst Rausch, *Effects of Climate Change on the Insurance Industry*, 26A STAN. ENVTL. L.J. 239 (2007); Christina Ross et al., *Limiting Liability in the Greenhouse: Insurance Risk-Management Strategies in the Context of Global Climate Change*, 26A STAN. ENVTL. L.J. 251 (2007).

47. Kirsten H. Engel, *Harmonizing Regulatory and Litigation Approaches to Climate Change Mitigation: Incorporating Tradable Emissions Offsets into Common Law Remedies*, 155 U. PA. L. REV. 1563 (2007).

48. Daniel A. Farber, *Basic Compensation for Victims of Climate Change*, 155 U. PA. L. REV. 1605 (2007).

49. David Hunter & James Salzman, *Negligence in the Air: The Duty of Care in Climate Change Litigation*, 155 U. PA. L. REV. 1741 (2007).

50. Howard C. Kunreuther & Erwann O. Michel-Kerjan, *Climate Change, Insurability of Large-Scale Disasters, and the Emerging Liability Challenge*, 155 U. PA. L. REV. 1795 (2007).

51. Hilary Sigman, *Legal Liability as Climate Change Policy*, 155 U. PA. L. REV. 1953 (2007).

Panel discussions led by state attorneys general focused on global warming lawsuits, groundwater pollution, and natural resource damage claims.

Books

Beers, Roger. *California Environmental Law and Land Use Practice*. New York: Matthew Bender, 1989–.

Although this treatise focuses on California law, it contains a thoroughly researched section on environmental litigation. The author discusses standing in great detail with references to both California and federal law. The section also contains a practice tip on determining whether to seek a preliminary injunction.

Gerrard, Michael B. *Global Climate Change and U.S. Law*. Chicago: American Bar Association, 2007.

The most useful book for legal researchers on climate change, particularly since it updates legal developments regularly at <http://www.abanet.org/abapubs/globalclimate>. Contents cover international, national, state, and local actions as well as concerns of the business community. A MUST for every law library.

Grad, Frank P. *Treatise on Environmental Law*. New York: Matthew Bender, 1973–.

This well-known loose-leaf treatise now contains a chapter (1A) on climate change and global warming. Subsections discuss judicial decisions and policy issues related to greenhouse gas emissions and cap-and-trade programs.