

SYLLABUS

CLIMATE CHANGE LAW

Columbia Law School

L6038

Spring 2012

Professor Michael B. Gerrard

Class hours: Tuesday and Thursday, 9:10 a.m. to 10:30 a.m.

Room: JGH 105

Instructor's office: JGH 517

Office hours: Tuesday and Thursday, 10:45 a.m. - 12:00 p.m. or by appointment

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Course description:

This course begins with an overview of the causes and effects of global climate change and the methods available to control and adapt to it. We will then examine the negotiation, implementation and current status of the United Nations Framework Convention on Climate Change, the Kyoto Protocol, the Copenhagen Accord, the Cancun Agreements, and the Durban Platform. The focus will then turn to the past and proposed actions of the U.S. Congress, the executive branch and the courts, as well as regional, state and municipal efforts. The Clean Air Act, the National Environmental Policy Act and the Endangered Species Act will receive special attention. We will evaluate the various legal tools that are available to address climate change, including cap-and-trade schemes; carbon taxation; command-and-control regulation; litigation; securities disclosures; and voluntary action. The roles of energy efficiency, renewable energy sources, carbon capture and sequestration, and forestry and agriculture will each receive close attention. Implications for international human rights, international trade, environmental justice, and international and intergenerational equity will be discussed. The course will conclude with examination of proposals for adaptation and geoengineering.

The final exam will be open book and will consist of a series of essay questions, most of which will require applying the law covered in the course to specified factual situations. Course grades will be based on the final exam, but they may be adjusted up or down a notch to reflect the quality of class participation.

Readings:

The reading materials will be found in the course packet, which is available for purchase in the Columbia University bookstore. Students should always bring with them to class the volume containing the readings that will be discussed that day.

Additional materials may be assigned during the course of the semester, primarily as a result of recent developments. In that event, they will be posted on Courseweb.

Class Topics and Readings

VOLUME 1

**Class 1: January 17
Scientific background**

Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (2007), pp. 1-25.....11

National Research Council, *Warming the World: Impact by Degree* (2011).....36

Note: Because this publication contains many color graphics, it is best read on-line:
http://dels.nas.edu/resources/static-assets/materials-based-on-reports/booklets/warming_world_final.pdf

**Class 2: January 19
Montreal Protocol and U.N. Framework Convention on Climate Change**

Kyle W. Danish, “The International Regime,” in Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (2007), pp. 31-35.....49

United Nations Ozone Secretariat, *A Success in the Making: The Montreal Protocol on Substances That Deplete the Ozone Layer* (2007).....75

Richard Elliot Benedick, *Ozone Diplomacy* (Harvard University Press 1998), pages 306-332.....87

United Nations Framework Convention on Climate Change (1992).....102

**Class 3: January 24
Kyoto Protocol**

Kyle W. Danish, “The International Regime,” in Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (2007), pp. 36-56.....54*

(*NB: This is located with beginning of article which starts on p.49 of reader)

Kyoto Protocol to the United Nations Framework Convention on Climate Change (1998).....127

Class 4: January 26

Post-2012 international agreement

Sheila M. Olmstead and Robert N. Stavins, “Three Key Elements of a Post-2012 International Climate Policy Architecture,” *Review of Environmental Economics and Policy*, Advance Access published December 14, 2011, doi:10.1093/reep/rer018.....148

United Nations, Bali Action Plan (December 2007).....165

United Nations, Copenhagen Accord (December 2009).....171

United Nations, Cancun Agreements (December 2010).....176

Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.....176

Ad Hoc Working Group on Long-Term Cooperative Action under the Convention.....178

United Nations, Durban Platform (December 2011).....201

Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action

Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session [skim].....203

Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention [skim].....212

Class 5: January 31

Compliance and Enforcement

Ruth Greenspan Bell & Micah Ziegler, “Stepping Stones,” *The Environmental Forum*, November/December 2011, 26-31.....267

Scott Barrett, “Climate treaties and the imperative of enforcement,” 24 *Oxford Review of Economic Policy* 239 (2008).....273

David G. Victor & Eugene B. Skolnikoff, “Translating Intent Into Action: Implementing Environmental Commitments,” 41 *Environment* No. 2 at 16 (March 1999).....293

Class 6: February 2

U.S. policy

John C. Dernbach, “U.S. Policy,” in Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (2007), pp. 61-65, 72-80.....303

Coral Davenport, “Heads in the Sand,” *National Journal*, December 2, 2011.....314

Jason Scott Johnston, “A Looming Policy Disaster,” *Regulation*, Fall 2008, pp. 38-44.....333

Mary-Elena Carr, Robert F. Anderson & Kate Brash, *Climate Change: Addressing the Major Skeptic Arguments*,” DB Climate Change Advisors, September 2010 (excerpts) (skim).....340

Class 7: February 7
Voluntary actions

Michael P. Vandenberg & Anne C. Stein, “The Carbon-Neutral Individual,” 82 *New York University Law Review* 1673, pages 1673-1679, 1687-1740 (2007).....371

Gernot Wagner, “Going Green but Getting Nowhere,” *The New York Times*, September 7, 2011.....432

Class 8: February 9
Clean Air Act I

Massachusetts v. U.S. Environmental Protection Agency, 549 U.S. 497 (2007).....434

Class 9: February 14
Clean Air Act II

U.S. Environmental Protection Agency, “Climate Change -- Regulatory Initiatives” (December 2011).....494

Nicholas M. Bianco & Franz T. Litz, “Reducing Greenhouse Gas Emissions in the United States Using Existing Federal Authorities and State Action,” World Resources Institute (2010) (excerpts)497

Coalition for Responsible Regulation v. EPA, D.C. Cir., Motion for Stay, September 15, 2010.....519

VOLUME 2

Class 10: February 16
Disclosure laws: NEPA and SEC

Michael B. Gerrard, “Climate Change and the Environmental Impact Review Process,” <i>Natural Resources & Environment</i> , pages 20-24 (Winter 2008).....	11
<i>Center for Biological Diversity v. National Highway Traffic Safety Administration</i> , 508 F.3d 508 (9 th Cir. 2007).....	16
U.S. Council on Environmental Quality, “Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions,” February 18, 2010.....	47
Securities and Exchange Commission, “Commission Guidance Regarding Disclosure Related to Climate Change,” 75 <i>Fed.Reg.</i> 6290, February 8, 2010.....	59

Class 11: February 21
Endangered Species Act

J.B. Ruhl, “Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future,” 39 <i>Environmental Law Reporter</i> 10735 (August 2009).....	68
Anna T. Moritz et al., “Biodiversity Baking and Boiling: Endangered Species Act Turning Down the Heat,” 44 <i>Tulsa L. Rev.</i> 205 (2008).....	79

Class 12: February 23
Public nuisance litigation

<i>Connecticut v. American Electric Power</i> , 131 S.Ct. 2527 (2011).....	104
Michael B. Gerrard, “What Litigation of a Climate Nuisance Suit Might Look Like,” 121 <i>Yale Law Journal Online</i> 135 (2011).....	125
Hilary Sigman, “Legal Liability as Climate Change Policy,” 155 <i>U. Pa. L. Rev.</i> 1953-1959 (2007).....	133
David Markell & J.B. Ruhl, “An Empirical Survey of Climate Change Litigation in the United States,” 40 <i>Env. L. Rep.</i> 10644 (2010).....	140

Class 13: February 28
Human rights claims; national security issues

Sheila Watt-Cloutier, Petition to the Inter American Commission on Human Rights Seeking Relief From Violations Resulting From Global Warming Caused by Acts and Omissions of the United States, Summary (December 7, 2005).....	149
Michelle Leighton, “Climate Change and Migration: Key Issues for Legal Protection of Migrants and Displaced Persons,” German Marshall Fund of the United States (June 2010).....	157

Marc Limon, “Human Rights and Climate Change: Constructing a Case for Political Action,” 33 *Harvard Env. L. Rev.* 439-463 (2009).....167

Kurt M. Campbell et al, “The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change,” Center for Strategic & International Studies, pages 5-10, 104 (2007).....193

Class 14: March 1
State and regional actions

Eleanor Stein, “Regional Initiatives to Reduce Greenhouse Gas Emissions,” in Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (2007).....201

David Hodas, “State Initiatives,” in Michael B. Gerrard, ed., *Global Climate Change and U.S. Law* (2007)..

.....224

Assembly Bill No. 32, California Global Warming Solutions Act of 2006.....247

Regional Greenhouse Gas Initiative, Memorandum of Understanding (December 2005).....260

Class 15: March 6
Municipal actions

J. Cullen Howe, “Overview of Green Buildings,” in J. Cullen Howe & Michael B. Gerrard, eds., *The Law of Green Buildings: Regulatory and Legal Issues in Design, Construction, Operations, and Financing* (2010).....271

California A.B. 1103 -- Building energy benchmarking.....281

Andrew C. Burr et al., *Building Energy Transparency: A Framework for Implementing U.S. Commercial Energy Rating and Disclosure Policy*.....283

Marne Sussman & Jason James, “Model Municipal Green Building Ordinance,” Columbia Law School Center for Climate Change Law (October 6, 2010) (skim).....289

Class 16: March 8
Energy efficiency

Michael B. Gerrard, “Introduction and Overview,” in Michael B. Gerrard, ed., *The Law of Clean Energy: Efficiency and Renewables* (2011).....318

John C. Dernbach & Marianne Tyrrell, “Federal Energy Efficiency and Conservation Laws,” in Michael B. Gerrard, ed., *The Law of Clean Energy: Efficiency and Renewables* (2011).....340

S. Pacala & R. Socolow, “Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies,” 305 <i>Science</i> 968-972 (2004).....	363
Robert Socolow, “Wedges reaffirmed,” <i>Bulletin of the Atomic Scientists</i> , September 27, 2011.....	367
McKinsey & Co., <i>Unlocking Energy Efficiency in the U.S. Economy</i> , July 2009.....	373

Class 17: March 20
Renewable energy

Jeremy Firestone and Jeffrey P. Kehne, “Wind,” in Michael B. Gerrard, ed., <i>The Law of Clean Energy: Efficiency and Renewables</i> (2011).....	386
<i>Animal Welfare Institute v. Beech Ridge Energy LLC</i> , 675 F. Supp.2d 540 (D. Md. 2009).....	416
Robert F. Kennedy, Jr., “An Ill Wind Off Cape Cod,” <i>The New York Times</i> , December 16, 2005.....	446
Charles Komanoff, “Whither Wind? A journey through the heated debate over wind power,” <i>Orion</i> , pages 30-37 (September/October 2006).....	448

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Class 18: March 22
Coal

Hiranya Fernando et al., <i>Capturing King Coal: Deploying Carbon Capture and Storage Systems in the U.S. at Scale</i> , World Resources Institute, pages 5-33 (2008).....	11
Michael B. Gerrard, “Coal-fired Power Plants Dominate Climate Change Litigation,” <i>New York Law Journal</i> , September 25, 2009.....	41
David Biello, “The Price of Coal in China: Can China Fuel Growth without Warming the World?” <i>Scientific American</i> , December 16, 2010.....	43
Elisabeth Rosenthal, “Nations That Debate Coal Use Export It to Feed China’s Need,” <i>The New York Times</i> , November 21, 2010.....	47

Class 19: March 27
Forestry and agriculture

Robert N. Stavins, “Land-Use Change and Carbon Sinks,” <i>The Environmental Forum</i> 25:6, page 16 (November/December 2008).....	51
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Charlotte Streck, “Forests, Carbon Markets, and Avoided Deforestation: Legal Implications,” <i>Carbon & Climate Law Review</i> , pages 239-247 (March 2008).....	52
Will R. Turner, Michael Oppenheimer & David S. Wilcove, “A force to fight global warming,” 462 <i>Nature</i> 278 (November 19, 2009).....	61
Evan Branosky, <i>Agriculture and Climate Change: The Policy Context</i> , World Resources Institute, pages 1-6 (October 2006).....	63
United Nations Department of Economic and Social Affairs, Commission on Sustainable Development, “Agriculture and Environment: Climate Change Challenges and Policy options,” Background Paper no. 4, pages 1-2 (2008).....	67
Robert Goodland & Jeff Anhang, “Livestock and Climate Change,” <i>World Watch</i> , November/December 2009, pp. 10-19.....	70
Food and Agricultural Organization of the United Nations, “Major gains in efficiency of livestock systems needed,” December 14, 2011.....	80

Class 20: March 29
Climate finance

Richard B. Stewart, Benedict Kingsbury & Bryce Rudyk, <i>Climate Finance: Key Concepts and Ways Forward</i> (Harvard Project on International Climate Agreements, 2009).....	82
Peter L. Gray & Geraldine Edens, “Carbon Accounting: A Practical Guide for Lawyers,” <i>Natural Resources & Environment</i> , Winter 2008.....	92
Simon D. Donner <i>et al.</i> , “Preparing to Manage Climate Change Financing,” 334 <i>Science</i> 908 (November 18, 2011).....	97

Class 21: April 3
International trade

Richard B. Stewart, Benedict Kingsbury & Bryce Rudyk, <i>Climate Finance: Regulatory and Funding Strategies for Climate Change and Global Development</i> (NYU Press 2009), pp. 247- 287.....	99
United Steelworkers, Petition before Office of the U.S. Trade Representative, China’s Policies Affecting Trade and Investment in Green Technology (September 9, 2010) (Executive Summary)	140
Office of the United States Trade Representative, Press Release, “United States Requests WTO Dispute Settlement Consultations on China’s Subsidies for Wind Power Equipment Manufacturers” (December 2010).....	165

Class 22: April 5

Cap and trade vs. carbon tax

Robert N. Stavins, “Cap-and-Trade or a Carbon Tax?” *The Environmental Forum*, page 16 (January/February 2008).....167

Sen. Pete V. Domenici & Sen. Jeff Bingaman, “Design Elements of a Mandatory Market-Based Greenhouse Gas Regulatory System,” U.S. Senate Committee on Energy and Natural Resources, February 2006.....168

Gilbert E. Metcalf & David Weisbach, “The Design of a Carbon Tax,” 33 *Harvard Environmental Law Review* 499-524, 551-56 (2009).....182

Class 23: April 10

U.S. legal regime: Design and targets

National Research Council, “Limiting the Magnitude of Future Climate Change” (2010), summary.....214

Constantine Samaras et al., *Cap and Trade is Not Enough: Improving U.S. Climate Policy*, Carnegie Mellon University, March 2009.....218

Amy L. Luers et al., *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions Reductions*, Union of Concerned Scientists, September 2007, pp. 3-18.....238

Rebecca Lefton et al., “Beyond Durban: There’s More Than One Way to Reduce Global Emissions,” *Think Progress.Org*, December 12, 2011.....256

Class 24: April 12

Offsets and green marketing

Mark C. Trexler & Laura H. Kosloff, “Selling Carbon Neutrality,” *The Environmental Forum*, pages 34-39 (March/April 2006).....262

David J. Hayes, *Getting Credit for Going Green: Making Sense of Carbon “Offsets” in a Carbon-Constrained World*, Center for American Progress, pages 1-13 (March 2008).....268

Federal Trade Commission, “Green Guides: Summary of Proposal” (2010).....282

Federal Trade Commission, “Guides for the Use of Environmental Marketing Claims: Proposed revisions to guidelines,” 75 *Fed.Reg.* 63552 (October 15, 2010) (excerpts).....284

Donald A. Brown, “An Ethical Analysis of the Climate Change Disinformation Campaign: Is This a New Kind of Assault on Humanity?” *climateethics.org*, December 2, 2011.....294

Class 25: April 17
Environmental justice

We Act for Environmental Justice, “Statement From Environmental Justice Forum on Climate Change,” June 6, 2008.....297

Robert N. Stavins, “Enviro Justice and Cap-and-Trade,” *The Environmental Forum*, page 20 (May/June 2008).....299

Alice Kaswan, “Reconciling justice and efficiency: integrating environmental justice into domestic cap-and-trade programs for controlling greenhouse gases,” in *The Ethics of Global Climate Change* (Denis G. Arnold, ed. 2011), 232-254.....300

Henry Shue, “Subsistence Emissions and Luxury Emissions,” 15 *Law & Policy* 39 (1993).....323

Shoibal Chakravarty et al., “Sharing global CO₂ emission reductions among one billion high emitters,” *PNAS Early Edition* (2008).....342

Class 26: April 19
Adaptation

Michael B. Gerrard, “Introduction,” in *The Law of Adaptation to Climate Change: U.S. and International Aspects* (American Bar Association, forthcoming 2012).....347

National Research Council, “Adapting to the Impacts of Climate Change” (2010) (summary)...371

California Natural Resources Agency, *2009 California Climate Adaptation Strategy* (December 2, 2009) (excerpts).....375

“Climate change and the poor: Adapt or die,” *The Economist*, pages 67-68 (September 13, 2008)383

Class 27: April 24
Geoengineering

Albert C. Lin, “Geoengineering Governance,” *Issues in Legal Scholarship*, Vol. 8 Issue 3 (2009)385