

**LAW 591: Climate Change: Status of the Problem, Proposed Responses
Seminar, UCLA Law, January 2010 – Prof. Edward A. Parson**

Meets January 4 – January 15: (M T W Th, 5:00 – 6:30 PM)

This course will provide an introduction to the climate-change issue, with particular emphasis on international aspects of the problem. The first three sessions will review scientific and technical aspects of climate change: basic scientific knowledge of the nature of the risk and how it has advanced over the past two decades; the emissions and activities that are contributing to the problem, their trends and projections, and current knowledge of technological and policy options to reduce them; and the nature of climate-change impacts and vulnerabilities. Throughout these sessions, we will stress the role of uncertainty on these points – its magnitude and character, and the role it has played in decision-making, negotiations and argument over the issue.

The remaining five sessions will examine current international actions and prominent proposals for new and additional international actions to address the issue, principally but not exclusively through international measures to limit emissions of greenhouse gases. Topics examined will include the Framework Convention on Climate Change and Kyoto Protocol, including the historical context of negotiations and decisions that produced those instruments in their current form; the Bali mandate and the major proposals and negotiations flowing from it, culminating in the Copenhagen meeting in December 2009; and the major proposals for alternative approaches to international co-operative action on climate change that have been advanced. Although the primary focus is on international responses, potential interactions between international treaties and commitments, and US domestic laws and institutions, will also be considered.

Prerequisites: None

Readings: Multiple sources, to be drawn from relevant treaties, decisions, and legislation; and journal articles, book excerpts, and policy and briefing papers. Most or all course readings will be available on the Law 591 Course Page.

Basis for Evaluation: One final paper, of suggested length 10 - 15 pages. The paper will present and evaluate a specific proposal for an international decision or action to help advance management of climate change from the current state of deadlock. The proposal may be one presently in circulation, or one of the student's invention. The paper should describe the proposal specifically, identify how it would be introduced and enacted in the current legal and institutional context, and how it would be expected to achieve a beneficial change in the current state of management of the issue. The paper should briefly address and respond to key challenges or potential objections with the proposal.

Session 1 – Monday, January 4: Basic/Science Overview of Climate Change

- Dessler & Parson, Chapters 1, 2, 3 (On course page)
- IPCC Assessment Report 4 (2007): Synthesis, Summary for Policymakers (On Course Page)
- Terence Corcoran in the National Post: (Two parts – just scan, second one optional)
<http://network.nationalpost.com/np/blogs/fpcomment/archive/2009/12/18/terence-corcoran-a-2-000-page-epic-of-science-and-skepticism-part-1.aspx>:

<http://network.nationalpost.com/np/blogs/fpcomment/archive/2009/12/21/terence-corcoran-a-2-000-page-epic-of-science-and-skepticism-part-2.aspx>

- Patrick J. Michaels, “How to manufacture a climate consensus”, Wall Street Journal op-ed, pg. A25, Friday Dec 18, 2009
<http://online.wsj.com/article/SB10001424052748704398304574598230426037244.html>

Optional or extra-reference readings:

- Spencer Weart, “The Discovery of Global Warming” <http://www.aip.org/history/climate/>
- The Copenhagen Diagnosis (on Course page):
- Fred Singer et al, “Nature, not Human Activity, Rules the Climate” (on Course page):

Session 2 – Tuesday, January 5: Impacts, Vulnerability, Adaptation.

Tier 1:

- Dessler and Parson, Chapter 4 , ***Section 4.1 only***. (on Course page)
- Stephen Schneider, “The Worst-Case Scenario”, Nature 458:30, 30 April 2009, p. 1104-1105
- M. Oppenheimer et al, “The Limits of Consensus” Science 317, 14 Sept 2007, p. 1505-1506
- Mort Webster, “Uncertainty and the IPCC”, Climatic Change 92:37-40, 2009

Tier 2:

- Stephen Schneider interview, The New Republic, Science and Activism (on Course page)
- Peter Laut: “Climate change: the role of flawed science”, Nov 2009 (on Course page)
- Stewart Brand, NYT op-ed, www.nytimes.com/2009/12/15/opinion/15brand.html

Tier 3:

- Dan Sarewitz, “How science makes environmental controversies worse,” Environmental Science and Policy 7 (2004), 385-403 (on Course page)
- IPCC Assessment Report 4: Working Group 2, Summary for Policymakers (on Course Page)

Session 3 – Wednesday, January 6: Energy, Technology, and Emissions

- Current Distribution of Emissions: by gas, sector, nation, historical trends.
- Emissions Scenarios: Alternative baselines, Stabilization scenarios, underlying assumptions, emissions requirements for stabilization
- Correlates and costs of stabilization: technological changes required, overall and by sector; cost estimates and what they depend on
- Role of biological and land-use emissions, non-CO2 gases.
- Technological change, its determinants, effects on costs of mitigation and stabilization
- Integrated Assessment models, optimal control strategies and costs

Readings for Session 3:

Tier 1:

- Dessler and Parson, Chapter 4 (Rest of chapter – on Course page in Session 2 folder)

- US Climate Change Science Program, “Scenarios of greenhouse gas emissions and concentrations” (2007), *Executive Summary* (on Course page)

Tier 2:

- Schmidt and Archer, “Too much of a bad thing,” *Nature* 458, 30 Apr 2009, pp. 1117-1118
- Parry, Lowe, Hansen, “Overshoot, adapt, recover” *Nature* 458, 30 Apr 2009, pp. 1102-1103

Tier 3:

- Hoffert et al, Advanced Technology Paths to Global Climate Stability, *Science* (on Course page); PLUS subsequent exchange of letters in *Science* (on Course page)
- Pacala and Socolow, “Stabilization Wedges: solving the climate problem for the next 50 years with current technologies,” *Science* (on Course page)

Tier 4:

- US Climate Change Science Program, “Scenarios of greenhouse gas emissions and concentrations” (2007), *Technical summary* (on Course page)
- IPCC Assessment Report 4 (2007): Working Group 3, Summary for Policymakers, at http://www.ipcc.ch/publications_and_data/ar4/wg3/en/spm-en.html
- Richard Tol, “The Social Cost of Carbon: trends, outliers, and catastrophes” (on Course page)

Session 4 – Thursday January 7: Legal and Policy Response, Intro and History

- Climate-change policy responses: Major types, their advantages and disadvantages: standards, carbon taxes, cap-and-trade, hybrids; economy-wide market-based measures vs. targeted sectoral/technology regulations; role of technology promotion policies
- The long-term climate transition: challenges of designing adaptive policies and institutions
- Summary of policy responses to date: National, international, sub-national
- International approaches: FCCC; pledge-and-review versus targets and timetables; Kyoto Protocol and subsequent elaborations.

Readings for Session 4:

Tier 1:

- Dessler and Parson, Chapter 4 (Review policy sections – on Course page for Tuesday Jan 5)
- Samaras et al (Carnegie-Mellon), Cap-and-Trade is not enough (on Course page)
- Text of Framework Convention on Climate Change (on Course page)
- Text of Kyoto Protocol (on Course page)

Tier 2:

- Nordhaus, “A Question of Balance” Chapter 1 (Summary), Chapter 8 (Advantages of Carbon Taxes), Chapter 10 (Conclusions) (on Course page)
- Parson, “The Long Haul: Navigating the Energy Transition to limit Climate Change”, summary of Victoria workshop, August 2007 (on Course page)

Tier 3

- Narayanamurti et al, “Institutions for Energy Innovation” (on Course page)

Session 5 – Monday January 11: Recent International Law/Policy Response:

- Bali mandate;
- Main points of negotiation through Copenhagen;
- Process and outcomes at Copenhagen.

Readings for Session 5:

Tier 1:

- Dessler and Parson – Chapter 5 Section 5.1 (on Course page)
- Michael Grubb, “The Bali COP: plus ca change ...” *Climate policy* 8:1 (2008) 3-6
- *Earth Negotiations Bulletin* (Course page – “Brief analysis”, pp. 27-29, rest is tier 2)
- Copenhagen Accord text (on Course page)

Tier 2:

- Copenhagen notes (with interpretation) from David Doniger, NRDC: climateprogress.org/2009/12/28/the-copenhagen-accord-a-big-step-forward/#more-16721
- Notes from closing plenary, by Robert C. Orr (posted on NY Times dot.earth blog): dotearth.blogs.nytimes.com/2009/12/19/scenes-from-a-climate-floor-fight/#more-12495
- The Washington Post on US-China relationship, talks: www.washingtonpost.com/wp-dyn/content/article/2009/12/19/AR2009121900687.html?referrer=emailarticle

Tier 3:

- US “high-ranking official” (Robert Gibbs) background on AirForce 1 on process during Obama's visit: <http://www.hillheat.com/articles/2009/12/19/white-house-press-gaggle-on-the-copenhagen-accord-negotiations>
- An official Chinese news organ's account of the same sequence of events, with a rather different tone: <http://www.fmprc.gov.cn/eng/zxxx/t648096.htm>
- Column by Mark Lynas, reporting on the closed-door meetings from his position on the delegation of the Maldives: www.guardian.co.uk/environment/2009/dec/22/copenhagen-climate-change-mark-lynas
- Dan Bodansky's blogs on opinionjuris.org: <http://opiniojuris.org/2009/12/21/preliminary-thoughts-on-the-copenhagen-accord/>

Session 6 – Tuesday, Jan 12: Issues in future climate-change law and policy (1)

The final three classes will cover selected topics that must be addressed in any decisions re how to advance international climate-change action. The basic reading on the present policy debate – Dessler and Parson Chapter 5, plus review of Chapter 4 as necessary – will be relevant for all topics covered in all three classes. In addition, I've added a couple of readings for each topic – most of them short, all of them posted on the Course page.

Options for Legal Form and Broad Policy Approach:

Egenhofer and Georgiev (Centre for European Policy Studies), “the Copenhagen Accord: a first stab at deciphering the implications for the EU” (7 pages)

Dan Bodansky, “Legal form of a new climate agreement: Avenues and Options” (8 pages)

Dan Bodansky, Sophie Chou, and Christie Jorge-Tresolini, “International climate efforts beyond 2012: a survey of approaches” (NOTE: pages 1 – 17 only)

Alliance of Small Island States (AOSIS), Copenhagen Proposal -- Scan for highlights, particularly the first 15 pages.

Discussion: advantages and disadvantages (legal, political, and policy) of alternative approaches, assessment and critique of the AOSIS proposal.

Session 7 – Wednesday, Jan 13: Issues in future climate-change law and policy (2)

Engaging Major Developing Countries in Global Mitigation Efforts

David Victor, “Climate Accession Deals” (38 pages)

(Tier 2) Tyndall Centre, China energy scenarios paper (NOTE: Only the 4-page executive summary.)

(Tier 2) SEI brief on China’s current climate-change actions (4 pages)

Technology and Innovation strategy – alternative to regulatory approach?

WRI working paper, “Key functions for a FCCC technology institutional structure” (14 pages)

Nordhaus and Schellenberger, “Scrap Kyoto” (12 pages, skim the first half and focus on their policy proposal in the second half)

Session 8 – Thursday, Jan 14: Issues in future climate-change law and policy (3)

Monitoring and Verification:

Pew Policy Brief, October 2009, “Verifying mitigation efforts in a new climate agreement” (7 pages)

(Tier 2) Breidenich and Bodansky, “Measurement, reporting, and verification in a post-2012 climate agreement”

Trade Measures

Timothy Deal, USCIB, “WTO Rules and Procedures and their implications for the Kyoto Protocol” (12 pages)

Javier de Cendra, “Can emissions trading schemes be coupled with border tax adjustments? An analysis vis-à-vis WTO Law” *Review of European Community and International Environmental Law* 15:2 (131-145), 2006 (15 pages)

International governance of Geoengineering:

Keith, Parson, and Morgan, “Learning to Manage Sunlight: a climate contingency plan”, forthcoming paper in *Nature*, 2010. (4 pages)

**RESOURCES FOR POTENTIAL STUDENT PAPERS:
(critical evaluation of proposed routes forward)**

Science issues, assessment:

- Hansen et al, *phil trans royal society* 2007: Climate change and trace gases
- Roe and Baker, *Scienc* 2007, why is climate sensitivity so unpredictable?

US energy/emissions projections:

- Richard Newell slides, SAIS, Dec 14 2009, Annual Energy Outlook 2010, Reference Case

US – shift to executive agreements, or exec-leg agreements:

- Cassie Siegel advocacy for Center on Bio Diversity (students have existing relationship_
- Nigel Purvis, RFF discussion paper DP 08-09, “paving the way for US climate leadership”

Alternative forms of International agreements:

- Bodansky, Pew working paper, “int'l sectoral agreemeents in a post-2012 climate framework”
- Pew – Lewis and Diringer, policy-based commitments
- Burton Diringer Smith, international policy optinos for adaptaiton
- Bodansky Chou Tresolini – survey of post-2012 approaches

Climate interactive description of C-Roads (Tom Fiddaman)

Harvard project papers:

- Bosetti and Frankel – specific emissions formulas to attain 460 ppm
- Haites Yamin Hohne, the Sao Paulo proposal
- Bard Harstad, dynamics of climate agreements (formal model)
- McKibben, Morris, Wilcoxon, Expecting the unexpected: macro volatility and cliamte policy (formal model lookgin at effects of macro shocks with cap-trade)
- David Victor, Climate Accession Deals
- Newell, international climate technology strategies
- Kelly Sims Gallagher, “Breaking the impasse with China”