

## **Climate Governance - 24-601-672 - T 6-9**

**Professor:** Cymie R. Payne

**Time and Place** Tuesday 6-9, E112

**Office Hours** by appointment. Please schedule by email.

**Required Course Book:** Hari M. Osofsky & Lesley K. McAllister, *Climate Change Law and Policy* (2012 Wolters Kluwer). Additional readings will be posted on Sakai or will be available on the internet.

**Prerequisites:** none

### **Purpose**

Climate governance is a sweeping term for measures aimed at providing tolerable climate conditions for life on earth as we know it. It raises classic issues of distributional justice, law and science, risk, uncertainty and precaution, technology policy, energy regulation and international relations. Students will leave this course with an understanding of the sources and impacts of climate change, the key state, national and international policies, and the role of law.

This course is intended for law students who wish to improve their understanding of governance options in managing mitigation of and adaptation to climate change, and who wish to apply their knowledge to analyze and develop recommendations for a particular aspect of climate governance.

### **Learning objectives**

Seminar participants will obtain an overview of the domestic and transnational governance strategies for reducing climate disruption (mitigation) and adapting to unavoidable climate disruptions.

Participants will develop their ability to analyze a policy problem and develop law-based recommendations. They will develop their research, analytical, writing and presentation skills.

### **Basis for Evaluation**

Grades will be based on the preparation of a paper, class presentation of the paper and class participation. Students will be responsible for leading class discussion at least once during the semester. Grades may be revised upward for exceptional class participation and downward for failure to attend class on a regular basis. WI credit is possible.

**Academic Integrity:** I expect Rutgers students to behave with integrity. You can find a description of Rutgers academic integrity policy here: <http://academicintegrity.rutgers.edu/>. Please read it carefully. Plagiarism is, in fact, the theft of someone else's ideas and words with the dishonest claim that they are yours. Infractions will be referred to the appropriate dean with the recommendation of the harshest sanction allowed, which may include expulsion. When in doubt, quote and drop a footnote reference to the source.

**Disability Services:** If you are entitled to a disability accommodation, I encourage you to request it. If you have a disability and may require some type of instructional and/or examination accommodation, please contact the Office of Student Affairs at Rutgers-Camden Law.

## Syllabus – topics and readings subject to change based on class preferences, availability of guest speakers, and current policy developments

Class	Date	Topic	Assignment
1	Jan 17	The Science of Climate Change: What Do We Know? Why Don't We Act?	<p>In this introduction to the class we will explore the intellectual terrain of climate change—scientific facts, legal facts, opinions (expert and otherwise).</p> <p><i>Reading for class:</i>  Osofsky &amp; McAllister, pp 1-25 <i>Certainties and Uncertainties</i>  IPCC Fifth Assessment Report, Synthesis Report, Summary for Policymakers (2014) at <a href="http://www.ipcc.ch">www.ipcc.ch</a></p> <p>In studying the science, what information is the result of direct observations? What is based on models? What are areas of uncertainty – these are the areas where policies will need to adapt as we learn more, or as some options are foreclosed and others open.</p> <p style="color: red;">Schedule meeting to discuss paper</p> <p style="color: red;">In this class we will also discuss the topics we will cover for the semester and the form of your work product.</p>
2	Jan 24	IPCC Report  Policy Options: Regulation and Alternatives  <b>Guest: Dr. Alan Robock</b>	<p><i>Reading for class:</i>  IPCC WG1 Fifth Assessment Report – Summary for Policy Makers [Sakai]  Osofsky &amp; McAllister, pp 26-62 <i>Core Option and Critical Dilemmas</i></p> <p><i>Recommended:</i> Wm. Nordhaus, <i>Estimates of the Social Cost of Carbon</i>, Cowles Foundation Discussion Paper No. 1826 (Oct 2011).</p>
3	Jan 31	International – UNFCCC, Kyoto Protocol, Montreal Protocol International – Paris Agreement	<p>Osofsky &amp; McAllister, chapter 2, pp 63-115</p> <p>What differences do you see between the UNFCCC, the Kyoto Protocol and the Montreal Protocol – specifically, what is regulated?  Who is regulated?  What regulatory approaches are used-incentives and disincentives?  What seems to work best?  Daniel Bodansky, Reflections on the Paris Conference (15 Dec 2015) at <a href="http://opiniojuris.org/2015/12/15/reflections-on-the-paris-conference/">http://opiniojuris.org/2015/12/15/reflections-on-the-paris-conference/</a> (read the comments too)  Jean Galbraith, The Legal Structure of the Paris Agreement (21 Dec 2015) at <a href="http://www.regblog.org/2015/12/21/galbraith-legal-structure-paris-agreement/">http://www.regblog.org/2015/12/21/galbraith-legal-structure-paris-agreement/</a>  Paris Agreement, FCCC/CP/2015/L.9/Rev.1 at <a href="https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf">https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf</a>  What is the US legally bound to do under the Paris Agreement?  How do you think the US can meet these commitments? Climate change has been called a problem that needs a “multi-scalar, polycentric” solution – how does that apply here?  How will the Paris Agreement lead to achieving the goal of limiting climate disruption?</p> <p style="color: red;">Paper topic selection due</p>
4	Feb 7	Paris Agreement  Electricity: Generation, Transmission, Distribution	<p>Review reading from last week re: Paris Agreement  Klass &amp; Wiseman – Energy Law, Intro and Ch 3  FERC – Energy Primer: Energy Market Basics, intro  Quadrennial Energy Review – Summary  EIA – NJ Energy Profile  Energy Efficiency Standard press release</p>

Deadline to submit topic

5	Feb 14	US – Federal: Clean Air Act	<p>REQUIRED READING:</p> <ol style="list-style-type: none"><li>1. EPA - Sources of Greenhouse Gas Emissions - <a href="http://www.epa.gov/climatechange/ghgemissions/sources.html">http://www.epa.gov/climatechange/ghgemissions/sources.html</a></li><li>2. ENS - U.S. Carbon Emissions Fell Last Year While Economy Grew (<a href="http://ens-newswire.com/2013/10/21/u-s-carbon-emissions-fell-last-year-while-economy-grew/">http://ens-newswire.com/2013/10/21/u-s-carbon-emissions-fell-last-year-while-economy-grew/</a>)</li><li>3. Osofsky &amp; McAllister, chapter 3</li><li>4. Romm, J., We Fact-Checked A High-Profile Article On Climate And Energy. It Wasn't Pretty. Think Progress Blog (April 2016).</li></ol> <p>Bonus: Watch: <a href="http://www.youtube.com/watch?feature=player_embedded&amp;v=9Qk7Vsl5qc">http://www.youtube.com/watch?feature=player_embedded&amp;v=9Qk7Vsl5qc</a> (is climate change mentioned?) – Wikipedia describes the elimination of inefficient incandescent electric bulbs in other countries.</p> <p>Does climate change seem like a problem that can be managed with a single regulatory approach? Is the Clean Power Plan a game changer, an infringement of rights, or a jury-rigged solution? What does Joe Romm think about the role of renewables? (And what, by implication, would be the arguments against his views?)</p>
6	Feb 21	Social Cost of Carbon	<p>The Social Cost of Carbon (SCC or SC-CO<sub>2</sub>) is used in federal rulemakings to value the costs and benefits of changes in CO<sub>2</sub> emissions. Whether it continues to be used – currently the requirements are based on Executive Orders and a court decision – or not, it is a policy tool that has become an essential part of climate governance. There have been earlier attempts to apply policy analysis tools to the problem, notably the Stern Review on the Economics of Climate Change (2007), which its author says understated the cost of climate change.</p> <p>Read: NAS, Executive Summary and History and Development of the Social Cost of Carbon for Regulatory Impact Analysis Revkin, Scientific American (Jan 2017) 7 IER (Jan 2017) What are the inputs to the SCC? Who calculates it? Does it only look at emissions and harms in the US – how does it handle the fact that both are global in nature? If you like, you can listen to Living on Earth on the topic: <a href="http://www.loe.org/shows/segments.html?programID=17-P13-00003&amp;segmentID=1">http://www.loe.org/shows/segments.html?programID=17-P13-00003&amp;segmentID=1</a></p>
7	Feb 28	US – State, Regional and Local programs	<p>Osofsky &amp; McAllister - Chapter 5 P. Shukovsky, Battle Building around Portland, Oregon ..., Bloomberg Law (Jan 27, 2017)</p>
8	March 7	Adaptation	<p>1. IPCC - Go to <a href="http://www.ipcc.ch/report/ar5/wg2/">http://www.ipcc.ch/report/ar5/wg2/</a>, look at the “Report by chapters” column and find chapter 2, Foundations for decisionmaking. Read the Executive Summary. (if you don't understand what is said or are interested in learning more, look at the full chapter) Look at FAQ 2.1 on p. 200. Read sections 2.2.1.4 (Ethics), pp 205-206 and 2.2.2.2. (Governance), p. 207.</p> <p>⇒ <b>Discussion question:</b> Do you think decision making about climate adaptation should be made on a purely “rational-linear process that identifies potential risks and then evaluates management responses” or should it take into account diverse contexts for climate adaptation decisions, existing decision-making processes, cultural values, ethics and behavioral aspects of decision making?</p>

## 2. Brown Weiss, et al. – chapter 9

⇒ **Discussion question:** Consider the questions asked on p. 476, notes 2 and 3. How should we think about responsibility, both in the strict legal sense and in ethical or moral terms?

⇒ **Discussion question** 5 on page 486.

**3. IPCC again** - Go to <http://www.ipcc.ch/report/ar5/wg2/>, this time look towards the bottom and find the regional chapters (chapters 21-30). Choose one and read it. Use this as practice in reading for a purpose: skim the sections that aren't directly related to the discussion questions, read more closely where it discusses information that you need.

⇒ **Discussion questions:** What are the major scientific knowledge gaps and uncertainties? What are the particular challenges for the people of your region? Identify one specific example to illustrate – for example, in the Central and South America chapter, the vulnerability of Central American countries to weather extremes is highlighted and adaptation responses include improvements that have been made in early warning systems and emergency response for specific events; further work is recommended on strengthening social capital through local organizations which can then access finance and information about climate and markets, and better communication between local communities and policymakers.

**4. NRC Report** on adaptation, read the following excerpt, reproduced below.

⇒ **Discussion question:** Do you agree with these guidelines for adaptation? Are they equally applicable everywhere in the world?

What is the role for law in adaptation to climate change?

Is there a particular level of government that is best suited for this? If so, which one and why? If not, how should the balance between federal, state and local be struck? How should they cooperate and coordinate? Are there likely to be conflicts or barriers to cooperation? What about private actors?

	March 11-19	<b>SPRING BREAK</b>	
9	March 21	Disasters	Osofsky & McAllister, pp 39-49, 175-182, 295-301, 310-314 [Sakai] The President's Climate Action Plan (June 2013), pp 12-16 White House website, section on "Prepare for the Impacts of Climate Change" - <a href="https://www.whitehouse.gov/climate-change">https://www.whitehouse.gov/climate-change</a> Review IPCC Fifth Assessment report WG2 for adaptation considerations for US Stop Disasters Game – <i>an interactive game with multiple disaster scenarios (actually is both informative and entertaining)</i> <a href="http://www.stopdisastersgame.org/en/home.html">http://www.stopdisastersgame.org/en/home.html</a>

Drafts due –required only for writing credits; an opportunity to improve your paper

10	March 28	Non-State Actors and Initiatives  Corporate Disclosure	<p>The focus in this reading is on the role of individuals, corporations, and public interest non-governmental organizations (NGOs). Peter Lehner's history of the strategies that NRDC used to achieve successes like the reduction of lead "in the typical American" from 12.8 micrograms/liter in 1976 to 2.8 micrograms/liter in 1988 is particularly instructive as we try to introduce and enforce new rules for responding to climate change, as is Simone Pulver's analysis of the motivations driving adversarial (e.g., ExxonMobil) and cooperative (e.g., Shell, BP) oil companies. The section on the role of individual choice in mitigation raises questions of how personal decisions are (and should be) influenced by social norms, ethics, incentives and legal rules. If personal carbon neutrality really becomes a very widespread norm, will that influence market forces? will it influence the CEO and board of directors of ExxonMobil in their direction of the company? (for the Ed Begley reference see <a href="#">here</a>)</p> <ul style="list-style-type: none"> <li>▪ Osofsky &amp; McAllister – Chapter 6</li> </ul> <p>Corporate Disclosure</p> <ul style="list-style-type: none"> <li>▪ Securities and Exchange Commission, "Commission Guidance Regarding Disclosure Related to Climate Change," 75 Fed.Reg. 6290, February 8, 2010 and GHG Final Rule</li> <li>▪ Gerrard &amp; Freeman – Global Climate Change and U.S. Law (ABA), chapter 7, Corporate Disclosure</li> </ul> <p>These policies and laws target corporate actors in a different way than we have seen so far. What does this statement mean? "You can't regulate what you can't measure." How does this approach to information differ from other information-based approaches to governance that we have seen so far? (To answer this, you'll have to think back over each of the past classes and consider the role that information plays)</p> <p>Do you think this is an effective approach to reducing GHGs? to adaptation? what is the chief purpose of this approach?</p>
11	April 4	Oceans Geoengineering	<p>Off-shore areas are potential sites for wind energy, and in other areas there is potential for tidal energy generation. These raise jurisdictional questions. Climate change is causing sea level to rise; sea water to become more acidic, deoxygenated and, in some locations, warmer; and ocean currents to shift. These changes have impacts on terrestrial and marine life, for which adaptation strategies can be developed and implemented in disaster law, land use law, and—today's topic—new ocean law seeking to improve resilience and mobility of impacted ocean life.</p> <p>The marine environment is a global commons, like the climate, but its nature is very different and it is managed under a very different legal regime. Concerns that are addressed by international law include navigation, territorial claims, access to fisheries, whaling, deep seabed minerals and biota, oil and gas resources, and the function of the oceans in maintaining the climate system. The UN Convention on the Law of the Sea is a framework convention that is often referred to as the "constitution for the seas". There are protocols providing more specific rules for fisheries and deep seabed mining, but none for climate change yet.</p> <p>Jurisdictions in the ocean are defined by federal law and international law. <a href="#">This diagram</a> shows maritime boundaries. National regulatory authority extends to 200 nautical miles from shore, beyond which lies the high seas. Although the high seas are beyond national jurisdiction, in recent years there has been an extension of international law-based regulation over some activities.</p> <p>Choose a policy (for example, the Caron paper discusses carbon sequestration and black carbon pollution) that you think would contribute</p>

to either climate mitigation or adaptation. Make an argument for either new legislation or litigation to achieve it. Consider the goal you are trying to achieve, jurisdiction, legal authority (e.g., state police power, Commerce Clause, CAA, Law of the Sea Convention). Remember that we have already had some readings and discussions in previous classes related to these topics.

Read:

- David Caron, *Climate Change and the Oceans*, which reviews a number of mitigation and adaptation issues and relevant law.
- Claudia Copeland, Congressional Research Service, *Ocean Dumping Act*
- Tullio Treves. 2012. *High Seas* in Max Planck Encyclopedia of Public International Law.
- Cymie Payne. 2016. *Sustainable Management of High Seas Marine Resources: Scoping Note for International Law Association*.

Oceans have also been considered possible sinks for carbon—they are, in fact, absorbing tremendous amounts of atmospheric carbon, hence ocean acidification. Our second topic for today is regulation of geoengineering, which is the term for techniques to artificially store carbon in the ocean or ground (carbon sequestration), or change the reflectivity of the Earth's surface. Geoengineering is a paradigmatic risky technology that poses governance issues similar to those encountered with stem cells, GMOs, and nanotechnology. Chapter 7 of Osofsky and McAllister examines several scenarios assuming that humanity fails to mitigate adequately. The first is relevant to the subject of the April 25 field trip; the second, geoengineering, is discussed by Dr. Keith and Dr. Long. Dr. David Keith's talk is from 2007; his views have evolved but this is the clearest, most dynamic presentation of geoengineering and the argument for testing it. Dr. Jane Long, who works at the interface of science and policy, identifies a number of issues that will influence outcomes of different approaches to geoengineering.

- Osofsky & McAllister, chapter 7 sections on Geoengineering
- Watch: [Dr. David Keith](#), (2007)
- Watch: [Dr. Jane Long](#), (2014) Co-Chair, National Commission on Energy Policy, Task Force on Geoengineering and Climate Change; Principal Associate Director at Large, Global Security Directorate Fellow, Center for Global Security Research Lawrence Livermore National Laboratory (8:35)

Additional papers will be in the Resources file, including Payne, "Balancing the Risks: Choosing Climate Alternatives," *IOP Conf. Ser.: Earth Envtl. Sci.* 8 (2009); and Gerrard & Freeman – *Global Climate Change and U.S. Law* (ABA), chapter 21 (Geoengineering)

**Paper Presentations – Zach Orenstein**

**Dom Stockton-Rossini**

**Robert MacManigal**

Another quick dive into a complex area of law, here we want to focus on how trade law handles carbon taxes and border-tax adjustments, policies that are discussed endlessly at a very superficial level. We'll take it a little deeper. For class discussion, in addition to doing the reading, try to come up with answers to question 1 on p. 550, 3 on p. 551-552. Depending on time, we may take a crack at the class exercise on pp. 563-564, so take a look at it.

Wold, Hunter & Powers – *Climate Change and the Law*, 2d ed. (LexisNexis), ch 10

12 April 11 Trade

13 April 18 Water

The reading surveys allocation of water, water quality, and briefly, energy (remember that we have already covered water as the main form of energy storage for the electricity grid). Thus, it provides a quick introduction to two major areas of law that are normally taught in full semester courses. We will drill down on the Clean Water Act with the reading from Wold, Hunter & Powers.

For class discussion, taking the environmental and health risks described in these readings seriously, and considering the resources (financial, human and political) that are likely to be available to regulatory agencies over the next four years, think about a strategy that would maximize public benefits. What regulations would you prioritize? What resources would you need? Try to be realistic.

- Gerrard & Freeman – Global Climate Change and U.S. Law (ABA), chapter 18 (Water)
- News story on Prof. Schaefer’s research on toxic mercury, Toxic Mercury in Aquatic Life Could Spike with Greater Land Runoff - <http://news.rutgers.edu/news/toxic-mercury-aquatic-life-could-spike-greater-land-runoff/20170127>
- Wold, Hunter & Powers – Climate Change and the Law, 2d ed. (LexisNexis), 770-791.

14 April 25 National Security  
Human Rights & Migration

On Human Rights and Migration:

- Osofsky & McAllister, pp 112-113; chapter 7 pp377-399
- 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)
- 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)
- Arpita Bhattacharyya & Michael Werz, Climate Change, Migration and Conflict in South Asia: Rising Tensions and Policy Options across the Subcontinent” (December 2012)

On National Security:

- National Threat Assessment 2016 – do a word search and read sections on climate change
- **WATCH THE 1 HOUR CONGRESSIONAL BRIEFING ON THE ARCTIC AT:** [https://president.ucar.edu/government-relations/washington-update/851/state-arctic-ucar-congressional-briefing?utm\\_source=UCAR+\\*LIST\\*&utm\\_campaign=1afa10e595-Washington\\_Update\\_Nov15&utm\\_medium=email&utm\\_term=0\\_2ce99a418e-1afa10e595-69924541](https://president.ucar.edu/government-relations/washington-update/851/state-arctic-ucar-congressional-briefing?utm_source=UCAR+*LIST*&utm_campaign=1afa10e595-Washington_Update_Nov15&utm_medium=email&utm_term=0_2ce99a418e-1afa10e595-69924541)
- 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)

Final paper due