

SYLLABUS
CLIMATE CHANGE LAW AND POLICY

Columbia Law School

L6038

Spring 2020

Professor Michael B. Gerrard

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

William and June Warren Hall Room L107

Instructor's office: Jerome Greene Hall Room 525

Office hours: Tuesday and Thursday, 10:45 am - noon or by appointment

Contact michael.gerrard@law.columbia.edu for appointment

Assistant: Kemi Adetayo, aa3547@columbia.edu, (212) 854-8213

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, and the Paris Agreement. In the context of an administration that has expressed skepticism about climate change and is working to repeal many of the greenhouse gas regulations adopted during the Obama administration, 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, as will the authority of the administration to reverse prior policy, and the legal modes available for resistance. 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; and securities disclosures. 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.

All class sessions will be audio taped, and the tapes will be available to enrolled students to assist them in studying.

Columbia University is dedicated to facilitating equal access for students with disabilities and to cultivating a campus culture that is sensitive and responsive to the needs of students. To request an accommodation for a disability during the course, students are welcome to reach out to the Office of Disability Services, to the Academic Counselors in Student Services, or to the instructor. (In general, students may decide whether or not to inform their professors of any accommodations, as they prefer. But note that individual exam arrangements are generally not discussed with the professor.)

Readings:

The principal reading is Michael B. Gerrard & Jody Freeman, *Global Climate Change and U.S. Law* (American Bar Association, 2nd Edition, 2014) (“Gerrard & Freeman”). This book is available in the Columbia University Bookstore or through Amazon. (The first edition, which appeared in 2007, is not acceptable.)

Additional reading materials will be posted on CourseWorks. URLs are also provided for many of them. For some of the judicial decisions, the URL is to the docket page on the Sabin Center’s climate litigation charts; for these, be sure to select the proper item (by date).

In some instances the readings below are marked as “Excerpts” or “Skim”. Where page numbers are given to indicate that only certain pages need to be read closely, the page numbers refer to the source material.

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 CourseWorks.

Class Topics and Readings

Class 1: January 21 Scientific background

View film *Paris to Pittsburgh* (2018) (1 hour 17 minutes)
<https://echo360.org/media/90f3baa8-ff68-4850-b590-dcd032bc83b7/public>

Michael B. Gerrard, “Introduction and Overview,” Chapter 1 in Gerrard & Freeman

U.S. Global Change Research Program, *Fourth National Climate Assessment*, Vol. II – Impacts, Risks, and Adaptation in the United States: Report-in-Brief (2018), pp. 11-55
https://nca2018.globalchange.gov/downloads/NCA4_Report-in-Brief.pdf

[Timothy M. Lenton et al., Climate tipping points – too risky to bet against, 575 Nature 592 \(2019\)](https://www.nature.com/articles/d41586-019-03595-0)
<https://www.nature.com/articles/d41586-019-03595-0>

Class 2: January 23 Montreal Protocol and U.N. Framework Convention on Climate Change

Tseming Yang, "The Relationship Between Domestic and International Environmental Law," in Martella & Grosko, eds., *International Environmental Law: The Practitioner's Guide to the Laws of the Planet* (2014)

<https://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1770&context=facpubs>

Kyle Danish, "The International Climate Regime," Chapter 2 in Gerrard & Freeman, pp. 37-42

Philippe Sands & Jacqueline Peel, *Principles of International Environmental Law* (Cambridge 2012), "Ozone," pp. 262-274

"The Deepest Cuts: Our guide to the actions that have done the most to slow global warming," *The Economist*, September 20, 2014, pp. 21-23

United Nations Framework Convention on Climate Change (1992) (read pp. 1 - 9; skim rest)

<https://unfccc.int/resource/docs/convkp/conveng.pdf>

Class 3: January 28

Kyoto Protocol

Kyle Danish, "The International Climate Regime," Chapter 2 in Gerrard & Freeman, pp. 42-79

Kyoto Protocol to the United Nations Framework Convention on Climate Change (1998) (read pp. 1 - 12; skim rest)

<https://unfccc.int/resource/docs/convkp/kpeng.pdf>

Daniel Bodansky et al., *International Climate Change Law* (2017), pp. 1-34

Class 4: January 30

Paris Agreement

United Nations, Copenhagen Accord (December 2009)

<https://unfccc.int/resource/docs/2009/cmp5/eng/109.pdf>

Adoption of the Paris Agreement: Decision 1/CP.21 (pp. 1 - 20) (skim)

Paris Agreement (pp. 21 - 36)

<http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>

Daniel Bodansky, "The Paris Climate Change Agreement: A New Hope?" 110 *Am. J. Int'l L.* 288 (2016)

Class 5: February 4

Implementation of the Paris Agreement

Scott Barrett, Climate treaties and the imperative of enforcement, 24 *Oxford Rev. Econ. Pol'y* 239 (2008)

The White House, “Statement by President Trump on the Paris Climate Accord,” June 1, 2017
<https://www.whitehouse.gov/briefings-statements/statement-president-trump-paris-climate-accord/>

U.S. Department of State, U.S. National Statement at COP25 (December 11, 2019)
<https://www.state.gov/united-states-national-statement-at-unfccc-cop25/>

[Yamide Dagnet et al., “COP25: What We Needed, What We Got, What’s Next” \(World Resources Institute, December 23, 2019\)](https://www.wri.org/blog/2019/12/cop25-what-we-needed-what-we-got-whats-next)
<https://www.wri.org/blog/2019/12/cop25-what-we-needed-what-we-got-whats-next>

G.B. Asheim et al, The case for a supply-side climate treaty, 365 Science 325 (2019)
<https://science.sciencemag.org/content/365/6451/325.full>

Class 6: February 6

International trade

David Hunter & Chris Wold, “Addressing Climate Change Through Non-Climate International Instruments,” Chapter 22 in Gerrard & Freeman, pp. 769-774

Markus W. Gehring, Marie-Claire Cordonier Segger & Jarrod Hepburn, “Climate change and international trade and investment law,” in *International Law in the Era of Climate Change* (Rosemary Rayfuse & Shirley V. Scott, eds. 2012), pp. 84-117

Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (2014), pp. 64-95

Class 7: February 11

U.S. policy

John C. Dernbach & Robert Altenburg, “Evolution of U.S. Climate Policy,” Chapter 3 in Gerrard & Freeman

The White House, Executive Order: Promoting Energy Independence and Economic Growth (March 28, 2017)
<https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/>

Clean Air Council v. Pruitt, 862 F.3d 1 (D.C. Cir. 2017) (excerpts – Slip Op. pp. 1-5, 11-15)
[https://www.cadc.uscourts.gov/internet/opinions.nsf/a86b20d79beb893e85258152005ca1b2/\\$file/17-1145-1682465.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/a86b20d79beb893e85258152005ca1b2/$file/17-1145-1682465.pdf)

Indigenous Environmental Network v. U.S. Department of State, CV-17-29-GF-BMM (D. Mt., Nov. 8, 2018) (Slip op. pp. 1-5, 19-23, 31-35; skim the rest) [Note: be sure to read the 11/8/18 order], vacated as moot, 9th Cir., June 6, 2019
<http://climatecasechart.com/case/indigenous-environmental-network-v-united-states-department-of-state/>

Sabin Center for Climate Change Law, Climate Deregulation Tracker (skim)
<http://columbiaclimatelaw.com/resources/climate-deregulation-tracker/>

Class 8: February 13
Climate Denial: Origins and Litigation

Coral Davenport and Eric Lipton, “How G.O.P. Leaders Came to View Climate Change as Fake Science,” *New York Times*, June 3, 2017
<https://www.nytimes.com/2017/06/03/us/politics/republican-leaders-climate-change.html>

Brad Plumer & Coral Davenport, Science Under Attack: How Trump is Sidelining Researchers and Their Work,” *New York Times*, December 28, 2019
<https://www.nytimes.com/2019/12/28/climate/trump-administration-war-on-science.html>

Robert J. Brulle, “Networks of Opposition: A Structural Analysis of U.S. Climate Change Countermovement Coalitions, 1989-2015,” *Sociological Inquiry* (2019)

Competitive Enterprise Institute v. Mann, D.C. Court of Appeals, 150 A.3d 1213 (DC Ct. Apps. December 22 2016) (slip op. pp. 1-16, 19-21, 51-105), cert. denied, ___ U.S. ___ (2019)
http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2016/20161222_docket-14-CV-101-14-CV-126_opinion-1.pdf

Sheldon Whitehouse, What phony op-eds about climate change have in common, *Columbia Journalism Review*, July 12, 2016
https://www.cjr.org/first_person/climate_change_department_of_justice.php

Farhana Yamin, “Why I broke the law for climate change,” 573 *Nature* 337 (2019)
<https://www.nature.com/articles/d41586-019-02736-9>

Sabin Center for Climate Change Law, Silencing Science Tracker (skim)
<http://columbiaclimatelaw.com/resources/silencing-science-tracker/>

Class 9: February 18
Clean Air Act I: Massachusetts v. EPA, Endangerment Finding, Cars Rule

Jonathan Martel, Chris Jaros, Zachary Fayne & Shailesh Sahay, “Clean Air Regulation,” Chapter 4 in Gerrard & Freeman (skim)

Massachusetts v. U.S. Environmental Protection Agency, 549 U.S. 497 (2007)
(Majority opinion and Scalia and Roberts dissents).
<https://www.oyez.org/cases/2006/05-1120>

Coalition for Responsible Regulation v. U.S. Environmental Protection Agency, 684 F.3d 102 (D.C. Cir. 2012) (excerpts) (Slip op. 15-44)
[https://www.cadc.uscourts.gov/internet/opinions.nsf/52AC9DC9471D374685257A290052ACF6/\\$file/09-1322-1380690.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/52AC9DC9471D374685257A290052ACF6/$file/09-1322-1380690.pdf)

Class 10: February 20

Clean Air Act II: Tailoring Rule, Clean Power Plan, Affordable Clean Energy Rule

Utility Air Regulatory Group v. U.S. Environmental Protection Agency, 134 S.Ct. 2427 (2014)
https://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf

State of West Virginia v. EPA (D.C. Circuit):

Opening Brief of Petitioners on Core Legal Issues, pp. li – liii, 1-27

Respondent EPA’s Final Brief, pp. xi – xvi, 1-23

State of West Virginia v. EPA, 136 S.Ct. 1000 (2016)

EPA fact sheets on proposed Affordable Clean Energy Rule (October 2018):

Proposed Affordable Clean Energy Rule – Overview

https://www.epa.gov/sites/production/files/2018-08/documents/ace_overview_0.pdf

Proposed ACE Rule – Legal Overview

https://www.epa.gov/sites/production/files/2018-08/documents/ace_legal_bser.pdf

Proposed Affordable clean Energy Rule – Comparison of ACE and CPP

https://www.epa.gov/sites/production/files/2018-08/documents/ace-cpp_side_by_side.pdf

Harvard University, Environmental & Energy Law Program, “Legal Analysis of the Proposals to Repeal and Replace the Clean Power Plan” (October 2018)

<https://eelp.law.harvard.edu/2018/10/legal-analysis-of-the-proposals-to-repeal-and-replace-the-clean-power-plan/>

Class 11: February 25

National Environmental Policy Act

Paul Weiland, Robert Horton & Erik Beck, “Environmental Impact Review,” Chapter 5 in Gerrard & Freeman

U.S. Council on Environmental Quality, “Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews” (August 1, 2016) (withdrawn in 2017) (skim)

https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf

Sierra Club v. Federal Energy Regulatory Commission, 667 F.3d 1357 (D.C. Cir. August 22, 2017) (excerpts)

(Slip op. pp. 1-5, 10-12, 18-27, dissent pp. 1-8)

<http://climatecasechart.com/case/in-re-florida-southeast-connection-llc/>

Class 12: February 27
Securities Disclosures Laws

Matthew Morreale, “Corporate Disclosure Considerations Related to Climate Change,” Chapter 7 in Gerrard & Freeman

Mark Carney, “Breaking the tragedy on the horizon – climate change and financial stability” (Bank of England, September 29, 2015)
<https://www.bis.org/review/r151009a.pdf>

Task Force on Climate-related Financial Disclosures, Final Report – Executive Summary (June 2017) (read pp. ii-v; skim rest)
<https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf>

Exxon Mobil Corp. v. Schneiderman, 316 F.Supp.3d 679 (SDNY 2018) (excerpts)
(Slip op. pp. 1-15, 32-48)
https://ag.ny.gov/sites/default/files/2018_03_29_opinion_order.pdf

People of the State of New York v. Exxon Mobil Corp., Index No. 452044/2018 (N.Y. Sup. Ct., December 10, 2019)
(Read p. 1-3, 5-10, 28-38, 54-55; skim the rest)
http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2019/20191210_docket-4520442018_decision.pdf

Pedro Ramirez, Jr. v. Exxon Mobil Corp., Civ.No. 3:16-CV-3111-K (N.D. TX Aug. 14, 2018) (excerpts)
(Slip op. 1-5, 13, 15-19, 42-47)
http://securities.stanford.edu/filings-documents/1059/EMC00_02/2018814_r01x_16CV03111.pdf

Class 13: March 3
Endangered Species Act

Dave Owen, “Endangered Species Act,” Chapter 6 in Gerrard & Freeman

In re Polar Bear Endangered Species Act listing and Section 4(d) Rule Litigation, 709 F.3d 1 (D.C. Cir. 2013)
[https://www.cadc.uscourts.gov/internet/opinions.nsf/27B0BE9562811E2485257B2100550BFF/\\$file/11-5219.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/27B0BE9562811E2485257B2100550BFF/$file/11-5219.pdf)

J.B. Ruhl, “Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future,” 39 *Environmental Law Reporter* 10735 (August 2009)
<https://law.vanderbilt.edu/files/archive/Ruhl-2009.pdf>

Anna T. Moritz et al., “Biodiversity Baking and Boiling: Endangered Species Act Turning Down the Heat,” 44 *Tulsa L. Rev.* 205 (2008) (read 205-07, 234; skim rest)
<https://digitalcommons.law.uw.edu/cgi/viewcontent.cgi?article=1239&context=faculty-articles>

Class 14: March 5
Public nuisance litigation

Emily Hammond & David L. Markell, “Civil Remedies,” Chapter 8 in Gerrard & Freeman

American Electric Power v. Connecticut, 564 U.S. 410 (2011)
<https://www.supremecourt.gov/opinions/10pdf/10-174.pdf>

Native Village of Kivalina v. ExxonMobil Corp., 696 F.3d 839 (9th Cir. 2012), cert. den. (excerpts) (Slip op. pp. 11647-11657)
http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2012/20120921_docket-09-17490_opinion.pdf

City of New York v. BP P.L.C., 18 Civ. 182 (JFK) (SDNY July 19, 2018)
<https://casetext.com/case/city-of-ny-v-bp-p-lc>

Michael B. Gerrard, “What Litigation of a Climate Nuisance Suit Might Look Like,” 121 *Yale Law Journal Online* 135 (2011)
<https://www.yalelawjournal.org/forum/what-litigation-of-a-climate-nuisance-suit-might-look-like>

Class 15: March 10
Constitutional and public trust claims

Juliana v. United States, ___ F.3d ___ (9th Cir., Jan. 17, 2020)
<http://cdn.ca9.uscourts.gov/datastore/opinions/2020/01/17/18-36082.pdf>

State of the Netherlands v. Urgenda Foundation, Supreme Court of the Netherlands (December 20, 2019)
Read pp. 1-7 of Supreme Court Judgment in English, 01/13/2020
<http://climatecasechart.com/non-us-case/urgenda-foundation-v-kingdom-of-the-netherlands/>

Marjan Minnesma, “Not slashing emissions? See you in court,” 576 *Nature* 379 (December 19, 2019)
<https://www.nature.com/articles/d41586-019-03841-5>

Oliver A. Houck, The children’s climate case: Our obligation to future generations, *The Hill* (November 6, 2018)
<https://thehill.com/opinion/energy-environment/415307-the-childrens-climate-case-our-obligation-to-future-generations>

James Huffman, Previously Unrecognized Rights: Climate Change Lawsuits and the Rule of Law, *Quillette*, October 30, 2018

<https://quillette.com/2018/10/30/previously-unrecognized-rights-climate-change-lawsuits-and-the-rule-of-law/>

Class 16: March 12

Migration, National Security, International Security

Michael B. Gerrard, “Sadly, the Paris Agreement Isn’t Nearly Enough,” *Environmental Forum*, November/December 2016, p. 57

<http://columbiaclimatelaw.com/files/2016/10/Gerrard-2016-10-Paris-Agreement-Isnt-Nearly-Enough.pdf>

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)

<http://www.gmfus.org/file/2295/download>

David R. Boyd, Special Rapporteur, “Human Rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment” (United Nations General Assembly), July 15, 2019

(Read pp. 10-25; skim rest)

<http://srenvironment.org/sites/default/files/Reports/2019/UNGA%20Safe%20Climate%20Report%202019.pdf>

Ioane Teitiota v. Chief Executive of the Ministry of Business, Innovation and Employment (New Zealand Supreme Court, July 20, 2015)

http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2015/20150720_2015-NZSC-107_judgment-1.pdf

CNA Military Advisory Board, *National Security and the Accelerating Risks of Climate Change* (May 2014) (excerpts -- p. 1-5)

https://www.cna.org/cna_files/pdf/MAB_5-8-14.pdf

Class 17: March 24

State and regional actions

Eleanor Stein, “Regional Initiatives to Reduce Greenhouse Gas Emissions,” Chapter 9 in Gerrard & Freeman

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

https://www.rggi.org/sites/default/files/Uploads/Design-Archive/MOU/MOU_12_20_05.pdf

David Hodas, “State Initiatives,” Chapter 10 in Gerrard & Freeman

Assembly Bill No. 32, California Global Warming Solutions Act of 2006 (skim)

http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf

Association of Irrigated Residents v. California Air Resources Board, 206 Cal.App.4th 1487 (Cal Ct. App. June 19, 2012) (excerpts)
<http://climatecasechart.com/case/assoc-of-irritated-residents-v-cal-air-resources-board/>

Michael B. Gerrard, “The effect of New York’s new climate law on municipalities: Deep but uncertain,” 20 New York Zoning Law and Practice Report 1 (November/December 2019)
https://climate.law.columbia.edu/sites/default/files/content/NYZLPR_03.pdf

Class 18: March 26
Municipal actions

J. Kevin Healy & L. Margaret Barry, “Local Initiatives,” Chapter 12 in Gerrard & Freeman

John R. Nolon, “Transportation and Land Use,” Chapter 15 in Gerrard & Freeman

Daniel Gatti, “The Transportation and Climate Initiative, Explained” (Union of Concerned Scientists (December 17, 2019)
<https://blog.ucsusa.org/daniel-gatti/the-transportation-and-climate-initiative-explained>

Yankee Institute for Public Policy, et al., “TCI Open Letter” (December 20, 2019)
<http://ethanallen.org/wp-content/uploads/2019/12/TCI-Opposition-Letter.pdf>

Meredith Hankins, “We’re Never Going to Meet Our GHG Transportation Goals Unless We Radically Rethink Our Cities,” Legal Planet, December 5, 2018
<https://legal-planet.org/2018/12/05/were-never-going-to-meet-our-ghg-transportation-goals-until-we-radically-rethink-our-cities/>

Class 19: March 31
Energy efficiency

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

John C. Dernbach, The Dozen Types of Legal Tools in the Deep Decarbonization Toolbox, 39 *Energy L.J.* 313 (2018)
[https://www.eba-net.org/assets/1/6/16-313-352-Dernbach\[FINAL\].pdf](https://www.eba-net.org/assets/1/6/16-313-352-Dernbach[FINAL].pdf)

Michael B. Gerrard & John C. Dernbach, “Legal Pathways to Deep Decarbonization in the United States: Summary and Key Recommendations” (Environmental Law Institute 2018)
(skim pp. 1-90)
https://www.eli.org/sites/default/files/docs/books/deep_decarb_summary_booklet_online.pdf

Class 20: April 2

Renewable energy

Geoffrey Heal, “What Would It Take to Reduce U.S. Greenhouse Gas Emissions 80 Percent by 2050?”

11 *Review of Environmental Economics and Policy* 319 (2017)

<https://academic.oup.com/reep/article/11/2/319/3964517>

Michael B. Gerrard, “Legal Pathways for a Massive Increase in Utility-Scale Renewable Generation Capacity,” 47 *Env. L. Rep.* 10591 (2017) (skim)

<http://columbiaclimatelaw.com/files/2017/06/Legal-Pathways-for-a-Massive-Increase-in-Utility-Scale-Renewable-Generation-Capacity.pdf>

Michael B. Gerrard, “Save Birds Now or Birds Later,” *Environment Forum*, May/June 2015, p. 39

<http://columbiaclimatelaw.com/files/2016/09/Gerrard-2015-05-Save-Birds-Now-or-Later.pdf>

Animal Welfare Institute v. Beech Ridge Energy LLC, 675 F. Supp.2d 540 (D. Md. 2009) (excerpts)

Robert F. Kennedy, Jr., “An Ill Wind Off Cape Cod,” *New York Times*, December 16, 2005

<https://www.nytimes.com/2005/12/16/opinion/an-ill-wind-off-cape-cod.html>

Charles Komanoff, “Whither Wind? A journey through the heated debate over wind power,” *Orion*, pages 30-37 (September/October 2006)

<https://orionmagazine.org/article/whither-wind/>

Bill McKibben, “A World at War,” *New Republic*, August 15, 2016

<https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii>

Class 21: April 7

Coal

Wendy B. Jacobs & Michael Craig, “Legal Pathways to Widespread Carbon Capture and Sequestration,” 47 *Env. L. Rep.* 1102 (2017) (skim)

<https://www.eli.org/sites/default/files/elr/featuredarticles/47.11022.pdf>

Adele C. Morris et al., “The Risk of Fiscal Collapse in Coal-Reliant Communities” (Columbia Center for Global Energy Policy & Brookings, July 2019), pp. 8-17

Jessica Koski et al., “Principles for aligning U.S. fossil fuel extraction with climate limits” (Stockholm Environment Institute February 2019), pp. 5-15

<https://www.sei.org/wp-content/uploads/2019/02/principles-for-aligning-fossil-fuel-extraction-w-climate-limits.pdf>

Somini Sengupta, The World Needs to Quit Coal: Why Is It So Hard? *N.Y. Times*, November 24, 2018

<https://www.nytimes.com/2018/11/24/climate/coal-global-warming.html>

Class 22: April 9
Forestry and agriculture

Kelly Levin & Sarah Parsons, “7 Things to Know About the IPCC’s Special Report on Climate Change and Land” (World Resources Institute, August 8, 2019)
<https://www.wri.org/blog/2019/08/7-things-know-about-ipcc-special-report-land-and-climate>

Peter Lehner & Nathan A. Rosenberg, “Legal Pathways to Carbon-Neutral Agriculture,” 47 Env. L. Rep. 10845 (2017) (skim)
<https://earthjustice.org/sites/default/files/files/Legal-Pathways-Carbon-Neutral-Agriculture.pdf>

Lisa Song, “An Even More Inconvenient Truth: Why Carbon Credits for Forest Preservation May Be Worse Than Nothing,” ProPublica, May 22, 2019
<https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/>

Steve Schwartzman & Christina McCain, “What ProPublica’s forest credits story gets wrong – and right,” Environmental Defense Fund, May 23, 2019
<http://blogs.edf.org/climate411/2019/05/23/what-propublicas-forest-carbon-credits-story-gets-wrong-and-right/>

Lisa Song, “These 4 Arguments Can’t Overcome the Facts About Carbon Offsets for Forest Preservation,” ProPublica, May 31, 2019
<https://www.propublica.org/article/these-4-arguments-cant-overcome-the-facts-about-carbon-offsets-for-forest-preservation>

Class 23: April 14
Cap and trade vs. carbon tax

Robert N. Stavins, “Cap-and-Trade or a Carbon Tax?” *The Environmental Forum*, page 16 (January/February 2008)
<https://pdfs.semanticscholar.org/fee4/ab9b939924c38547feb5c366d5c99c70762e.pdf>

Shi-Ling Hsu, “Carbon Pricing,” ch. 2 in *Legal Pathways to Deep Decarbonization in the United States* (Michael B. Gerrard & John C. Dernbach, eds., 2019), pp. 70-86

High Country Conservation Advocates v. United States Forest Service, 2014 WL 2922751 (D.Co. 2014) (excerpts)

James A. Baker, III, et al., The Conservative Case for Carbon Dividends (Climate Leadership Council, February 2017)
<https://www.clcouncil.org/media/2017/03/The-Conservative-Case-for-Carbon-Dividends.pdf>

Class 24: April 16
Climate Policy Targets and Methods

Mat Hope & Rosamund Pearce, “Two degrees: The history of climate change’s ‘speed limit’,” Carbonbrief.org, December 8, 2013
<https://www.carbonbrief.org/two-degrees-the-history-of-climate-changes-speed-limit>

Zeke Hausfather & Justin Ritchie, “A 3C World is Now ‘Business as Usual,’” Breakthrough Institute, December 18, 2019
<https://thebreakthrough.org/issues/energy/3c-world>

David Hunter & Chris Wold, “Addressing Climate Change Through Non-Climate International Instruments,” Chapter 22 in Gerrard & Freeman, pp. 747-767

Jeffrey Sachs, “Getting to a Carbon-Free Economy,” American Prospect, December 5, 2019
<https://prospect.org/greennewdeal/getting-to-a-carbon-free-economy/>

Class 25: April 21
Environmental justice, climate justice

Robert N. Stavins, “Enviro Justice and Cap-and-Trade,” *The Environmental Forum*, page 20 (May/June 2008)
https://scholar.harvard.edu/files/stavins/files/column_24.pdf

Alice Kaswan, “California Climate Policies Serving Climate Justice,” *Natural Resources & Environment*, Spring 2019, pp. 12- 16

Asian Pacific Environmental Network et al., “HB 2020: Oregon’s Carbon Trading Bill – Take Action!”, April 2019
<http://www.opalpdx.org/2019/04/hb2020/>

Bjorn Lomborg, “The Poor Need Cheap Fossil Fuels,” *New York Times*, December 3, 2013
<https://www.nytimes.com/2013/12/04/opinion/the-poor-need-cheap-fossil-fuels.html>

Nicholas Kristof, “As Donald Trump Denies Climate Change, These Kids Die of It,” *New York Times*, January 6, 2017
<https://www.nytimes.com/2017/01/06/opinion/sunday/as-donald-trump-denies-climate-change-these-kids-die-of-it.html>

Shoibal Chakravarty et al., “Sharing global CO₂ emission reductions among one billion high emitters,” *PNAS Early Edition* (2008)
<https://www.pnas.org/content/106/29/11884>

Akshat Rathi, “Stop using India’s coal power plants as an excuse for climate inaction,” Quartz India, July 18, 2019 <https://qz.com/india/1669182/indias-coal-power-plants-arent-an-excuse-for-climate-inaction/>

Class 26: April 23 Adaptation

J.B. Ruhl, “Climate Adaptation Law,” Chapter 20 in Gerrard & Freeman

Michael B. Gerrard, “Introduction and Overview,” in *The Law of Adaptation to Climate Change: U.S. and International Aspects* (Michael B. Gerrard & Katrina Fischer Kuh, eds. 2012), pp. 3-4, 9 - 15

Conservation Law Foundation v. ExxonMobil (D.MA.), Complaint for Declaratory and Injunctive Relief and Civil Penalties (September 29, 2016) (skim)
<https://www.clf.org/wp-content/uploads/2016/09/CLF-v.-ExxonMobil-Complaint.pdf>

Conservation Law Foundation v. ExxonMobil (D.MA.), Order (September 13, 2017)
<http://www.lawandenvironment.com/wp-content/uploads/sites/5/2017/09/conservation.pdf>

A.R. Siders et al., “The case for strategic and managed climate retreat,” 365 *Science* 761 (August 23, 2019)
<https://science.sciencemag.org/content/365/6455/761>

Class 27: April 28 Geoengineering

Michael B. Gerrard & Tracy Hester, *The Law of Climate Engineering: Governance and Liability for Solar Radiation Management and Carbon Dioxide Removal* (Cambridge University Press, 2018), chapters 1, 7

Tracy Hester, “Legal Pathways to Negative Emissions Technologies and Direct Air Capture of Greenhouse Gases,” 48 *Environmental Law Reporter* 10413 (2018) (skim)
<https://www.law.uh.edu/faculty/thester/Legal%20Pathways%20to%20Broad%20Use%20of%20NETs%20and%20DAC%20by%20Hester.pdf>

Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (2014), pp. 256-290