**The Global Politics of Climate Change [revised midterm 2 date]**

Political Science BC3605

Fall 2023

M, W 10:10-11:25

**Prof. Kimberly Marten**

km2225@columbia.edu

Office hours: Most Mondays, 2-4pm, online and via advance sign-up only,

on my Barnard Google Calendar: <https://tinyurl.com/yju8awsv>

“We are standing in front of the abyss;

we still have the opportunity to steer away from the abyss.”

—Christiana Figueres, Costa Rican diplomat and primary architect of

the Paris Climate Agreement, April 4, 2022, *Bloomberg Green*.

**Course Description and Objectives**

Climate change mitigation is the greatest global political challenge of our times. This course uses concepts drawn from the broader political science literature to analyze the recent history and possible future trajectories of interactions between international politics and climate change, focusing on mitigation questions, and including the international political economy of various relevant commercial sectors. It has no prerequisites, and no background knowledge is required. The course has two fundamental goals: to increase student understanding of the complexity of political issues and interests involved in global climate change problems, and to counter growing climate despair by suggesting realistic paths forward toward global net zero carbon emissions. Class lectures will leave significant time for student questions and discussion.

**Student Learning Outcomes**

Students who complete this course successfully will be able to:

* Demonstrate knowledge of key political science and policy concepts useful for analyzing the global politics of climate change, as well as factual knowledge of selected cases where this analysis is reflected in real-world events.
* Apply this knowledge to analyze, compare, and evaluate selected historical and current events and make future predictions, identifying and analyzing the ways that political factors may have distinct effects in different locations and different economic sectors.
* Articulate the distinctions between local, national, and global effects and processes, as well as tradeoffs between some local ecology and global climate change mitigation efforts.
* Synthesize facts and arguments across cases in order to reason critically and argue creatively on written assignments, while thinking creatively about global paths forward.

**Assignments and Expectations**

* **Students are expected to attend both lectures and the required weekly discussion sections (days/times TBA), and to participate in discussions throughout.**
	+ Students are expected to have completed the assigned reading for each lecture before the lecture begins.
	+ Section instructors will inform students in advance about what the specific expectations are for each section meeting, for example by sending out discussion questions in advance.
* **There will be three in-class, blue-book, handwritten essay exams** (Oct. 9, Nov. 13, and [likely] Dec. 20).
	+ The purpose of the exams is to measure student engagement with course themes and materials, especially the assigned syllabus readings.
	+ Prof. Marten fully recognizes the difficulties of handwriting today. As a result each 1.25-hour midterm exam will include only two essay questions, while the 3-hour final will include only three essay questions, to reduce time pressure and allow students to print by hand if necessary.
	+ Due to scheduling difficulties, **make-up exams** (in a supervised room to be determined) will be offered only to those who have a verified medical or family emergency. These should be a very rare exception. **Please note the exam dates** and do not take this course if you know you have a scheduling conflict.
	+ Those who require **disability accommodations** must make arrangements to have the exams taken in the disability services office.

**Evaluation**

* First midterm: 25%
* Second midterm: 25%
* Final exam: 35%
* Class participation: 15%

Separate documents, posted on Courseworks, outline the grading criteria for in-class exams and class participation.

**Barnard Honor Code**

Approved by the student body in 1912 and updated in 2016, the Code states: “We, the students of Barnard College, resolve to uphold the honor of the College by engaging with integrity in all of our academic pursuits. We affirm that academic integrity is the honorable creation and presentation of our own work. We acknowledge that it is our responsibility to seek clarification of proper forms of collaboration and use of academic resources in all assignments or exams. We consider academic integrity to include the proper use and care for all print, electronic, or other academic resources. We will respect the rights of others to engage in pursuit of learning in order to uphold our commitment to honor. We pledge to do all that is in our power to create a spirit of honesty and honor for its own sake.” Use of an AI text generator when an assignment does not explicitly ask or allow for it is considered plagiarism at Barnard College and is unacceptable.

All assignments in this class are to be completed in accordance with the Barnard Honor Code, whether or not the student is a Barnard student. Any student who violates the Honor Code will face dean’s discipline at their home college, and will earn a zero on the assignment in question. All exams are open-book and open-note and students may bring any printed or handwritten materials they wish into the exam with them; but **no electronic devices of any kind are allowed during the exam**, and collaboration during the exam is prohibited. (Students who receive disability office exceptions will take the exams at designated disability services air-gapped sites.) All electronic devices (including earphones and earbuds, smart watches and smart glasses) must be turned off and physically placed inside backpacks or other closed bags or envelopes for the duration of the exam. If a student is observed using such a device during the exam—even if that use is not connected to the exam itself—the exam will be forfeited.

In addition, **the use of laptops and other electronic devices** (except for handwriting using e-tablet pencils) **in lecture is prohibited,** with the exception of students who receive official disability office accommodations. Students with those accommodations should sit towards the side or back of the auditorium, so that their screen use does not impede the concentration of other students. (Section leaders will set their own rules and guidance for section meetings.) There is [overwhelming scientific evidence](https://stackoverflow.blog/2022/11/23/why-writing-by-hand-is-still-the-best-way-to-retain-information/) that taking notes by hand increases student learning and knowledge retention (and it’s good practice for the exams, too).

**Center for Accessibility Resources & Disability Services (CARDS) Statement**

If you believe you may encounter barriers to the academic environment due to a documented disability or emerging health challenges, please contact the Center for Accessibility Resources & Disability Services (CARDS) if you are a Barnard student, or Columbia Disability Services if you are a Columbia student. Any student with approved academic accommodations is encouraged to contact me during office hours or via email. If you have questions regarding registering a disability or receiving accommodations for the semester, please contact CARDS at (212) 854- 4634, cards@barnard.edu, or learn more at <http://barnard.edu/disabilityservices>; the Columbia counterpart website is <https://www.health.columbia.edu/content/disability-services>.

**Barnard Wellness Statement**

It is important for undergraduates to recognize and identify the different pressures, burdens, and stressors they may be facing, whether personal, emotional, physical, financial, mental, or academic. We as a community urge you to make yourself—your own health, sanity, and wellness—your priority throughout this term and your career here. Sleep, exercise, and eating well can all be a part of a healthy regimen to cope with stress. Resources exist to support you in several sectors of your life, and we encourage you to make use of them. Should you have any questions about navigating these resources, please visit these sites:

* <http://barnard.edu/primarycare>
* [http://barnard.edu/counseling](http://barnard.edu/counsel)
* <http://barnard.edu/wellwoman/about>
* [Stressbusters Support Network](http://health.columbia.edu/files/healthservices/pdf/alice_Stressbusters_Support_Network.pdf) (Columbia)

**Course Schedule**

**Note:** All readings are available online. Please access them through the “Modules” function on Courseworks. Please read items in the order they are listed; this will help make clear which issues in each reading are important. Additions and/or substitutions may occur as new work is published and current events unfold, in an era of very fast changes.

A separate document provides instructions for how all CU ID holders can access the *New York Times*, the *Wall Street Journal*, and the *Financial Times* free of charge, and how anyone can create a free Reuters account. You will need to take these actions in order to connect to the relevant Modules links free of charge.

**Part I: Introduction to the global problems of climate change**

**Sept. 6.** The scientific facts of climate change, why mitigation is a “wicked problem,” and how to avoid despair anyway.

**Courseworks files:**

* Avivah Wittenberg-Cox, “The Power of Climate Optimists: Flip the Narrative, Change the Future,” Forbes.com, Apr. 17, 2023.

**Open web:**

* Brad Plumer, “Climate Change Is Speeding Toward Catastrophe. The Next Decade Is Crucial, U.N. Panel Says,” *New York Times*, Mar. 20, 2023, <https://www.nytimes.com/2023/03/20/climate/global-warming-ipcc-earth.html>
* Raghu Murtugudde, “10 Reasons Why Climate Change Is a 'Wicked' Problem,” *The Wire* (India), Dec. 11, 2019, <https://thewire.in/environment/climate-change-wicked-problem>

**Recommended, not required:**

* **The good news!** Jack Ewing and Clifford Krauss, “Ford’s Battery Joint Venture to Get $9.2 Billion Government Loan,” *New York Times*, June 22, 2023, <https://www.nytimes.com/2023/06/22/business/energy-environment/ford-battery-plants-loan.html>

**Sept. 11.** Climate change and inequality: “climate justice,” “loss and damage,” and financing.

**CLIO:**

* Kelly Sims Gallagher, “The Coming Carbon Tsunami: Developing Countries Need a New Growth Model—Before It’s Too Late,” *Foreign Affairs* 101, no. 1 (Jan./Feb. 2022): 151-164. [This article focuses on “climate justice.”]

**Open web:**

* **The good news!** Brad Plumer, Lisa Friedman, Max Bearak and Jenny Gross, “In a First, Rich Countries Agree to Pay for Climate Damages in Poor Nations,” *New York Times*, Nov. 19, 2022, <https://www.nytimes.com/2022/11/19/climate/un-climate-damage-cop27.html>
* Rebecca Byrnes, Swenja Surminski, and Adeline Stuart-Watt, “What is climate change ‘Loss and Damage’?” LSE Grantham Research Institute on Climate Change and the Environment, Oct. 28, 2022, <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-change-loss-and-damage/>
* Alan Rappeport, Lisa Friedman and Keith Bradsher, “Yellen Urges China to Step Up Climate Finance Investments,” *New York Times*, July 7, 2023, <https://www.nytimes.com/2023/07/07/business/energy-environment/janet-yellen-beijing-climate.html>

**Sept. 13.** Climate change and conflict.

**Open web:**

* Noah Gordon, “How Climate Change Helps Violent Nonstate Actors,” Carnegie Endowment for International Peace, Dec. 14, 2022, <https://carnegieendowment.org/2022/12/14/how-climate-change-helps-violent-nonstate-actors-pub-88637>
* Jan Selby, “On Blaming Climate Change for the Syrian Civil War,” *Middle East Research and Information Project* 296 (Nature and Politics), Sept. 29, 2020, <https://merip.org/2020/09/on-blaming-climate-change-for-the-syrian-civil-war/>

**CLIO:**

* Juan Corredor-Garcia and Fernando López Vega, “The Logic of ‘War on Deforestation’: A Military Response to Climate Change in the Colombian Amazon,” *Alternatives*, online first, June 2023.

**Sept. 18**. Climate change, disease, and pandemics

**Open web:**

* Abrahm Lustgarten, “How Climate Change Is Contributing to Skyrocketing Rates of Infectious Disease,” *ProPublica*, May 7, 2020, <https://www.propublica.org/article/climate-infectious-diseases>
* Rob Jordan, “How does climate change affect disease?” *Stanford Earth Matters Magazine*, Mar. 15, 2019, <https://earth.stanford.edu/news/how-does-climate-change-affect-disease#gs.p0u5zf>
* “As Earth Warms, the Diseases That May Lie within Permafrost Become a Bigger Worry,” *Scientific American*, Nov. 1, 2016, <https://www.scientificamerican.com/article/as-earth-warms-the-diseases-that-may-lie-within-permafrost-become-a-bigger-worry/>

**Part II: International Diplomacy: Explaining Successes and Failures**

**Sept. 20.** Liberal institutionalism: do global climate agreements matter? (With special attention to the relatively successful Montreal Protocol on the ozone layer.)

**Open web:**

* Lindsay Maizland, “Global Climate Agreements: Successes and Failures,” Council on Foreign Relations Backgrounder, Nov. 4, 2022, <https://www.cfr.org/backgrounder/paris-global-climate-change-agreements>
* Ian Rae, “Saving the ozone layer: why the Montreal Protocol worked,” *The Conversation*, Sept. 9, 2012, <https://theconversation.com/saving-the-ozone-layer-why-the-montreal-protocol-worked-9249>
* Peter M. Haas, “Robust Ozone Governance Offers Lessons for Mitigating Climate Change,” *One Earth Commentary* (Cell Press), Sept. 20, 2019, [https://www.cell.com/one-earth/pdf/S2590-3322(19)30027-2.pdf](https://www.cell.com/one-earth/pdf/S2590-3322%2819%2930027-2.pdf)
* **The good news!** Henry Fountain, “Restoration of the Ozone Layer Is Back on Track, Scientists Say,” *New York Times*, Jan. 9, 2023, <https://www.nytimes.com/2023/01/09/climate/ozone-hole-restoration-montreal-protocol.html>

**Sept. 25.** The global collective action problem (the tragedy of the commons) and possible solutions. [Note: lecture will be recorded on Zoom today for those away for Yom Kippur.]

**Courseworks files:**

* Erik Nordman, “What’s So Tragic about the Commons?” and “The Climate Commons,” chapters 1 and 6 of *The Uncommon Knowledge of Elinor Ostrom* (Washington, DC: Island Press, 2021), pp. 1-18 and 105-126.

**CLIO:**

* William Nordhaus, The Climate Club: How to Fix a Failing Global Effort,” *Foreign Affairs* 99, no. 3 (May/June 2020): 10-17.

**Open web:**

* Sinan Ülgen, “A Political Economy Perspective on the EU’s Carbon Border Tax,” Carnegie Europe, May 9, 2023, <https://carnegieeurope.eu/2023/05/09/political-economy-perspective-on-eu-s-carbon-border-tax-pub-89706>

**Sept. 27.** Realism as a perspective: the problem of states and energy security.

**CLIO:**

* Stephen M. Walt, “The World Wants You to Think Like a Realist,” ForeignPolicy.com, May 30, 2018.
* Jason Bordoff and Meghan L. O’Sullivan, “The Age of Energy Insecurity: How the Fight for Resources Is Upending Geopolitics,” *Foreign Affairs* 102, no. 3 (May/June 2023): 104-119.

**Open web:**

* Andrew Haley, “China leans on coal amid energy security push,” Reuters, Mar. 6, 2023, <https://www.reuters.com/business/energy/china-underlines-key-role-coal-amid-energy-security-drive-2023-03-05/>
* Emily Schmall and Clifford Krauss, “India Chases Clean Energy, but Economic Goals Put Coal First,” *New York Times*, Dec. 7, 2022, <https://www.nytimes.com/2022/12/07/business/energy-environment/india-energy-subsidies.html>

**Part III. Economic interests, cultures, and the experiences of individual states.**

**Oct. 2.** A deep dive on coal: state interests, local cultures, and international assistance.

**Open web:**

* Fatih Birol and David Malpass, “It’s critical to tackle coal emissions,” translation of an opinion piece originally published in *Le Monde*, Oct. 7, 2021, <https://www.iea.org/commentaries/it-s-critical-to-tackle-coal-emissions>

**CLIO**

* Joshua Partlow, “How Coal Holds on in America,” *Washington Post*, Jan. 17, 2022.

**Open web:**

* **The good news!** Isabeau van Halm, “Europe: ‘Any fears of a coal rebound are now dead,’” *Energy Monitor*, Jan. 31, 2023, <https://www.energymonitor.ai/sectors/power/europe-any-fears-of-a-coal-rebound-are-now-dead/>
* Brad Plumer, “Wealthy Nations Offer Indonesia $20 Billion to Curb Coal,” *New York Times*, Nov. 15, 2022, <https://www.nytimes.com/2022/11/15/climate/indonesia-coal-agreement.html>
* Hans Nicholas Jong, “Indonesia to build coal plants despite $20b deal on clean energy transition,” [Mongabay](https://urldefense.proofpoint.com/v2/url?u=https-3A__news.mongabay.com_2022_11_indonesia-2Dto-2Dbuild-2Dcoal-2Dplants-2Ddespite-2D20b-2Ddeal-2Don-2Dclean-2Denergy-2Dtransition_&d=DwMCAg&c=009klHSCxuh5AI1vNQzSO0KGjl4nbi2Q0M1QLJX9BeE&r=WQLtn-I6mTG-TSNEaJ4zVnHDgBRjluiiWbURghiJ0T0&m=SD0j1yn5zU5RvQgff7iXj7axep0sBjbTJDLFepEgu88AKn66aghYdLjhNYtidDBd&s=kTjSwW4Miplgv0qOjrJhLCn0zs5y56deE2rrZeW7vRs&e=), Nov. 22, 2022.

**CLIO, recommended, not required** (it’s written at a graduate level, but shows that local coal culture in the US and India is similar):

* Nikhar Gaikwad, Federica Genovese, and Dustin Tingley, “Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World’s Two Largest Democracies,” *American Political Science Review* 116, no. 4 (2022): 1165-1183.

**Oct. 4.** Is capitalism as a system to blame for climate change, and is a revolution necessary?

**Open web:**

* Alyssa Battistoni and Jedediah Britton-Purdy, “After Carbon Democracy,” *Dissent*, Winter 2020, <https://www.dissentmagazine.org/article/after-carbon-democracy>
* Deborah Avant, “Can Capitalism Meet the Climate Challenge?” *New America Planetary Politics* blog post, Feb. 6, 2023, <https://www.newamerica.org/planetary-politics/blog/can-capitalism-meet-the-climate-challenge/>
* Charlotte Hulme, “Change of Players, Change of Game: How States Got Left Behind on Climate Change,” E-International Relations, Nov. 5, 2019, <https://www.e-ir.info/2019/11/05/change-of-players-change-of-game-how-states-got-left-behind-on-climate-change/> (Note: in Aug. 2023 Hulme published her Yale dissertation on this theme as a book, available on CLIO if you log in first: https://link.springer.com/book/10.1007/978-3-031-34115-1 )

**Recommended, not required (these articles will be talked about in lecture, for those who want references):**

**CLIO:**

* Charles E. Lindblom, “The Market as Prison,” *Journal of Politics* 44, no. 2 (May 1982): 324-36.

**Open web:**

* Richard Milne, “Norway will not ‘shy away’ from green transition dilemmas, says PM,” *Financial Times*, June 19, 2023, <https://www.ft.com/content/4f23b1d7-8b8b-4b1b-90cd-37c949e12117> (CU ID holders have free FT access; instructions here: <https://library.columbia.edu/collections/eresources/databases/financial-times.html>)

**Courseworks Files:**

* D.J. Peterson, “Introduction,” from his *Troubled Lands: The Legacy of Soviet Environmental Destruction* (Boulder, CO: Westview Press, 1993), pp. 1-16 only.

**Oct. 9. In-class midterm. Questions will cover material through Oct. 4.**

**Oct. 11.** The logic of two-level games: US hegemonic leadership in global negotiations—and US domestic interests

**CLIO:**

* Manjana Milkoreit, “The Paris Agreement on Climate Change—Made in USA?” *Perspectives on Politics* 17, no. 4 (Dec. 2019): 1019-1037.
* Michaël Aklin and Matto Mildenberger, “Prisoners of the Wrong Dilemma: Why Distributive Conflict, Not Collective Action, Characterizes the Politics of Climate Change,” *Global Environmental Politics* 20, no. 4 (November 2020): 4-27.

**Open web: the U.S. Inflation Reduction Act**

* **The good news!** Jim Tankersley, “Biden Signs Expansive Health, Climate and Tax Law,” *New York Times*, Aug. 16, 2022, <https://www.nytimes.com/2022/08/16/business/biden-climate-tax-inflation-reduction.html>
* Eric Lipton, “With Federal Aid on the Table, Utilities Shift to Embrace Climate Goals,” *New York Times*, Nov. 29, 2022, <https://www.nytimes.com/2022/11/29/us/politics/electric-utilities-biden-climate-bill.html>

**Recommended, not required:**

* Maggie Astor and Lisa Friedman, “Where Republican Presidential Candidates Stand on Climate Change,” *New York Times*, June 8, 2023, <https://www.nytimes.com/2023/06/08/us/politics/wildfires-republicans-climate-change.html>

**Oct. 16.** Could China replace the US as a hegemonic leader on climate change?

**Open web:**

* Benjamin Haas, “China sees an opportunity to lead as Trump withdraws from Paris. But will it?” *The Guardian*, June 2, 2017, <https://www.theguardian.com/world/2017/jun/02/china-sees-an-opportunity-to-lead-as-trump-withdraws-from-paris-but-will-it>

**CLIO:**

* Dan Wang, “China’s Hidden Tech Revolution: How Beijing Threatens U.S. Dominance,” *Foreign Affairs* 102, no. 2 (March/April 2023): 65-77. (Please note in particular this article’s sections on solar and battery technologies.)

**Open web:**

* David Sandalow, Michal Meidan, Philip Andrews-Speed, Anders Hove, Sally Yue Qui, and Edmund Downie, Guide to Chinese Climate Policy, 2022, Oxford Institute for Energy Studies, <https://chineseclimatepolicy.oxfordenergy.org/wp-content/uploads/2022/11/Guide-to-Chinese-Climate-Policy-2022.pdf>. Required sections: pp. 11-19 (1A, “Chinese Emissions of Heat-Trapping Gasses, Carbon Dioxide”), p. 23 (1E, “Chinese Emissions and the Carbon Budget”), pp. 26-31 (2, “Impacts of Climate Change on China”), pp. 58-70 (6, “Renewable Power), pp. 217-239 (26, “Belt and Road Initiative”).

**Oct. 18.** A deep dive on global political controversies surrounding solar power, wind power, and green hydrogen. (all **Open web** unless otherwise noted)

**Solar:**

* Myles McCormick, “Solar set to overtake other energy sources by 2027,” *Financial Times*, Feb. 27, 2023, <https://www.ft.com/content/beaed1d3-1478-49c1-ae9c-4fe5ade62b5d>
* Ana Swanson and Chris Buckley, “Chinese Solar Companies Tied to Use of Forced Labor,” *New York Times*, Jan. 28, 2021, <https://www.nytimes.com/2021/01/08/business/economy/china-solar-companies-forced-labor-xinjiang.html>
* Lisa Jucca, “China ban would slow, not halt, Western solar push,” *Reuters*, Feb. 3, 2023, <https://www.reuters.com/breakingviews/china-ban-would-slow-not-halt-western-solar-push-2023-02-03/> . (Note: anyone can set up a free Reuters account here: <https://www.reuters.com/account/register/sign-up/>)

**Recommended, not required:** for a summary and analysis of the UN report on Xinjiang forced labor and human rights violations, see:

* Brady Worthington, “Breaking Down the U.N.’s Report on Xinjiang,” *Lawfare* blog, Sept. 15, 2022, <https://www.lawfareblog.com/breaking-down-uns-report-xinjiang>

**Wind:**

* “Nine New Countries Sign Up for Global Offshore Wind Alliance at COP27 in Sharm El-Sheikh,” IRENA press release, Nov. 8, 2022, <https://www.irena.org/News/pressreleases/2022/Nov/Nine-new-countries-sign-up-for-Global-Offshore-Wind-Alliance-at-COP27>
* “Wildlife Impacts of Wind Energy,” U.S. Department of Energy, undated, <https://windexchange.energy.gov/projects/wildlife>
* Fort Collins Science Center of the U.S. Geologic Service, “Bat Fatalities at Wind Turbines—Investigating the Causes and Consequences,” July 21, 2016, <https://www.usgs.gov/centers/fort-collins-science-center/science/bat-fatalities-wind-turbines-investigating-causes-and?qt-science_center_objects=0#qt-science_center_objects>

**Courseworks files:**

* Ryan Beene and Josh Saul, “Wind Turbines Taller Than the Statue of Liberty Are Falling Over,” *Bloomberg Businessweek Innovation*, Jan. 23, 2023.

**Green hydrogen:**

* Anne-Sophie Corbeau, “Global hydrogen trade may be just a pipe dream,” *Cipher News*, June 14, 2023, <https://www.ciphernews.com/hydrogen-pipe-dream>
* Matthew Dalton and Kim Mackrael, “Europe Sets Rules for Producing Green Hydrogen,” *Wall Street Journal*, Feb. 13, 2023, <https://www.wsj.com/articles/europe-sets-rules-for-producing-green-hydrogen-8a10564b>
* Laura El-Katiri, “Sunny side up: Maximising the European Green Deal’s potential for North Africa and Europe,” European Council on Foreign Affairs Policy Brief, Jan. 9, 2023, <https://ecfr.eu/publication/sunny-side-up-maximising-the-european-green-deals-potential-for-north-africa-and-europe/>
* Hamza Hamouchene, “Green Hydrogen: The new scramble for North Africa,” *Al Jazeera*, Nov. 20, 2021, <https://www.aljazeera.com/opinions/2021/11/20/green-hydrogen-the-new-scramble-for-north-africa>

**Oct. 23.** India’s climate change complexities, and the Modi-Adani story.

**Open web:**

* Max Graham, “Deadly heat threatens the lives and livelihoods of 1 billion people in India,” *Grist*, Apr. 24, 2023, <https://grist.org/climate/deadly-heat-threatens-the-lives-and-livelihoods-of-1-billion-people-in-india/>
* Sara Schonhardt, “Why the Climate Fight Will Fail without India,” *Scientific American* (E&E News), Feb. 10, 2023, <https://www.scientificamerican.com/article/why-the-climate-fight-will-fail-without-india/>

**CLIO:**

* Arunabha Ghosh, “Can India Become a Green Superpower?” *Foreign Affairs* 102, no. 4 (July/Aug. 2023)—only pp. 152-155, section “It Takes a Village,” required.
* Gerry Shih, Niha Masih and Anant Gupta, “How political will often favors a coal billionaire and his dirty fossil fuel,” *Washington Post*, Dec. 9, 2022.
* Gerry Shih, Karishma Mehrotra and Anant Gupta, “India cracks down on critics of coal,” *Washington Post*, June 5, 2023.
* Stephen Stapczynski, Rajesh Kumar Singh and Rakesh Sharma, “Adani’s Crisis Points to Big Risk in India’s Net Zero Plan,” *Bloomberg Green Newsletter*, Feb. 5, 2023.

**Open web, recommended, not required, for those who want the back-story on Adani’s business challenges:**

* Alex Travelli, “After Nearly Collapsing, Indian Billionaire’s Stock Is Back on the Rise,” *New York Times*, May 24, 2023, <https://www.nytimes.com/2023/05/24/business/adani-stock-price.html>

**Oct. 25.** Kleptocracy and patron/client relations: the example of the Russian Arctic.

**Open web:**

* “Stranded assets,” Carbon Tracker Initiative, Aug. 23, 2017, <https://carbontracker.org/terms/stranded-assets/>

**Courseworks files:**

* Kimberly Marten, “Geopolitics and Security in the Changing Arctic,” draft chapter forthcoming in *Hot War: Climate Change and Insecurity*, ed. Ziya Meral, Timothy Clack and Louise Selisny (Routledge, 2023).
* Thane Gustafson, “The Politics of Climate Change in Russia,” chapter 1 from his *Klimat: Russia in the Age of Climate Change* (Cambridge, MA: Harvard University Press, 2021), pp. 17-46.

**Recommended, not required:**

* Kimberly Marten, “Can Global Business Norms Turn the Russian Arctic Green? The Example of Nornickel,” unpublished paper prepared for the International Studies Association annual convention (online), March 13, 2022. Prof. Marten will be talking about this paper in lecture today.

**Oct. 30.** A deep dive on global oil: drill, baby, drill?

**Open web:**

* Camila Domonoske, “Big Oil (Probably) Isn't Going Away Anytime Soon. But It's Definitely Changing,” NPR, June 8, 2021, <https://www.npr.org/2021/06/08/1002448099/big-oils-transition-3-takeaways-on-how-the-industry-is-and-isnt-going-green>
* David Manley, David Mihalyi, and Patrick R.P. Heller, “Hidden Giants: It’s time for more transparency in the management and governance of national oil companies,” *Finance and Development* (IMF), Dec. 2019, <https://www.imf.org/en/Publications/fandd/issues/2019/12/national-oil-companies-need-more-transparency-manley>
* Benjamin Franta, “What Big Oil knew about climate change, in its own words,” The Conversation.com, Oct. 28, 2021, [https://theconversation.com/what-big-oil-knew-about-climate-change-in-its-own-words-170642#](https://theconversation.com/what-big-oil-knew-about-climate-change-in-its-own-words-170642)
* Damian Carrington and Matthew Taylor, “Revealed: the ‘carbon bombs’ set to trigger catastrophic climate breakdown,” *The Guardian*, May 11, 2022, <https://www.theguardian.com/environment/ng-interactive/2022/may/11/fossil-fuel-carbon-bombs-climate-breakdown-oil-gas>.

**A case study: oil in the U.S. state of Alaska:**

**Open web:**

* Ron Bousso and Tanishaa Nadkar, “BP to quit Alaska after 60 years with $5.6 billion sale to Hilcorp,” Reuters, Aug. 27, 2019, <https://www.reuters.com/article/us-bp-divestiture-idUKKCN1VH21N>

**CLIO:**

* Steven Mufson and Joshua Partlow, “Once eager to drill, oil companies exit leases in Arctic refuge,” *Washington Post*, June 2, 2022.

**Open web:**

* Lisa Friedman and Clifford Krauss, “In Pristine Alaska, an Oil Giant Prepares to Drill for Decades,” *New York Times*, April 6, 2023, <https://www.nytimes.com/2023/04/06/climate/willow-alaska-oil-biden.html>

**Nov. 1**. A deep dive on natural gas: a transition fuel?

**Open web:**

* British Petroleum Energy Outlook, 2023, pp. 12-19 (“Three scenarios to explore the uncertainties surrounding the speed and shape of the energy transition to 2050”) and pp. 46-53 (“Natural gas”), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2023.pdf>
* Matina Stevis-Gridneff and Somini Sengupta, “Europe Calls Gas and Nuclear Energy ‘Green,’” *New York Times*, July 6, 2022, <https://www.nytimes.com/2022/07/06/world/europe/eu-green-energy-gas-nuclear.html>
* Interview of Mark Radka, Head of the United Nations Environment Program’s (UNEP) Energy and Climate Branch, “Is natural gas really the bridge fuel the world needs?” UNEP, Jan. 12, 2023, <https://www.unep.org/news-and-stories/story/natural-gas-really-bridge-fuel-world-needs>
* Hiroko Tabuchi, “Leaks Can Make Natural Gas as Bad for the Climate as Coal, a Study Says,” *New York Times*, July 13, 2023, <https://www.nytimes.com/2023/07/13/climate/natural-gas-leaks-coal-climate-change.html>

**CLIO:**

* Jacob Kinger and Vijaya Ramachandran, “Finally, Rich Countries Recognize Africa’s Right to Use Gas,” ForeignPolicy.com, May 12, 2023.

**Recommended, not required:**

* C. Gürsan and V. de Gooyert, “The systemic impact of a transition fuel: Does natural gas help or hinder the energy transition?” *Renewable and Sustainable Energy Reviews* 138 (2021) 110552, <https://www.sciencedirect.com/science/article/pii/S1364032120308364>. This presents very objectively a summary of the available research on natural gas as a replacement for coal and oil, its associated extraction and infrastructure, and the problem of methane.

**Nov. 6.** Election Day holiday; no class meeting.

**Nov. 8.** The global politics of food and agriculture, with special focus on beef (Brazil) and palm oil (Indonesia and Malaysia).

**Open web:**

* David Sandalow, et al., “Food and Climate Change Info Guide,” Columbia SIPA Center on Global Energy Policy, May 3, 2021, sections 3 (“Food System Impacts on Climate Change”) 4 (“Climate Change Impacts on Food Systems”) and 5 (“Mitigation and Adaptation Strategies”), <https://www.energypolicy.columbia.edu/research/article/food-and-climate-change-infoguide>

**Courseworks files:**

* Todd Woody, “Vegetarian Eating Gets Complicated by New Climate Research,” Bloomberg.com, June 23, 2022.

**CLIO:**

* Terrence McCoy and Júlia Ledur, “U.S. taste for beef helps fuel Amazon's ruin,” *Washington Post*, May 1, 2022.

**Open web:**

* **The good news!** Benji Jones, “Palm oil is actually not that bad (anymore),” *Vox*, Feb. 2, 2023, <https://www.vox.com/science-and-health/2023/2/2/23568192/palm-oil-deforestation-sustainable>
* **More good news!** Susan Shain, “How Central Ohio Got People to Eat Their Leftovers,” *New York Times*, Jan. 1, 2023, <https://www.nytimes.com/2023/01/01/headway/composting-food-leftovers.html>

**Part 4. The roles of ideas and non-state actors**

**Nov. 13.** **In-class midterm. Questions will cover material from Oct. 11-Nov. 8 only.**

**Nov. 15.** Constructivism and change: evaluating the roles of protest, civil disobedience, and uncivil action.

**CLIO:**

* Joost de Moor, “The ‘efficacy dilemma’ of transnational climate activism: the case of COP21,” *Environmental Politics* 27, no. 6 (2018): 1079–1100.
* Joost de Moor, Michiel De Vydt, Katrin Uba & Mattias Wahlström, “New kids on the block: taking stock of the recent cycle of climate activism,” *Social Movement Studies* 20, no. 5 (2021): 619-62.

**Open web:**

* Matthew Wolfe, “The Rise and Fall of America’s Environmentalist Underground,” *New York Times*, May 26, 2022, <https://www.nytimes.com/2022/05/26/magazine/earth-liberation-front-joseph-mahmoud-dibee.html>
* “Extinction Rebellion UK to halt disruptive protests,” Reuters, Jan. 1, 2023, <https://www.reuters.com/business/environment/extinction-rebellion-uk-halt-disruptive-protests-2023-01-01/>

**Recommended, not required:**

* To see where climate protests have been happening since 2022, explore the Carnegie Endowment for International Peace “Climate Tracker,” <https://carnegieendowment.org/publications/interactive/climate-protest-tracker>

**Nov. 20.** Constructivism and change: greening business investment, or green washing?

**Courseworks files:**

* David Carlin, “The Case for Fossil Fuel Divestment,” *Forbes*, Feb. 20, 2021; and “The Case for Fossil Fuel Engagement,” *Forbes*, Mar. 2, 2021.
* Saijel Kishan, “A Basic Guide to ESG Investing and Why It Faces a Backlash: Quick Take,” Bloomberg.com, June 24, 2022.
* Kassia Yanosek and David G. Victor, “How Big Business Is Taking the Lead on Climate Change,” ForeignAffairs.com, Feb. 3, 2022.

**CLIO:**

* Diane Coyle, “The Revolution Will Not Be Privatized: Corporate Responsibility and Its Limits,” *Foreign Affairs* 101, no. 1 (Jan./Feb. 2022): 119-127.

**Nov. 22.** Thanksgiving Day Holiday, no class meeting.

**Nov. 27**. Cities and climate change.

 **Open web:**

* John Rennie Short and Abbey Farmer, “Cities and Climate Change,” *Earth* 2021 no. 2: 1038–1045, PDF may be downloaded from here: <https://www.mdpi.com/2673-4834/2/4/61>

 **CLIO:**

* Kian Goh, “[Introduction](https://ezproxy.cul.columbia.edu/login?qurl=https%3a%2f%2fsearch.ebscohost.com%2flogin.aspx%3fdirect%3dtrue%26AuthType%3dip%26db%3dnlebk%26AN%3d2681779%26site%3dehost-live%26scope%3dsite%26ebv%3DEB%26ppid%3Dpp_1),” in *Form and Flow: The Spatial Politics of Urban Resilience and Climate Justice* (Cambridge: MIT Press; 2021), 1-22.

 **Open web:**

* “About C40.” Please scroll down this website and follow links that interest you, to learn about what C40 is and does: <https://www.c40.org/about-c40/>
* Johanna Lovecchio, Center for Resilient Cites and Landscapes, Resilience Accelerator Reports, in “[Reports and Publications](https://crcl.columbia.edu/content/publications).” Click around and explore cities and sites that interest you: <https://crcl.columbia.edu/content/publications>
* Blackspace Urbanist Collective, “[Blackspace Manifesto](https://www.multiplecities.org/home/2019/1/31/the-blackspace-manifesto),” <https://blackspace.wpengine.com/wp-content/uploads/2022/09/BlackSpace-Manifesto.pdf>

**CLIO**:

* Eric Klinenberg, “[Manufacturing Nature](https://www-proquest-com.ezproxy.cul.columbia.edu/docview/2559693035?pq-origsite=summon&accountid=10226),” *The New Yorker*, Aug. 9, 2021.

**Part V. Current controversies**

**Nov. 29.** A deep dive on electric battery materials (lithium, nickel, cobalt)

**Open web:**

* Agnes Chang and Keith Bradsher, “Can the World Make an Electric Car Battery Without China?” *New York Times*, May 16, 2023, <https://www.nytimes.com/interactive/2023/05/16/business/china-ev-battery.html>
* Natasha Frost, “Australia Tries to Break Its Dependence on China for Lithium Mining,” *New York Times*, May 23, 2023, <https://www.nytimes.com/2023/05/23/business/australia-lithium-refining.html>
* Martin Silva, “South America’s ‘lithium triangle’ communities are being ‘sacrificed’ to save the planet,” Euronews.com, Feb. 27, 2023, <https://www.euronews.com/green/2022/10/28/south-americas-lithium-triangle-communities-are-being-sacrificed-to-save-the-planet>

**Courseworks files:**

* Siddharth Kara, Introduction and “Unspeakable Richness” (chapter 1) of his *Cobalt Red: How the Blood of the Congo Powers Our Lives* (New York: St. Martin’s Press, 2023), pp. 1-30.
* Annie Lee and Mark Burton, “The Biggest Source of Cobalt Outside Africa is Now Indonesia,” *Bloomberg News*, Feb. 7, 2023.

**Dec. 4.** A deep dive on nuclear energy: is it “sustainable”?

**CLIO:**

* Jason Bordoff, “3 Reasons Nuclear Power Has Returned to the Energy Debate,” ForeignPolicy.com, Jan. 3, 2022.

**Open web:**

* Kristyna Foltynova, “Russia's Stranglehold on the World's Nuclear Power Cycle,” RFE/RL, Sept. 1, 2022, <https://www.rferl.org/a/russia-nuclear-power-industry-graphics/32014247.html>
* Myles McCormick, “US nuclear enjoys revival as public and private funding pours in,” *Financial Times*, Jan. 1, 2023, <https://www.ft.com/content/f3c6f333-bc2e-4694-963a-7084e438905a>
* Mark Shwartz, “Stanford-led research finds small modular reactors will exacerbate challenges of highly radioactive nuclear waste,” *Stanford News*, May 30, 2022, <https://news.stanford.edu/2022/05/30/small-modular-reactors-produce-high-levels-nuclear-waste/>

**Dec. 6.** Emerging techno-solutions: climate engineering, and two kinds of carbon capture.

**Open web:**

**Climate Geoengineering:**

* Fred Pearce, “Geoengineer the Planet? More Scientists Now Say It Must Be an Option,” Yale Environment 360, May 29, 2019, <https://e360.yale.edu/features/geoengineer-the-planet-more-scientists-now-say-it-must-be-an-option>

**Direct air carbon capture:**

* **The good news!** Amrith Ramkumar, “Climate Startup Removes Carbon From Open Air in Industry First,” *Wall Street Journal*, Jan. 12, 2023, <https://www.wsj.com/articles/climate-startup-removes-carbon-from-open-air-in-industry-first-11673492767>
* **More good news!** Kevin Krajick, “With Major Prize, a Project to Turn Carbon Emissions to Stone Gains Momentum,” *Columbia University Lamont-Doherty Earth Observatory News*, Dec. 12, 2022, <https://lamont.columbia.edu/news/major-prize-project-turn-carbon-emissions-stone-gains-momentum>

**Oil and gas company enterprise-associated carbon capture:**

* June Sekera and Neva Goodwin, “Why the oil industry’s pivot to carbon capture and storage – while it keeps on drilling – isn’t a climate change solution,” *The Conversation*, Nov. 23, 2021, <https://theconversation.com/why-the-oil-industrys-pivot-to-carbon-capture-and-storage-while-it-keeps-on-drilling-isnt-a-climate-change-solution-171791>
* Paul Tullis, interview of Jennifer Wilcox, “Can Carbon Capture Be Part of the Climate Solution?” *New York Times*, June 13, 2022, <https://www.nytimes.com/2022/06/13/climate/capture-capture-storage-jennifer-wilcox.html>

**Dec. 11.** An early evaluation of the November 30-December 12, 2023 COP-28 negotiations (Dubai, UAE). Additional readings TBA, based on current events.

**Open web:**

* Attracta Mooney and Camilla Hodgson, “UN chief attacks oil and gas industry ‘planet wreckers’ over fossil fuel expansion,” Financial Times, June 15, 2023, <https://www.ft.com/content/250781d1-4cd1-4dc1-a0cf-97433074305a>

**Courseworks Files:**

* Akshat Rathi, “A Kingdom Built on Oil Now Controls the World’s Climate Progress,” Bloomberg.com, April 3, 2023.

**Open web:**

* Antonia Gawel and Nathan Cooper, “What did COP27 accomplish and what actions can we expect as a result?” [World Economic Forum](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.weforum.org_agenda_2022_11_what-2Dhappened-2Dcop27-2Dclimate-2Dchange-2Dwhat-2Dis-2Dnext_&d=DwMCAg&c=009klHSCxuh5AI1vNQzSO0KGjl4nbi2Q0M1QLJX9BeE&r=WQLtn-I6mTG-TSNEaJ4zVnHDgBRjluiiWbURghiJ0T0&m=SD0j1yn5zU5RvQgff7iXj7axep0sBjbTJDLFepEgu88AKn66aghYdLjhNYtidDBd&s=CuS6iYWORzUTNPdDl72VcckGjdPgo6AxLiBlU351qig&e=), Nov. 23, 2022.
* Camilla Hodgson and Alice Hancock, “COP27 delegates rubbed shoulders with energy executives ready to cut deals,” [Financial Times](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.ft.com_content_3fe55c62-2D9e51-2D40fc-2D9b26-2D77b14d741fae&d=DwMCAg&c=009klHSCxuh5AI1vNQzSO0KGjl4nbi2Q0M1QLJX9BeE&r=WQLtn-I6mTG-TSNEaJ4zVnHDgBRjluiiWbURghiJ0T0&m=SD0j1yn5zU5RvQgff7iXj7axep0sBjbTJDLFepEgu88AKn66aghYdLjhNYtidDBd&s=OlVWqpNH0J16KN5OSlzSw1i8xjGJ85nn8T_Gx0lN16Y&e=), Nov. 26, 2022.

**Likely date and time for final exam: Wednesday, Dec. 20, 9am-noon** (please note that the official time will be set by the university during the term, and will be confirmed at that time). There will be three questions on the final; two will cover the material from Nov. 13-Dec. 11; one will be comprehensive.