

Geography 4002/IAFS4500  
Spring 2022

## Climate Change: Social and Political Consequences

Professor John O'Loughlin

Office Hours: 1:30-3:30pm Mondays or by appt  
[johno@colorado.edu](mailto:johno@colorado.edu)

Zoom link for office hours:

<https://cuboulder.zoom.us/j/99887435623>

(Zoom for office hours when the class is online; in person thereafter in Guggenheim 201h)

### Background and course goals:

This class is a senior seminar on the political, economic and social developments that are consequent on the massive dangers of global climate change. We will devote a couple of weeks at the beginning to the science and evidence of climate change, and then move onto the consequences in the US and around the world. We will also examine the political debates surrounding the topic in the global arena, especially concerning the Paris climate treaty of 2015 as well as the partisan divide in the US, the media representation of the threat, the outcomes for some of the world's poorest people in sub-Saharan Africa and south Asia, and the possible geopolitical confrontations that might develop over the next 30 years. The Arctic is one region where warming has been most evident (more than twice the global average) and where there is a lot of speculation about disputes over maritime limits and associated resource control.

The class is structured as a seminar. That means that all students are expected to come to class prepared for discussion by completing the weekly readings and by being prepared to answer and debate the materials. Unlike most classes, there will be a heavier emphasis on presentation, short responses to the readings, and writing of a research paper than on exams, though the instructor reserves the right to set short exams if it's evident that students are not engaging with the readings.

Classes will generally begin with a Powerpoint presentation by the instructor on the weekly topic which the weekly readings elaborate. More than half of each class will be discussion of the lecture material and the readings. The slides will be uploaded to the Canvas site a day or two before each class. Please pay attention to news items from reliable sources – e.g. BBC, Washington Post, New York Times, etc. Students will be called upon to share key relevant information.

### Format and Readings:

The format will be the lecture-discussion style which means that the reading preparation is completed before the class. Its success depends on student preparation through completion of the readings, being prepared to give responses in class, and engagement in the class discussions.

*Text book:* There is one required short book, David Wallace-Wells. **The Uninhabitable Earth: A Story of the Future.** New York: Tim Duggan Books (also Penguin), 2019. We will read this whole book. This book should be started on week one of the class and completed by week 4 as indicated on the weekly schedule. There might be occasional short quizzes about this material and other readings.

*Additional required readings:* Other readings on the syllabus are scanned from the source materials and PDFs of the articles/chapter will be uploaded to the class folder on Canvas .

*How to do the readings – what is expected:* Generally, the materials for the class are not suitable for quick scanning but require a close reading. As is usual for this expectation, there are three key questions by the reader: A) What is the key argument of the authors? B) What is the evidence that the authors present? Is it believable and how might it be challenged? C) What contribution to the topic(s) does the reading make? Is it a major or minor contribution? Is it replicable (scientifically sound) or more polemical?

### **Course Requirements and Grading:**

The course is organized as mostly discussion/debate, where the acquisition of new material is partly the responsibility of the student outside the meeting time; this process relies on the student coming to class having read the text materials and prepared to discuss them. The instructor will present materials for the first 35-40 minutes or so, and after a very short break (a few minutes), we will have about 30 minutes discussion that the instructor will introduce but will call on all students to participate. This format is often referred to as a ‘flipped classroom’.

I teach the course from the perspective of human, especially political, geography but it is truly an interdisciplinary approach to understanding the consequences of contemporary climate change. My own research on the subject is focused on the relationship of climate change to conflict outcomes with a focus on sub-Saharan Africa, especially Kenya. This is a deeply-controversial subject with many academics on both sides of the argument (climate change causes conflict – or not). It obviously has important policy considerations too in the arena of what is often called “climate security”..

While we will generally review the readings and discuss them in the second half of each class,, the format is free flowing, lecture-discussion. Class presentations and discussions follow/match the weekly readings closely

### **Class Schedule: (readings are indicated by the author’s last name and found in the readings folder)**

Jan. 10 - Course Introduction

Jan . 12 - Science of Climate Change I

#### *Readings:*

Wallace-Wells pp. 1-36

*Economist* “Global warming 101”

Jan. 17 – *Martin Luther King day (no class)*

Jan. 19 – Science of Climate Change II

#### *Readings:*

Wallace- Wells pp. 37-131

*Economist* “Hot and bothered”

Jan. 24 – Science of Climate Change III

Jan. 26 - Science of Climate Change IV

*Readings:*

Wallace-Wells PP. 141-238

Jan. 31 - IPCC protocols and assessments

Feb. 2 – Why 1.5 degrees Centigrade is key

*Readings:*

IPCC, 2018: Summary for Policymakers

Mach et al “Role of key risks in IPCC AR5”

New York Times “Why half a degree of warming is a big deal”

Feb.7 – Pre-Paris climate treaties

Feb. 9 - Paris climate treaty 2015 and follow-on

*Readings:*

Hallegatte et al “Mapping the climate change challenge”

UNFCCC “what is the Paris agreement” and video

UNFCCC “The Glasgow climate pact” COP26

UNFCCC “Nationally determined contributions”

Feb. 14 – Media reporting on climate change

Feb. 16 - The science and the politics

*Readings:*

Busby 2018 “why climate change matters most”

Widdecombe “How should the media talk about climate change”

Carleton and Hsiang “social and economic impacts of climate change”

Feb. 21 – Public understanding of climate change

Feb. 23 – Partisan divide on climate change in the US

*Readings:*

Egan and Mullin 2017 “Climate change and US public opinion”

Prakash and Dolsak “Americans worried about climate change”

Motta et al “Climate change is complicated”

Feb. 28 – **Short MIDTERM. (in-class)**

Mar. 2 – Climate change and migration

*Readings:*

New York Times “How climate migration will reshape America”

Balsari et al “Climate change, migration and civil strife”

**March 6 – Saturday - 8am – Paper proposal should be uploaded to CANVAS folder**

Mar. 7 - Climate change and conflict – the debate and the evidence

Mar. 9 - Was the Syrian civil war the first ‘climate war’?

*Readings:*

Bordoff "Everything you know is wrong about the geopolitics of climate change"  
Colgan "Grand strategy and climate change"  
Selby and Hulme "Climate change and the Syrian civil war"  
Fountain "Drought, Syrian civil war, climate change"  
Mach et al "Climate as a risk factor for armed conflict"

Mar. 14 – Climate change and conflict in sub-Saharan Africa  
Mar. 16 – The Kenyan context

*Readings:*

Mach et al "Directions for research on climate and conflict"  
Parenti chapter from *Tropic of Chaos*  
ReliefWeb "How is climate change driving conflict in Africa"

**SPRING BREAK**

Mar. 28 – US government responses to climate change – Pentagon  
Mar. 30 – US government responses to climate change – other Federal agencies

*Readings:*

Allen and Jones "Climate change, US security and geopolitics"  
The National Intelligence Council. Global Trends 2040.  
Busby "Emergent practice of climate security"

Apr. 4 – Adaptation to climate change  
Apr. 6 – Mitigating climate change

*Readings:*

IPCC 2014 "Climate change: Impacts, Adaptation, Vulnerability"  
Filho et al "Climate resilient trajectories for the poor"

Apr. 11 - Climate change and environmental justice - global  
Apr. 13 - Climate change and environmental justice – United States

*Readings:*

Schlossberg and Collins "From environmental to climate justice"  
Okereke and Coventry "Climate justice and international regime"  
Klinsky "Equity and climate change policy"

Apr. 18 – Arctic climate change  
Apr. 20 -- Resource access in the Arctic in the era of climate change

*Readings:*

Coggins et al "Indigenous peoples and climate justice in the Arctic"  
Littwak "Geostrategic competition and climate change"  
New York Times "How Russia wins the climate crisis"  
Kaplan "Climate change destabilized earth's poles"

NSIDC 2021 Arctic report card

**Final paper due via CANVAS on Monday April 25<sup>th</sup> at 8am**

Apr. 25– Student presentations

Apr. 27 – Student presentations

*Readings:*

NONE

**Assignments and Grading:**

*Grades:*

Midterm Exam (75 minutes in the March 2 class) = 15%

Quizzes (in class) = 15%

In class participation / attendance= 25% (Attendance taken frequently via Zoom/sign-in sheet)

Paper proposal =5%

Written Term paper = 25%

Presentation = 15%

Total = 100%

*In class participation:* Obviously class attendance is expected and you should let the instructor know if you cannot attend class for an excused absence. The usual expectations for excused absences apply. Discussion should be free-ranging and open. Again the usual expectations of proper decorum, speech (please no slang), and respect apply. The instructor will call on all students to respond and in some case, informal debates will be organized with the class divided into 2 to 3 groups for this purpose.

*Paper:* The paper should be 3500-4000 words in length, including bibliography (about 10-14 pages). The topic should be agreed with the instructor **by March 6** and short meetings with each student in office hours are encouraged to help topic selection and focus, suggest readings and alternative perspectives. It would be ideal to have these meetings by early March.

The written paper should have these elements that will constitute the basis for the paper grade: Approximate percentages for each element are indicated – please ask for help with sources and/or check with the instructor if unsure.

- ✓ Quality of Argumentation: Ability to make an informed and persuasive argument using the specific paper readings and other course materials. Documentation of points made by explicit references to passages in the texts. (40%)
- ✓ Organization: clear set of points, clear introduction and conclusion. (30%)
- ✓ Quality of the writing: clarity, grammar, spelling, referencing (e.g. open parenthesis, author, date, page number, close parenthesis and then period), etc. (10%)
- ✓ Bibliography – mix of academic research and more accessible (newspaper articles, NGO reports, etc) accounts. About one-quarter –one-third (no more) could be popular sources and the total bibliography should be at least 15 sources (20%)

### **Honor Code and Plagiarism**

The College of Arts and Sciences passed an Honor Code more than a decade ago. All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member ( a possible grade of F) and non-academic sanctions (including but not limited to university probation, suspension, or expulsion) <https://www.colorado.edu/sccr/honor-code>. Papers uploaded to CANVAS will use turnitin.com for plagiarism checking.

### **Disability Accommodations:**

If you qualify for accommodations because of a disability, please submit a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and [www.Colorado.EDU/disabilityservices](http://www.Colorado.EDU/disabilityservices). This office will give you a letter for the instructor that lists the accommodations.

### **Religious Accommodation:**

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. If you believe that you might have such a conflict, please let the instructor know.

### **Class Behavior:**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline, including exclusion from the class. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions. Professional courtesy is especially important with respect to individuals and topics dealing with the politically-sensitive subject matter of this class. Diversity of opinion is welcomed.

As the course has moved to remote teaching and online platforms exclusively for at least the first 2 weeks, it is very important that all students demonstrate appropriate online behavior. Avoid disruptive engagements and use your best judgement to minimize background noise (turn off audio), distracting videos or problematic use of the chat option. Repeated violations of these requests will be called out for a conversation with the instructor. **Video must be turned on during Zoom class.**

**During the in-person class, all phones and laptop computers must be turned off and put away.**

## REQUIRED READINGS FOR GEOG 4002/IAFS 4500. SPRING 2022

### **Required Book:**

David Wallace-Wells 2019 *The Uninhabitable Earth: A Story of the Future*. New York: Tim Duggan Books

### **Other Required Readings:**

BEFORE MIDTERM

*Economist* 2019 “Global warming 101: The past, present and future of climate change” September 21.

*Economist* 2015 “Hot and bothered: Special report on climate change”. November 28.

IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty  
[https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf)

Katharine J Mach, Michael D Mastrandrea, T Eren Bilir and Christopher B Field. 2016. “Understanding and responding to danger from climate change: the role of key risks in the IPCC AR5”. *Climatic Change* 136: 427-444.

Brad Plummer and Nadya Popovich. 2018. “Why half a degree of warming is a big deal” *New York Times* Oct 7.

Stephane Hallegatte, Joeri Rogelj, Myles Allen, Leon Clarke, Ottmar Edenhofer, Christopher B Field, Pierre Friedlingstein, Line Van Kesteren, Reto Knutti, Katharine J Mach, Michael Mastrandrea, Adrien Michel, Jan Minx, Michael Oppenheimer, Gian-Kasper Plattner, Keywan Riahi, Michiel Schaeffer, Thomas F Stocker, Detlef P Van Vuuren. 2016. “Mapping the climate change challenge.” *Nature Climate Change* 6: 663-668

UNFCCC 2015 “What is the Paris agreement?” watch video <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

UNFCCC 2021 “COP 26 launched a decade of action” <https://unfccc.int/news/cop26-launched-a-decade-of-action-for-climate-empowerment>

UNFCCC “National Determined Contributions (NDCs)” <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/nationally-determined-contributions-ndcs>

Joshua Busby. 2018. "Warming World: why climate change matters more than anything else" *Foreign Affairs* 97(4): 49–55  
Tamma A. Carleton and Solomon M. Hsiang 2016, "Social and economic impacts of climate," *Science* 353(6304)

Lizzie Widdecombe 2020. "How should the media talk about climate change" *New Yorker* Oct 17 <https://www.newyorker.com/culture/culture-desk/how-should-the-media-talk-about-climate-change>

Matt Motta et al. 2019. "Do most Americans believe in climate change? The answer is more complicated than you might think." *Washington Post* June 5  
<https://www.washingtonpost.com/politics/2019/06/05/do-most-americans-believe-climate-change-answer-is-more-complicated-than-you-might-think/>

Prakash, Aseem, and Nives Dolsak. 2019. "Americans Say They're Worried about Climate Change – so Why Don't They Vote That Way?" *The Conversation*. February 4.  
<http://theconversation.com/americans-say-theyre-worried-about-climate-change-so-why-dont-they-vote-that-way-110874>

Patrick Egan and Megan Mullin. 2017. "Climate Change: US Public Opinion," *Annual Review of Political Science*, 20:209-227

AFTER MIDTERM:

Abrahm Lustgarden. 2020. "How climate migration will reshape America." September 15  
<https://www.nytimes.com/interactive/2020/09/15/magazine/climate-crisis-migration-america.html>

Satchit Balsari et al. 2020. "Climate change, migration and civil strife". *Current Environmental Health Reports* 7: 404-414.

Jason Bordoff (2020), "Everything you think about the geopolitics of climate change is wrong," *Foreign Policy* Oct 5. <https://foreignpolicy.com/2020/10/05/climate-geopolitics-petrostates-russia-china/>

Jan Selby and Mike Hulme. 2015. "Is Climate Change Really to Blame for Syria's Civil War?" *The Guardian*, November 29.  
<https://www.theguardian.com/commentisfree/2015/nov/29/climate-change-syria-civil-war-prince-charles>

Mach, Katharine J. et al. 2019. "Climate as a Risk Factor for Armed Conflict." *Nature* 571(7764): 193–197.

Henry Fountain. 2015. "Researchers Link Syrian Conflict to a Drought Made Worse by Climate Change." *New York Times* March 3.

<https://www.nytimes.com/2015/03/03/science/earth/study-links-syria-conflict-to-drought-caused-by-climate-change.html>

Jeff Colgan. 2021. "Gone missing from grand strategy: Climate Change."  
<https://www.duckofminerva.com/2021/02/gone-missing-from-grand-strategy-climate-change.html>

Christian Parenti. 2011. *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Bold Type Books, Ch. 1.

Jeff Hussona 2020. "How is climate change driving conflict in Africa." *ReliefWeb* 10 May <https://reliefweb.int/report/world/how-climate-change-driving-conflict-africa>

Katharine Mach et al. 2020. "Directions for research on climate and conflict." *Earths Future* 2020 Jul; 8(7): e2020EF001532.

Busby, Joshua W. 2021. "Beyond Internal Conflict: The Emergent Practice of Climate Security." *Journal of Peace Research*. 58, 186-194.

Office of Director of National Intelligence 2021. "Structural forces: Environment" Washington DC: National Intelligence Council.  
<https://www.dni.gov/index.php/gt2040-home/gt2040-structural-forces/environment>

John Allen and Bruce Jones. 2021. "What climate change will mean for US security and geopolitics." Washington DC: Brookings Institute.  
<https://www.brookings.edu/blog/order-from-chaos/2021/02/04/what-climate-change-will-mean-for-us-security-and-geopolitics/>

IPCC 2014. "Summary for Policymakers: Climate Change – Impacts, Adaptation, Vulnerability"  
[https://www.ipcc.ch/site/assets/uploads/2018/02/ar5\\_wgII\\_spm\\_en.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ar5_wgII_spm_en.pdf)

Filho, W.L. et al. 2021 "Whose voices, whose choices? Pursuing climate resilient trajectories for the poor" *Environmental Science and Policy*  
<https://doi.org/10.1016/j.envsci.2021.02.018>

David Schlosberg and Lisette Collins. 2014, "From environmental to climate justice: climate change and the discourse of environmental justice," *WIREs Climate Change*

Okereke, C., & Coventry, P. (2016). Climate justice and the international regime: Before, during, and after Paris. *WIREs Climate Change* 7(6), 834–851.  
<https://doi.org/10.1002/wcc.419>

Klinsky, Sonja et al. 2017. "Why Equity Is Fundamental in Climate Change Policy Research." *Global Environmental Change* 44: 170–173.

Shaun Coggins et al. 2021. "Indigenous peoples and climate justice in the Arctic" *Georgetown Journal of International Affairs* February 23.  
<https://gjia.georgetown.edu/2021/02/23/indigenous-peoples-and-climate-justice-in-the-arctic/>

Robert S. Littwak. 2021. "Geostrategic competition and climate change: Avoiding the unimaginable." Washington DC: Wilson Center for International Studies  
<https://www.wilsoncenter.org/article/geostrategic-competition-and-climate-change-avoiding-unmanageable>

Abrahm Lustgarden 2020. "How Russia wins the climate crisis." *New York Times* December 16.  
<https://www.nytimes.com/interactive/2020/12/16/magazine/russia-climate-migration-crisis.html>

Sarah Kaplan. 2021. "Climate change has destabilized the earth's poles." Washington Post December 14. <https://www.washingtonpost.com/climate-environment/2021/12/14/climate-change-arctic-antarctic-poles/>

NSIDC, CU Boulder. 2021 "Rainfall in the Arctic will be more common than snowfall." <https://nsidc.org/news/newsroom/rainfall-arctic-will-soon-be-more-common-snowfall>