
SP20300 THE SOCIAL SCIENCE OF CLIMATE CHANGE



Autumn Semester 2021

Teaching:

- **Lectures:** Tuesday 14:15-16:05 1W 2.104
- **Recorded sessions and unit material** available on [Moodle](#)
- **Unit convenors :**
 Dr Yixian Sun (ys2327@bath.ac.uk, office hours: Tuesday 16:15-17:15, Wednesday 16:15-17:15, please make appointment by email)
 Dr Donna Arrondelle (dla25@bath.ac.uk, office hours: Monday 14:00-15:00 on campus, Tuesday 17:15-18:15 online, please book here <https://calbird.com/donna/c1fe>)

1. Introduction

Anthropogenic climate change is becoming recognised as “the” - central societal problem of the 21st century. This unit aims to engage with a range of social scientific analysis of the gap between the now consensual scientific understanding of the problem and the mobilisation of policy and behaviour change to address it. This involves a diverse range of disciplinary perspectives drawing on politics, political economy, economics and policy analysis to anthropology, public health, development studies, sociology and psychology to address the problem. By offering this multi-disciplinary social scientific perspective on climate change, the unit intends to equip participants with analytical approaches which enable them to make sense of the core debates and discourses on climate change.

Aims:

1. To examine the concept of anthropogenic climate change and the reasons for action and inaction in response to scientific knowledge about its social and environmental implications.
2. To equip students with a range of social scientific theoretical perspectives on the relationship between scientific knowledge about climate change implications and public responses. This includes an ability to analyse local, national and international interests that perpetuates inaction, and the social dynamics that make policy and behaviour change difficult.
3. To analyse the distributional consequences of failure to take action and examine new concepts such as climate justice being developed to address this.
4. To examine social, economic and political responses to the problem such as solidarities and movements, and the creation and implementation of alternative visions and approaches to societal development.

Learning objectives:

By the end of this unit, students will be able to:

1. Understand anthropogenic climate change as a concept and the social and political causes of its intractability as a societal problem.
2. Identify the political economy and policy dynamics of climate change policy at the local, national and international levels
3. Recognise the sociological and psycho-social dynamics associated with behaviour change.
4. Be able to identify the distributional consequences of action and inaction and evaluate the concepts being promoted to address them.
5. Use social science disciplinary perspectives to analyse the social and political responses to climate change.
6. Have deeper insight into the complex relationship between rationality and power.

2. Unit Timetable

Week	Date	Lecture
1	5 Oct	Introduction: Understanding the unique features of climate change (YS)
2	12 Oct	Introduction to the science of climate change – Peter Harper
3	19 Oct	International Climate Policy: UNFCCC, Kyoto Protocol, and Paris Agreement (YS)
4		Reading Week
5	Nov 2	Climate change and global development (DA)
6	Nov 9	Climate change and public health (DA + guest speaker Tess Hewett, international consultant working in comms, public health and the climate)
7	Nov 16	Distributive politics of climate Change (YS)
8	Nov 23	Climate action on campus (YS + Guest speaker: Peter Phelps, Climate Action Project Lead of the University of Bath)
9	Nov 30	Non-state and subnational climate action (YS + Guest speaker (tbc))
10	Dec 7	Climate denial and ideology (DA)
11	Dec 14	Conclusion: how can we cope with the climate emergency? (YS)
	Tues 11 January	Essay due

3. Unit assessment

The assessment for the unit is a 2,500-word essay (100%).

Essay question: *Based on your learning in this unit, what is the most needed action(s) of our generation to address climate change and what are the key challenges to achieve such action(s)?*

To prepare this essay, you can draw upon different social science perspectives to develop your own argument about the type of action we need for climate change. You can be innovative and forward looking to propose some original ideas. That said, your analysis needs to be based on credible literature.

The assessment can be structured as follows:

1. Introduction (approx. 250 words): Introduce the action you want to advocate
2. Part 1 (approx. 1000, divided into several paragraphs, each paragraph focuses on one point): Explain why this action is particularly crucial now to addressing climate change
3. Part 2 (approx. 1000, divided into several paragraphs, each paragraph focuses on one point): Discuss the main challenges in promoting this action and how we can overcome them
4. Conclusion (approx. 250 words) – draw together your argument and consider how transition pathways may be undertaken for the action

The coursework should demonstrate academic writing skills of synthesis and analysis of ideas and perspectives.

Assessment deadline: Tuesday 11 January 2022, 12 noon.

Unit evaluation:

Towards the end of the semester you will be asked to assess this unit by filling a unit evaluation form online. This is a responsibility that the Department is asking you to undertake. Your identity will remain anonymous but your opinion is important to make the unit's tutor aware of both achievements and difficulties/shortcomings of the unit. You will receive an e-mail message about this. *Your opinions matter* to us and your feedback can help us improve our teaching. It's also very helpful to hear about the things that have worked well and which you have enjoyed. Your feedback is completely anonymous. It is however governed by the UoB's 'Computer Use Guidelines'. If you are unsure about the Guidelines and, in particular what constitutes offensive, embarrassing or humiliating comment, please read: 'The Route to Good IT Citizenship' on the University website: <http://www.bath.ac.uk/bucs/aboutbucs/policies-guidelines/guidelines-general.html>

Reading list

Please note that additional readings and references may arise during the course and be indicated on moodle. So please always check on moodle too.

Useful book for the unit (more information on Moodle):

- Lewis, S. and Maslin, M.A., 2018. *The Human Planet: How We Created the Anthropocene*. London: Pelican.
- Dryzek, J.S., R.B. Norgaard, and D. Schlosberg. *The Oxford Handbook of Climate Change and Society*. OUP Oxford, 2011. Chapters of this book provide reading on many of the disciplines and topics of the unit and are indicated under the readings for sessions below.

Helpful and interesting podcasts:

- EcoPolitics <https://www.ecopoliticspodcast.ca/>
- Sweaty Penguin <https://thesweatypenguin.com/>

These are two podcast channels on environmental issues. You can find a lot of interesting episodes related to climate change.

Week 1. Introduction: The unique features of climate change

In the first week, we will discuss why climate change has been deemed as a particularly challenging policy problem – some would describe it as a “super-wicked problem”. By considering the problem structure of climate change in comparison with other global challenges, we will consider potential pathways to solving the climate problem (assuming that this is still possible). We will also introduce the programme of the semester and the assessment.

Core:

Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2012). Overcoming the tragedy of super wicked problems: Constraining our future selves to ameliorate global climate change. *Policy Sciences*, 45(2), 123–152. <https://doi.org/10.1007/s11077-012-9151-0>

van der Ven, H., & Sun, Y. (2021). Varieties of Crises: Comparing the Politics of COVID-19 and Climate Change. *Global Environmental Politics*, 22(1), 13–22. https://doi.org/10.1162/glep_a_00590

Also watch this short video on the state of the climate crisis in 2021:

https://www.ted.com/talks/climate_action_tracker_the_state_of_the_climate_crisis_in_2021?utm_campaign=tedsread&utm_medium=referral&utm_source=tedcomshare

Recommended documentary:

To understand the problem of climate change, the movie [An Inconvenient Truth](#) (2006) is highly recommended (if you have not watched it).

Additional:

Bernstein, S., & Hoffmann, M. (2019). Climate politics, metaphors and the fractal carbon trap. *Nature Climate Change*, 9(12), 919–925. <https://doi.org/10.1038/s41558-019-0618-2>

Stern, N. H. (2016). *Why are we waiting? : the logic, urgency, and promise of tackling climate change*. Cambridge, Mass.: Cambridge, Mass. : MIT Press. Chapter 10. (The e-book is accessible on the university’s library website [here](#)).

Week 2. Science of climate change

This week's class focuses on the evolution of climate science and the relevant future prospects. Dr. Peter Harper, an environmental scientist will guest lecture this session.

Readings:

Peake, Stephen, and Joe Smith. *Climate Change : From Science to Sustainability*. edited by Joe Smith and University Open. 2nd ed. ed. Oxford: Oxford : Oxford University Press, 2009. Chs 1-3 Ch1 is available on [moodle](#):

Houghton, John T. *Global Warming : The Complete Briefing*. 4th ed. ed. Cambridge: Cambridge University Press, 2009. Ch 1 and dip into it as appropriate.

WWF (2020) *The Living Planet Report*, available [here](#)

Video: Extinction: The Facts, narrated by Sir Attenborough, [available on BBC iplayer](#)

Week 3: Addressing climate change through multilateral institutions: UNFCCC, Kyoto Protocol, and Paris Agreement (YS)

In this week, we will study multilateral institutions established by the international community (especially the United Nations Framework on Climate Change Convention (UNFCCC)) and their endeavours to address climate change. By reviewing the history of intergovernmental negotiations in the UNFCCC, we will examine the milestones and future trends. The UNFCCC 26th Conference of Parties will be held in Glasgow between 31 Oct – 12 Nov. It is the time to think about the actions urgently needed at the international level and the challenges to achieve them.

Core:

Hale, T. (2016). "All Hands on Deck": The Paris Agreement and Nonstate Climate Action. *Global Environmental Politics*, 16(3), 12–22. https://doi.org/10.1162/GLEP_a_00362

Gupta, J. (2010). A history of international climate change policy. *WIREs Climate Change*, 1(5), 636–653. <https://doi.org/10.1002/wcc.67>

Useful tools (websites and portals) monitoring countries' climate action against their pledges:

- You can look at the latest information on countries' NDCs and their expected impacts at ClimateWatch (<https://www.climatewatchdata.org/>) and Climate Action Tracker (<https://climateactiontracker.org/countries/>).
- You can find climate action of different stakeholders (e.g. cities, regions, companies, investors, and NGOs) around the world in the Global Climate Action portal (optional) <http://climateaction.unfccc.int/views/about.html>

Additional:

Falkner, R. (2016). The Paris Agreement and the new logic of international climate politics. *International Affairs*, 92(5), 1107-1125. doi:10.1111/1468-2346.12708

Allan, J. I., Roger, C. B., Hale, T. N., Bernstein, S., Tiberghien, Y., & Balme, R. (2021). Making the Paris Agreement: Historical Processes and the Drivers of Institutional Design. *Political Studies*, 00323217211049294. <https://doi.org/10.1177/00323217211049294>

- Dimitrov, R.S., 2016. The Paris Agreement on Climate Change: Behind Closed Doors. *Global Environmental Politics*, 16(3), pp. 1-11.
- Spash, C. L. (2011). Carbon Trading: A Critique. In J. S. Dryzek, R. B. Norgaard, & D. Schlosberg (Eds.), *The Oxford Handbook of Climate Change and Society* (pp. pp399-413). Oxford: Oxford University Press.

On UNFCCC COP 26:

- A video on the stakes of COP26: <https://vimeo.com/586007326> (this is a short video, so please watch it)
- A video to understand how the UNFCCC COP is organized and some information on COP 26 <https://www.cambridge.org/engage/coe/article-details/60ce907f26161110eb8b47b3> (this is optional, but can help you understand how UNCFCCC and its COPs function)

Week 4 Reading week

Week 5 Climate change and global development (DA)

In the fifth week, we turn away non market-based solutions to avert the climate crisis and consider radical alternatives to the status quo, drawing on social movements and grass-root activism focusing on the Global South and 'development alternatives'.

Core materials

Brisman, A., South, N., & Walters, R. (2018). Climate apartheid and environmental refugees. In *The Palgrave handbook of criminology and the global south* (pp. 301-321). Palgrave Macmillan, Cham.

Brown, K. 2011. Sustainable adaptation: An oxymoron? *Climate and Development* 3, no 1: 21-31.

Harlan, S. L., Pellow, D. N., Roberts, J. T., Bell, S. E., Holt, W. G., & Nagel, J. (2015). Climate Justice and Inequality. In R. E. Dunlap & R. J. Brulle (Eds.), *Climate Change and Society: Sociological Perspectives*: Oxford University Press.

Additional readings

Nakashima, D., & Krupnik, I. (Eds.). (2018). *Indigenous knowledge for climate change assessment and adaptation*(Vol. 2). Cambridge University Press.

Tokar, B., & Gilbertson, T. (Eds.). (2020). *Climate Justice and Community Renewal: Resistance and Grassroots Solutions*. Routledge.

Week 6 Climate change and public health (DA)

This week's class focuses on the intersection of public health and climate change. Tess Hewett, a global public health consultant will guest lecture this session.

Core

Sheehan, M. C., & Fox, M. A. (2020). Early warnings: the lessons of COVID-19 for public health climate preparedness. *International Journal of Health Services*, 50(3), 264-270.

Short Wave (2020) The Climate Crisis is a Public Health Crisis [podcast] Available from: [NPR](#).

Additional

Buse, C. G., & Patrick, R. (2020). Climate change glossary for public health practice: from vulnerability to climate justice. *J Epidemiol Community Health*, 74(10), 867-871.

Gould, S., & Rudolph, L. (2015). Challenges and opportunities for advancing work on climate change and public health. *International journal of environmental research and public health*, 12(12), 15649-15672.

Lewis, D., Williams, L., & Jones, R. (2020). A radical revision of the public health response to environmental crisis in a warming world: contributions of Indigenous knowledges and Indigenous feminist perspectives. *Canadian Journal of Public Health*, 111(6), 897-900.

Maibach, E. W., Roser-Renouf, C., & Leiserowitz, A. (2008). Communication and marketing as climate change-intervention assets: A public health perspective. *American journal of preventive medicine*, 35(5), 488-500.

Myers, T. A., Nisbet, M. C., Maibach, E. W., & Leiserowitz, A. A. (2012). A public health frame arouses hopeful emotions about climate change. *Climatic change*, 113(3), 1105-1112.

Watts, N., Adger, W. N., Agnolucci, P., Blackstock, J., Byass, P., Cai, W., ... & Costello, A. (2015). Health and climate change: policy responses to protect public health. *The lancet*, 386(10006), 1861-1914.

Week 7. Distributive Politics of Climate Change (YS)

This will be the week after the COP 26 in Glasgow. Therefore, we will first reflect on the processes and outcomes of the meeting (Dr Yixian Sun will share his experiences at the COP). Based on this reflection, we will introduce the theoretical angle of distributive politics to understand tensions among different interest groups in designing climate policies at different levels. The class will trigger our thinking on the politicised nature of the climate change problem, which we will continue to explore in the rest of this semester.

Core

Colgan, J. D., Green, J. F., & Hale, T. N. (2020). Asset Revaluation and the Existential Politics of Climate Change. *International Organization*, 1–25. <https://doi.org/10.1017/S0020818320000296>

Aklin, M., & Mildenberger, M. (2020). Prisoners of the Wrong Dilemma: Why Distributive Conflict, Not Collective Action, Characterizes the Politics of Climate Change. *Global Environmental Politics*, 20(4), 4–27. https://doi.org/10.1162/glep_a_00578

Please also read this interesting case and we will discuss it:

Fairley, S. by P. (2020). How a Plan to Save the Power System Disappeared. *The Atlantic*.

<https://www.theatlantic.com/politics/archive/2020/08/how-trump-appointees-short-circuited-grid-modernization/615433/>

Additional

Kaijser, A., & Kronsell, A. (2014). Climate change through the lens of intersectionality. *Environmental Politics*, 23(3), 417–433. <https://doi.org/10.1080/09644016.2013.835203>

Meckling, J., Kelsey, N., Biber, E., & Zysman, J. (2015). Winning coalitions for climate policy. *Science*, 349(6253), 1170–1171. <https://doi.org/10.1126/science.aab1336>

Hochstetler, K., & Kostka, G. (2015). Wind and Solar Power in Brazil and China: Interests, State–Business Relations, and Policy Outcomes. *Global Environmental Politics*, 15(3), 74–94. https://doi.org/10.1162/GLEP_a_00312

Mildenberger, M. (2020). *Carbon captured: How business and labor control climate politics*. The MIT Press. Chapters 1 and 2. Available at [here](#) (You need to use the University of Bath Single Sign On to get access to the online book)

Patt, A. (2017). Beyond the tragedy of the commons: Reframing effective climate change governance. *Energy Research & Social Science*, 34, 1–3. <https://doi.org/10.1016/j.erss.2017.05.023>

The Breakthrough Institute (2015) “Ecomodernist manifesto” Available from <https://bit.ly/2yKaWwi>

Week 8 Climate action on campus (YS + Guest speaker: Peter Phelps)

In this week, we will move to climate action around us and use the case of the University of Bath’s Climate Action Project to understand the role of schools and universities in climate policy. Peter Phelps, the University’s Climate Action Project Lead will come to our classroom and discuss the project and relevant challenges. **Please prepare some questions to Peter!**

Core:

Check the website of our university’s climate action project (<https://www.bath.ac.uk/topics/climate-change-and-the-university-of-bath/>) and read:

- University Bath’s Climate Action Framework (<https://www.bath.ac.uk/announcements/university-of-bath-adopts-climate-action-framework-principles-and-declares-a-climate-emergency/>) and
- University of Bath (2021). Annual Carbon Report (2021). <https://www.bath.ac.uk/publications/annual-energy-and-environment-reports/attachments/carbon-report-2021.pdf>

Latter, B., & Capstick, S. (2021). Climate Emergency: UK Universities’ Declarations and Their Role in Responding to Climate Change. *Frontiers in Sustainability*, 2, 36. <https://doi.org/10.3389/frsus.2021.660596>

Additional:

Chatterton, P. (2019). The climate emergency and the new civic role for the university. *Times Higher Education (THE)*. <https://www.timeshighereducation.com/blog/climate-emergency-and-new-civic-role-university>

Mocatta, G., & White, R. (2020). This is how universities can lead climate action. *The Conversation*. <http://theconversation.com/this-is-how-universities-can-lead-climate-action-147191>

Lemons, J. (2011). The Urgent Need for Universities to Comprehensively Address Global Climate Change Across Disciplines and Programs. *Environmental Management*, 48(3), 379–391. <https://doi.org/10.1007/s00267-011-9699-z>

Cuesta-Claros, A., Malekpour, S., Raven, R., & Kestin, T. (2021). Understanding the roles of universities for sustainable development transformations: A framing analysis of university models. *Sustainable Development*, <https://doi.org/10.1002/sd.2247>

Week 9 Non-state and substate climate action (YS)

Following our discussion on climate action around us, this class will examine the roles of non-state and sub-state actors in addressing climate change, the factors shaping their actions, and the impacts of such actions. We will consider the conceptual frameworks explaining the emergence of such climate action, not mandated by sovereign states.

We will also go through some cases in the real world. We will look at the Race to Zero Campaign (<https://unfccc.int/climate-action/race-to-zero-campaign>), a UN-supported initiative to mobilise businesses, cities, regions, and investors to achieve net zero carbon emissions by 2050. We will also try to invite a member of the Bath & North Somerset council to discuss climate action in our region.

Core:

Andonova, L. B., Betsill, M. M., & Bulkeley, H. (2009). Transnational Climate Governance. *Global Environmental Politics*, 9(2), 52–73. <https://doi.org/10.1162/glep.2009.9.2.52>

Jordan, A., Huitema, D., Schoenefeld, J., van Asselt, H., & Forster, J. (2018). Governing Climate Change Polycentrically: Setting the Scene. In *Governing Climate Change: Polycentricity in Action?* (pp. 3–26). Cambridge University Press. <https://doi.org/10.1017/9781108284646.002>

Additional:

Chan, S., Boran, I., Asselt, H. van, et al. (2019). Promises and risks of nonstate action in climate and sustainability governance. *WIREs Climate Change*, 10(3), e572. <https://doi.org/10.1002/wcc.572>

van der Ven, H., Bernstein, S., & Hoffmann, M. (2016). Valuing the Contributions of Nonstate and Subnational Actors to Climate Governance. *Global Environmental Politics*, 17(1), 1–20. https://doi.org/10.1162/GLEP_a_00387

Kuramochi, T., Roelfsema, M., Hsu, A., Lui, S., Weinfurter, A., Chan, S., Hale, T., Clapper, A., Chang, A., & Höhne, N. (2020). Beyond national climate action: The impact of region, city, and business commitments

on global greenhouse gas emissions. *Climate Policy*, 20(3), 275–291.

<https://doi.org/10.1080/14693062.2020.1740150>

- On climate action of cities

Bulkeley, H., & Betsill, M. (2005). Rethinking Sustainable Cities: Multilevel Governance and the “Urban” Politics of Climate Change. *Environmental Politics*, 14(1), 42–63.

<https://doi.org/10.1080/0964401042000310178>

Bulkeley, H., & Betsill, M. M. (2013). Revisiting the urban politics of climate change. *Environmental Politics*, 22(1), 136–154. <https://doi.org/10.1080/09644016.2013.755797>

- On climate action of businesses

Dietz, S., Fruitiere, C., Garcia-Manas, C., Irwin, W., Rausis, B., & Sullivan, R. (2018). An assessment of climate action by high-carbon global corporations. *Nature Climate Change*, 8(12), 1072–1075.

<https://doi.org/10.1038/s41558-018-0343-2>

Hsueh, L. (2019). Opening up the firm: What explains participation and effort in voluntary carbon disclosure by global businesses? An analysis of internal firm factors and dynamics. *Business Strategy and the Environment*, 28(7), 1302–1322. <https://doi.org/10.1002/bse.2317>

Week 10 Climate denial and ideology (DA)

This week we focus on how right-wing and nationalist ideologies intersect with perceptions and responses to climate change. We discuss how these politics are fused with climate denial and fossil fuel vested interests, reflecting on the challenge this presents for climate action.

Core materials:

Kulin, J., Johansson Sevä, I., & Dunlap, R. E. (2021). Nationalist ideology, rightwing populism, and public views about climate change in Europe. *Environmental politics*, 1-24.

Watch [this](#) documentary: The Great Global Warming Swindle. BBC 4.

Carrington, D. (2020) Climate denial ads on Facebook seen by millions, report finds. The Guardian. 8 October, available from:

<https://www.theguardian.com/environment/2020/oct/08/climate-denial-ads-on-facebook-seen-by-millions-report-finds>

Additional readings:

Conversi, D. (2020). The ultimate challenge: Nationalism and climate change. *Nationalities Papers*, 48(4), 625-636.

Huber, R. A. (2020). The role of populist attitudes in explaining climate change skepticism and support for environmental protection. *Environmental Politics*, 29(6), 959-982.

Jylhä, K.M., Strimling, P. and Rydgren, J., 2020. Climate change denial among radical right-wing supporters. *Sustainability*, 12(23), p.10226.

Lübke, C. (2021). Socioeconomic Roots of Climate Change Denial and Uncertainty among the European Population. *European Sociological Review*.

Pasek, A. (2020) Carbon Vitalism: Life and the Body in Climate Denial. *Environmental Humanities* 1 May 2021; 13 (1): 1–20. doi: <https://doi.org/10.1215/22011919-8867175>

Sarathchandra, D., & Haltinner, K. (2021). How believing climate change is a “hoax” shapes climate skepticism in the United States. *Environmental Sociology*, 7(3), 225-238.

Vowles, K., & Hultman, M. (2021). Scare-quoting climate: The rapid rise of climate denial in the Swedish far-right media ecosystem. *Nordic Journal of Media Studies*, 3(1), 79-95.

Wilkinson, D., & Tellez-Chavez, L. (2020). How Covid-19 could impact the climate crisis. *Indigenous Policy Journal*, 31(1).

Week 11 Conclusion: how can we cope with the climate emergency? (YS)

We will collectively reflect upon the learning in the whole semester and envision potential pathways to achieving the target of 1.5°C in coming decades.

We can also discuss your questions on the essay assessment.

Readings:

Re-read Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2012). Overcoming the tragedy of super wicked problems: Constraining our future selves to ameliorate global climate change. *Policy Sciences*, 45(2), 123–152. <https://doi.org/10.1007/s11077-012-9151-0>

Maslin, M. (2021). *Climate change: How bad could the future be if we do nothing?* The Conversation. <http://theconversation.com/climate-change-how-bad-could-the-future-be-if-we-do-nothing-159665>

Stone, M. (2021, August 18). *5 possible climate futures—From the optimistic to the strange.* Environment. <https://www.nationalgeographic.com/environment/article/5-possible-climate-futures-from-the-optimistic-to-the-strange>