

Forum

Disaster Making in the Capitalocene

*Shannon O’Lear, Francis Masse, Hannah Dickinson,
and Rosaleen Duffy**

Abstract

We live in a new normal of increasing, crosscutting, and shifting patterns of disasters fueled by large-scale environmental change, from floods to wildfires to pandemics. Our intervention in this forum piece makes the case that disasters, and responses to disasters, must be understood within the context of the global political-economic system of capitalism. We situate disasters, their making, and their politics within the Capitalocene and argue that disasters and the physical processes that underpin them are not natural: they are unevenly produced through, and exacerbated by, processes inherent in the capitalist system, with uneven consequences. We suggest that the predominantly technomanagerial approaches to disasters pursued within the neoliberal state and multilateral governance institution system reveal the tensions in addressing the causes of environmental change and the new normal of disasters under capitalism. We argue that through an engagement with the Capitalocene, environmental politics could further contribute to nuanced, critical understandings of disasters and their making in ways that foreground their in/justice implications.

This forum piece focuses on situating disasters, and specifically their making, within the Capitalocene. We live in a new normal of increasing, crosscutting, and shifting patterns of disasters, from floods to wildfires to pandemics, fueled by large-scale environmental change. There is considerable scholarship across disciplines focused on analyzing, predicting, and developing responses to disasters of many types. Our intervention here argues that disasters, their making, and related politics must be understood within the context of the global political-economic system of capitalism that underpins processes of environmental change, as well as the ways in which they are governed and addressed. We suggest that a useful lens through which we can understand these dynamics of disaster is the “Capitalocene” (Moore 2015). While it is now common to eschew any understanding of disasters as “natural” given how the destruction

* This project was made possible with support from European Research Council grant 694995 for the BIOSEC Project.

and loss associated with hazards like floods, fires, and drought are sociopolitical outcomes, we extend this logic further by foregrounding the political-economic dimensions that shape the biophysical processes of environmental change. Taking the Capitalocene seriously accounts for the ways in which the biophysical processes underlying and precipitating hazards and disasters are themselves no longer natural. They are unevenly produced through, and exacerbated by, processes inherent in the capitalist system, with uneven consequences. This is what we refer to as disaster *making* in the Capitalocene. This shift in focus matters for environmental politics, because it could create an opportunity for intervention rather than after-the-fact response.

The Capitalocene framework complements critical work in international political economy of the environment (IPEE) by examining the political dimensions of the uneven costs and benefits resulting from how nature and its governance are organized and deeply altered through capitalist systems of production and consumption (Newell and Lane 2017; Paterson 2000; Saurin 2001; Sovacool and Linnér 2016). In line with the emerging recognition of Capitalocene thinking in the social sciences, we argue here that the framework of the Capitalocene could be further integrated into the broader discipline of global environmental politics, and specifically critical work on disasters, in productive ways. While capitalism is by no means the only political-economic system that has wrought environmental damage, several analyses connect the rapidly proliferating anthropogenic environmental change that underpins our new normal to the equally rapid development of global capitalism (especially industrial capitalism), as a way of organizing production, consumption, and, importantly, nature (Kallis and Sager 2016; Malm 2020; Moore 2015). Hence, scholars invoke the term *Capitalocene*, rather than *Anthropocene*, to make sense of the current era of global environmental change. Unlike the Anthropocene, the Capitalocene necessarily extends to the dominance and functioning of the neoliberal state and multilateral governance institution system, which works to manage human–environment relations within a global capitalist framework (Moore 2015; Wainwright and Mann 2018). More specifically, we suggest that the predominantly technomanagerial approaches to disasters pursued within this system reveal the tensions in addressing the causes of environmental change and the new normal of environmental change and disasters under capitalism. We argue that through an engagement with the Capitalocene, environmental politics could further contribute to nuanced, critical understandings of disasters and their making that in ways that foreground their in/justice implications.

Disasters in the Practice and Scholarship of Global Environmental Politics

The underlying processes of disaster making are largely overlooked by dominant systems and thinking on the politics of disasters. For example, the international framework to address and govern disasters, the Sendai Framework for Disaster

Risk Reduction (2015–2030), focuses largely, although not exclusively, on assessing and mitigating disaster risk by improving disaster preparedness and resilience measures. While mentioning the exacerbating effects of climate change and rightly seeking to build resilience and improve information systems to adapt to the growing threats it poses and to reduce socioeconomic and material vulnerabilities, the framework does not address adequately the structural or systemic causes of the hazards or disaster processes, such as the burning of fossil fuels driving anthropogenic climate change and industrial processes of land-use change. Rather, it offers a primarily technomanagerial approach to mitigating and managing the impacts of disasters and subsequent socioeconomic and material losses (de la Poterie and Baudoin 2015).

Much work on disasters in politics and international relations (IR) similarly looks to institutional and technomanagerial approaches to increase resilience and adaptive capacity of governments and governance systems (Chu 2018; Ferguson 2019; Gillard 2016; Rajão & Georgiadou 2014). There is an explicit acceptance within this framework that climate change will lead to more frequent and more complex disasters. While adaptation is certainly necessary, the framework is apolitical and implicitly accepts working within and adapting to this political-economic-ecological and governance reality, and thereby “skirt[ing] over questions of causality and responsibility” (Vanhala and Hestbaek 2016, 125). While acknowledging the damaging tendencies of capital and the current global political-economic system, certain approaches to environmental governance in political science, like earth systems governance (Biermann 2014; Galaz 2014) and planet politics (Burke et al. 2016), are subject to similar critiques (Albert 2020; Lövbrand et al. 2015; Swyngedouw 2013; Wainwright and Mann 2018).

Traditional, realist approaches and more liberal approaches reinforce existing governance structures and systems by framing environmental concerns in ways that tend to be addressed through those very same structures and systems (Albert 2020). International governance systems currently distinguish between frameworks on disaster risk reduction, like the Sendai Framework, and those frameworks or conventions addressing the underlying causes of increasing “natural” hazards or biophysical processes leading to disasters, such as the United Nations Framework Convention on Climate Change (Vanhala and Hestbaek 2016). The separation of the governance of disasters and underlying processes of disaster making reflects existing systems, structures, and thinking that are failing. Indeed, the system of sovereign states and the dominant, technological response to environmental disasters are inadequate to respond to or even understand cascading disasters (Park 2021). Unlike scholarship on disaster capitalism, which examines shifting responsibility for security and the commodification of disaster (Lawrence and Wiebe 2017), we are interested in the role of the capitalist system in setting the biophysical stage for disasters to unfold and intersect. We suggest that the Capitalocene provides a critical starting point for understanding human–environmental disasters, from climate change impacts

to zoonotic pandemics, that can further invigorate scholarship on the global environmental politics of disaster making by centering how global processes of capitalism are part and parcel not only of disaster making but of shaping mainstream responses that fail to address disasters' underlying causes. It will be essential in these efforts to overcome (or undermine) modern governance systems that do not operate with a cosmopolitan comprehension of the inherently integrated and uncertain aspects of disasters (Selchow 2021).

Anthropocene: Useful, but Not Far Enough

The Anthropocene acknowledges that human activity since the Industrial Revolution and the widespread practice of using nitrogen-based fertilizers have effectively shifted the planet into a new geological era in which we cannot separate human activity from an idealized, external environment (if we ever could) (Crutzen and Stoermer 2000). However, critics argue that work in IR and global environmental politics scholarship has not sufficiently engaged with the Anthropocene (see, e.g., Simangan 2020). Newell and Lane (2017) further argue that we need a more critical IPEE to address the challenges of the Anthropocene, recognizing that productive Anthropocene-related thinking has happened outside of IPEE. For example, geographer Susan Cutter (2020) argues that the new normal and changing nature of disaster risk and hazards in the Anthropocene are characterized by more mundane, everyday, chronic and cascading events with effects that stretch over space and time, often far away from a large disaster event and often intersecting with increasingly unequal distribution of disaster risk. Anthropocene thinking thus considers the ways that human-induced alterations to social and natural systems have emergent impacts on each other and considers what these interactions mean for disasters.

Critics of Anthropocene thinking highlight that the Anthropocene can apolitically present environmental change and human impacts as somehow universal, instead of resulting from highly uneven political-economic and ecological processes that reinforce systems of power, benefit, and (dis)advantage (Castree 2014). Although a fuller consideration of critical perspectives on the Anthropocene is beyond the scope of this short piece, a key critique to mention is that Anthropocene framings are too monolithic to be useful to society or polity development or as an analytical construct (Biermann et al. 2016). There is, argues Schlosberg (2019, 54), "an empty space, or even a negative space, in much Anthropocene writing in relation to justice and environmental justice."

A growing body of critical IR and global environmental politics scholarship similarly argues that the broader global environmental politics focus on "treaties, institutions and regimes that are concerned explicitly with the intersection of the economy and the environment" misses and even obscures the structural underpinning of environmental change and its consequences (Brondizio et al. 2016; Inoue 2018; Newell and Lane 2017, 137; Pattberg and Zelli 2016; Saurin 2001; Wapner 2014; Whetung 2019). The Capitalocene moves

responsibility for environmental change and harm away from a broad, generalized, undifferentiated category of human activity to the more specific, political-economic system of industrial capitalism.

Capitalocene and the (Unjust) Organization of Nature

Our intervention builds on this critical IPEE scholarship that engages with aspects of the systemic, structural processes of capital and how they contribute to global environmental change, even if they do not specifically invoke the term *Capitalocene* (Albert 2020; Dalby 2004, 2020; Newell and Lane 2017). *Capitalocene*, however, adds a specific emphasis to existing IPEE scholarship: “capitalism is not an economic system; it is not a social system; it is a way of organizing nature” (Moore 2015, 2).

A core contribution of *Capitalocene* to critical thinking on the politics of disasters and disaster making that we also see elsewhere in political ecology starts with an understanding of the artificial Nature–Society divide produced under the Capitalocene. Specifically, Capitalism sees and produces Nature as *external* to Society and as something to be used and worked through for economic growth and capital accumulation. “If profit was to govern life, a significant intellectual state shift had to occur: a conceptual split between Nature and Society” (Patel and Moore 2017, 24). Any thinking on the politics of disasters must start with how nature is organized as (cheaply) separate from society under and for the purposes of Capitalism. The cheapening of Nature, made possible by artificially separating us humans and societies from it and the broader web of ecological life that sustains us, makes Capitalism possible (Patel and Moore 2017). Two processes that result from this separation and cheapening that make Capitalism possible are also utterly destructive and directly responsible for disaster making in two ways: first, by destroying our socioecological system through unchecked extraction and use of Nature, and second, with negative externalities of industrial capitalism’s production and consumption that further harm and restructure our socioecological systems (e.g., CO₂ emissions from burning of fossil fuels leading to climate change). Importantly, the Nature–Society divide also encourages divisive thinking in other areas, such as which parts of “nature” should be protected or let to die (Biermann and Anderson 2017); scientific categories and rankings that open pathways to harm (Lidström et al. 2015); and, to be clear, divisions between groups of people (Patel and Moore 2017) that effectively serve as boundaries that shape the distribution and experience of environmental harms, disasters, and related (in)justice.

The popular dualism that divides humans from the environment continues to be prevalent in some academic engagement with the Anthropocene, as others have noted (Simangan 2020; Wapner 2014). This is despite the fact that critique of this dualism is foundational to the problematization of environmental politics within global environmental politics itself (Simangan 2020;

Wapner 2014) and in other disciplines, like political ecology and geography, that engage with Capitalocene thinking (Moore 2015; Wainwright and Mann 2018). The normalization of the separation of human and nature poses a challenge for understanding and addressing environmental politics and challenges of disasters (Wapner 2014), as it contributes to obscuring the actual causes of disasters and the “natural” phenomena or events that trigger them. Simply put, we cannot separate capitalism from nature or the biophysical processes tied to disasters, for capitalism is inherently an ecological project (Moore 2015).

Seeing capitalism as an ecological system itself is necessary for understanding the unnaturalness of disasters beyond already common understandings of disasters as sociopolitical, not natural, phenomena. It is commonly understood, for example, that while certain physical phenomena or hazards, such as floods, hurricanes, drought, and wildfires, might be “natural” phenomena, the negative impacts of these events—death, injury, destruction, hunger, human and nonhuman suffering—are not (Cannon 1994). This is precisely why drought in sub-Saharan Africa might be a much larger “disaster” in terms of human death and suffering than drought in the Midwest of the United States. However, much disaster thinking and politics maintains a distinction between biophysical processes (read: hazards), like floods, hurricanes, droughts, and wildfires, and their human and nonhuman or societal impacts, which are inherently social, political, and economic.

A politics of disasters and their making in the Capitalocene necessitates a shift in how we understand disasters and their “natural” hazard triggers. In accepting the premise of the Capitalocene, and even the Anthropocene, it is no longer accurate to refer to or address the “biophysical” processes of storms, hurricanes, droughts, wildfires, or even zoonotic outbreaks and their severity and increasing frequency as natural processes that have differentiated impacts on people in the form of disasters. Under the Capitalocene, these biophysical processes are socio-natural (Saurin 2001). They are the product of historic, ongoing processes of systematic, environmental harm, sanctioned by state and multilateral governance institutions in ways that have radically reorganized interactions across different spheres of life and the earth’s physical processes for the benefit of capital accumulation. This conceptual shift entails a move from understanding the unnaturalness of disasters in terms of long-term structural processes that produce uneven geographies of risk and vulnerability to natural hazards to the unnaturalness of biophysical processes that precipitate hazards and processes like floods, wildfires, hurricanes, and drought themselves. The Capitalocene goes further than the Anthropocene by foregrounding the uneven *causalities* and distribution of benefits and impacts of the separation of Nature and Society and subsequent environmental changes to focus attention on inequity and injustice, on who wins and who loses (Patel and Moore 2017). Acknowledging the falsity and harm of the Nature–Society divide could also help do away with the separation between disaster governance mechanisms and frameworks and those focused on broader drivers of socioenvironmental change, like climate change, for a more integrated approach to politics of disaster mitigation.

Conclusions: A Politics for Disaster Making in the Capitalocene

In line with critical approaches in IPEE, rather than offering tools and solutions aligned with the same system that generated the problem, Capitalocene thinking recognizes that the systems of production and consumption, as well as governance arrangements, are embedded in a global system of organizing the economy, nature, and human–environment relations in ways that further capitalist growth and accumulation. Additionally, this framework emphasizes that these systems and governance structures are in fact contributing factors to the frequency, severity, and complex nature of contemporary disasters. Integrating a Capitalocene perspective into existing debates in global environmental politics opens the possibility to further question existing dominant systems and address them as foundational to and complicit in the socioecological crises and disasters we face. Reframing disasters and their politics in the framework of the Capitalocene brings to the fore the socio-political-economic-ecological processes of environmental change and altered biophysical processes—disaster making—that any politics of disaster must account for, engage with, and work to disrupt. We propose this work as one potential step toward more critical thinking on the political, social, and economic transformation that is required for structural change to address environmental change that underpins disasters and their making, paying necessary attention to the injustices that characterize our current socio-economic-political systems.

Shannon O’Lear is a political geographer in the Department of Geography and Atmospheric Science and director of the Environmental Studies Program at the University of Kansas. Her recent publications include *A Research Agenda for Geographies of Slow Violence: Making Social and Environmental Injustice Visible* (2021); *Environmental Change and Human Security Research Directions for the National Science Foundation*, a report of the NSF Advisory Committee for Environmental Research and Education (2021; https://www.nsf.gov/ere/ereweb/reports/AC-ERE-Environmental-Security-Report_508.pdf); and “Environmental Geopolitics of Climate Engineering Proposals in the IPCC 5th Assessment Report,” *Frontiers in Climate*, <https://www.frontiersin.org/articles/10.3389/fclim.2021.718553/abstract>.

Francis Masse is a human–environment geographer and political ecologist. He is a senior lecturer in the Department of Geography and Environmental Sciences at Northumbria.

Hannah Dickinson is a postdoctoral research associate working in the Department of Geography at Durham University, United Kingdom. Her work draws upon approaches in political ecology, critical geopolitics, and political geography to think about the intersections of environmental governance, biodiversity conservation, and international trade in marine species and their derivatives. Hannah’s current research on shrimp-derived chitosan contributes to the

Leverhulme-funded “Circulatory Entanglements” project, which explores how marine organisms and their biomaterials circulate through different policy, economic, and scientific contexts as part of Blue Economy initiatives that tie human and ocean health together.

Rosaleen Duffy is a political ecologist whose research centers on the international politics of conservation. She held an ERC grant (2016–2020) for the BIO-SEC Project and is currently principal investigator on the ESRC-funded Beastly Business Project (2021–2023) on political ecologies of green collar crime, examining the illegal trade in European wildlife. She is author of a forthcoming book, *Security and Biodiversity* (2022).

References

- Albert, Michael J. 2020. Capitalism and Earth System Governance: An Ecological Marxist Approach. *Global Environmental Politics* 20 (2): 37–56. https://doi.org/10.1162/glep_a_00546
- Biermann, Christine, and Robert M. Anderson. 2017. Conservation, Biopolitics, and the Governance of Life and Death. *Geography Compass* 11 (10): e12329. <https://doi.org/10.1111/gec3.12329>
- Biermann, Frank. 2014. *Earth System Governance: World Politics in the Anthropocene*. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/9780262028226.001.0001>
- Biermann, Maureen, Kevin C. Hillmer-Pegram, Corrine Noel Knapp, and Richard E. Hum. 2016. Approaching a Critical Turn? A Content Analysis of the Politics of Resilience in Key Bodies of Resilience Literature. *Resilience* 4 (2): 59–78. <https://doi.org/10.1080/21693293.2015.1094170>
- Brondizio, Eduardo S., Karen O'Brien, Xuemei Bai, Frank Biermann, Will Steffen, Fans Berkhout, Christophe Cudennec, Maria Carmen Lemos, Alexander Wolfe, Jose Palma-Oliveira, and Chen-Tung Arthur Chen. 2016. Re-conceptualizing the Anthropocene: A Call for Collaboration. *Global Environmental Change* 39: 318–327. <https://doi.org/10.1016/j.gloenvcha.2016.02.006>
- Burke, Anthony, Stefanie Fishel, Audra Mitchell, Simon Dalby, and Daniel J. Levine. 2016. Planet Politics: A Manifesto from the End of IR. *Millennium* 44 (3): 499–523. <https://doi.org/10.1177/0305829816636674>
- Cannon, Terry. 1994. Vulnerability Analysis and Explanation of “Natural” Disasters. In *Disasters, Development and Environment*, edited by Ann Varley, 13–30. New York, NY: John Wiley.
- Castree, Noel. 2014. The Anthropocene and Geography I: The Back Story. *Geography Compass* 8 (7): 436–449. <https://doi.org/10.1111/gec3.12141>
- Chu, Eric K. 2018. Transnational Support for Urban Climate Adaptation: Emerging Forms of Agency and Dependency. *Global Environmental Politics* 18 (3): 25–46. https://doi.org/10.1162/glep_a_00467
- Crutzen, Paul J., and Eugene F. Stoermer. 2000. The Anthropocene. *International Geosphere-Biosphere Programme (IGBP) Global Change Newsletter* 41 (May): 17–18.

- Cutter, Susan L. 2020. The Changing Nature of Hazard and Disaster Risk in the Anthropocene. *Annals of the American Association of Geographers* 111 (3): 819–827. <https://doi.org/10.1080/24694452.2020.1744423>
- Dalby, Simon. 2004. Ecological Politics, Violence, and the Theme of Empire. *Global Environmental Politics* 4 (2): 1–11. <https://doi.org/10.1162/152638004323074156>
- Dalby, Simon. 2020. *Anthropocene Geopolitics: Globalization, Security, Sustainability*. Ottawa, ON: University of Ottawa Press. <https://doi.org/10.2307/j.ctvx5w8dk>
- de la Poterie, Arielle Tozier, and Marie-Ange Baudoin. 2015. From Yokohama to Sendai: Approaches to Participation in International Disaster Risk Reduction Frameworks. *International Journal of Disaster Risk Science* 6 (2): 128–139. <https://doi.org/10.1007/s13753-015-0053-6>
- Ferguson, Peter. 2019. Discourses of Resilience in the Climate Security Debate. *Global Environmental Politics* 19 (2): 104–126. https://doi.org/10.1162/glep_a_00500
- Galaz, Victor, editor. 2014. *Global Environmental Governance, Technology and Politics: The Anthropocene Gap*. Cheltenham, UK: Edward Elgar. <https://doi.org/10.4337/9781781955550>
- Gillard, Ross. 2016. Questioning the Diffusion of Resilience Discourses in Pursuit of Transformational Change. *Global Environmental Politics* 16 (1): 13–20. https://doi.org/10.1162/GLEP_a_00334
- Inoue, Cristina Yumie Aoki. 2018. Worlding the Study of Global Environmental Politics in the Anthropocene: Indigenous Voices from the Amazon. *Global Environmental Politics* 18 (4): 25–42. https://doi.org/10.1162/glep_a_00479
- Kallis, G., and J. Sager. 2016. Oil and the Economy: A Systematic Review of the Literature for Ecological Economists. *Ecological Economics* 131: 561–571. <https://doi.org/10.1016/j.ecolecon.2016.08.011>
- Lawrence, Jennifer L., and Sarah Marie Wiebe, editors. 2017. *Biopolitical Disaster*. Oxfordshire, UK: Taylor and Francis. <https://doi.org/10.4324/9781315620213>
- Lidström, Susanna, Simon West, Tania Katzschner, María Isabel Perez-Ramos, and Hedley Twidle. 2015. Invasive Narratives and the Inverse of Slow Violence: Alien Species in Science and Society. *Environmental Humanities* 7 (1): 1–40. <https://doi.org/10.1215/22011919-3616317>
- Lövbrand, Eva, Silke Beck, Jason Chilvers, Tim Forsyth, Johan Hedrén, Mike Hulme, Rolf Lidskog, and Eleftheria Vasileiadou. 2015. Who Speaks for the Future of Earth? How Critical Social Science Can Extend the Conversation on the Anthropocene. *Global Environmental Change* 32: 211–218. <https://doi.org/10.1016/j.gloenvcha.2015.03.012>
- Malm, Andreas. 2020. *Corona, Climate, Chronic Emergency: War Communism in the Twenty-First Century*. London, UK: Verso.
- Moore, Jason W. 2015. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. New York, NY: Verso.
- Newell, Peter, and Richard Lane. 2017. IPE and the Environment in the Age of the Anthropocene. In *Traditions and Trends in Global Environmental Politics*, edited by Olaf Corry and Hayley Stevenson, 136–153. Abingdon, UK: Routledge. <https://doi.org/10.4324/9781315206967-8>
- Park, Susan. 2021. The Role of the Sovereign State in 21st Century Environmental Disasters. *Environmental Politics* 31 (1): 8–27. <https://doi.org/10.1080/09644016.2021.1892983>

- Patel, Raj, and Moore, Jason W. 2017. *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet*. Berkeley: University of California Press. <https://doi.org/10.1525/9780520966376>
- Paterson, Matthew. 2000. *Understanding Global Environmental Politics: Domination, Accumulation, Resistance*. Berlin, Germany: Springer. <https://doi.org/10.1057/9780230536777>
- Pattberg, Philipp, and Fariborz Zelli. 2016. Global Environmental Governance in the Anthropocene: An Introduction. In *Environmental Politics and Governance in the Anthropocene*, 15–26. New York, NY: Routledge. <https://doi.org/10.4324/9781315697468>
- Rajão, Raoni, and Yola Georgiadou. 2014. Blame Games in the Amazon: Environmental Crises and the Emergence of a Transparency Regime in Brazil. *Global Environmental Politics* 14 (4): 97–115. https://doi.org/10.1162/GLEP_a_00259
- Saurin, Julian. 2001. Global Environmental Crisis as the “Disaster Triumphant”: The Private Capture of Public Goods. *Environmental Politics* 10 (4): 63–84. <https://doi.org/10.1080/714000578>
- Schlosberg, David. 2019. Disruption, Community, and Resilient Governance: Environmental Justice in the Anthropocene. In *The Commons in a Global World: Global Connections and Local Responses*, edited by Tobias Haller, Thomas Breu, Tine De Moor, Christian Rohr, and Heinzpeter Znoj, 54–71. London, UK: Routledge. <https://doi.org/10.4324/9781351050982-5>
- Selchow, Sabine. 2021. Planetary Disasters: Moving the UN Disaster Risk Reduction Framework into Cosmopolitised Reality. *Environmental Politics* 31 (1): 28–48. <https://doi.org/10.1080/09644016.2020.1868819>
- Simangan, Dahlia. 2020. Where Is the Anthropocene? IR in a New Geological Epoch. *International Affairs* 96 (1): 211–224. <https://doi.org/10.1093/ia/iiz248>
- Sovacool, Benjamin K., and Björn-Ola Linnér. 2016. *The Political Economy of Climate Change Adaptation*. Berlin, Germany: Springer. <https://doi.org/10.1057/9781137496737>
- Swyngedouw, Erik. 2013. The Non-political Politics of Climate Change. *ACME: An International Journal for Critical Geographies* 12 (1): 1–8.
- Vanhala, Lisa, and Cecilie Hestbaek. 2016. Framing Climate Change Loss and Damage in UNFCCC Negotiations. *Global Environmental Politics* 16 (4): 111–129. https://doi.org/10.1162/GLEP_a_00379
- Wainwright, Joel, and Geoff Mann. 2018. *Climate Leviathan: A Political Theory of Our Planetary Future*. New York, NY: Verso.
- Wapner, Paul. 2014. The Changing Nature of Nature: Environmental Politics in the Anthropocene. *Global Environmental Politics* 14 (4): 36–54. https://doi.org/10.1162/GLEP_a_00256
- Whetung, Madeline. 2019. (En)gendering Shoreline Law: Nishnaabeg Relational Politics Along the Trent Severn Waterway. *Global Environmental Politics* 19 (3): 16–32. https://doi.org/10.1162/glep_a_00513