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## Intersectionality & Climate Justice: A call for synergy in climate change scholarship

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### ABSTRACT

In this intervention, we call for extending the critical lens of intersectionality to the field of climate justice. We do so by identifying the theoretical and methodological links through which intersectionality can benefit climate change studies. These include common roots in radical theory, a focus on marginalized populations, challenging dominant epistemologies and ontologies, similar strategies for pursuing social justice, de-emphasizing of positivist methodologies, while at the same time deploying similar research methods, embracing cross-scalar and spatio-temporal analysis, and strong emphasis on interdisciplinarity and cross-sectoral alliances. We conclude with a number of potential questions to inform future research on these linkages and to encourage fellow scholars to consider what we see as an indispensable theoretical and methodological synergy of intersectionality and climate justice for a more equitable present and future.

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### Introduction

In this intervention, we call for extending the critical lens of intersectionality to the field of climate justice. Given the current state of global climate, environmental degradation and social inequity, we argue that climate justice scholarship has reached a point at which the intersections of different climate-related oppressions, the need for intersectional methodologies, and the necessity of forging cross-cutting alliances can no longer be ignored.

Intersectionality and climate justice, two critical schools of theory and practice, have much in common. We take this conceptual affinity a step

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further and identify the theoretical and methodological links through which we believe intersectionality can benefit climate change studies. We argue, in particular, that intersectionality can strengthen critical and transformative engagement in climate scholarship, contributing to what can be dubbed critical climate justice (Sultana 2021c). We conclude with a number of potential questions to inform future research in this area and encourage fellow scholars to consider the theoretical and methodological synergy of intersectionality and climate justice which we see as indispensable for a more equitable present and future.

### Linking intersectionality and climate justice

When coined by Kimberlé Crenshaw over thirty years ago, the term ‘intersectionality’ offered a critique of feminist theory and anti-racist politics by exposing Black women’s unique, intersectional experiences of oppression and exclusion (Crenshaw 1989). Crenshaw was no doubt influenced by previous work by scholars at the margins, who had laid the theoretical foundations for intersectional thought (Hill Collins and Bilge 2016). Intersectionality scholarship has since grown to embrace analyses concerned with understanding and addressing the unique forms of inequality caused by multiple sets of concurrent privileges and oppressions that underpin and compound a broad range of contemporary social problems (Hill Collins 2019), including environmental issues and climate change. In formulating our thoughts, we were inspired by recent theoretical developments that advance the intersectional approach within environmental studies and political ecology, specifically in relation to disasters, sustainability, energy, and most notably, environmental justice (Vickery 2018, Ryder and Boone 2019). We were also informed by the role that spatiality plays in intersectional scholarship, particularly as it applies to the various linkages between what are often referred to as the ‘Global North’ and the ‘Global South’ in the context of climate justice (Sultana 2021b).

Within climate change studies, however, intersectionality has been to a large extent circumscribed to analyses of social vulnerability to climate impacts. Here, the term allows for overcoming single-variable analyses of vulnerability and the resulting essentialism of inquiries focused on a single social category such as ‘women’ (Arora-Jonsson, 2011, Kaijser and Kronsell 2014). Intersectional insights have helped to demonstrate, for instance, that while women in general find themselves frequently excluded from international climate policy-making, it is Indigenous women that experience this exclusion disproportionately (Perkins 2019). Similarly, it has been demonstrated that gender, caste, class, religion and age *all* determine individual vulnerability to floods in Bangladesh (Sultana 2010). These and other early studies recognize that vulnerability to climate change impacts can be affected

positively (through privilege) or negatively (through oppression) by many axes of difference at once. As illuminating and necessary as these analyses are, we argue that through a linkage with climate justice, intersectionality offers more than just a nuancing of climate vulnerability.

While climate justice lacks a universally-accepted definition, its overarching aim is two-fold: to identify and foreground the needs of individuals and groups most marginalized in face of climate change impacts as well as our responses to these impacts (i.e. mitigation and adaptation strategies), and to dismantle the individual and structural architectures of marginalization, exploitation and oppression towards these groups. In this sense, climate justice is prefigurative; it envisions not only a world in which climate change no longer exacerbates social inequity, but one in which societal responses to its impacts themselves offer an opportunity to build a more equitable and sustainable world. While climate justice was initially approached by scholars and activists at the global level (Vanderheiden 2008), the concept has been increasingly deployed at lower scales or, crucially for this discussion, *across* scales, as well (Fisher 2015).

It is clear that both traditions are ideologically cognate, not least through their joint theoretical and practical focus on historically marginalized groups. Yet, in our view climate justice scholarship has not realized the full potential of its links with intersectionality – something we see as a critical blind spot in the literature. We outline these links here, which are also summed up in [Table 1](#) below.

**Table 1.** Theoretical and methodological links between climate justice and intersectionality, with selected examples of scholarship in both traditions.

		Climate justice scholarship	Intersectionality scholarship
Theoretical links	Radical theory roots	Gay-Antaki 2022	Nash 2008
	Focus on marginalized populations (their interests and agency)	McArdle 2021 Whyte 2020	Goldsmith <i>et al.</i> 2022
	Challenging dominant epistemologies and ontologies	Amorim-Maia <i>et al.</i> 2022 Sardo 2020 Fox and Alldred 2020	Osborne 2015
Methodological links	Similar strategies for pursuing justice (political action)	Tokar and Gilbertson 2020	Lotfata and Munenzon 2022
	De-emphasizing of positivist methodologies	Verlie 2022	Martinez Dy <i>et al.</i> 2014
	Epistemic advantage afforded to research participants	Mayes and Center 2022; Piispa and Kiilakoski 2022	Hancock 2016
	Similar methods (qualitative, participatory action research, reflexivity)	Nordenstam and Victorin 2022	Haynes <i>et al.</i> 2020
	Embracing cross-dimensional analyses	Tschakert 2020	Rodó-de-Zárate 2014
	Call for interdisciplinarity and alliances across traditional sectoral and social divides	Borras and Franco 2018; Di Chiro 2021	Carr and Thompson 2014

### *Theoretical links*

Climate justice and intersectionality share theoretical roots in radical theory. Intersectionality is a common thread in much feminist theorising and, as mentioned earlier, stems from Black feminist critique of white feminism and the civil rights movement (Crenshaw 1989). On the other hand, while climate justice has initially attracted attention from political philosophers under the umbrella of climate ethics (Gardiner 2010), it has also been deployed by more radical scholarship that draws on post-colonial theory (Ferdinand 2018), neo-Marxism (Bond 2012), and eco-feminism (Gaard 2015). For instance, Sultana (2021a) has recently noted how political ecology can be enriched by drawing on feminisms and decolonial theories – an analytical approach intrinsically rooted in intersectionality. The influence of radical ideas becomes even more visible when reading the agendas and manifestos of various climate justice groups and organizations such as La Vía Campesina, the Climate Justice Alliance, the Indigenous Action Network or the Generation Equality Forum's Feminist Action for Climate Justice Coalition. These and other civil society actors ground their critiques in anti-capitalism, food and land sovereignty, and the concept of ecological debt that industrialized countries owe the Majority World. It is therefore not surprising that what intersectionality and climate justice have in common is a resolute focus on marginalized populations and the power relations that have led to their marginality (Kaijser and Kronsell 2014, Mikulewicz 2018). In other words, both share a commitment to human emancipation and ending oppression of marginalized groups.

Conceptually, both frameworks aim to address essentialism and stress the agency of people often portrayed as 'vulnerable', be it to climate change impacts, patriarchal structures, or the debilitating forces of global capitalism. This goal should not only entail intersectional analyses of vulnerability as a 'static' condition, but, we argue, must also extend to questioning the norms and institutions governing social life (Malin and Ryder 2018) – something that early intersectional research on climate change largely overlooked. Meanwhile, intersectionality helps understand vulnerability as a process mediated by structural forces that are both local and global, such as patriarchy, racism, colonialism and capitalism.

Furthermore, this critique should also extend to dominant epistemologies and ontologies, and the resulting knowledge production processes that underpin the oppressions and inequalities targeted by climate justice and intersectionality scholarship. In the context of climate injustices, intersectional analysis allows one to deconstruct the complex web of political, economic and cultural processes that produce sets of privileges and oppressions, thus painting a clearer picture of the resulting inequalities. Of particular note here is the interrogation of the processes leading to hegemonic

knowledge on nature and the kind of human-nature relations this ontology engenders. Notably, intersectionality can be used to push analytical boundaries beyond social categorisations of people by recognizing the agency and rights of non-humans (Tschakert 2020). This mirrors the growing focus of climate and environmental justice scholarship and activism on the critique of anthropocentrism and Western rationalism, and on their implications for how most industrialized nations relate to the non-human world (Celermajer *et al.* 2021).

Going back to prefiguration, both traditions tend to offer similar strategies for fighting oppression and pursuing social justice. Both underscore the need for political action while at the same time criticizing mainstream social structures, techno-managerial decision-making and hegemonic knowledges. Social injustice, in other words, is to be fought through candidly political means, including political activism and radical, action-based research, rather than be engineered out of society by economists, engineers and other 'experts' through what are seen as largely cosmetic means such as tax reforms (including carbon pricing) and technological innovation. Relatedly, scholars in both fields advocate for forging broad alliances and building solidarity between oppressed groups which are based on common interests while remaining distrustful of purely identity-based political projects (Klinsky 2018). Important theoretical work on the links between intersectionality and climate justice is already emerging in this context (LeQuesne 2019). There are growing calls for building alliances across different interest groups, whether it is between climate activists and labor unions in the context of just energy transitions or (more relevantly to the US context) between the civil rights movement and LGBTQ+ activists against the discrimination of Black transgender people. These alliances stem from the recognition that no oppression or discrimination happens in isolation and that consequently should not be addressed as such.

### **Methodological links**

Another common thread of climate justice and intersectionality scholarship is that both traditions de-emphasize certain positivist methodologies such as Cartesian rationalism. That is because methods for intersectional analysis are chosen based on their appropriateness for research-specific contexts. This anti-positivist stance is partly a consequence of the 'epistemic advantage' both traditions afford to marginalized groups and individuals (Osborne 2015), or in other words the understanding that only they can fully understand and accurately articulate their experiences of discrimination and oppression. Accordingly, both approaches compel academics, practitioners, decision-makers and members of the public to reflect on their own positionality. All these elements lead to scholarship that is, or at least in principle

*should* be, co-produced, decolonized, and focused squarely on the interests of the marginalized (Menton *et al.* 2020). Climate justice scholars and activists can and should make use of the robust literature on what it means to do research through the intersectional lens (see: Cho *et al.* 2013, MacKinnon 2013, Ryder 2018).

While there are no *a priori* defined intersectionality or climate justice methodologies, scholars in both traditions have mostly – though by no means exclusively (see: Bauer *et al.* 2021) – relied on qualitative methods in their work. In line with granting the epistemic advantage to research participants, this scholarship tends to value the insights offered by their lived experiences – rich depictions by specific individuals as they navigate through social life – for understanding complex social phenomena such as intersecting discrimination or energy transitions. In the context of climate change, examples include the descriptions of gay teens experiencing homelessness during a heat wave (Rodriguez 2021) or the way in which rural women in Malawi deal with flash floods while at the same time acting as household leaders (CCPM 2020). By bringing the perspectives of these individuals to the fore, their lived experiences become primary sources of data – a common feature in both intersectionality and climate justice research and practice. Taking an ethnographic approach can help deconstruct complex social relationships and tease out how oppression works for different groups at different times. Interviews using storytelling techniques and collecting oral histories, for instance, are particularly relevant for preserving Indigenous knowledge as applied to climate adaptation and environmental management (Caretta and Morgan 2021). Feminist participatory action research has helped enrich methodologies in climate justice research (Godden *et al.* 2020). In parallel, intersectional scholarship has been used to de-anthropocentrize environmental and climate change studies by extending the frame of analysis to the non-human world, adding a multi-species axis to the analysis (Tschakert 2020). Moreover, intersectionality has come to be applied as an approach to not only deconstruct complex, often simultaneously occurring, relationships of inequality determined by multiple sets of privileges and oppressions, but also one that appreciates the politics of scale. Cross-dimensional analyses of this kind can help bring out the interconnections between the past and the present (and their implications for the future) on the one hand, and between different spatial scales (e.g., from local to global) on the other (Malin and Ryder 2018).

These analytical insights offered by intersectionality are of immense importance for climate justice research. We argue that cross-scalar analysis is a must for any investigation that aspires to provide a comprehensive, critical analysis of climate and environmental injustices. After all, climate justice is not just about climate change. On the contrary, the latter is merely a symptom of an unequal and unsustainable system of global production and consumption which intersectional, cross-scalar analysis offers to approach head-on.

Finally, intersectionality's focus on interdisciplinarity resonates well with existing critical scholarship on climate change. With others, we argue that interdisciplinary knowledge co-construction is necessary in order to avoid exclusionary and in many cases ineffective, if not outright harmful research (Schipper *et al.* 2021). Likewise, upholding the traditional boundaries between academia and activism is becoming untenable, particularly in the case of climate justice research which, if overly detached from its activist roots, risks becoming co-opted into dominant power structures and losing its uncompromising focus on the interests of the oppressed and marginalized.

### **Towards a more intersectional climate justice scholarship**

Climate justice needs intersectionality. While early analyses of vulnerability have benefited from intersectional approaches, we call for a more consistent and deliberate use of this framework in seeking to understand and address climate-related inequities. Climate justice scholars and activists have long argued that climate change is not just an environmental issue – it is a social crisis within which multiple oppressions intertwine and interact. This is why there is an urgent need for solidarity praxis and feminist insights in climate justice work. Intersectionality offers to untangle this complex web, leading to more nuanced understandings and less-exclusionary solutions to the climate crisis.

Intersectional analysis is not easy, however, because it requires a foundation in participatory methods and critical theory, interdisciplinarity, an openness to think 'outside the box' and a readiness to collaborate across the usual academic, sectoral and societal divides. We argue that a deeper engagement with intersectionality will help climate justice remain a critical approach that continues to question the pernicious status quo (despite the obvious forces seeking to co-opt it) and fully appreciates the social complexity of climate change adaptation and mitigation.

And yet, unlike climate justice activism, critical climate scholarship has seen limited engagement with intersectionality thus far – despite some signs of progress on this front (for instance, see: Hathaway 2020, Foran 2021). We conclude this intervention with a number of questions that we have been posing to ourselves when conducting this type of work:

- Whose voices and knowledges has climate justice favoured and omitted since its emergence over three decades ago?
- In what ways can intersectionality enrich climate justice theory, methodologies, and activism?
- What kind of alliances are needed to ensure intersectionality-informed climate justice research and praxis?



- What should an intersectional climate justice research agenda entail, and how can it build on advances made by allied movements and scholarship (e.g., ecofeminism)?
- What would an intersectional and interdisciplinary climate justice interdisciplinary methodology look like?

We are aware that these questions are not easy to answer (or even to pose, for that matter) without feeling uncomfortable about the way in which social sciences have engaged with climate research. As scholars, we must compel ourselves and our colleagues to face our own power and privileges, particularly when working with members of the public, and do so in a meaningful manner that surpasses symbolism and avoids solipsism. We can do this by moving beyond our position of epistemic authority by working *with* impacted communities on their own terms, recognizing the value of situated knowledges and the necessity to engage with other ontologies and methodological approaches (Zaragocin and Caretta 2021). Only then, we argue, will we be able to contribute more pragmatically and comprehensively to an assessment of climate change impacts, vulnerabilities and solutions. We believe that iterative reflection on these and other questions is necessary for us and other scholars to firmly commit to a research agenda that is just, inclusive and reflexive, and one that brings to light the differentiated experiences of climate change impacts, adaptation and mitigation among diverse populations. The alternative – research agnostic about, if not overtly hostile towards, the need to recognize the inherent social complexity of climate change and to challenge the unequal politics of climate knowledge production – carries the danger of exacerbating the already growing oppressions and exclusions caused by the climate crisis across the globe.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

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### References

- Amorim-Maia, A.T., *et al.*, 2022. Intersectional climate justice: a conceptual pathway for bridging adaptation planning, transformative action, and social equity. *Urban Climate*, 41, 101053. doi:10.1016/j.uclim.2021.101053

- Arora-Jonsson, S., 2011. Virtue and vulnerability: discourses on women, gender and climate change. *Global Environmental Change*, 21 (2), 744–751. doi:10.1016/j.gloenvcha.2011.01.005.
- Bauer, G.R., et al., 2021. Intersectionality in quantitative research: a systematic review of its emergence and applications of theory and methods. *SSM - Population Health*, 14, 100798. doi:10.1016/j.ssmph.2021.100798
- Bond, P., 2012. *Politics of climate justice: paralysis above, movement below*. Scottsville, South Africa: University of Kwazulu-Natal Press.
- Borras, S.M. and Franco, J.C., 2018. The challenge of locating land-based climate change mitigation and adaptation politics within a social justice perspective: towards an idea of agrarian climate justice. *Third World Quarterly*, 39 (7), 1308–1325. doi:10.1080/01436597.2018.1460592.
- Caretta, M.A. and Morgan, R.A., 2021. Special Issue on Indigenous knowledge for water-related climate adaptation. *Climate and Development*, 13 (9), 761–765. doi:10.1080/17565529.2021.1993627.
- Carr, E.R. and Thompson, M.C., 2014. Gender and climate change adaptation in agrarian settings: current thinking, new directions, and research frontiers: gender and climate change adaptation in agrarian settings. *Geography Compass*, 8 (3), 182–197. doi:10.1111/gec3.12121.
- CCPM, 15 Apr 2020. *Malawi is vulnerable to climate change, but its women are strong*. Climate Change Partnership Malawi. <https://www.ccpm.scot/latest/63-malawi-is-vulnerable-to-climate-change-but-its-women-are-strong>
- Celermajer, D., et al., 2021. Multispecies justice: theories, challenges, and a research agenda for environmental politics. *Environmental Politics*, 30 (1–2), 119–140. doi:10.1080/09644016.2020.1827608.
- Cho, S., Crenshaw, K.W., and McCall, L., 2013. Toward a field of intersectionality studies: theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, 38 (4), 785–810. doi:10.1086/669608.
- Crenshaw, K., 1989. Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989 (1), 31.
- Di Chiro, G., 2021. Mobilizing “intersectionality” in environmental justice research and action in a time of crisis. In: B. Coolsaet, ed. *Environmental justice: key issues*. Abingdon, Oxon and New York, NY: Routledge, Taylor & Francis Group, 316–333.
- Ferdinand, M., 2018. Subnational climate justice for the French Outre-mer: post-colonial politics and geography of an epistemic shift. *Island Studies Journal*, 13 (1), 119–134. doi:10.24043/isj.49.
- Fisher, S., 2015. The emerging geographies of climate justice: the emerging geographies of climate justice. *The Geographical Journal*, 181 (1), 73–82. doi:10.1111/geoj.12078.
- Foran, J., 2021. The future of revolutions: intersectional global climate justice as humanity’s best hope. In: S.A.H. Hosseini, et al., eds. *The Routledge handbook of transformative global studies*. Abingdon, Oxon and New York, NY: Routledge/Taylor & Francis Group, 526–539.
- Fox, N.J. and Alldred, P., 2020. Sustainability, feminist posthumanism and the unusual capacities of (post)humans. *Environmental Sociology*, 6 (2), 121–131. doi:10.1080/23251042.2019.1704480.
- Gaard, G., 2015. Ecofeminism and climate change. *Women’s Studies International Forum*, 49, 20–33. doi:10.1016/j.wsif.2015.02.004

- Gardiner, S.M., Ed. 2010. *Climate ethics: essential readings*. New York, NY: Oxford University Press.
- Gay-Antaki, M., 2022. Border crossers: feminist decolonial geography and climate change. *Progress in Environmental Geography*, 275396872211148. doi:10.1177/27539687221114887.
- Godden, N.J., et al., 2020. Feminist participatory action research as a tool for climate justice. *Gender & Development*, 28 (3), 593–615. doi:10.1080/13552074.2020.1842040.
- Goldsmith, L., Raditz, V., and Méndez, M., 2022. Queer and present danger: understanding the disparate impacts of disasters on LGBTQ+ communities. *Disasters*, 46 (4), 946–973. doi:10.1111/disa.12509.
- Hancock, A.-M., 2016. *Intersectionality: an intellectual history*. Oxford University Press. doi:10.1093/acprof:oso/9780199370368.001.0001.
- Hathaway, J.R., 2020. Climate change, the intersectional imperative, and the opportunity of the green new deal. *Environmental Communication*, 14 (1), 13–22. doi:10.1080/17524032.2019.1629977.
- Haynes, C., et al., 2020. Toward an understanding of intersectionality methodology: a 30-year literature synthesis of Black Women's experiences in higher education. *Review of Educational Research*, 90 (6), 751–787. doi:10.3102/0034654320946822.
- Hill Collins, P., 2019. *Intersectionality as critical social theory*. Durham: Duke University Press.
- Hill Collins, P. and Bilge, S., 2016. *Intersectionality*. Cambridge, UK and Malden, MA: Polity Press.
- Kaijser, A. and Kronsell, A., 2014. Climate change through the lens of intersectionality. *Environmental Politics*, 23 (3), 417–433. doi:10.1080/09644016.2013.835203.
- Klinsky, S., 2018. Climate equity and justice scholarship needs feminism. *Feminist Review*, 118 (1), 103–111. doi:10.1057/s41305-018-0102-2.
- LeQuesne, T., 2019. Petro-hegemony and the matrix of resistance: what can standing rock's water protectors teach us about organizing for climate justice in the United States? *Environmental Sociology*, 5 (2), 188–206. doi:10.1080/23251042.2018.1541953.
- Lotfata, A. and Munenzon, D., 2022. The interplay of intersectionality and vulnerability towards equitable resilience: learning from climate adaptation practices. In: *The Palgrave Encyclopedia of Urban and Regional Futures*, 1–16. Springer International Publishing. doi:10.1007/978-3-030-51812-7\_324-1.
- MacKinnon, C.A., 2013. Intersectionality as method: a note. *Signs: Journal of Women in Culture and Society*, 38 (4), 1019–1030. doi:10.1086/669570.
- Malin, S.A. and Ryder, S.S., 2018. Developing deeply intersectional environmental justice scholarship. *Environmental Sociology*, 4 (1), 1–7. doi:10.1080/23251042.2018.1446711.
- Martinez Dy, A., Martin, L., and Marlow, S., 2014. Developing a critical realist positional approach to intersectionality. *Journal of Critical Realism*, 13 (5), 447–466. doi:10.1179/1476743014Z.00000000043.
- Mayer, E. and Center, E., 2022. Learning with student climate strikers' humour: towards critical affective climate justice literacies. *Environmental Education Research*, 1–19. doi:10.1080/13504622.2022.2067322.
- McArdle, R., 2021. Intersectional climate urbanism: towards the inclusion of marginalised voices. *Geoforum*, 126, 302–305. doi:10.1016/j.geoforum.2021.08.005

- Menton, M., *et al.*, 2020. Environmental justice and the SDGs: from synergies to gaps and contradictions. *Sustainability Science*, 15 (6), 1621–1636. doi:10.1007/s11625-020-00789-8.
- Mikulewicz, M., 2018. Politicizing vulnerability and adaptation: on the need to democratize local responses to climate impacts in developing countries. *Climate and Development*, 10 (1), 18–34. doi:10.1080/17565529.2017.1304887.
- Nash, J.C., 2008. Re-thinking intersectionality. *Feminist Review*, 89 (1), 1–15. doi:10.1057/fr.2008.4.
- Nordenstam, A. and Wictorin, M.W., 2022. Climate activism – contemporary Swedish feminist comics. *Journal of Graphic Novels and Comics*, 1–13. doi:10.1080/21504857.2022.2075413.
- Osborne, N., 2015. Intersectionality and kyriarchy: a framework for approaching power and social justice in planning and climate change adaptation. *Planning Theory*, 14 (2), 130–151. doi:10.1177/1473095213516443.
- Perkins, P., 2019. Climate justice, gender and intersectionality. In: T. Jafry, K. Helwig, and M. Mikulewicz, eds. *Routledge Handbook of climate justice*. Abingdon, Oxon and New York, NY: Routledge, 349–358.
- Piispa, M. and Kiilakoski, T., 2022. Towards climate justice? Young climate activists in Finland on fairness and moderation. *Journal of Youth Studies*, 25 (7), 897–912. doi:10.1080/13676261.2021.1923677.
- Rodó-de-Zárate, M., 2014. Developing geographies of intersectionality with Relief maps: reflections from youth research in Manresa, Catalonia. *Gender, Place & Culture*, 21 (8), 925–944. doi:10.1080/0966369X.2013.817974.
- Rodriguez, B., 6 July 2021. *Extreme heat further complicates the lives of homeless women and LGBTQ people*. PBS NewsHour. <https://www.pbs.org/newshour/health/extreme-heat-further-complicates-the-lives-of-homeless-women-and-lgbtq-people>
- Ryder, S.S., 2018. Developing an intersectionally-informed, multi-sited, critical policy ethnography to examine power and procedural justice in multiscale energy and climate change decisionmaking processes. *Energy Research & Social Science*, 45, 266–275. doi:10.1016/j.erss.2018.08.005
- Ryder, S.S. and Boone, K., 2019. Intersectionality and sustainable development. In: W. Leal Filho, *et al.*, eds. *Gender equality*. Springer International Publishing, 1–11. doi:10.1007/978-3-319-70060-1\_51-1.
- Sardo, M.C., 2020. Responsibility for climate justice: political not moral. *European Journal of Political Theory*, 147488512095514. doi:10.1177/1474885120955148.
- Schipper, E.L.F., Dubash, N.K., and Mulugetta, Y., 2021. Climate change research and the search for solutions: rethinking interdisciplinarity. *Climatic Change*, 168 (3–4), 18. doi:10.1007/s10584-021-03237-3.
- Sultana, F., 2010. Living in hazardous waterscapes: gendered vulnerabilities and experiences of floods and disasters. *Environmental Hazards*, 9 (1), 43–53. doi:10.3763/ehaz.2010.SI02.
- Sultana, F., 2021a. Political ecology 1: from margins to center. *Progress in Human Geography*, 45 (1), 156–165. doi:10.1177/0309132520936751.
- Sultana, F., 2021b. Climate change, COVID-19, and the co-production of injustices: a feminist reading of overlapping crises. *Social & Cultural Geography*, 22 (4), 447–460. doi:10.1080/14649365.2021.1910994.
- Sultana, F., 2021c. Critical climate justice. *The Geographical Journal* *geoj*, 12417. doi:10.1111/geoj.12417

- Tokar, B. and Gilbertson, T., Eds. 2020. *Climate justice and community renewal: resistance and grassroots solutions*. Abingdon, Oxon and New York, NY: Routledge, Taylor & Francis Group.
- Tschakert, P., 2020. More-than-human solidarity and multispecies justice in the climate crisis. *Environmental Politics*, 1–20. doi:10.1080/09644016.2020.1853448.
- Vanderheiden, S., 2008. *Atmospheric justice: a political theory of climate change*. New York, NY: Oxford University Press.
- Verlie, B., 2022. Climate justice in more-than-human worlds. *Environmental Politics*, 31 (2), 297–319. doi:10.1080/09644016.2021.1981081.
- Vickery, J., 2018. Using an intersectional approach to advance understanding of homeless persons' vulnerability to disaster. *Environmental Sociology*, 4 (1), 136–147. doi:10.1080/23251042.2017.1408549.
- Whyte, K.P., 2020. Too late for indigenous climate justice: ecological and relational tipping points. *Wiley Interdisciplinary Reviews: Climate Change*, 11, 1. doi:10.1002/wcc.603
- Zaragocin, S. and Caretta, M.A., 2021. *Cuerpo-Territorio*: a decolonial feminist geographical method for the study of embodiment. *Annals of the American Association of Geographers*, 111 (5), 1503–1518. doi:10.1080/24694452.2020.1812370.