



Open Research Online

Citation

Weatherill, Charlotte Kate (2023). Resisting climate change vulnerability: feminist and decolonial insights. *International Politics* [Early Access].

URL

<https://oro.open.ac.uk/93125/>

License

(CC-BY 4.0)Creative Commons: Attribution 4.0

Policy

This document has been downloaded from Open Research Online, The Open University's repository of research publications. This version is being made available in accordance with Open Research Online policies available from [Open Research Online \(ORO\) Policies](#)

Versions

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding



Resisting climate change vulnerability: feminist and decolonial insights

Charlotte Kate Weatherill¹

Accepted: 10 September 2023
© The Author(s) 2023, corrected publication 2023

Abstract

In climate politics, understanding and contesting the meaning of vulnerability has proved extremely difficult. On the one hand, it is an increasingly formalised term that means something very specific scientifically and methodologically within the climate change institutions. On the other hand, vulnerability is part of a colonial discursive framework of risk. In this article, I show how contestations into the scientific project have not sufficiently worked to address the colonial geographic imaginaries that underlie the discursive framework of vulnerability. I suggest that bringing together the work of critical adaptation studies (CAS) with critical feminist and decolonial scholarship, such as the counternarratives of the Pacific, offers a way to resist the victimising politics of disposability and also rethink vulnerability as a concept of resistance, relationality and reflexivity.

Keywords Vulnerability · Resistance · Critical feminism · Coloniality · Climate change · Critical adaptation studies

Introduction

Vulnerability is an interdisciplinary concept that is used widely in discussions of differential distribution of harm and risk. The way that vulnerability is conceptualised is important for how this harm is understood to have been created, and therefore what action should be taken to reduce it (O'Brien et al. 2007). Yet in a climate change context, understanding and contesting the meaning of vulnerability has proved extremely difficult. On the one hand, it is an increasingly formalised term that means something very specific scientifically and methodologically within the climate change institutions. On the other hand, vulnerability is part of a discursive framework of risk that “denigrates large regions of the world as disease-ridden, poverty-stricken and disaster-prone” (Bankoff 2001, 19). In this article, I show how

✉ Charlotte Kate Weatherill
Charlotte.weatherill@open.ac.uk

¹ Open University, Walton Hall, Milton Keynes MK7 6AA, UK



contestations into the scientific project have not sufficiently worked to address the colonial geographic imaginaries that underlie the discursive framework of vulnerability. I suggest that bringing together the work of critical adaptation studies (CAS) with the theoretical work of critical feminist and decolonial¹ scholars offers one way to address this issue.

The importance of vulnerability institutionally within climate change politics is formalised within the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC). Vulnerability's institutional use is both to help identify the Article 2 objective of stabilising greenhouse gas concentrations to prevent "dangerous anthropogenic interference with the climate system" (UNFCCC 1992, Article 2) and enable comparability across regions, geographical areas, economic sectors, and states (UNFCCC 1992, Article 4). Vulnerability is therefore important within the UNFCCC due to its institutional link with resource distribution, for example, through the Green Climate Fund (GCF). This importance makes it a key interest for IPCC Working Group II (WGII) and a chapter heading in their reports alongside 'impacts' and 'adaptation'. It is also used strategically by climate justice advocates and high-ambition Global South states through coalitions such as the Alliance of Small Island States (AOSIS) and the Climate Vulnerable Forum (CVF).

The scientific literature that dominates climate change knowledge production on vulnerability understands it as a positivist concept. Vulnerability is framed as a measurable phenomenon that can be used to quantify which states and regions are most exposed to the impacts of climate changes in relation to their ability to adapt to these impacts. However, vulnerability is also a highly contested term, creating a huge literature on the topic from a wide range of theoretical angles (review articles include Adger 2006; Füssel 2007; Methmann and Oels 2014). The importance of the concept institutionally means that significant research attention has been paid to advancing how climate change vulnerability can best be conceptualised in order to enable accurate measurement and indexing of global vulnerabilities.

There have been two key interventions into this 'scientific' understanding of vulnerability developed in the institutions that have expanded from the biophysical understanding of vulnerability as primarily related to sea level rise that dominated in the first IPCC reports. Firstly, the 'social vulnerability' literature has expanded how vulnerability should be understood, beyond the biophysical effects of climate change and into more consideration of the social factors that affect adaptive capacity (Bohle et al. 1994; Adger 1999). Secondly, there has been a feminist intervention that has expanded who should be considered vulnerable, to move away from state-level analysis and to include considerations of gender and marginalised groups (Fordham 2004; Bunce and Ford 2015). However, these two interventions have afforded less research attention to historical and discursive questions of why certain groups are

¹ 'Decolonial' is used too much to mean too little (Dar, Dy, and Rodriguez 2018). In this case, I am using it to signal a broad range of conversations and literature that is interested in race, coloniality and that has a political commitment against colonialism and coloniality (Bhambra 2014).



perceived as vulnerable, or how vulnerability is created and maintained (Quealy and Yates 2021; Ribot 2009, 2014).

The developing field of critical adaptation studies goes some way to addressing this problem of a depoliticised and technocratic scientific conceptualisation by tackling questions of power and politics. Rather than only asking how vulnerability should be measured and who should be included in research, CAS asks how vulnerability is produced and operationalised through climate change politics itself. CAS asks how formal adaptation projects reproduce power relations through resource distribution (Mikulewicz 2018), and further embed dynamics of power and knowledge (Nightingale 2017), and racialised marginalisation (Hardy et al. 2017). However, as this work is primarily focussed on contesting the scientific conceptualisation of vulnerability, it has left the discursive framework of vulnerability largely unchallenged.

This discursive framework of vulnerability rests upon colonial imaginative geographies of places and people, that work to enable an acceptance of some vulnerabilities and harms as 'natural' rather than political (Sultana 2022; Weatherill 2022). Without an interrogation of the underlying assumptions that vulnerability is inherent to certain people, races, or genders, critical work on vulnerability will continue to reproduce these colonial imaginaries that naturalise and justify the continued production of vulnerability. In this article, I suggest that more attention should be paid to the resistance work of critical feminist and decolonial scholars, particularly the work of those who are themselves deemed vulnerable. This work addresses the coloniality of vulnerability discourse and therefore helps to question the gendered and racialised assumptions that underlie it. Rethinking climate change vulnerability from the position of resistance therefore enables a challenge to what Judith Butler calls the 'First World fantasies' of invulnerability (Butler 2004) that underlie the scientific vulnerability research.

The first section of this article discusses institutional debates around vulnerability, namely how it should be measured, and who should be the focus of analysis. This is followed by a section on CAS, a relatively new field that has sought to politicise vulnerability, and a section on the critical feminist and decolonial literature that provides theoretical tools to uncover the politics of vulnerability discourse. Finally, building upon this literature, the article discusses potential avenues of further research brought by these perspectives, that open up new ways of thinking about climate change vulnerability. I contend that applying critical feminist and decolonial insights into vulnerability to climate change shows that climate change is a form of violence that relies upon assumptions that those hurt will be the globally disposable; the people racialised and gendered as ungrivable (Butler 2004). The inclusion of these insights into critical climate change literature would open up space for challenging the ongoing paternalism and coloniality of climate change politics.

Vulnerability in climate change politics: contestation

Within climate change politics, vulnerability started as a primarily biophysical and socioeconomic concept. In the earliest IPCC reports, vulnerability was mostly used in relation to sea level rise, so it was islands and low-lying regions that were



quickly identified as the ‘most vulnerable’ to climate change. Socioeconomic factors were also included in this early understanding, reflecting an assumption that development status and vulnerability must be related. The complexity of vulnerability has increased over time to a much broader understanding that includes developmental and governance indicators. This broadening has occurred in two directions: an expansion of how vulnerability should be measured, and who this measurement should scale to include.

Attempts at translating vulnerability into a positivist concept have proven extremely difficult, “we question the very possibility of reducing complex social–ecological processes to numbers, or a number, given the diversity of spatiotemporal processes involved” (Barnett et al. 2008, 115). Yet the formal requirement for comparable vulnerability assessments remains in place, so interventions and debates around how vulnerability should be measured continue. However, paradoxically, the majority of vulnerability assessment research does not itself engage with theory, meaning that this literature “spin[s] in circles: researchers repeatedly conduct similar analyses in different geographical settings with inconsistent or incommensurable findings” (Kuhlicke et al. 2023, 10). Instead of theoretical engagement, this literature will often include a citation of the IPCC definition, meaning that the IPCC’s framing of vulnerability is extremely important.

The first IPCC example of an attempt at ranking states according to vulnerability omitted developed states from consideration on the basis of their assumed invulnerability (IPCC WGII 1990, 2–20). This was followed by a seven-step methodology which again focussed on socioeconomic development and physical changes (IPCC 1991). Over time, more indexes were developed, and their methodologies became increasingly formalised and intricate. The intervention of social vulnerability, which became prominent in the IPCC from AR3 (IPCC WGII 2001), was intended to re/politicise vulnerability, bringing in non-climate change literature to create an “analytical triangle... [of] human ecology, expanded entitlements and political economy” (Bohle et al. 1994, 39). This work is informed by the ‘unnatural disaster’ literature, Sen’s entitlements, and a critique of the IPCC for too much of a focus on physical geography in vulnerability assessment, “concentrating on the regions or ecosystems which are threatened: forests, agriculture, and coastal regions for example” (Adger 1999, 250).

The differences between social vulnerability and the conceptualisation seen previously in the IPCC are a move to focus on social groups as opposed to regions or region-types, and an inclusion of notions of power, class, and to a lesser extent, race and gender. This change in focus means that social vulnerability begins to create a causal narrative for vulnerability, and the global political economy is no longer framed as benign, “Vulnerability is the result of processes in which humans actively engage and which they can almost always prevent” (Adger 2006, 270). Social vulnerability is therefore understood as not ‘natural’ as it produced by society. This literature comes at times from a critical theoretical background, but its application to climate change requires the positivism of assessment methodologies. Questions therefore remain fixed on how to measure vulnerability, with vulnerability measured through development and governmental proxies such



as GDP per capita, 'dependency' and 'stability' (Adger 1999, 252). The necessity of proxies therefore flattens a lot of the potential of social vulnerability.

This question of 'who is vulnerable' is politically important due to the financial and strategic resources that are involved in the identification of vulnerability. Social vulnerability began to complicate this question beyond earlier understandings of vulnerability as inherent to certain environment types. It includes notions of class and power, and different scales of analysis rather than state comparisons only. Vulnerable social groups are therefore identified as poor and marginalised livelihood groups, for example, refugees, and "widowed, divorced or separated women, malnourished children, the infirm and handicapped, and the elderly" (Bohle et al. 1994, 42). Yet it is with this question of 'who' that the difficulties and contradictions of the positivist approach become most clear. Complicating 'who is vulnerable' means looking for different subjects of analysis, but the positivist methodology still requires generalisations and proxies to enable comparable measurement and indexing. This methodological problem was taken up in a feminist intervention that has expanded who should be considered vulnerable,

The first intervention of feminist researchers into the vulnerability debate was to argue for the inclusion of gender in vulnerability assessment. This meant drawing attention to the way that women are differentially affected by climate change (Bunce and Ford 2015) both by the material impacts of climate change and gender-blind policy responses. This means that this second intervention is again directed at the scientific framework, and redirecting attention towards thinking about marginalised groups, starting with the inclusion of gender.

Gender in this work is primarily used to demonstrate how women as an empirical category are particularly vulnerable to the effects of climate change, rather than taking a wider understanding of gender. 'Women' here means poor women, and more so, poor women from the Global South, "where gendered cultural expectations, such as women undertaking multiple tasks at home, persist... and the ratios of women affected or killed by climate-related disasters to the total population are already higher than in developed nations" (IPCC WGII 2007, 374). This move takes the form of altering methodologies, in tandem with social vulnerability, to include proxies such as 'female literacy rates' and 'female child mortality rates' (O'Brien et al. 2004, 305, note 7). Whilst there is a focus on women, through this intervention, 'who is vulnerable' is again understood through lists of marginalised groups, such as "age, class, gender, health and social status" (IPCC WGII 2007, 729). Or, "Wealth, education, ethnicity, religion, gender, age, class/caste, disability, and health status" (IPCC WGII 2014, 1066–67).

The inclusion of this work into the IPCC reports sometimes leads to women being framed as inherently vulnerable, as if this was scientific fact. For example, a section about heat stress in Assessment Report 5 (AR5) notes a "usually higher physiological vulnerability in women" (IPCC WGII 2014, 106). This claim is not supported by a reference, but instead signposts a later section. However, this later section (IPCC WGII 2014, 718) leads only to evidence of the effect of heat stress on children and pregnant women. This does not support the claim of higher physiological vulnerability in women as a whole, yet this is the claim that is made.



This approach has therefore reproduced discourses of women as either vulnerable or as virtuous in relation to the environment (Arora-Jonsson 2011) and further embedded the iconic climate victim image of “a lone South Asian woman standing chest-high in rising flood waters” (MacGregor 2010, 227). In order to participate in the work of the climate institutions, this approach fails to draw on the feminist critiques that show how this discourse of vulnerability reproduces “colonial visions of a superior global north and an inferior south” (Manzo 2010, 103). This has led to a call for more feminist work on the gendered effects of masculinist discourses that dominate climate change politics, using the analytical tools of feminism to dig down and pull up “the deep roots of the discourses that frame gender and climate politics everywhere” (MacGregor 2010, 236). This article renews this call.

Critical adaptation studies: power and politics

CAS is a developing literature that works to re/politicise adaptation. Vulnerability is therefore not the only focus of this work, but the importance of vulnerability for adaptation means it figures heavily. CAS builds on the work done through the concept of social vulnerability, but is more concerned with power and politics, arguing, “power and politics are embroiled in all aspects of adaptation programmes, including in their inception and design, making power constitutive of adaptation rather than an externality that requires postimplementation management” (Nightingale 2017, 12). Social vulnerability is criticised for tracing how social differentials affect vulnerability, “without interrogating why and how such inequalities have been produced or reproduced in the first place” (Taylor 2014, 82). CAS’ additional analysis of power and politics enables deeper attention to be paid to how adaptation policy actually affects those considered ‘vulnerable’ and who is able to effectively engage in the politics of adaptation. However, its focus on the politics of adaptation means that CAS is still primarily an intervention into the scientific understanding of vulnerability. The ‘how’ of addressing vulnerability is still adaptation, and the ‘who’ is still marginalised groups within the Global South.

CAS goes deeper into an analysis of vulnerability by not just asking how vulnerability should be identified and measured, but how it is produced. This additional step interrogates the origins of vulnerability, “[to] reveal that these origins are, in essence, political” (Mikulewicz 2018, 29). This interrogation shows that vulnerability is not natural or inherent, but that people are vulnerabilised or “rendered vulnerable” (Taylor 2014, 86). Vulnerability is also understood to be produced relationally, with “the relative security of some... produced through a series of socio-ecological relationships that reproduce the relative vulnerability of others” (Taylor 2014, 73). Vulnerability therefore needs to be analysed in terms of origin, here meaning research into the politics of adaptation itself. CAS conducts this analysis in three ways. Firstly, through analysis of the power dynamics that affect policy; secondly through attention to the politics of knowledge; and thirdly, through research into the power of adaptation discourses.

The first way that CAS uncovers the politics of climate change adaptation is an analysis of how power operates within policy. This work finds that ‘vulnerability’ is



not the criteria which is enabling access to resources, an assumption that underlies much climate change vulnerability research. Instead, vulnerability is understood as being produced or even exacerbated by the politics of adaptation. For example, the ‘economisation of vulnerability’ means that adaptation projects can be vulnerability-inducing, when vulnerability becomes a rationale for market-based solutions, aimed primarily at driving economic growth (Friedman 2023). This vulnerability exacerbation can also occur through ignoring social inequalities at a local level, meaning that the root causes of vulnerability are missed (Mikulewicz 2018, 19). This implies a need for more contextual vulnerability analysis, in order to “promote responses that contribute to change the conditions that create vulnerability in the first place” (Nagoda 2015, 570).

It can also occur as those with relative power within communities are able to affect adaptation policy through strategic use of vulnerability identification. As one example, research into adaptation projects in Nepal finds that “... the choices of adaptation efforts overwhelmingly favoured the wealthier, higher caste landowners... [who] were able to use their social and political clout to shape the adaptation project towards their needs rather than those of more vulnerable people” (Nightingale 2017, 17). This can be understood as an example of (mal)adaptation opportunism, “a situation in which projects undertaken in the name of climate change adaptation (CCA) are overrun by interests other than the stated or intended objectives of the CCA project” (Owusu-Daaku 2018, 935). This suggests that solutions such as ‘bottom up’ policy are still not enough to understand the politics of vulnerability and adaptation if they continue to rely upon generalising assumptions about communities, and fail to account for local dynamics.

Building on this, the second way that CAS uncovers the politics of climate change adaptation is through attention to the politics of knowledge. This work highlights that without an explicit acknowledgement of power relations and politics within adaptation decision making, bottom up approaches still fall short of adaptation’s “transformative potential” (Tschakert et al. 2016, 182). This is because of the aforementioned nuances of how power operates at a local level, but also because of how groups are positioned in relation to adaptation, whose knowledges are considered authoritative, and “who is considered knowledgeable and competent to undertake planned activities” (Eriksen et al. 2015, 527).

This argument builds on research into the UNFCCC and IPCC (Hulme 2010) which has highlighted that how the problem of climate change is framed affects how the solutions to climate change are understood. For adaptation and more specifically vulnerability, this means researching at a smaller scale to prevent generalisations of entire populations as ‘climate vulnerable’ (Eriksen et al. 2015, 529). It also means including “local knowledge and strategies in *designing* adaptation measures; it is supposed to be not just community-based but also community-driven” (Mikulewicz 2018, 22, my emphasis).

Finally, CAS is interested in the power and politics of adaptation and vulnerability discourses. Discourses become an analytical focus, drawing on Foucault and Butler (Tschakert et al. 2016; Nightingale 2017; Mikulewicz 2020) to ask questions about the vulnerable subjectivity. Viewing adaptation as a discourse enables an analysis of vulnerability not as some, “benign, evolutionary process that humanity must



undergo to adjust to climate change but rather a powerful discourse that legitimises specific forms of depoliticized governance that lead to technocratic solutions and preclude any meaningful social transformation” (Mikulewicz 2020, 2).

This work therefore shows what the designation of ‘vulnerable’ means for people or groups. It finds that vulnerability is ‘weaponised’, transferring an at-risk population discursively into a threat, leading in turn to dehumanisation and fear responses (Chmutina et al. 2022). These security responses are seen especially in discourses of climate-induced mass-migration and climate conflict (Thomas and Warner 2019, 9). This means that the discourse of vulnerability is itself vulnerabilising, “the creation of threats from vulnerable populations requires explicit recognition of others’ vulnerability coupled with discursive and material actions that reproduce and exacerbate that status” (Thomas and Warner 2019, 9).

People or groups discursively constructed as ‘the vulnerable’ therefore become the problem to be solved, through actions such as, “eviction and demolition rather than vulnerability prevention actions of transformational adaptation” (Fayombo 2021, 297). The discursive construction of ‘the vulnerable Other’ actually undermines the ability to access resources and further exacerbates vulnerability (Fayombo 2021). Kasia Paprocki calls this process of pre-emptive removal as a reaction to apparently inevitable unviability, ‘anticipatory ruin’ (Paprocki 2019). This process bypasses the wants and needs of communities, and climate change “becomes a post-facto justification for a process of ruination through the planning of particular development interventions both historically and into the future” (Paprocki 2019, 309).

Together, these insights of CAS work to uncover how the politics of climate change adaptation renders people vulnerable. This is an important intervention into the dominant scientific approaches of biophysical and social vulnerability which do not sufficiently politicise how vulnerability is re/produced, particularly through climate change politics itself. In this sense, CAS serves as an important politicisation of the scientific understanding of vulnerability. However, what CAS does less to address, is the discursive framework of vulnerability which has an underlying historical story of vulnerability that rests upon colonial imaginative geographies of people and places.

As with the feminist intervention of ‘adding gender’, the case studies of CAS are drawn from the Global South, and the arguments for understanding local dynamics are understood to be relevant to ‘developing countries’. Yet the ongoing coloniality of global politics and global climate politics (Sultana 2022) is not yet understood as a driver of vulnerability itself. The colonial patterns of harm that climate change seems to follow are thus naturalised. One article does draw from postcolonialism to discuss colonial imaginations (Mikulewicz 2020) and another takes seriously the discursive effects of being identified as vulnerable (Thomas and Warner 2019). However, the purpose of most CAS work is to contribute to policy so even in these papers, adaptation is an “urgent development goal” (Mikulewicz 2020, 6). This policy-minded focus of CAS is explicit throughout, “One of the advantages of this framework is its explicit policy relevance” (Taylor 2014, 81). With their research offering lessons for adaptation, “Researchers and policy makers may thus appropriate and redirect the problematic practice of personification to better serve those most in need” (Thomas and Warner 2019, 9).



This instinct is understandable in such an urgent area of politics. However, the effect of this is a limit on how far CAS is able to push its analysis, as it attempts to shift the paradigm rather than fully challenge it. Without taking this next step, to question and deconstruct the discursive framework of vulnerability, vulnerability will continue to be used to depoliticise patterns of harm that are framed as natural. For example, the early intuitive link between vulnerability, sea level rise and islands built upon a discursive history of islands as vulnerable and doomed to uninhabitability that has served to naturalise the threat of uninhabitability as inevitable (Weatherill 2022). Similarly, the narrative of “Third World women... as the impoverished, vulnerable “other”” (Parpart 1995, 236) is so entrenched, that climate change disappears in these narratives, as only one more threat experienced by the inherently ‘weak’ that can be solved through ‘First World’ expertise and intervention. In a climate change context, the scientific project of measuring vulnerability is riddled with these assumptions that turn climate change into another arm of development politics. For a critical approach to vulnerability, these assumptions need to be better challenged. In the next section, I use the theoretical insights of critical feminist and decolonial scholarship to outline ways in which this literature could open up new possibilities in understanding climate change vulnerability.

Resisting vulnerability: critical feminist and decolonial insights

This section explores the theoretical insights of critical feminist and decolonial scholarship around resistance and vulnerability. Engaging with this scholarship is an acknowledgement of the fast growing literature on the coloniality of climate change politics (see, for example, Bhambra and Newell 2022; Perry 2022; Sultana 2022; Táíwò 2022). This literature takes an additional step to the argument that colonialism has driven climate change, through its extractive and destructive use of both land and people. It argues that coloniality continues to structure the logics of global politics. This approach highlights that not only is the material harm of climate change differentially distributed, it is also justified through the language of climate science. The discursive framework of vulnerability is part of what Wynter calls the ‘grounds of legitimacy’ for ongoing coloniality (Wynter 2003, 292). The naturalisation of vulnerability justifies the ongoing colonisation of land and of climate.

This section is structured around the resistance to vulnerability discourse that is found in the counternarratives of the Pacific, where the phrase ‘To Hell With Drowning’ has become a rallying cry (Aguon 2021). Whilst the Pacific has long been used as the charismatic icon of global climate vulnerability, many scholars and activists in the region are vocal in their rejection of this identity. This rejection is not to deny the enormity of what climate change is causing in the region, but to deny the depoliticising passive voice of the ‘sinking island states’ or the ‘drowning islands’. Nor is this rejection new. In 2013, the slogan, ‘We’re not drowning, we’re fighting’ (350 Pacific 2013) accompanied a Warrior Day of Action organised by the Pacific Climate Warriors, which both denied the global narrative of victimhood, and expressed solidarity across the region. The actions took place on ten islands across the Pacific and featured fighting dances and



demonstrations in a show of strength, pride, and a demand for a dignified future for their islands and their children (350 Pacific 2013).

Vulnerability is being resisted in this Pacific activism in two important ways. Firstly, vulnerability is being resisted as an identity due to its victimising implications, an argument that resonates strongly with critical feminist work (Parpart 1995; MacGregor 2010; Butler 2016). Resisting vulnerability in this sense does not mean denying the problems of inequality and injustice, but arguing that victimising discourses naturalise and essentialise, rather than challenge, vulnerabilising politics and policies. This resistance is a political rejection of the use of depoliticising language which relies upon the dualist construction of the ‘Third World’ as impoverished and in need of salvation from the developed North, reinforcing “the authority of Northern development agencies and specialists” (Parpart 1995, 222). Hence, ‘we are not drowning, we are fighting’ is a rejection of the depoliticised vulnerable victim identity, and its paternalistic political responses.

Secondly, vulnerability is being resisted as a condition that is being created through an ongoing violent colonial politics of disposability. In the Pacific, climate change does not appear as a new threat, but as a continuation of the politics of harm perpetuated by colonial powers ‘for the good of mankind’ (Jetñil-Kijiner 2017). Resistance in this second sense takes place as a repoliticising and decolonial set of demands for strong and urgent climate action, to prevent the unfolding of what vulnerability discourse too easily frames as inevitable. Hence, ‘to hell with drowning’, means to hell with being sacrificed again. The Pacific is a region which has seen waves of violence for the enrichment of others, from colonial land theft, to blackbirding, nuclear testing, militarisation, forced displacement, ruinous mining, and now climate change (Teaiwa 2014, 2020a). This violence has always been ecological, with:

“Whaling and overfishing in the Pacific. Phosphate strip-mining in Banaba and Nauru. Gold and copper mining in Papua New Guinea and Bougainville. Clear-cutting and logging in the Solomon Islands and Vanuatu. Sugar plantations in Fiji. Copra plantations in Micronesia. Palm oil plantations in West Papua. GMO plantations in Hawai‘i. The militarization of Guåhan. The bombing of Kaho‘olawe and Pōhakuloa. The dredging of Apra Harbor, Pearl Harbor, and Pago Pago Harbor. The horror of nuclear testing in Bikini, Eniwetak, Fangataufa, Mururoa, Malden, and Kiritimati” (Jetñil-Kijiner, Kava, and Perez 2022a, xv).

Resisting vulnerability as a demand for ending violence in the Pacific is therefore expansive, “Environmentalism is a clunky word to describe the ways in which Pacific Islanders fight for land, ocean, air” (Jetñil-Kijiner 2022, 387). It is decolonial and anticolonial, whilst also demanding strong mitigation and commitments to reparative redistribution through and beyond loss and damage and adaptation funds.

In the rest of this section, I will discuss these two areas of resistance, bringing in the literature from critical feminist and decolonial scholarship in order to provide a theoretical counternarrative to the vulnerability scholarship discussed so far. I argue that bringing seemingly disparate scholarships together to address victimisation and



disposability provides a generative way of thinking about vulnerability as a concept of care and interdependence.

Resisting victimisation and paternalism

Firstly then, critical feminist work has long argued against the essentialising effect of vulnerability discourse which further entrenches “the image of the helpless pre-modern, vulnerable Third World woman” (Parpart 1995, 222). This is a key feminist insight that rejects claims about the constitutive vulnerability of womanhood, or poverty, “in favor of a social and political account about how vulnerability is produced and distributed” (Butler et al. 2016, 2). This means questioning the assumption that women are naturally more vulnerable, and asking what processes produce this vulnerability, or neglect women from the distribution of the resources and tools that create invulnerability.

Gilson’s work (2011) points to the difference between negative vulnerability, conceived as weakness, and positive vulnerability as a universal human and enabling condition of potential which gives us the ability, “to fall in love, to learn, to take pleasure and find comfort in the presence of others, and to experience the simultaneity of these feelings” (Gilson 2011, 310). She also shows how it is the negative understanding that dominates, with essentialising effects:

“A shift is made from thinking of vulnerability in terms of weakness to thinking about those who are vulnerable as weak. This shift is encapsulated in statements such as “those living below the poverty line are vulnerable to disease” or “women are vulnerable to sexual assault,” which can then collapse into the belief, for instance, that “the poor are dirty, incapable of caring for themselves” and “women are defenseless creatures; women are weak”” (Gilson 2011, 311).

In this way ‘the vulnerable’ becomes a research object, and a community to be identified and then ‘assisted’. Whilst CAS research has shown the way that this identification can be wielded strategically in order to gain access to resources, it has also shown the dangers of this identification, where vulnerable groups become securitised groups. It is anti-essentialist feminist vulnerability work that can acknowledge the vulnerabilisation of marginalised communities, and show that processes of vulnerability identification are gendered. Thus avoiding the “triumphant, purified neutrality, [that] erases social and political contestations, economic disparities, and the material processes of the entangled, emergent world” (Alaimo 2009, 30). This dual move creates a firmly political position that recognises both the social construction of gendered inequalities, but also of climate change, that is also “manufactured in a crucible of inequality... a product of the industrial and the fossil-fuel eras, historical forces powered by exploitation, colonialism, and nearly limitless instrumental use of “nature”” (Cuomo 2011, 693).

With this victimising identity, comes a paternalist politics that flows from identifying ‘the vulnerable’ to a moral argument for more intervention to ‘fix’ the vulnerability. This disempowering politics of vulnerability lies in the majority of climate change work, including CAS. The scientific frame of vulnerability is designed to



identify and target the ‘most vulnerable’ and provide assistance in the form of neo-liberal development strategies such as finance. These strategies obscure that “racial-patriarchal capitalism and colonialism [are] root causes of the climate crisis... [making] target populations... responsible for managing the adverse effects of climatic changes, receiving (limited) assistance conditional on their willingness to go along with a pre-packaged plan” (Andreucci and Zografos 2022, 6).

This assistance has been shown by feminist work to place an additional burden on women (see for example Chant 2010). It is also a model that assumes that vulnerability is victimhood, passivity, and inaction (Butler et al. 2016, 1). If action has to be taken by the invulnerable subject, and the invulnerable subject is the masculine, Western Man, then this reinforces a politics of paternalism and coloniality. Within climate change this also undervalues forms of knowledge that lie outside of the institutions, leaving “very little room for human voices let alone the voices of those women who would wish to complicate or resist the way they appear in the climate story” (MacGregor 2010, 227). This politics is one that CAS needs to do more to reject, seeking as it does to contribute to policy.

Vulnerability discourse is depoliticising as it shields from debate questions around how vulnerability is created. By asking where vulnerability comes from, questions of power become inseparable from the discourse itself. Asking these questions reveals how vulnerability fits into hegemonic discourses of masculinity and femininity that not only naturalise the vulnerability of some, but frame and produce climate politics. Overemphasising vulnerability therefore limits the possibilities for action, “as it obscures power imbalances and denies women agency while legitimising differences as unchangeable” (Bee et al. 2013, 98).

Hence, vulnerability is a discourse that is also disempowering, constructing women as “one dimensional objects: [who] rarely enter the discussion unless as climate victims” (MacGregor 2010, 227). This affirms stereotypes about the “Southern woman as helpless, voiceless and largely unable to cope without the help of UN development agencies funded and staffed by the North” (MacGregor 2010, 227). Again, this makes the high emitting states the solution to the problem of the weak and vulnerable people and states through “the imposition of external, top-down interventions to ‘effectively’ tackle climate change that further marginalise and silence women’s as well as male voices and their experiences in dealing with climatic extremes” (Bee, Biermann, and Tschakert 2013, 98).

Resisting disposability

Secondly, critical feminist and decolonial work brings to the fore how vulnerability is being actively created through an ongoing, violent politics of disposability. If ‘the vulnerable’ in climate change politics are the people and regions that are widely expected to be badly affected, then ‘vulnerability’ is an imaginative line drawn to separate what and who is expected to be in danger, and what and who is expected to be safe. Theoretically at least, this division is also intended to mark “who or what is seen as vulnerable and in need of preservation” (Cohn 2014, 51). From a critical perspective, much of the reason for lack of action on climate change is because this



line is drawn around a racialised and feminised group of people and places, where risk and danger are already expected to be. It is the feminised, racialised Other who is the vulnerable object; not the masculine, rational White Male subject.

Yet feminists have long argued that vulnerability is constitutive of being human, “Our humanity springs from our precariousness and the appreciation for life that it instils” (Gammon 2013, 149). A feminist notion of vulnerability is also then related to care, where ‘appreciation for life’ comes from the knowledge of its vulnerability. Where the recognition of the vulnerability of others (as opposed to the vulnerable Other, to whom we will return) realises their humanity, “Through the understanding of the vulnerability of others, they become flesh and blood. When we truly grasp the vulnerability of others, they escape the mere realm of facticity, becoming entwined in our own subjectivities” (Gammon 2013, 149). On the other side of this lies masculine, colonial rejection of vulnerability, the ‘delusions’ (Barry 2012) or fantasies of invulnerability (Weatherill 2023), and the dehumanisation of the vulnerable.

The masculine conflation of vulnerability with weakness requires a disavowal to retain the fantasy of invulnerability, “The denial of vulnerability can be understood to be motivated by the desire—conscious or not—to maintain a certain kind of subjectivity privileged in capitalist socioeconomic systems, namely, that of the prototypical, arrogantly self-sufficient, independent, invulnerable master subject” (Gilson 2011, 312). The politics of this myth of autonomy (Fineman 2004) is reactionary, because it is an impossible state, “because vulnerability is an unavoidable feature of our existence, invulnerability must be continually sought and, as it is never really adequately and securely achieved, masterful identity must be continually shored up” (Gilson 2011, 313). The masculine fear of or denial of vulnerability creates a fearful and reactionary politics. It is the denial of vulnerability that can fuel violence, as in Butler’s example of the US response to September 11th, as a vulnerability-exposing attack. The fear response in this case was to “banish it in the name of action invested with the power to restore the loss or return the world to a former order, or to reinvigorate a fantasy that the world was formerly orderly” (Butler 2004, 29).

Feminist theory argues against this fear-response and instead for a radical openness to what happens if vulnerability is accepted, “as a space to work from as opposed to something only to be overcome” (Hirsch 2016, 81). For climate change, it is imperative that the fantasy of invulnerability is challenged so that fantasies of wealth-based individualistic safety are no longer allowed to dominate. The racialisation and feminisation of the vulnerable Other are an active process of dehumanisation, allowing the politics of disposability.

Scholarship on de/anti-colonialism and racial capitalism shows how the politics of disposability is racialised, “the global colour line created gradations of disposability” (Perry 2023, 172). The critical tradition this work draws from defines racism itself in relation to vulnerability, “Racism, specifically, is the state-sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death, in distinct yet interconnected political geographies” (Gilmore 2002, 261). This work therefore uncovers how “ecological harm and environmental injustice are deeply entwined with racialised economic exploitation and injustice in the world capitalist system” (Tilley et al. 2023, 2). It is global environmental racism that drives the distribution of harm, where “communities of color and the environment



are basically deemed exploitable and disposable by an elite (mostly white and male) capitalist class” (Batur and Weber 2017, 334). The distribution of vulnerability is therefore an effect of coloniality, where “Eurocentric hegemony, neocolonialism, racial capitalism, uneven consumption, and military domination are co-constitutive of climate impacts experienced by variously racialized populations who are *disproportionately made vulnerable and disposable*” (Sultana 2022, 4, my emphasis).

Similarly, critical literature on the Caribbean already recognises the essentialism of vulnerability discourse, drawing attention to the geographies of vulnerability as resulting from old patterns of colonial extraction, racio-colonial governance (Bonilla 2020) or disaster colonialism (Faria et al. 2021). This work shows how the relation of racial capitalism produces vulnerability through colonial practices of racialisation, dehumanisation, and the myth of expendability (Bhattacharyya 2018, x). The political economy is drawn out as a colonial continuity, in which the “historical practices of debt exploitation and extraction have contributed to the making of vulnerability to climate change” (Sheller 2018, 974). Colonial agricultural systems continue to structure economies (Rhiney 2017) high levels of indebtedness “traceable to relations of colonialism and imperialism” (Sealey-Huggins 2017, 2) and restrictions placed on islands by colonial centres such as steep transportation costs and inflated prices (Bonilla 2017, np).

Colonial histories are therefore shown to be constitutive of climate change (Bhambra and Newell 2022), but it is not enough to point to the pattern of harm, and where. The political argument needs to be made that this is because of the enrichment of the colonial powers through racialised capitalism and colonialism, through the processes of industrialisation that extracted from colonies, enriched colonial powers, and forged the developmental model of fossil fuel economy. Conversations about vulnerability therefore need to start here, where vulnerabilisation is a colonial process, and invulnerability is a fantasy, upheld through the racialised exploitation of labour and resources. Vulnerability discourse should therefore be critically interrogated as a tool and logic of this coloniality.

Rethinking vulnerability

In this final section, I will answer the question, ‘where to go from here’. Having argued that the discourse and politics of vulnerability is colonial, racialised, gendered, and reinforcing a politics of disposability, the idea of reframing such as troubled concept is difficult. However, it is also important. Vulnerability is a key concept within the institutions of the climate institutions. Critical adaptation and feminist scholars who engage with the concept do so for this reason. The identification of gendered vulnerability, the acknowledgement of women’s strengths in disaster recovery, with the further acknowledgement of the additional burden this responsibility puts on women (Clissold et al. 2020) feels like an inescapable problem of vulnerability. However, the identity of ‘vulnerable’ is also used strategically by groups identified as such, raising questions of reflexivity for white scholars based in the Global North such as myself, who declare the concept to be ‘problematic’.



International groups such as AOSIS and CVF have formed around the identity of ‘climate vulnerable’, using the platform of the UNFCCC COPs and the member states’ widely accepted status as vulnerable to argue for strong and urgent mitigation. Farhana Sultana writes of COPs as simultaneously a theatre of climate colonialism, and “a site of decolonial, anti-colonial, anti-racist, and feminist politics” (Sultana 2022, 2). At COP, climate politics is both performed and contested. This performance is a struggle between competing narratives. Whilst discourse does allow for contestation, the discourse of vulnerability is a strong one that risks being reinforced. The power of the concept means that it can be appropriated, but it “cannot always be controlled, and its use can lead to unintended consequences” (Barnett and Campbell 2010, 166).

Understanding COP as a political theatre (Death 2011) is helpful for understanding the limits of strategic use of vulnerability discourse through the UNFCCC. The performance of diplomats and heads of state at COP can garner attention on a global scale, creating new audiences and opportunities to take centre stage. Each COP becomes a story, with heroes and villains, and “the cast of actors performing their roles on the summit stage” (Death 2011, 10). Island diplomats can become the heroes of summit theatre, as in COP26 with the story of the Tuvalu minister giving a speech whilst stood in the sea (Guardian News 2021). This performance’s success can be a viral moment of attention, but “the primary effect of the summit theatre is the reinforcement and reaffirmation of existing state-centric constellations of global power relations” (Death 2011, 10). Ultimately, the pretence and performance of ‘action’ amidst the perpetuation of colonial continuities are legitimised through participation. The islander story of the ‘sinking islands’ remains in place, and these acts only reinforce it. Island diplomats can become heroes, but their role cannot be radical; it has to be the noble victim.

Instead of this strategic wielding of the vulnerable identity, I argue that resisting vulnerability against victimisation, paternalism, and disposability, starts with identifying vulnerability with resistance (Butler 2020; Butler et al. 2016). Brink et al. have recently suggested resistance should be the focus of research, shifting the debate, “from vulnerability as a trait or label, to how you experience and act upon domination, which implies agency” (Brinke et al. 2023, 13). Similarly, von Meding and Chmutina discuss vulnerability in relation to liberatory praxis, arguing that “so-called “vulnerable” people, working in solidarity and using intersecting frameworks of anti-racism, anti-colonialism and anti-capitalism, can undermine the risk-creating norms of the neoliberal state” (von Meding and Chmutina 2023, 1). Resistance is one avenue that vulnerability research could take—and is perhaps beginning to take—that would offer a new frame of vulnerability.

Another avenue to explore is relationality. In Butler’s work on vulnerability, they suggest vulnerability be reframed as a relational concept of interdependence. Whilst the climate change vulnerability project tries to separate out and categorise the differential vulnerabilities of individual units, Butler stresses relationships that create vulnerability and invulnerability. The human body is understood as dependent for survival on certain environmental and social conditions, as well as “networks of support and sustenance by which the human itself proves not to be divided from the animal or from the technical world” (Butler 2016, 21). This dependence is an



interdependence that challenges the masculinist ideal of the individual, “Not only are we then vulnerable to one another... [but] this very vulnerability indicates a broader condition of dependency and interdependency that challenges the dominant ontological understanding of the embodied subject” (Butler 2016, 21).

Scholars of vulnerability from the Global North are acknowledging their own vulnerabilities in a way that is acknowledging and building upon this notion of relationality and interdependence. This reflexivity is fundamental for addressing the dehumanising effects of labelling the vulnerable Other. The underlying assumption in vulnerability research to this point, “which is also sometimes stated outright, is that “we” (the privileged in the global north) are not so vulnerable” (Eriksen 2022, 1279–80). Rethinking this assumption brings forth a dimension of vulnerability as inherent, not to certain social groups or places, but “inherent in the connectedness in social relations critical to acting on climate change in an equitable and sustainable manner, both at local and global scales” (Eriksen 2022, 1280). This can foster a more compassionate type of research, “that is, vulnerability needs to be understood on a deeper personal and political level, going beyond being studied as an attribute that can be measured and described in a neutral fashion, addressed through technical fixes” (Eriksen 2022, 1280).

Joining resistance, relationality, and reflexivity, ‘invulnerability’ is another concept that could be generative for future vulnerability research. Turning focus away from identifying ‘the most vulnerable’ and towards questions of invulnerability generates a methodological challenge. This change in focus would mean that it is *invulnerability* that becomes the produced condition that relies on the vulnerabilisation of others. The production or pursuit of invulnerability can therefore be researched through, for example, analyses of the global political economy, mobility and border regimes, or racial capitalism.

The other way to study invulnerability is as a masculine fantasy. Fantasies of invulnerability depend upon ‘First World’ rejections of vulnerability (Butler 2004). These fantasies, of modernity, of mastery and of continentalism (Weatherill 2023) understand invulnerability as achievable, through ‘development’, technology, wealth, or whiteness; as if these ideas can defeat the human reliance on a liveable earth. Alaimo (2009) shows how climate change is wrapped up in notions of masculinity, both with the “hegemonic masculinity of aggressive consumption, as well as transcendent scientific visions” (Alaimo 2009, 26). As far as masculinity relies on an imaginary of strength and impenetrability (see also Daggett 2018), as well as scientific mastery over nature, vulnerability can be a response to both of these.

If vulnerability is accepted rather than denied, then this comes with the realisation that “humans are not outside the planet looking in, not floating above the phenomena of climate change, but instead, that we are always materially interconnected to planetary processes” (Alaimo 2009, 25–26). This ‘insurgent vulnerability’ leads to “a recognition of our material interconnection with the wider environment that impels ethical and political responses” (Alaimo 2009, 26). Alaimo’s argument is effective, as she is able to critique current scientific, data-collecting approaches to vulnerability, in which, “the ability to “Understand, Assess, and Predict” global climate change supercedes the goal of reducing climate change” (Alaimo 2009, 29) whilst also recognising the feminist potential of the concept.



One place all of this rethinking is being done and done well, is the Pacific, where vulnerability discourse is not just being resisted, and / or used strategically, but also reframed. Vulnerability becomes a way to link other struggles against injustice, and also a way to forge solidarities. Recent anthologies such as ‘Indigenous Pacific Islander Eco-Literatures’ (Jetfil-Kijiner et al. 2022b) powerfully resist dehumanising narratives of vulnerability, refuse the politics of disposability, and demand survival of both islands and islanders, and in full dignity. Global solidarities are being built around shared experiences of coloniality and the environmental and life-destroying effects of capitalism; demanding land back and an end to extractivism.

In the Pacific, the destruction of the environment is not a separate issue, or a new issue, but the same issue of fighting for full control and sovereignty of land which has been stolen twice over, through colonial claiming and capitalist exploitation. Concepts such as the Blue Pacific are in opposition to continental, colonial imaginaries that are based instead on exactly the sort of ‘runaway capitalism’ that has caused so much damage. Katerina Teaiwa suggests that moving to a safe, clean, and fair future requires “paying serious attention to the blue parts of our planet. If the earth can be imagined as a body, the Pacific Ocean is a major organ like the lungs, and we all need our lungs to breathe and survive. What we do to the oceans, and to the islands, we do to all of us” (Teaiwa 2020b, 18.25–19.08). Climate change, vulnerability, and the ocean are concepts that point to the interconnectivity of all life on earth. The protection of all is not just for moral reasons, but because the damage done to one part of the body is felt in another. Sacrificing a ‘major organ’ like the oceans or the islands that lay within them for the sake of accessing more oil, phosphate, or other resources is vulnerabilising us all.

Conclusion

There is an urgent need to decolonise climate change (Sultana 2022). Both as a violent material shift in the safe habitability of earth, and as a system of knowledge that is perpetuating “colonial ideologies and racisms... including those that create and maintain climate breakdown” (Sultana 2022, 6). Vulnerability is a key concept in climate change, of importance for reparation arguments that centre around ‘loss and damage’ as well as the new climate finance models that are perpetuating global debt patterns (Perry 2022). Critical work on vulnerability needs to address both how and where vulnerability is being produced and the discursive framework that is used to justify and naturalise this vulnerabilisation. Understanding vulnerability through critical feminist and decolonial theoretical work offers a challenge to the scientific, paternalist and Global North dominated project of climate adaptation.

In this review article, I have shown how this critical literature could be used to resist the politics of vulnerability and push the concept of climate change vulnerability beyond its current conceptualisation. This critical account is compatible with the politicisation that has begun with CAS, pointing to the processes of vulnerabilisation, including through the scientific project of vulnerability assessment. What critical feminist and decolonial theory adds, is a way to address the gendered and racialised assumptions that underlie vulnerability discourse, perpetuating colonial



discourses and enabling a naturalisation of the suffering of populations deemed ungrivable.

CAS has started this project of deconstructing and critiquing the embedded assumptions of climate change politics. With the addition of critical feminist and decolonial theory, new questions about the institutional pressure for vulnerability research will be opened up. Especially for those who want to understand vulnerability for the pursuit of climate justice, the difficulties of the concept need to be better understood so that the theoretical traps of institutional climate change vulnerability can be avoided.

Declaration

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- 350 Pacific. 2013. Warrior Day of Action. 2013. https://act.350.org/signup/warrior_day_of_action/?_ga=2.61610980.973769228.1666873229-1823607711.1666873229.
- Adger, W. Neil. 1999. Social Vulnerability to Climate Change and Extremes in Coastal Vietnam. *World Development* 27 (2): 249–269. [https://doi.org/10.1016/S0305-750X\(98\)00136-3](https://doi.org/10.1016/S0305-750X(98)00136-3).
- Adger, W. Neil. 2006. Vulnerability. *Global Environmental Change* 16 (3): 268–281. <https://doi.org/10.1016/j.gloenvcha.2006.02.006>.
- Aguon, Julian. 2021. To Hell With Drowning. *The Atlantic*. 1 November 2021. <https://www.theatlantic.com/culture/archive/2021/11/oceania-pacific-climate-change-stories/620570/>.
- Alaimo, Stacy. 2009. Insurgent Vulnerability and the Carbon Footprint of Gender. *Women, Gender and Research*. 3–4: 22–35.
- Andreucci, Diego, and Christos Zografos. 2022. Between Improvement and Sacrifice: Othering and the (Bio)Political Ecology of Climate Change. *Political Geography* 92 (January): 102512. <https://doi.org/10.1016/j.polgeo.2021.102512>.
- Arora-Jonsson, Seema. 2011. Virtue and Vulnerability: Discourses on Women, Gender and Climate Change. *Global Environmental Change* 21 (2): 744–751. <https://doi.org/10.1016/j.gloenvcha.2011.01.005>.
- Bankoff, Gregory. 2001. Rendering the World Unsafe: “Vulnerability” as Western Discourse. *Disasters* 25 (1): 19–35. <https://doi.org/10.1111/1467-7717.00159>.
- Barnett, Jon, and John Campbell. 2010. *Climate Change and Small Island States*. Oxfordshire: Earthscan.
- Barnett, Jon, Simon Lambert, and Ian Fry. 2008. The Hazards of Indicators: Insights from the Environmental Vulnerability Index. *Annals of the Association of American Geographers* 98 (1): 102–119. <https://doi.org/10.1080/00045600701734315>.



- Barry, John. 2012. *The Politics of Actually Existing Unsustainability: Human Flourishing in a Climate-Changed*. Carbon Constrained World: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199695393.001.0001>.
- Batur, Pinar, and Kristianna Weber. 2017. Water Connects It All: Environmental Racism and Global Warming in Tuvalu and Kiribati. In *Systemic Racism: Ducey Liberty, Justice, and Democracy Real*, edited by Ruth Thompson-Miller and Kimberley Ducey, 333–55. New York: Palgrave Macmillan US. https://doi.org/10.1057/978-1-137-59410-5_14.
- Bee, Beth, Maureen Biermann, and Petra Tschakert. 2013. Gender, Development, and Rights-Based Approaches: Lessons for Climate Change Adaptation and Adaptive Social Protection. In *Research, Action and Policy: Addressing the Gendered Impacts of Climate Change*, edited by Margaret Alston and Kerri Whittenbury, 95–108. Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-007-5518-5_7.
- Bhambra, Gurminder K. 2014. Postcolonial and Decolonial Dialogues. *Postcolonial Studies* 17 (2): 115–121. <https://doi.org/10.1080/13688790.2014.966414>.
- Bhambra, Gurminder K., and Peter Newell. 2022. More than a Metaphor: “Climate Colonialism” in Perspective. *Global Social Challenges Journal*. <https://doi.org/10.1332/EIEM6688>.
- Bhattacharyya, Gargi. 2018. *Rethinking Racial Capitalism : Questions of Reproduction and Survival*. London: Rowman & Littlefield Publishers.
- Bohle, Hans G., Thomas E. Downing, and Michael J. Watts. 1994. Climate Change and Social Vulnerability: Toward a Sociology and Geography Of Food Insecurity. *Global Environmental Change* 4 (1): 37–48.
- Bonilla, Yarimar. 2017. ‘Why Would Anyone in Puerto Rico Want a Hurricane? Because Someone Will Get Rich. Washington Post. 2017. https://www.washingtonpost.com/outlook/how-puerto-rican-hurricanes-devastate-many-and-enrich-a-few/2017/09/22/78e7500c-9e66-11e7-9083-bfdd66804c2_story.html?noredirect=on&utm_term=.1d872d7b0f20.
- Bonilla, Yarimar. 2020. The Coloniality of Disaster: Race, Empire, and the Temporal Logics of Emergency in Puerto Rico USA. *Political Geography* 78: 102181. <https://doi.org/10.1016/j.polgeo.2020.102181>.
- Brink, Ebba, Ana Maria Vargas, Falla, and Emily Boyd. 2023. Weapons of the Vulnerable? A Review of Popular Resistance to Climate Adaptation. *Global Environmental Change* 80 (May): 102656. <https://doi.org/10.1016/j.gloenvcha.2023.102656>.
- Bunce, A., and J. Ford. 2015. How Is Adaptation, Resilience, and Vulnerability Research Engaging with Gender? *Environmental Research Letters* 10 (12): 123003. <https://doi.org/10.1088/1748-9326/10/12/123003>.
- Butler, Judith. 2004. *Precarious Life: The Powers of Mourning and Violence*. London: Verso.
- Butler, Judith. 2016. Rethinking Vulnerability and Resistance. In *Vulnerability In Resistance*, ed. Judith Butler, Zeynep Gambetti, and Leticia Sabsay, 12–27. Durham and London: Duke University Press.
- Butler, Judith. 2020. *The Force of Non-Violence: An Ethico-Political Bind*. London: Verso.
- Butler, Judith, Zeynep Gambetti, and Leticia Sabsay, eds. 2016. *Vulnerability in Resistance*. Durham: Duke University Press.
- Chant, Sylvia. 2010. Gendered Poverty across Space and Time: Introduction and Overview. In *The International Handbook of Gender and Poverty: Concepts, Research, Policy*, edited by Sylvia Chant. Cheltenham: Edward Elgar.
- Chmutina, Ksenia, Jason von Meding, Darien Alexander Williams, Jamie Vickery, and Carlee Purdum. 2022. From Pity to Fear: Security as a Mechanism for (Re)Production of Vulnerability. *Disasters in Press*. <https://doi.org/10.1111/disa.12568>.
- Clissold, Rachel, Ross Westoby, and Karen E. McNamara. 2020. Women as Recovery Enablers in the Face of Disasters in Vanuatu. *Geoforum* 113 (July): 101–110. <https://doi.org/10.1016/j.geoforum.2020.05.003>.
- Cohn, Carol. 2014. “Maternal Thinking” and the Concept of “Vulnerability” in Security Paradigms, Policies, and Practices. *Journal of International Political Theory* 10 (1): 46–69. <https://doi.org/10.1177/1755088213507186>.
- Cuomo, Chris J. 2011. Climate Change, Vulnerability, and Responsibility. *Hypatia* 26 (4): 690–714. <https://doi.org/10.1111/j.1527-2001.2011.01220.x>.
- Daggett, Cara. 2018. Petro-Masculinity: Fossil Fuels and Authoritarian Desire. *Millennium: Journal of International Studies* 47 (1): 25–44. <https://doi.org/10.1177/0305829818775817>.



- Dar, Sadhvi, Angela Martinez Dy, and Jenny K. Rodriguez. 2018. Is Decolonizing the New Black? *Sisters of Resistance* (blog). 2018. <https://sistersofresistance.wordpress.com/2018/07/12/is-decolonizing-the-new-black/>.
- Death, Carl. 2011. Summit Theatre: Exemplary Governmentality and Environmental Diplomacy in Johannesburg and Copenhagen. *Environmental Politics* 20 (1): 1–19. <https://doi.org/10.1080/09644016.2011.538161>.
- Eriksen, Siri H. 2022. Is My Vulnerability so Different from Your's? A Call for Compassionate Climate Change Research. *Progress in Human Geography* 46 (6): 1279–1297. <https://doi.org/10.1177/03091325221083221>.
- Eriksen, Siri H., Andrea Joslyn Nightingale, and Hallie Eakin. 2015. Reframing Adaptation: The Political Nature of Climate Change Adaptation. *Global Environmental Change* 35: 523–533. <https://doi.org/10.1016/j.gloenvcha.2015.09.014>.
- Faria, Caroline, Jovah Katushabe, Catherine Kyotowadde, and Dominica Whitesell. 2021. “You Rise Up ... They Burn You Again”: Market Fires and the Urban Intimacies of Disaster Colonialism. *Transactions of the Institute of British Geographers* 46: 87–101. <https://doi.org/10.1111/tran.12404>.
- Fayombo, Olasimbo Omolara. 2021. Discursive Constructions Underlie and Exacerbate the Vulnerability of Informal Urban Communities to the Impacts of Climate Change. *Climate and Development* 13 (4): 293–305. <https://doi.org/10.1080/17565529.2020.1765133>.
- Fineman, Martha Albertson. 2004. *The Autonomy Myth: Lies We Tell Ourselves about Dependency and Self-Sufficiency*. New York: The New Press.
- Fordham, Maureen. 2004. Gendering Vulnerability Analysis: Towards a More Nuanced Approach. In *Mapping Vulnerability: Disasters, Development, and People*, 174–82. UK: Earthscan.
- Friedman, Erin. 2023. Constructing the Adaptation Economy: Climate Resilient Development and the Economization of Vulnerability. *Global Environmental Change* 80 (May): 102673. <https://doi.org/10.1016/j.gloenvcha.2023.102673>.
- Füssel, Hans-Martin. 2007. Vulnerability: A Generally Applicable Conceptual Framework for Climate Change Research. *Global Environmental Change* 17 (2): 155–167. <https://doi.org/10.1016/j.gloenvcha.2006.05.002>.
- Gammon, Earl. 2013. Pathological Vulnerability and the Politics of Climate Change. In *The Vulnerable Subject*, edited by Amanda Russell Beattie and Kate Schick, 149–70. London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137292148_8.
- Gilmore, Ruth Wilson. 2002. Race and Globalization. In *Geographies of Global Change: Remapping the World*, edited by R. J. Johnston. New York: Wiley - Blackwell.
- Gilson, Erinn. 2011. Vulnerability, Ignorance, and Oppression. *Hypatia* 26 (2): 308–332. <https://doi.org/10.1111/j.1527-2001.2010.01158.x>.
- Guardian News, dir. 2021. ‘We Are Sinking’: Tuvalu Minister Gives Cop26 Speech Standing in Water to Highlight Sea Level Rise. <https://www.youtube.com/watch?v=jBBsv0QyscE>.
- Hardy, R. Dean., Richard A. Milligan, and Nik Heynen. 2017. Racial Coastal Formation: The Environmental Injustice of Colorblind Adaptation Planning for Sea-Level Rise. *Geoforum* 87: 62–72. <https://doi.org/10.1016/j.geoforum.2017.10.005>.
- Hirsch, Marianne. 2016. Vulnerable Times. In *Vulnerability in Resistance*, ed. Judith Butler, Zeynep Gambetti, and Leticia Sabsay, 76–96. North Carolina, United States: Duke University Press.
- Hulme, Mike. 2010. Problems with Making and Governing Global Kinds of Knowledge. *Global Environmental Change* 20 (4): 558–564. <https://doi.org/10.1016/j.gloenvcha.2010.07.005>.
- IPCC. 1991. IPCC Common Methodology.
- IPCC WGII. 1990. *Climate Change: The IPCC Impacts Assessment*. Edited by W.J. McG. Tegart, G.W. Sheldon, and D.C. Griffiths. Canberra: Australian Government Publishing Service. https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_II_full_report.pdf.
- IPCC WGII. 2001. *Climate Change 2001: Impacts, Adaptation, and Vulnerability*. Edited by James J. McCarthy. Cambridge, UK ; New York: Cambridge University Press.
- IPCC WGII. 2007. *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Edited by Susan Solomon. Cambridge ; New York: Cambridge University Press.
- IPCC WGII. 2014. *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change: Part B*. Edited by Christopher B. Field and Vicente R. Barros. New York, NY: Cambridge University Press.
- Jetñil-Kijiner, Kathy. 2017. History Project. In *Iep Jaltok: Poems from a Marshallese Daughter*, 20–23. Tucson, US: University of Arizona Press.



- Jetñil-Kijiner, Kathy. 2022. Afterword. In *Indigenous Pacific Islander Eco-Literatures*. Honolulu: University of Hawaii Press.
- Jetñil-Kijiner, Kathy, Leora Kava, and Craig Santos Perez. 2022a. Editor's Introduction. In *Indigenous Pacific Islander Eco-Literatures*, xiii–xvi. Honolulu, Hawai'i: University of Hawai'i Press.
- Jetñil-Kijiner, Kathy, Leora Kava, and Craig Santos Perez, eds. 2022b. *Indigenous Pacific Islander Eco-Literatures*. Honolulu: University of Hawaii Press.
- Kuhlicke, Christian, Mariana Madruga, Bartosz de Brito, Wouter Botzen Bartkowski, Canay Doğulu, Sungju Han, Paul Hudson, et al. 2023. Spinning in Circles? A Systematic Review on the Role of Theory in Social Vulnerability, Resilience and Adaptation Research. *Global Environmental Change* 80 (May): 102672. <https://doi.org/10.1016/j.gloenvcha.2023.102672>.
- MacGregor, Sherilyn. 2010. "Gender and Climate Change": From Impacts to Discourses. *Journal of the Indian Ocean Region* 6 (2): 223–238. <https://doi.org/10.1080/19480881.2010.536669>.
- Manzo, Kate. 2010. Imaging Vulnerability: The Iconography of Climate Change. *Area* 42 (1): 1–12. <https://doi.org/10.1111/j.1475-4762.2009.00887.x>.
- Meding, Jason von, and Ksenia Chmutina. 2023. From Labelling Weakness to Liberatory Praxis: A New Theory of Vulnerability for Disaster Studies. *Disaster Prevention and Management: An International Journal* ahead-of-print (ahead-of-print). <https://doi.org/10.1108/DPM-10-2022-0208>.
- Methmann, Chris, and Angela Oels. 2014. Vulnerability. In *Critical Environmental Politics*, ed. Carl Death, 277–286. Oxon: Routledge.
- Mikulewicz, Michael. 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. <https://doi.org/10.1080/17565529.2017.1304887>.
- Mikulewicz, Michael. 2020. The Discursive Politics of Adaptation to Climate Change. *Annals of the American Association of Geographers* 110 (6): 1807–1830. <https://doi.org/10.1080/24694452.2020.1736981>.
- Nagoda, Sigrid. 2015. New Discourses but Same Old Development Approaches? Climate Change Adaptation Policies, Chronic Food Insecurity and Development Interventions in Northwestern Nepal. *Global Environmental Change* 35 (November): 570–579. <https://doi.org/10.1016/j.gloenvcha.2015.08.014>.
- Nightingale, Andrea Joslyn. 2017. Power and Politics in Climate Change Adaptation Efforts: Struggles over Authority and Recognition in the Context of Political Instability. *Geoforum* 84 (August): 11–20. <https://doi.org/10.1016/j.geoforum.2017.05.011>.
- O'Brien, Karen, Siri Eriksen, Lynn P. Nygaard, and Ane Schjolden. 2007. Why Different Interpretations of Vulnerability Matter in Climate Change Discourses. *Climate Policy* 7 (1): 73–88. <https://doi.org/10.1080/14693062.2007.9685639>.
- O'Brien, Karen, Robin Leichenko, Ulka Kelkar, Henry Venema, Guro Aandahl, Heather Tompkins, Akram Javed, et al. 2004. Mapping Vulnerability to Multiple Stressors: Climate Change and Globalization in India. *Global Environmental Change* 14 (4): 303–313. <https://doi.org/10.1016/j.gloenvcha.2004.01.001>.
- Owusu-Daaku, Kwame N. 2018. Mal)Adaptation Opportunism: When Other Interests Take over Stated or Intended Climate Change Adaptation Objectives (and Their Unintended Effects). *Local Environment* 23 (9): 934–951. <https://doi.org/10.1080/13549839.2018.1505836>.
- Paprocki, Kasia. 2019. All That Is Solid Melts into the Bay: Anticipatory Ruination and Climate Change Adaptation. *Antipode* 51 (1): 295–315. <https://doi.org/10.1111/anti.12421>.
- Parpart, Jane L. 1995. Deconstructing the Development "Expert": Gender, Development and the "Vulnerable Groups." In *Feminism, Postmodernism, Development*, ed. Marcel Marchand and Jane L. Parpart, 221–243. London: Routledge.
- Perry, Keston K. 2022. From the plantation to the deep blue sea: Naturalising debt, ordinary disasters, and postplantation ecologies in the Caribbean. *The Geographical Journal* 00: 1–13. <https://doi.org/10.1111/geoj.12470>.
- Perry, Keston K. 2023. (Un)Just Transitions and Black Dispossession: The Disposability of Caribbean "Refugees" and the Political Economy of Climate Justice. *Politics* 43 (2): 169–185. <https://doi.org/10.1177/02633957211041441>.
- Quealy, Harry M., and Julian S. Yates. 2021. Situated Adaptation: Tackling the Production of Vulnerability through Transformative Action in Sri Lanka's Dry Zone. *Global Environmental Change* 71 (November): 102374. <https://doi.org/10.1016/j.gloenvcha.2021.102374>.
- Rhiney, Kevon. 2017. Livelihood In/Securities, Vulnerability and Resilience to Global Change in the Caribbean Agriculture Sector. *Caribbean In/Securities: Creativity and Negotiation in the Caribbean*



- (CARISCC) Working Papers Series. <http://epapers.bham.ac.uk/2949/1/CARISCC-Working-Paper-Rhiney-Final.pdf>.
- Ribot, Jesse. 2009. Vulnerability Does Not Fall from the Sky: Toward Multiscale, Pro-Poor Climate Policy. In edited by Robin Mearns and Andrew Norton, 22. World Bank: World Bank Publications.
- Ribot, Jesse. 2014. Cause and Response: Vulnerability and Climate in the Anthropocene. *The Journal of Peasant Studies* 41 (5): 667–705. <https://doi.org/10.1080/03066150.2014.894911>.
- Sealey-Huggins, Leon. 2017. “1.5°C to Stay Alive”: Climate Change, Imperialism and Justice for the Caribbean. *Third World Quarterly* 38 (11): 2444–2463. <https://doi.org/10.1080/01436597.2017.1368013>.
- Sheller, Mimi. 2018. Caribbean Futures in the Offshore Anthropocene: Debt, Disaster, and Duration. *Environment and Planning d: Society and Space* 36 (6): 971–986. <https://doi.org/10.1177/0263775818800849>.
- Sultana, Farhana. 2022. The Unbearable Heaviness of Climate Coloniality. *Political Geography* 99: 1–14. <https://doi.org/10.1016/j.polgeo.2022.102638>.
- Táiwò, Olúfẹ̀mi O. 2022. *Reconsidering Reparations*. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780197508893.003.0001>.
- Taylor, Marcus. 2014. *The Political Ecology of Climate Change Adaptation: Livelihoods, Agrarian Change and the Conflicts of Development*. Oxon: Routledge.
- Teaiwa, Katerina Martina. 2014. *Consuming Ocean Island: Stories of People and Phosphate from Banaba*. Bloomington, US: Indiana University Press.
- Teaiwa, Katerina Martina. 2020. On Decoloniality: A View from Oceania. *Postcolonial Studies* 23 (4): 601–603. <https://doi.org/10.1080/13688790.2020.1751429>.
- Teaiwa, Katerina Martina., dir. 2020b. *How Is the Blue Pacific Relevant to a Safer, Cleaner, Fairer Future?* | Katerina Teaiwa | TEDxANU. TEDx Talks. https://www.youtube.com/watch?v=IYHh6c34BAo&fbclid=IwAR27CiouJhmI6d7RFOBrOWRnax-i5UIVf2gkGolzNR7d5VuCOFuM7d-kD_I.
- Thomas, Kimberley Anh, and Benjamin P. Warner. 2019. Weaponizing Vulnerability to Climate Change. *Global Environmental Change* 57 (July): 1–11. <https://doi.org/10.1016/j.gloenvcha.2019.101928>.
- Tilley, Lisa, Anupama M. Ranawana, Andrew Baldwin, and Tyler M. Tully. 2023. Race and Climate Change: Towards Anti-Racist Ecologies. *Politics* 43 (2): 141–152. <https://doi.org/10.1177/02633957221127166>.
- Tschakert, Petra, Partha Jyoti Das, Neera Shrestha Pradhan, Mario Machado, Armando Lamadrid, Mandira Buragohain, and Masfique Alam Hazarika. 2016. Micropolitics in Collective Learning Spaces for Adaptive Decision Making. *Global Environmental Change* 40 (September): 182–194. <https://doi.org/10.1016/j.gloenvcha.2016.07.004>.
- UNFCCC. 1992. *United Nations Framework Convention on Climate Change*.
- Weatherill, Charlotte Kate. 2022. Sinking Paradise? Climate Change Vulnerability and Pacific Island Extinction Narratives. *Geoforum*, no. SI: Racial Capitalism and Climate Justice. <https://doi.org/10.1016/j.geoforum.2022.04.011>.
- Weatherill, Charlotte Kate. 2023. Vulnerability and resistance: Islanding climate change politics. PhD thesis. University of Manchester doi: <https://doi.org/10.13140/RG.2.2.32433.56163>.
- Wynter, Sylvia. 2003. Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument. *CR: The New Centennial Review* 3 (3): 257–337. <https://doi.org/10.1353/ncr.2004.0015>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

