

OPINION

Nothing about us without us: The urgent need for disability-inclusive climate research

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Around the world, disability communities are becoming increasingly vocal in calling attention to the ways in which they are disproportionately affected by climate change and the need to ensure that disability rights are respected, protected, and fulfilled in climate solutions [1,2]. As we will explain in this opinion, one key element of this emerging agenda for disability-inclusive climate justice is the need for in-depth and participatory action research on the intersections of disability and climate change.

Very little is known about how and why people with disabilities are affected by different climate impacts, the contextual factors that shape their exposure, sensitivity, and adaptive capacity, and the solutions needed to ensure their resilience [3–5]. The lack of research concerning the implications of initiatives addressing climate mitigation, adaptation, and loss and damage for disability communities is even greater. There are very few studies examining how policies and projects to decarbonize products, services, and infrastructures, and enhance land-based carbon sequestration impact people with disabilities. There is even less research on how these efforts can be designed in ways that dismantle, rather than reinforce, existing social, physical, and economic inequities [5,6]. More broadly, scholarship is lacking on whether and how evidence and advocacy influences policymakers' perceptions of alternative climate actions and the implications of their decisions on disability communities [7].

These gaps in knowledge are leading to the development and implementation of inequitable and ineffective climate solutions that undermine the human rights and dignity of people with disabilities [5,6,8,9]. People with disabilities are experiencing disproportionate rates of mortality and harm in heatwaves, cyclones, floods, droughts, famines, and other climate impacts [2,3,6,9]. They face unique barriers and challenges when they are displaced by climate change, including discriminatory migration policies and inaccessible transportation and shelter options [9]. These impacts are felt most acutely by people with disabilities that face intersecting barriers of oppression, including women, girls, Indigenous and racialized individuals, and the poor with disabilities [3,6,9]. In addition, people with disabilities are negatively impacted by climate mitigation solutions that are designed without due consideration of their perspectives and requirements [6], for example, the total ban on plastic straws [10].

In-depth, systematic, and applied research is needed to address these gaps in knowledge and support the development and implementation of disability-inclusive climate solutions. To

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be transformative, this research must be carried out through a disability rights-based approach anchored in the *UN Convention on the Rights of Persons with Disabilities* (CRPD) [3,6,11,12]. There are three key principles that should underpin this research agenda [11]. First, the co-generation of knowledge in this area must be initiated and led by a diversity of voices from disability communities, including scholars and activists who have lived experience of different disabilities and other forms of privilege or oppression tied to sex, age, race, gender, sexual orientation, colonialism, class and caste [13]. Indigenous people with disabilities must play a meaningful role and contribute to research efforts that concern them, with due respect for their spiritual connection to land, nature, and traditional knowledge [2,14].

Second, this research must be aligned with the priorities of people with disabilities and their representative organizations in the climate crisis and aim to instigate social change to rectify current, historical or potential violations of the rights of people with disabilities [1,2,6,9]. In doing so, we must acknowledge and challenge the ableist practices that have contributed to the oppression and neglect of people with disabilities in the field of climate change, including within the context of academic research. To ensure transformative outcomes, this research must prioritize the study of climate action taken by and with people with disabilities to establish good practices that can be disseminated nationally, regionally, and internationally.

Third, the knowledge co-generated by scholars and activists must directly address the rights of people with disabilities most affected by climate change and be available in accessible formats, with clear disability-related indicators for action and engagement at the grassroots level. Such an approach requires an appreciation of the value and role of multiple forms of knowledge beyond standard qualitative and quantitative research, including the lived experience of people with disabilities, their community-based research and activism, and the traditional and customary knowledge of Indigenous Peoples [5]. Compiling examples and testimonies of disability-led climate action and advocacy is key to building capacity to carry out transformative climate and disability justice [2,3,5].

Ultimately, this research agenda must enable scholars, activists, and practitioners to understand how climate policies and programs can be harnessed to foster more disability-inclusive societies and how this can enhance the effectiveness and equity of climate solutions [5,6]. For instance, scholarship should examine how adaptation initiatives, including the planned relocation of communities, can recognize the knowledge and leadership of people with disabilities, enhance their climate resilience, and ensure barrier-free communities and environments [5,6,9]. Case studies and pilot projects of green economy initiatives that prioritize economic empowerment and employment of people with disabilities are urgently needed, as are analyses of how green infrastructure and energy retrofitting programs can be used to enhance the accessibility of buildings, transit systems, and homes [6,9].

As has been demonstrated in many fields as diverse as design and education, people with disabilities have the knowledge and experience to build better, more inclusive, resilient and accessible spaces and worlds [5,15]. It is critical that researchers in the field of climate change be guided by the motto of the disability rights movement, “*Nothing about us without us*” by ensuring that the co-generation of spaces and knowledge in the field of climate change includes, benefits, and is accessible to persons with disabilities. We call on all researchers inside and outside academia to work together across disciplines, fields, borders, and identities, to co-produce climate research that fully includes people with disabilities to promote disability-inclusive climate solutions. We also appeal to donors, governments, and scientific bodies to allocate dedicated resources to this effort and to require mainstream climate research to include people with disabilities and their perspectives.

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