Climate health

Factoring in racial justice

Climate change impacts disproportionately fall on minoritized and disadvantaged communities — both in the Global South and throughout the world. This harm, including human health impacts, is amplified by different forms of discrimination, yet studies often fail to account for this.

Thilagawathi Abi Deivanayagam of Lancaster University, UK, and colleagues from the UK, Brazil, Uganda, Philippines and Spain, used a multi-method approach to investigate the interactions of climate change and health with structural discrimination. The results of their scoping review highlight the disproportionate burden of climate change health impacts on minoritized groups, and reveal a lack of discussion of the unequal responsibility of climate change. The scientists therefore visualized both climate responsibility and unequal health outcomes related to heat death, disease and nutrition, and further use case studies, testimony and policy analysis to highlight pathways through which climate change health and discrimination interact.

The authors urge the health community to ensure that future work confronts the impacts of discrimination and works to achieve equitable action.

Tegan Armarego-Marriott
Nature Climate Change

Original reference: *Lancet* https://doi.org/10.1016/S0140-6736(23)00919-4 (2023)

Climate law

Just transition as law

Just transition has been increasingly gaining attention and has been used in the context of climate change policy, and focuses on minimizing the unintended socioeconomic consequences of climate actions. Beyond policy considerations, the concept has been introduced into climate law frameworks at different levels. However, in the current legal literatures, just transition is still not comprehensively discussed. The understanding of its various implications is also limited.

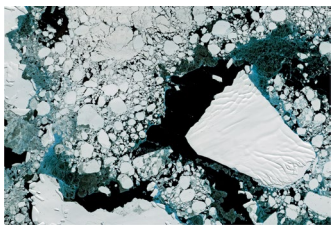
Vilja Johansson of the University of Eastern Finland analysed the legal evolutions, in particular within the United Nations Framework Convention on Climate Change (UNFCCC) system, and implications of just transition. First, the author describes how the concept has developed from a labour-centred movement, led by the International Trade Union Confederation, to a more comprehensive approach protecting and engaging the affected and vulnerable groups. Further, the author discusses its political and interpretative function that enhances justice measures and adds new dimensions to the interpretation of existing equity principles, although this does not create direct legal obligations. Lastly, the study highlights the international initiatives promoting the operationalization of just transition.

Lingxiao Yan
Nature Climate Change

Original reference: *J. Environ. Law* https://doi.org/10.1093/jel/eqad017 (2023)

Glacier melt

Limited buttressing on Thwaites



In recent years, an increasing fragmentation in the ice shelf that sits in front of Thwaites Glacier, one of the fastest melting glaciers in West Antarctica, has been observed. As this ice shelf currently exerts pressure against the glacier, this raises concerns about a potential acceleration of melt should the ice shelf disintegrate.

G. Hilmar Gudmundsson from Northumbria University and colleagues from the United Kingdom and the United States used ice-flow models to assess the impact that removal of the Thwaites Ice Shelf would have on Thwaites Glacier over the next 100 years. They find that the pressure that the Thwaites Ice Shelf exerts on land ice is relatively small and that removal of the ice shelf leads to an additional increase in ice mass loss equivalent to about 1–2-mm sea-level rise over the first 50 years. This indicates that while the total melt could be many times higher and a potential collapse of Thwaites Glacier is mainly determined by anthropogenic emissions and feedback processes, a disintegration of the Thwaites Ice Shelf would only slightly increase ice loss under the current glacier geometry.

Jasper Franke
Nature Climate Change

Original reference: *Geophys. Res. Lett.* **50**, e2023GL102880 (2023)

Divided climate opinions

Art of communicating

Influencing beliefs around climate change is difficult, particularly in countries where climate change is strongly politicized. In the United States, the division between liberal and conservative views regarding climate change and mitigation action has been deepening. Traditionally, scientists and science communicators have tried to bridge this gap by stressing the presentation of data and graphs that show the changing climate. These efforts have had limited success and thus have led to calls to create potentially more accessible artistic representations of data, and subsequent collaborations between scientists and artists. However, it is unclear yet whether such visualizations are more effective in conveying climate change information.

Nan Li from the University of Wisconsin-Madison and colleagues investigated whether artistic data visualizations influence emotions and perceived relevance of climate change in viewers. They used an online experiment with adults living in the United States to quantitatively determine the impact of incorporating the Keeling curve into an artwork representing summer heat and melting glaciers, compared with the graph on its own. They find that the artistic data visualizations did not differ in perceived credibility when compared with data graphs, but did result in a stronger emotional response from viewers. Importantly, the perception of climate change relevance was less politically polarized in viewers of the artistic visualization compared with those who only viewed the informational graph, indicating that art may help to bridge politically divisive opinions on climate change.

Alyssa Findlay
Nature Climate Change

Original reference: *Commun. Earth Environ.* **4**, 195 (2023)

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