

# REFRAMING CLIMATE AND ENVIRONMENTAL JUSTICE



# IDS Bulletin

Transforming Development Knowledge

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**Publisher** The *IDS Bulletin* is published by the Institute of Development Studies, Library Road, Brighton BN1 9RE, UK.  
Tel: +44 (0)1273 606261.

**Cover photo** Sidoarjo, East Java, Indonesia - 29 May 2016: An art installation protest against a mining company that caused the mudflow disaster in Sidoarjo.

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# IDS Bulletin

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Volume 53 | Number 4 | December 2022

## Reframing Climate and Environmental Justice

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### **Acknowledgements**

We would like to acknowledge the substantial contributions of co-authors and peer reviewers in bringing about this collection. Thank you for your time and effort.

### **Funder acknowledgements**

This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.



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# Introduction: Reframing Climate and Environmental Justice<sup>\*†</sup>

Amber Huff<sup>1</sup> and Lars Otto Naess<sup>2</sup>

**Abstract** This issue of the *IDS Bulletin* brings together a range of empirically grounded studies that add to – and challenge – contemporary debates on climate and environmental justice. Despite a growing focus on justice dimensions of climate and environmental change, we argue that there are still ‘blind spots’ in mainstream debates that warrant increased attention. In this brief introduction, we point to three in particular: first, a persistent failure to recognise diverse contexts and knowledges; second, a continuing failure to sufficiently appreciate the deep-seated contestations around climate and environmental justice; and third, the risks associated with ‘recovery’ and ‘emergency’ mindsets driving climate and environmental policy agendas. The articles in this collection illustrate and exemplify these issues in different ways and from a variety of methodological, philosophical, and interdisciplinary approaches and positionalities. We argue for a reframing of climate and environmental justice debates and suggest some key principles to make these ‘hidden’ aspects more visible in policy and practice.

**Keywords** climate justice, environmental justice, knowledge politics, framing, pathways.

## 1 Introduction

Questions of justice are relevant to all aspects of climate and environmental change, from how and where the impacts are felt the most, the allocation and prioritisation of funding, the type of responses that are considered, to how negative impacts can arise from mitigation, adaptation, or restoration policies (Schlosberg and Collins 2014; Jafry 2018; Eriksen *et al.* 2021; Newell and Adow, this *IDS Bulletin*). Justice dimensions of these range from who gets what (distributive justice), whose knowledge counts (epistemic justice), who gets to decide (procedural justice), and ultimately who gets left behind (recognition justice) (Young 1990; Svarstad and Benjaminsen 2020; Benjaminsen *et al.*, this *IDS Bulletin*; Coolsaet 2020; Schlosberg and Collins 2014).

Claims related to climate and environmental justice are becoming increasingly complex and contested. Yet the contestations are not always clear, nor straightforward. Research over many decades from across the social sciences and environmental humanities shows how discourses around framing and responding to climate change that dominate high-level policy debates can be depoliticising, making knowledge claims and proposed 'fixes' appear straightforward and non-controversial, agreed by consensus whilst complex histories of intervention and struggle are erased (Paprocki 2015; Sultana 2022). Attributing causes of climate change to 'human activities' may be technically accurate but through omission and generalisation obscures historical inequities, uneven power relations, and disproportionate contributions to harm. They are reductive of complex geographies of injustice, often shifting blame and greatest costs of mitigation and adaptation to those with the least political power and culpability. Messages of crisis, urgency, and emergency can cause fear and shut down deliberative spaces for the appearance of quick action. Depoliticisation hides contestation, silences dissenting viewpoints, obscures alternative pathways, and draws attention away from ways in which different policy choices about responding to climate change and other environmental problems made at different levels can intersect with people's historical and ongoing struggles for social and environmental justice (Sultana 2022).

This issue of the *IDS Bulletin* is intended to challenge some of the dominant views and unearth some key 'hidden' aspects of the justice dimensions of climate and environmental change, two separate yet also aligned areas sharing similar historical trajectories (Schlosberg and Collins 2014). We call for a reframing of the climate and environmental justice discussions, as the idea of tackling 'twin crises' of global climate change and biodiversity loss together has risen on the high-level international policy agenda. For example, a coalition of more than 50 countries, including the UK, has already signed on to the so-called 'High Ambition Coalition (HAC) for Nature and People',<sup>3</sup> a pledge launched in 2019 to convert at least 30 per cent of land and marine territory to restrictive protected areas by 2030, with the Sustainable Markets Initiative's 2021 launch of the Terra Carta pledge<sup>4</sup> for the private sector calling for this to extend to 50 per cent by 2050. The '30x30' commitment is a likely main target of the so-called 'Paris Agreement for nature' and has been a key part of the long-running negotiations of the Conference of the Parties (COP)15 of the United Nations Convention on Biological Diversity. It is also likely to replace the expiring Aichi Biodiversity Targets that were set in 2010 and expired in 2020.

This article identifies three closely related areas or 'blind spots' where we argue complexities in dominant climate and environmental justice debates are obscuring the problems, or in some cases enabling them to 'hide in plain sight': (1) the failure to

recognise contributions beyond traditional academic disciplines, (2) the failure to recognise and acknowledge the implications of contestations, and (3) the risk of top-down 'recovery' in times of crises. The contributions to this *IDS Bulletin* all illustrate one or more aspects of these, as well as ways of addressing them, drawing on diverse research traditions, theoretical perspectives, community experiences of change, and struggles for justice. Notably, many of these areas are problematic precisely because they involve questions that may be seen to challenge the cause itself, and are implicitly going against the fight to counter climate change and loss of biodiversity. We argue that the opposite is true, and that this also highlights why a reframing of the debate is urgently needed. We end with some reflections on principles to move the debate forward and to reframe – and refocus – the justice agenda.

## **2 Three blind spots in climate and environmental justice debates**

### **2.1 The failure to recognise diverse contexts and knowledges**

Related global challenges of climate disruption, biodiversity loss and ecological degradation and their harmful consequences for people and nature are well established (Pörtner *et al.* 2022). Likewise, the need for action is near universally recognised by natural and social scientists, politicians, members of international social movements, as well as through international agreements related to climate (UNFCCC), biodiversity (Convention on Biological Diversity – CBD), environmental degradation (United Nations Convention to Combat Desertification – UNCCD), and the Sustainable Development Goals (SDGs). Yet despite these advances in environmental science and environmental and development policy, progress remains slow, and structural and systemic drivers of harmful changes for people and nature remain unaddressed (Morton 2007). A recently published study reinforces the need to take action to avoid triggering global climate 'tipping points' (Armstrong McKay *et al.* 2022).

From 'above', these challenges can appear to be what have been called 'super wicked problems' (Cross and Congreve 2020). This means that they are urgent yet seem to evade attempts to apply common sense 'solutions' and can thus seem impossible to resolve. As with climate change, the same actors and industries who are responsible for causing the problem are expected to provide solutions, while at the same time, due to the contestation and politics around them, appeals to science and evidence are often unable to generate policy resolution or point a clear path toward definitive action (Parkhurst 2016; Morton 2013).

A growing wealth of research on science and policy suggests that perhaps these problems are not 'wicked' so much as mismatched to 'common sense' ways of framing and politically acceptable acting on them. Addressing such ostensibly wicked socioenvironmental problems cannot be done from the high level boardroom or within the confines of traditional academic

disciplines. True solutions may require that powerful political and economic actors' interests are challenged or that dominant forms of 'expertise' are questioned. For example, despite increasing focus on local or indigenous knowledge in discussions around adaptation to climate change, there is some way to go until this recognition is found in practice. As Srivastava *et al.* (this *IDS Bulletin*) show in their article, there are still important gaps in inclusion of marginalised actors and their knowledge in decision-making for climate action. Benjaminsen *et al.* (this *IDS Bulletin*) show how both formal and discursive misrecognition of poor and vulnerable groups represent injustice, using examples from climate mitigation (REDD+),<sup>5</sup> the Great Green Wall project in the Sahel, and notions of climate as a driver of conflict in Syria.

To identify just pathways, the process of knowledge production that flows into policymaking must be decentralised and democratised, drawing on strengths of both inter- and transdisciplinary approaches. Interdisciplinary approaches seek to break down disciplinary boundaries and improve the flow of knowledge and debate within and across sciences and humanities, while transdisciplinary approaches ask questions such as 'Whose knowledge counts?', 'Who is the expert?', and 'Who can speak for whom?'. Such approaches can help put the focus on breaking down hierarchies of power and knowledge production, creating spaces for substantial public participation, and seek to facilitate dialogue across plural forms of knowledge and experience. In turn, these put the spotlight on amplifying, in meaningful ways, voices and interests of people and considerations such as the wellbeing of non-human entities, who are often excluded from high-level decision-making. As Milanez *et al.* (this *IDS Bulletin*) argue, moving beyond depoliticised framings of crisis and elite environmentalisms, and opening up analyses to make sense of the current juncture and envision truly transformative social-ecological trajectories requires critical engagement with people's ongoing struggles for epistemological justice.

Thus, we are not simply dealing with scientific or technical problems amenable to what Mike Hulme calls 'solutionism' (Hulme 2021). Conflicts around courses of action are largely value-based and are shaped by power and a variety of contested assumptions (Coolsaet 2020), and there is no 'silver bullet' fix. These are inherently social and political problems, involving intrinsic multidimensional justice dilemmas.

## **2.2 The failure to recognise contestations and their implications**

A second 'blind spot' lies in the fact that in high-level policy debates dominant discourses around framing and responding to climate change can be depoliticised or rendered technical (Murray Li 2007; Nightingale *et al.* 2020). Proposed fixes may appeal to 'common sense' or to cultural biases, or may appear straightforward and non-controversial, and therefore agreed by consensus, and contestations fade into the background.

Solutions are often framed as global and universal, missing local nuances. For example, Garcia-Dory *et al.* (this *IDS Bulletin*) argue that generalised global narratives that condemn livestock production for a high level of methane emissions are creating exclusions and injustices. This is because the dominant policy story linking livestock production and emissions does not differentiate between unsustainable forms of industrial livestock production and consumption from forms of extensive pastoralism that provide necessary food and income to people who live in places that are unsuitable for agriculture. Through omission and generalisation, this narrative practice shifts blame and the greatest costs of mitigation to those with the least political power and culpability, creating and perpetuating and sometimes intensifying environmental injustices whilst silencing those who are engaged in active struggles to defend their rights, livelihoods, homes, ecologies, and even lives.

Dominant approaches to address climate and other processes of environmental change share a tendency to place growth, not ecology, nor climate, and certainly not justice, at the heart of the international policy agenda. These approaches emerge from a 'market environmentalist' rather than social or ecological worldview, and which sees environmental problems and their social consequences as 'market failures' that can be remediated through market mechanisms and technical management (Huff 2021). Responses to climate-related or other types of uncertainty and the unruliness of climate change challenges tend to seek ever-greater degrees of control and disciplinary management of nature and society 'from above', guided by a (fantastical) belief that perpetual growth can somehow be 'transformed' and made 'green' or sustainable as if by magic. In doing so, the well-documented but deeply entrenched structural and systemic drivers of harmful change for people and nature are left unexplored and unaddressed. For example, in exploring intersections between the growing global abolitionist movement and struggles for environmental justice, Brock and Stephens-Griffin (this *IDS Bulletin*) explore how, contrary to common ideological associations between policing and justice, the sedimented institutional logics of policing, rather, enforce forms of social ordering and property regimes that socially reproduce patriarchal and colonial relations of domination and exploitation that harm people and nature. Failure to think deeply about such structural and systemic drivers in considering courses of action means that crises continue to escalate, and challenges expand and diversify, particularly for the most vulnerable people and ecologies around the world.

A focus on democratising knowledge and action, bringing out these conflicts and contestations, can make these hidden drivers, experiences, and critiques visible. Doing so can help unmask suppressed ways of seeing and acting in a changing world, shift priorities, multiply possibilities and pluralise pathways, and help

open up the field of policy choices. For example, Milanez *et al.* (this *IDS Bulletin*) argue that reframing the question of 'systemic change or climate collapse?' from a decolonial perspective would point not only to the need for political economic reconfiguration, but for building a completely different framework of existence.

### **2.3 The justice implications of a 'top-down' recovery and emergency mindset**

A third problematic area is the increasing evidence of negative impacts of top-down schemes to 'fix' issues, but also the difficulty in challenging solutions that are developed in the name of broader interests and the perceived need for large-scale solutions to tackle large-scale problems.

Last year's climate change COP26 took place against a backdrop of the continuing Covid-19 pandemic. The current COP (COP27) was in addition happening in the midst of the Russian invasion of Ukraine, droughts and extreme heat in Europe, and the spectre of impending global energy and food crises. The simultaneous regional and global 'crises' have intensified a forceful policy discourse of 'global recovery' through strengthening the post-pandemic 'growth economy of repair' across sectors (Fairhead, Leach and Scoones 2012; Huff and Brock 2017). This has been pitched in terms of scaled-up, top-down, market-driven and control-oriented 'big bang' schemes like the World Economic Forum's 'great reset'; 'build back better' campaigns in the UK and US; the Sustainable Markets Initiative's ten-point pandemic recovery plan; the 'Global Safety Net' campaign; and the HAC for Nature and People's pledge that aims to place 30 per cent of terrestrial and marine territory under strict protection by 2030, among others.

In this context, messages matter: messages of crisis, urgency, and emergency – such as the increasing focus on a fixed number of years left to address problems before it is too late – can drive processes with significant justice implications (Srivastava *et al.*, this *IDS Bulletin*), for example leading to civic space being shut down for the appearance of quick action. Arguably, what such narratives can do is hide, for a time, mounting harmful consequences for people, biodiversity, our lived cultural landscapes and built environments and wild spaces. It points us toward a future of expanding sacrifice zones, deepening inequalities, and in which the ever-growing hunger for growth at all costs will continue to generate, intensify, and spread the cascading effects of ecological crises. Inequities seem inevitable with justice able to be treated as a 'check-box', or systemised injustice dismissed and misrepresented as simply 'bad apples', necessary 'trade-offs', sacrificing the lives and futures of some as the cost of 'progress'.

While climate change-related loss and damage is now firmly recognised in negotiations under the UNFCCC, there is as yet no



clear compensation mechanism, and only limited understanding or consideration of those associated with non-economic losses such as cultural heritage and local knowledge, which are unquantifiable and irreplaceable (Boyd *et al.* 2021). For these reasons, however, these approaches could have negative, and at worst, disastrous effects. As long as we are on this trajectory, the best we can hope for is that crises are prolonged, delayed, and outsourced to the margins, shifted in space and time.

### 3 Making the invisible visible

Dominant approaches to framing and responding to crises can direct attention away from and preclude deeper analyses of systemic problems and dynamics of change as well as other, possibly more promising, and already existing approaches to response. 'Solutions' based in control and scaling-up technical interventions can obscure latent possibilities and alternative pathways, hiding contestation and power relations. This can close down spaces for debate and 'lock in' a single pathway as if it were the only possible course of action. While focusing on a single pathway may look like decisive action, it leads to major blind spots and a tendency to treat the underlying drivers of crises as sources of solutions themselves.

We argue that achieving meaningful action on the climate crisis requires moving beyond existing approaches and enacting radical changes to transform thinking about the drivers, nature, and distribution of ostensibly 'global' challenges and relationships among science, technology, society, and nature across multiple scales. This means recognising that the climate and environmental 'crises' are about history and justice, shaped by diverse geographical contexts and situated struggles, as much as the geophysical environment. It requires challenging our assumptions about authority and power and opening up debates to plural knowledge and experiences. It means seeking to understand why many proposed 'solutions' are resisted by communities on the ground. It means rejecting ways of seeing the future as a 'zero sum game', asking instead about how so-called 'alternative' knowledges, approaches, and practices, applied collaboratively at different scales, can create opportunities for learning and uncover pathways that could disrupt harmful trajectories and move us toward more just, desirable, and abundant futures.

Inequalities between countries and regions are a primary consideration of high-level climate justice frameworks. Despite dominant discourses of the 'planetary' and 'global' nature of climate challenges, the fact is that the world is highly stratified and vast inequalities and power imbalances exist, even in 'multilateral' fora. Yet inequalities have also shaped politics, environmental changes, and complex terrains of social contestations **within** countries, affecting communities and social groups within communities who have often engaged in long

struggles to have their rights recognised and to defend access to territory, resources, livelihoods, and identity against exclusion and expropriation in the name of 'development' and, more recently, 'sustainability'. These inequities and struggles often fall under the banner of environmental justice (Sultana 2022).

Instead, approaches are needed that confront the institutional structures and policy processes that produce and maintain inequalities between countries and regions, but also recognise that national-level priorities and policy processes can exacerbate inequities and vulnerabilities within countries that have been shaped by long histories of encounter with colonialism, imperialism, warfare, and other forms of extractivism,<sup>6</sup> as well as endogenous forms of social violence and exclusion along axes of identity and social difference not limited to gender, age, caste, class, and ability (Sealey-Huggins 2017). This is particularly so when national priorities reflect the interests of a narrow elite, special interest groups, or international lobbyists and consultants and can silence or suppress the voices and interests of people who have been made vulnerable through long and varied processes of socio-political and economic exclusion.

Approaches to climate and environmental justice must reject efforts to apply one-size-fits-all solutionism, including universalising ways of thinking about justice, and actively seek to accommodate plural experiences and 'pathways'. This means recognising that there will be variation – across sites and social groups – in the needs, aspirations, and meaningful notions of justice for those who experience the greatest vulnerabilities in the face of change. Action to remove or mitigate factors and practices that perpetuate injustice is important, but not sufficient on its own to ensure just outcomes because it can be different than supporting the creation of social and environmental policy frameworks and norms of practice that actively seek to build plural forms of justice.

In conclusion, we suggest the following principles to address the three blind spots outlined above and to move towards more just and inclusive pathways for climate and environmental policy processes:

**First**, there is a need to recognise that a fundamental change of approach is essential to understand and address multidimensional justice dilemmas associated with climate and other forms of environmental change, pointing to the necessity of keeping the focus on addressing root causes and transformative approaches to justice (Sultana 2022; Newell *et al.* 2021).

**Second**, there is a need for greater awareness that harmful impacts of environmental change are not only caused by changes in the biophysical environment but also by policies meant to address environmental problems and by historical

exploitation and marginalisation. As García-Dory *et al.* (this *IDS Bulletin*) highlight, this may also mean tackling contradictions in our own wish to decarbonise lives and lifestyles and looking more holistically upon the range of impacts of policies that otherwise would seem to be a ‘no-brainer’.

A **third** principle is the need to identify opportunities to foster inclusive deliberative spaces at national and subnational levels for members of affected communities and groups to fully participate in identifying and responding to environmental changes and challenges and shaping accountable and fit-for-purpose national and subnational policy processes (Srivastava *et al.*, this *IDS Bulletin*). This includes ensuring that funding and policy interventions at international and national levels support these processes and reach and benefit people at the local level living on the margins and most in need, and address those needs and aspirations in meaningful ways.

**Fourth**, there is a need to resist the large-scale, big fix ‘solutions’ that have been developed by powerful political and industry groups at a great social, economic, and empirical distance from real-world challenges and implementation settings, hiding implications for different social groups. An increasing body of literature is challenging notions of ‘triple-wins’ and ‘climate-smart agriculture’ (e.g. Suckall, Stringer and Tompkins 2015; Taylor 2018; Ellis and Tschakert 2019).

### Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- † Many thanks to the contributors and authors of this issue of the *IDS Bulletin*. We are grateful for review comments to an earlier draft of this introduction. Any remaining errors and omissions are the responsibility of the authors.
- 1 Amber Huff, Research Fellow, Institute of Development Studies, UK.
- 2 Lars Otto Naess, Research Fellow, Institute of Development Studies, UK.
- 3 **High Ambition Coalition for Nature and People – HAC for Nature and People.**
- 4 **Terra Carta, Sustainable Markets Initiative ([sustainable-markets.org](https://sustainable-markets.org)).**
- 5 Reducing emissions from deforestation and forest degradation in developing countries (REDD+).
- 6 The system of extracting living and non-living materials from nature to generate outflow of material wealth in the form of natural resources.

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# Recognising Recognition in Climate Justice\*†

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**Abstract** This article argues that in order to achieve climate justice, recognition needs to be given more attention in climate research, discourse, and policies. Through the analysis of three examples, we identify formal and discursive recognition as central types of recognition in climate issues, and we show how powerful actors exercise their power in ways that cause climate injustice through formal and discursive misrecognition of poor and vulnerable groups. The three examples discussed are: climate mitigation through forest conservation (REDD), the Great Green Wall project in the Sahel, and the narrative about climate change as a contributing factor to the Syrian war.

**Keywords** climate justice, recognition, REDD+, Great Green Wall, afforestation, Tanzania, Sahel, Syria, climate–conflict–migration nexus.

## 1 Introduction

Recognition has so far received modest attention in leading discourses and policies related to climate change mitigation, including in the academic literature. In the 1990s, a radical justice tradition emerged in political philosophy inspired by recognition theory rooted in the ideas of Enlightenment philosophers such as Kant, Fichte, and Hegel. This new approach to justice theory had mainly a focus on distributive justice and recognition, with procedural justice later added as a third element (Honneth 1995; Fraser 2009, 1999; Fraser and Honneth 2003).

Influenced by this approach to justice, Schlosberg (2003) introduced the three elements as key aspects of environmental justice, which has become a dominant approach to the field (Svarstad and Benjaminsen 2020). Previously, Rawls' focus on distributive justice (Rawls 1971) had been an important source of



inspiration for environmental justice scholars in addition to more critical approaches (e.g. Pulido 1996; Pellow 2002).

During the last few years, particular attention has been given to dimensions of recognition in environmental justice (e.g. Martin *et al.* 2016; Bétrisey, Bastiaensen and Mager 2018; Fraser 2018). However, as a thematic sub-field of environmental justice, climate justice scholarship has still devoted modest attention to recognition, despite a few important exceptions (e.g. Hordequin 2016; Kortetmäki 2016; Chu and Michael 2018; Preston and Carr 2018). The lack of attention to recognition in climate justice can perhaps be explained by the fact that it may appear as a more complex and less straightforward form of justice than distribution (who gets what) and procedure (who decides and how), with both its formal and discursive aspects as discussed further in Section 2.

Climate justice research, politics, and practice have primarily focused on unfair distribution of consequences of climate change or of climate mitigation actions as well as on who is involved in decision-making on climate change action. Such distributive and procedural climate justice has both a temporal and a spatial side. While temporal climate justice emphasises justice for coming generations, spatial climate justice concerns the distribution of burdens among people today, and with a particular concern for people who live in poverty in the global South (Svarstad 2021).

In this article, we argue that recognition should also be a key element of justice in climate justice. Besides being an important aim for justice in itself, recognition is necessary in order to obtain distributive and procedural justice. Actors affected by climate change or mitigation measures should be recognised as participants in formal decision-making, and their situations, perspectives, and participations should also be recognised as crucial in the discourses framing climate policies and laws.

We argue that lack of both formal and discursive recognition constitutes injustice. Such exclusion also disguises causation and off-tracks from more effective solutions. A major way misrecognition takes place in climate mitigation policies is through the elaboration of leading discourses on climate mitigation measures in a non-inclusive fashion. Leading discourses are social constructions, which also influence policies and practices. Some groups are misrecognised through presentations that deviate substantially from their own perspectives. At the same time, powerful actors influence discourses and related policies and practices according to their own interests.

While marginalised and subaltern groups often suffer from misrecognition including being ignored, the flip side of this process occurs when powerful interests manage to render their own power invisible in leading climate discourses from which they benefit. Hence, justice and injustice are closely associated



with power. While some groups control power resources to follow their interests, others do not, and therefore experience injustice (Benjaminsen and Svarstad 2021).

We substantiate these arguments through the discussion of three examples – the first two are about large-scale climate mitigation projects, and the latter relates more to broader discourse formation.

The first example is about carbon removal through interventions such as reducing emissions from deforestation and forest degradation (REDD) in developing countries. This is an approach that is claimed by its supporters to provide cost-effective climate mitigation, but such estimations neglect the livelihood costs of forest-adjacent communities that lose access to forest resources. Misrecognition of subaltern livelihoods through REDD should be seen in association with the exercise of discursive power by fossil-fuel interests in the global North.

The second example is the Great Green Wall project in the Sahel, which is based on a top-down technical approach, initiated by a few African presidents and funded by Western and United Nations (UN) agencies. This project is presented as a solution to stop desertification, to mitigate climate change, and to reduce insecurity and conflicts in the Sahel. While providing a green image to its donors, the project neglects the needs of Sahelian pastoralists who are most severely affected by its implementation.

The third example is taken from the debate over whether the Syria conflict was partly triggered by climate-induced drought. Proponents of this argument refer to a narrative that views drought as a 'threat multiplier', and the Syrian war as a typical example of a positive correlation between climate change and conflict. However, interviews with displaced Syrians reveal a mismatch between this narrative and their own. To them, claiming that climate change played a significant role in triggering their revolution and later, war, obscures and misrecognises more important causes and undermines their agency as political actors.

Hence, we argue first for the need to focus on recognition of specific groups that are affected by climate discourses and associated policies, and second, we focus on how powerful actors and institutions ignore or misrecognise these groups when producing discourses and policies. Finally, besides the ongoing injustice experienced by affected groups today, climate injustice may also affect future generations by deviating from urgent action to reduce climate emissions.

## **2 Recognition as climate justice**

The conception of recognition in justice theory has in particular been inspired by the work of political philosophers Nancy Fraser and Axel Honneth (Fraser and Honneth 2003). Fraser (2000)

connects recognition to social status and sees misrecognition as the institutionalisation of social subordination. Such misrecognition may take place in different ways; for example, through cultural domination, non-recognition (or lack of recognition), or disrespect. Misrecognition may be connected to social categories such as gender, race, religion, or ethnicity.

Fraser sees recognition and distribution as two parallel dimensions of justice. This is in disagreement with Honneth who argues that recognition is the fundamental and overarching category of justice, which means that questions of distribution and redistribution are derived from recognition (Fraser and Honneth 2003). However, to Fraser, 'not all maldistribution is a by-product of misrecognition' (*ibid.*: 35). The injustice and maldistribution produced by speculative capitalism may not necessarily be linked to misrecognition, she argues.<sup>4</sup>

We agree that sometimes injustice has other causes than social status and recognition. However, in policy formulation, such as in climate policies, we would argue that recognition may tend to constitute an overarching dimension of justice.

Without some form of recognition, it is unlikely that a group of people will benefit from distributive or procedural justice. Recognition concerns who is given respect (or not) and whose interests, values, and views are recognised and taken into account. In the context of climate change, recognition may be seen as referring in particular to whose knowledge, interests, priorities, and livelihoods are considered valuable in social constructions such as leading discourses and narratives, as well as in politics and practice.

While Fraser tends to focus on legal or formal recognition primarily through state institutions, Honneth conceives recognition as containing two dimensions – legal recognition in terms of formal rights and intersubjective recognition consisting of solidarity and love (Fraser 2018). In climate discourse, policy, and practice, misrecognition may be linked to both lack of formal rights as well as lack of solidarity with marginalised peoples among powerful actors and policymakers.

In discussing misrecognition, Fraser (2009) develops further Hannah Arendt's concept of 'misframing' (Arendt 1973). This concept refers to who has the right to have rights and the fact that some people become non-persons with respect to justice. While those who suffer may become objects of charity, they remain without any formal rights to justice. Such misframings may shield powerful states and transnational companies from the reach of justice, and it may be seen as the defining injustice of a globalising age, according to Fraser (2009). This politics of framing, which refers to who counts as an object of justice, makes invisible both the subaltern groups who suffer from injustice as

well as the power of countries, institutions, or companies who are at the source of this injustice.

However, while both Arendt and Fraser focus on formal justice, we think this notion of misframing can be extended also to intersubjective justice. Marginalised people are made invisible not only as legal objects of justice, but also in leading discourses and practices as actors in their own right. Their interests, priorities, and livelihoods are neglected. They are therefore not only outside the realm of formal justice, but are also neglected and misrecognised discursively, which reflects a non-formal type of misrecognition that may be seen as lack of solidarity.

In the rest of this article, we discuss three examples through the lens of not only formal (mis)recognition, but also intersubjective forms expressed through discursive (mis)recognition.

### **3 Reducing emissions from deforestation and forest degradation (REDD)**

REDD emerged in the 2000s. By 2015–16, countries mainly in the global North had spent more than US\$10bn on this programme (Angelsen *et al.* 2017), and with implementation in at least 69 countries in the global South (Asiyanbi and Lund 2020). A plus sign has been added (REDD+) to indicate that apart from targets of climate mitigation, the programme seeks to include community benefits. Norway is by far a leading funder as well as a central promoter of REDD+, and later in this section we present an example of a Norwegian-funded REDD+ intervention in Tanzania.

The introduction of REDD+ was based on claims of cost-effective climate mitigation. For Norway, REDD+ might be seen as cost-effective in comparison to the cost of reducing climate emissions by, for instance, leaving Norway's petroleum resources in the ground. However, continued emissions from fossil fuel can be seen as contrary to climate justice in time and space when they take place in ways that are negative to people who live in poverty, such as when the livelihoods of forest-adjacent communities are undermined without proper compensation (Svarstad 2021).

Interventions financed by REDD+ have taken place and are still going on, covering vast areas in the global South and affecting an unknown number of local communities and people. However, research reveals serious problems with this programme (see, for example, Asiyanbi 2016; Asiyanbi and Lund 2020; Chomba *et al.* 2016; Krause, Collen and Nicholas 2013; Pasgaard and Chea 2013; Svarstad and Benjaminsen 2017).

Here, we concentrate on findings of a case studied over several years that examined the social implications of a REDD+ pilot project in Tanzania (Svarstad and Benjaminsen 2017). At project start in 2010, the area was characterised by widespread poverty

amongst 62,000 agro-pastoral smallholders in 21 villages surrounding a forest ridge. Twenty-eight per cent of the inhabitants were estimated to live in deep poverty with an income of less than one dollar a day, and a large part of the rest of the population was also considered to be poor (Mung'ong'o *et al.* 2011).

The project introduced a strict regime of forest conservation, with limitations in the use of forest resources for daily livelihood means such as firewood and grazing. The main purpose was to reserve the forest for climate mitigation. Funding came from the Foreign Ministry of Norway during 2010–14, and the project was facilitated by the environmental non-governmental organisation (NGO) African Wildlife Foundation (AWF). During the project period, both donor and facilitator presented this project as particularly successful and in line with a win-win scenario involving climate mitigation and conservation as well as benefits that not only compensated villagers for the forest closure, but also contributed to poverty reduction (Royal Norwegian Embassy 2012, 2014).

Counter to this, Svarstad and Benjaminsen (2017) found that three overlapping groups were adversely affected by the restrictions that the project made on forest use. First, people living close to the forest and without alternative forests nearby tended to be more seriously affected than others. Second, villagers with relatively small farms or without farmland at all were more affected than others. This is because many villagers who lack sufficient farmland depend more on forest resources to sustain a living – for instance, by charcoal production. Third, women tended to be more affected than men, because of their roles in the gendered division of labour, and particularly with collecting firewood for domestic purposes.

The planned benefits from the project can be divided into long-term and short-term benefits (Norwegian Ministry of Foreign Affairs and AWF 2009). The long-term benefits should come from selling carbon credits in international carbon markets. However, after the project was finished, AWF finally admitted that the efforts to obtain certification for this project had failed.

The short-term benefits were planned to come from support to alternative livelihoods such as intensifying agricultural production, planting trees, and producing 'sustainable charcoal' on the smallholders' own plots. Despite repeated presentations of the great success of the project components and particularly of enhancing agricultural output, these claims were found to be unsubstantiated (Svarstad and Benjaminsen 2017).

All in all, this is a case of REDD+ that was celebrated by both the donor and the facilitating NGO as a great win-win, although independent and critical research reveals a clear case of climate injustice. People living in poverty were negatively affected, and

these are people who probably have some of the lowest climate footprints in the world. The injustice was brought on them by the Government of Norway, a country with high climate emissions directly, as well as indirectly from benefiting economically from fossil-fuel export.

How was this possible? This outcome can be explained by the lack of two types of recognition. First, there is a lack of formal recognition. Actors behind REDD+ often refer to safeguards established by the UN to avoid the negative consequences of REDD+ (UN-REDD Programme 2012). However, these are vague and unbinding formulations and do not provide vulnerable people with formal rights to avoid negative impacts.

Second, the livelihoods and interests of people who are negatively affected by REDD+ are not discursively recognised and made visible in the sense that there is hardly any knowledge about them in donor countries, such as Norway. Therefore, the victims of climate injustice through REDD+ are not heard or seen, and instead their misrecognition in the leading discourse in Norway about REDD+ as a win-win is seldom contested. Thus, there are hardly any voices in a country such as Norway to speak up for victims of REDD+. There are several reasons for this. One reason is that nearly all political parties, as well as environmental and solidarity organisations in Norway, supported the idea of a large Norwegian REDD+ programme from the beginning, and they have later found it to be in their self-interest to refrain from criticising REDD+. Today, there is a political consensus to continue the Norwegian REDD+ programme until at least 2030. Other reasons are the lack of independent and critical research on Norwegian-funded initiatives as well as lack of critical media coverage.

Thus, the Norwegian government handles REDD+ in a technical manner along with a simple win-win narrative and can continue to do so without much attention. The silent continuation of REDD+ is also convenient for powerful interests behind the petroleum industry and other high-emission activities, because REDD+ is presented as a major climate measure without the need for costly changes within Norway.

#### **4 The Great Green Wall in the Sahel**

The Great Green Wall (GGW) is planned as a 15km-wide wall of trees over a stretch of 8,000km, from Senegal to Djibouti. The project was conceived in 2005 by a group of African heads of state including, in particular, the former president of Senegal, Abdoulaye Wade; former president of Nigeria, Olesgun Obasanjo; and former leader of Libya, Mouammar Gaddafi. It was formally approved by the African Union as a Pan-African project in 2007, and it has later received financial support from the Food and Agriculture Organization of the United Nations (FAO), World Bank, Global Environment Facility, European Union, and

International Union for Conservation of Nature (IUCN) (UNCCD 2020). At the climate summit in Paris in December 2015, donors pledged a total of US\$4bn to the project, but by 2020, the project had received merely US\$870m of this promised funding (*ibid.*).

The aims of the GGW are to restore 100m hectares of degraded land, create 10m jobs, and sequester 250m tonnes of carbon by 2030. It is believed that these results will furthermore bring down recruitment to jihadist insurgency and reduce migration from the Sahel to Europe (Great Green Wall 2021).

Due to the project being championed by former president Wade, Senegal is without doubt the leading country in implementing the GGW and is where most of the land restoration has taken place (leading some to name it 'the great Senegalese wall'). So far, there has been minimal project activity in the other Sahelian countries (Magrin and Mugel  2020). An evaluation initiated by the United Nations Convention to Combat Desertification (UNCCD) concluded that by 2020, only 4 per cent of the planned area had been afforested. This meagre result is due to a general lack of enthusiasm among those Sahelian governments occupied with more pressing issues, as well as among donors who see the project as too risky amidst the security situation in the region (Mugel  2018; Magrin and Mugel  2020).

The fact that the Sahel has been greening following increased rainfall over the last few decades (see, for example, Benjaminsen and Hiernaux 2019) may have led to additional hesitation among donors. Moreover, survival rates of tree seedlings in the Sahel are low unless they are actively watered by hand. According to Yeo (2018), the survival rate in the GGW plantations in Senegal has been 45 per cent following intensive watering and protection of the seedlings.

The documented greening is also said to have recently changed the approach of the project from tree planting 'to become a mosaic of resilient land use systems with the capacity to adapt to uncertainty and climatic extremes' (UNCCD 2020: 29). However, this change of approach is not apparent in the project's self-presentation on its website, which is still focused on creating an 8,000km wall of trees to stop the southward movement of the Sahara and, through this afforestation, to sequester a large amount of carbon.

The project activities have so far been dominated by a technical and top-down approach focused on tree planting. The project also suffers from lacking local involvement and participation (Mugel  2018; Magrin and Mugel  2020). Since the project is focused on the zone between 100mm and 400mm of annual rainfall, which is marginal for dryland farming, the local population consists primarily of pastoralists.

Pastoralism has, however, not been taken into account in the design, planning, and implementation of the GGW (Mugelé 2018). In the Ferlo region in Senegal, where a large proportion of project activities have taken place, and where there is a centuries-long history of pastoral use, the pastoral dependence on access to land is not only neglected by the project, but pastoralism is also seen as an obstacle to the afforestation that project success is measured by. Through totally ignoring the needs of pastoralists and their livestock, the GGW exacerbates existing misrecognition of pastoralists in the form of lack of both formal and discursive recognition.

First, this misrecognition manifests in the blocking of pastoral mobility through enclosures of afforested areas. Second, it leads to loss of grazing areas that the pastoral system depends on, and third, the afforested areas and vegetable production within these areas compete with livestock for water. Ironically, this means that the GGW results in natural resource scarcity for the local population in the Ferlo, the Fulani pastoralists (Mugelé 2018).

The top-down approach of the project is also reinforced by the fact that it is implemented by the Water and Forest Department (Le Service des Eaux et Forêts), which is an old colonial institution with a para-military tradition of being an armed forest police (Benjaminsen 2000; Ribot 2001). In the central project area in the Ferlo region, there are eight state forest agents. None of them are from the region and none of them are Fulani (Mugelé 2018). These foresters are given the task of producing success measured by the number of trees planted and the area afforested (*ibid.*).

Traditional leaders and the elected leaders of local communes are also largely neglected by the project. They are not consulted and are merely told to comply with the decisions made by the project foresters pertaining, for instance, to the location of areas to be afforested. In addition, the foresters give local people fines for illegal use of tree products and when livestock manage to enter afforestation areas (Mugelé 2018). This is possible because the respective states formally own all rural land in the Sahel (except individually titled land which is only a small percentage) (Benjaminsen *et al.* 2009), and pastoral custom is generally not recognised by state legislation or policies (Thébaud and Batterbury 2001). Forest legislation is strict with few local rights of access to forest products and with fines for infraction of rules. This has given state foresters considerable power compared to local populations (Benjaminsen 2000; Ribot 2001; Gautier *et al.* 2013).

This top-down and technical approach to forest management has a history dating back to the 1930s in the Sahel (Benjaminsen 2000), and rather than reducing conflicts, it risks further increasing tensions between pastoralists and state institutions. This tension is behind the recruitment of pastoralists to armed groups labelled 'jihadist' (Benjaminsen and Ba 2021, 2019) and may therefore

in the long run contribute to the opposite result of what the project intends.

The misrecognition of Sahelian pastoralists following this project as well as generally, is both formal in terms of lack of rights as well as discursive. The GGW is, to a large extent, conceived as a climate mitigation project, which led to massive donor interest at the Paris Climate Conference. The resulting misframing has made the victims of the initiative invisible; for instance, on the website of the GGW and in other project presentations.

When there is such straightforward misrecognition of the local population – in this case pastoralists in the Sahel – there is a clear risk that climate mitigation may lead not only to a failed climate project, but also to adverse results such as increased local natural resource scarcity and increased resistance to the state, which might ultimately exacerbate conflict levels.

### **5 Climate as a conflict trigger in Syria?**

Another case of climate misrecognition is found in the Syria–climate–conflict thesis. Since 2012, a narrative arguing that the war in Syria was partly climate induced, has journeyed from a handful of academic studies to grey literature and popular media. This has made the Syrian conflict one of the primary contemporary examples of climate–conflict narratives (Daoudy 2020). The main tenets of the Syria–climate–conflict thesis are that anthropogenic drought drove agricultural collapse and mass migration from Syria's northeast Jazira region, eventually leading to civil unrest in the urban centres that received migrants from the drought. Proponents of the thesis argue that the Syria case shows how climate change threatens to exacerbate socioeconomic conditions in fragile states to the extent that it increases the likelihood of conflict in certain contexts. None of the thesis' proponents argue that environmental factors alone triggered Syria's war, but at the very least, that they played an important role.

During the run-up to the 2015 Paris Climate Conference, mainly three peer-reviewed articles (Gleick 2014; Kelley *et al.* 2015; Werrell, Femia and Sternberg 2015) provided the empirical evidence for the thesis (Selby *et al.* 2017). The media and public figures picked up these three articles, fuelling leading discourse on what conflictual scenarios might await in a warmer world, with Syria as its empirical backing. Barack Obama, Prince Charles, and Ban Ki-moon are a select few of those who have voiced their support of the theory that climate change played a significant role in triggering the Syrian war (Selby 2018). This is the case, despite numerous studies critical of the thesis' underpinning evidence (e.g. Selby *et al.* 2017), its potential to underplay more important conflict triggers (e.g. de Châtel 2014), and a narrow definition of environmental security (e.g. Daoudy 2020).



Within the set of three studies supporting the Syria–climate–conflict thesis, there is only a single mention of testimony from Syrians (Selby *et al.* 2017). The quote (in Kelley *et al.* 2015) from a displaced Syrian farmer is taken from a piece by *New York Times* journalist Thomas Friedman. For years, the Syria–climate–conflict thesis gained traction in public discourse with very scant input from the people who experienced the war and its consequences first hand.

Selby *et al.* (2017) raised this concern in a debate over the climate–conflict link in Syria that took place in *Political Geography*. Peter Gleick, water scholar and proponent of the thesis, responded to the critique by stating that interviews with displaced Syrians are ‘interesting, but have no validity scientifically’ (Gleick 2017: 249). Shaw of Tordarroch (2021) challenged this viewpoint by arguing the empirical value of qualitative inputs and not least, the importance of recognition in debates over proposed climate–conflict links. Her study concentrated on Syrian reactions, experiences, and perceptions surrounding the climate–conflict nexus and its application to the Syrian war.

A total of 79 Syrian participants took part across four qualitative focus group discussions and 15 semi-structured interviews. The study was conducted in the midst of the Covid-19 pandemic, thus all data collection sessions were carried out on the Zoom video conferencing platform, with all interview guides approved by the Norwegian Centre for Research Data. Sixty of the participants were refugees living in Turkish Sanliurfa, Gaziantep, and Kilis. Four were internally displaced persons living in the Syrian city of Jarabulus and the remaining 15 participants had been displaced from Syria and were now living in Norway. The entire sample lived in Syria between at least 2005 and 2011, and all considered themselves Syrian although a small number of participants were originally Palestinian (four) and Kurdish (two).

The data collection sessions were initiated by an unbiased explanation of the Syria–climate–conflict thesis by the interviewer, in an intelligible fashion that was not overly academic. The intent throughout the study was for the researcher to remain open to any potential findings.

Overall, Syrian participants were strongly disagreeable to the thesis and in several cases took offence to the suggestion that their revolution and war had a natural cause (Shaw of Tordarroch 2021). To them, the Syria–climate–conflict thesis fails to acknowledge the long-enduring plights of many Syrians, and that the events that unravelled in 2011 were driven by the popular desire to bring freedom, democracy, and reformation to Syria.

A majority of participants acknowledged the presence of drought and internal migration in Syria, but none associated these

phenomena with the Syrian conflict. In fact, most supported a reverse sequence of the climate–conflict nexus, relaying concern over climatic effects of conflict rather than the other way around. The thesis was, in the view of several participants, an embodiment of the West's current preoccupation with climate change rather than an attempt to explain the war's causes or seek out a remedy for it.

The study found that Syrian participants express feeling persistent discursive misrecognition in the leading discourse about the Syrian conflict. As the previously quoted statement by Gleick illustrates, Syrian voices are not only excluded in the debate, but are also disregarded on the basis of not being seen as scientifically valuable. Such misrecognition constitutes a form of disrespect and lack of solidarity in which Syrian experiences, views, and interests are not considered knowledge on a par with Western or scientific knowledge. In this case, the misrecognised are not directly affected by climate or mitigation policies, but rather by dominating discourse in which climate is centre stage.

Syrians in this study felt angered by the persistent focus on conflict triggers ten years on from the conflict's inception, instead of navigating policy towards instilling peace. In their view, the climate–conflict discourse on Syria presents a form of misrecognition by closing them out of the conversation and promoting the values, interests, and worldviews of powerful actors such as the West or Assad regime, rather than the millions of Syrians whose lives are eternally affected by the still ongoing war in their country.

## **6 Conclusions**

We argue in this article that recognition should be given more attention as an aspect of climate justice, and that misrecognition is a key source of climate injustice. Discussing three examples, we distinguish between formal and discursive (mis)recognition.

Formal recognition of affected people exists if policy or laws protect their rights to maintain basic needs and livelihoods, following the implementation of climate mitigation measures. In the case of REDD+, we showed how the UN have established safeguards to avoid negative consequences of REDD+, but these are not strong enough to protect poor and vulnerable people from the negative impacts of REDD+ interventions. Similarly, the GGW in the Sahel is implemented without involving the affected pastoralists. This project is also managed by an institution with a history of top-down approaches dating back to colonial times. In this institutional context, pastoralists have been portrayed as destroyers of the environment and have not been granted any formal land-use rights.

Leading discourses and narratives influence policies and practices. There is discursive recognition if a leading discourse

or narrative takes account of the interests and livelihoods of the communities or peoples that will be affected by an initiative, and the presentation is in line with the senses of justice of these groups (Svarstad and Benjaminsen 2020). In the REDD+ case in Tanzania, a win–win narrative was produced by the actors behind the intervention, despite poor and vulnerable people being affected negatively. A win–win discourse on REDD+ remains hegemonic in policymaking, although an increasing body of research demonstrates how the programme has adverse effects on communities living in or close to forests and their livelihoods.

In a similar vein, pastoralists in the Sahel remain discursively invisible; for instance, on the GGW website and in other project presentations. The discursive and financial power of UN organisations, the World Bank and the European Union produces a framing about fighting desertification and reducing out-migration and violent conflicts in the Sahel through tree planting, which lacks any sound support in research or in the realities on the ground.

Misframing in climate change discourses disguises the interests of powerful actors and shields them from any accountability. In addition, the interests, agency, and livelihoods of subaltern groups are made invisible. Not only do they become non–persons in terms of formal justice, but also in discourse and practice they are disregarded as actors in their own right. They miss out on benefiting from legal justice, but also as they remain invisible, they are not subject to solidarity as a form of intersubjective recognition.

This rendering invisible is evident in all three cases discussed including the portrayal of the Syrian war as partly triggered by climate change. The displaced Syrians interviewed were largely unaware of this discursive misrecognition. They expressed the opinion that the leading discourse on the conflict departs from their own views and experience. Syrian voices have largely been neglected in the Syria–climate–conflict debate, despite their indisputable insight into why Syria descended into war, and their stake in how the rest of the world discursively understands the conflict. The environment–centric explanation of the Syrian war presented in the leading discourse impedes accurate and nuanced analyses, specifying responsibility for past and future action and opportunities to elaborate peaceful solutions.

Through the three examples, this article has shown how poor and vulnerable groups face climate injustice due to misrecognition. This immediately causes situations of spatial climate injustice. At the same time, it also contributes to temporal climate injustice for future generations by deviating from urgent action to reduce global warming.

### Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- † Benjaminsen and Svarstad are grateful to the Research Council of Norway, which funded their writing of this article through the Greenmentality project (Grant number 250975). Shaw of Tordarroch thanks Pinar Cetinkaya and colleagues at CARE International Turkey for their support in recruiting Syrian respondents.
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- 3 Iselin Shaw of Tordarroch, Project Manager Football and Human Rights, Football Association of Norway (NFF), Norway.
- 4 For instance, Fraser gives the example of how white male industrial workers may be unemployed through a factory closing because of a speculative corporate merger (Fraser and Honneth 2003: 35).

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# Cutting the Supply of Climate Injustice<sup>\*†</sup>

Peter Newell<sup>1</sup> and Mohamed Adow<sup>2</sup>

**Abstract** This article considers the role of activism and politics to restrict the supply of fossil fuels as a key means to prevent further climate injustices. We firstly explore the historical production of climate injustice through extractive economies of colonial control, the accumulation of climate debts, and ongoing patterns of uneven exchange. We develop an account which highlights the relationship between the production, exchange, and consumption of fossil fuels and historical and contemporary inequalities around race, class, and gender which need to be addressed if a meaningful account of climate justice is to take root. We then explore the role of resistance to the expansion of fossil-fuel frontiers and campaigns to leave fossil fuels in the ground with which we are involved. We reflect on their potential role in enabling the power shifts necessary to rebalance energy economies and disrupt incumbent actors as a prerequisite to the achievement of climate justice.

**Keywords** fossil fuels, climate justice, power shift, supply-side, colonialism, climate debt, unequal exchange, resistance, race, class, gender.

## 1 Introduction

Runaway climate change constitutes an unprecedented threat to the prospects of development for the world's poor. This threat comes in the form of impacts on food and water security, 'natural' disasters, extreme weather events, and a wide range of health and environmental stresses associated with a 'hothouse earth' (Steffen *et al.* 2018). Though some of the worst effects of these changes will be felt in the future, many are already exacerbating and further entrenching existing inequalities and deprivations along the lines of race, class, gender, and other social dynamics.

At the same time, the project of globalising, modernising development driven by extractivism and uneven exchange – and financed by the development industry itself – is one of the key drivers of that change and shows few signs of changing course

© 2022 The Authors. *IDS Bulletin* © Institute of Development Studies | DOI: 10.19088/1968-2022.137



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The *IDS Bulletin* is published by Institute of Development Studies, Library Road, Brighton BN1 9RE, UK  
This article is part of *IDS Bulletin* Vol. 53 No. 4 December 2022 '**Reframing Climate and Environmental Justice**'; the Introduction is also recommended reading.

despite growing acknowledgement of the threat the climate crisis poses to efforts to eliminate poverty articulated in the Sustainable Development Goals (SDGs) (Newell forthcoming). Without a sustained effort to disentangle itself from fossil-fuelled development, the development industry is unlikely to play a progressive and transformative role in building a climate-resilient future. This is a critical moment for it to withdraw support for the fossil-fuel economy and the infrastructures which sustain it.

We now need a new approach to addressing this crisis. As the Intergovernmental Panel on Climate Change (IPCC) has pointed out, we need 'transformative systemic change' (IPCC 2018: 40). This is no longer a question of incremental change or narrower forms of 'plug and play' whereby new energy sources or technologies are added to the mix, but all other relations of power and systems of production and exchange remain in place (Newell and Martin 2020). Critical to the success of any such efforts is the need for power shifts to rebalance energy economies as a prerequisite to achieving climate justice (Newell 2021b). This means consciously and deliberately rolling back the power of the fossil-fuel industry over politics.

The power of that lobby is evident in the incongruence between the commitments nations have signed up to under the Paris Agreement and ongoing plans to expand production of fossil fuels. The latest Production Gap report by the United Nations Environment Programme (UNEP) and the Stockholm Environment Institute (SEI), for example, showed that governments are planning to extract 120 per cent more fossil fuels than is compatible with the goals of the Paris Agreement (SEI *et al.* 2020). For this reason, we seek to address the elephant in the room: the under-acknowledged yet critical need to equitably leave vast swathes of remaining fossil fuels in the ground.

## **2 The production of climate injustice**

We suggest here that a more historical, social, and global account of the production of climate justice is needed so as to identify possible intervention points for countering and reversing patterns of climate injustice, with a particular focus on supply-side climate policy in contrast to the dominant policy approach to date of regulating demand-side consumption-based emissions. The history of climate change is one of compounding injustices. The wealth of many Western countries was built on the riches and natural resources extracted from their colonial empires, a process that motivated – and in turn was fuelled by – the burning of coal, oil, and gas and vast deforestation. The Industrial Revolution may have produced crowded, smoke-filled cities full of people with chronic health problems, but over time, it ensured that future generations in industrialised economies would grow up in relative privilege compared with people elsewhere, who were often living under colonial rule. The consumption of fossil fuels forms a key pillar, therefore, of global inequality.

## 2.1 Historicising climate injustice in the fossil-fuel economy

First, regarding the historical production of climate injustice, richer countries not only emit more carbon into the atmosphere per capita than poor countries do, but also their very wealth and stature rest on a century of emissions and environmental degradation (Malm 2016). A growing number of accounts have shown how the wealth from colonial looting financed growing concentrations of fossil-fuelled wealth in colonial powers (Newell 2021a; Nikiforuk 2012). Work on carbon debts, meanwhile, demonstrates the extent of the over-use of the commons by richer states and the disproportionate responsibility they bear to now address the impacts of the pollution generated by the wealth they have extracted (Adow 2020; Simms 2005).

While some aspects of the violence that was intrinsic to colonialism are less visible or flagrantly exercised today, the danger is that technologies of control furnished in the colonial era, such as direct extraction and dispossession of land and livelihoods, are now getting replayed through climate colonialism in the form of green grabs and reducing emissions from deforestation and degradation (REDD) forest projects, for example (Bachram 2004; Fairhead, Leach and Scoones 2012).

Amid this more general account, there is also a need to be more specific about agency and the disproportionate responsibility of the 'polluter elite' and the fossil-fuel majors in particular (Kenner 2019). For example, just six of the largest listed oil and gas companies alone hold reserves that together would use up more than a quarter of the remaining 2 degree Celsius budget, and historically speaking, just 90 companies have caused two-thirds of anthropogenic global warming emissions (Heede 2014). Likewise, only about 5 per cent of the world's population collected around 50 per cent of fossil-fuel rents generated between 1970 and 2010 (Kartha, Lazarus and Tempest 2016).

Second, this historical account needs to include a recognition of the racial nature of extractivism. Scholarship on racial capitalism usefully draws attention to the implied racialised hierarchy that characterises the operation of the global economy (Bhattacharyya 2018; Tilley and Shilliam 2018) where standards of protection, duty of care, and enforcement of rights are practised in uneven ways, which leave racialised minorities particularly vulnerable to social and environmental injustices (Bullard 2000). This is true of those on the front lines of more extreme extractivism, as well as through displacement and dispossession, and the dumping of the waste and externalities produced by the accumulation of wealth in richer parts of the world (Agyeman, Bullard and Evans 2003). These racialised hierarchies are also visible in the double standards adopted by richer colonial powers that reject polluting fossil-fuel infrastructures at home but provide financial support for fossil-fuel infrastructures in formerly colonised economies, such as UK government support for gas

terminals in Mozambique or fracking in Argentina, having banned fracking at home.

When rich nations do invest in poor countries, they end up spending billions of dollars propping up fossil-fuel industries there. A 2018 report by the research and advocacy organisation Oil Change International showed that between 2014 and 2016, '60 per cent of international public aid for energy projects in Africa was spent on fossil fuels – principally through investments in oil and gas infrastructure – with only 18 per cent directed to renewable sources such as wind and solar energy' (OCI 2018: 67).

At the 2020 UK–Africa summit on ties between the UK and African countries, the then UK prime minister, Boris Johnson, announced that his country would stop using aid money to fund coal projects abroad, and an official government press release for the event highlighted increased funding for clean energy. But a few days later, it emerged that 90 per cent of the energy deals concluded at the summit were in fact for fossil fuels.

The issue of double standards applies equally to the private sector. Research by Greenpeace and the World Wildlife Fund found that the amount of carbon dioxide production financed by Britain's banks and asset managers is nearly double the UK's annual carbon emissions (Makortoff 2021). Meanwhile, a report on fossil finance by Rainforest Action Network, the Indigenous Environment Network, and others found two major UK banks to be in the top 13 largest financers of fossil fuels worldwide, with Barclays Bank alone responsible for US\$145bn of funding over the period 2016–20 (RAN *et al.* 2021).

Contemporary expressions of deep-seated colonial attitudes which underpin these double standards are not hard to find. At a Pacific Islands Forum in 2019, the chair of that gathering, the former prime minister of Tuvalu, Enele Sopoaga, said he was stunned by a remark made by the then Australian prime minister, Scott Morrison, that Pacific leaders should 'take the money... then shut up about climate change' (Lyons 2019). The degrading insult was made worse by the words of Morrison's deputy, Michael McCormack, who at the time said he was 'annoyed' at the Pacific Islanders 'pointing the finger at Australia' over the climate crisis when in actual fact the islanders would survive 'because many of their workers come here to pick our fruit' (*ibid.*).

Meanwhile, Boris Johnson stated in a magazine article that: 'the best fate for Africa would be if the old colonial powers, or their citizens, scrambled once again in her direction; on the understanding that this time they will not be asked to feel guilty', reflecting his diagnosis that '[t]he problem is not that we were once in charge, but that we are not in charge anymore' (Johnson 2016).

## 2.2 Global inequities

These historical inequities continue to be reflected in vast disparities in emissions and contributions to the production of climate injustice. The contrasts are stark: the United States, with a population of approximately 323 million, emits 5bn metric tonnes of carbon dioxide per year compared to a region such as sub-Saharan Africa, which emits a combined total of around 823m metric tonnes of carbon dioxide per year from a population of about a billion people (Adow 2020). The figures indicate contrasts that are as huge as twentyfold (*ibid.*). In the Commonwealth, richer countries such as the UK, Canada, and Australia have higher per capita emissions than many other Commonwealth countries in the global South. For instance, a Power Shift Africa (2020: 9) report indicated that 'the UK emits more carbon dioxide per person than 18 Commonwealth countries combined'. In the same report, it was found that Canada and Australia emit more carbon dioxide than 27 Commonwealth nations and 28 Commonwealth countries respectively (*ibid.*).

Moreover, ongoing global ambitions on the part of the richest countries to expand their fossil-fuel industries imply greater reductions in carbon budgets for poorer countries if overall limits are not to be surpassed. Power Shift Africa (2020) found that richer countries such as Canada, despite their low population, have plans to use up a large part of the remaining global carbon budget. This is notwithstanding the rhetoric from the leadership of these countries. For example, in spite of the promises and commitments from Canadian leadership, if its investment plans are anything to go by, it might end up using a third of the world's remaining carbon budget (*ibid.*). Prime Minister Justin Trudeau's commitment to a fossil-fuel future was made clear when he said to a group of cheering Texas oilmen: 'No country would find 173 billion barrels of oil in the ground and leave them there' (*ibid.*: 9). There is a chasm, therefore, between the emissions of the wealthy global North members and Commonwealth countries from the global South that are the most affected by the impacts of climate change.

Furthermore, the post-Covid-19 pandemic economic recovery plans of governments such as the UK, Australia, and Canada are pumping billions of dollars into dirty fossil-fuel industries, effectively rebooting some of the richest economies on the backs of Commonwealth citizens in climate-vulnerable countries. G20 governments have directed more Covid-19 recovery support to fossil-fuel production and consumption than to renewable energy, energy efficiency, and other low-carbon alternatives (US\$233bn vs US\$146bn, as of November 2020) (SEI *et al.* 2020: 20). Meanwhile, a report by Tearfund in June 2021 showed that G7 nations have spent US\$190bn on coal, oil, and gas compared to just US\$147bn on clean energy since the start of the pandemic (Dufour *et al.* 2021).

Underpinning this disparity is extractivism and ecologically uneven exchange. This takes a number of forms: from virtual carbon (the outsourcing of the most polluting parts of the production process) to the dangers of renewable extractivism and the intensification of mining. For example, minerals such as lithium and cobalt are mined to support transitions to electrification of the energy system in wealthier parts of the world (Sovacool *et al.* 2019).

Richer countries are also able to make use of a range of spatial and temporal fixes (Harvey 1981) through green grabs, carbon trading, and the like to displace responsibility for the climate crises onto poorer groups, particularly in the global South (Newell 2021b). Though some of these interactions are privately driven, many are reinforced by global institutions of trade, aid, and finance, and the use of state power. They produce lock-in through a particular model of dependency, export of fossil fuels, and private-led power sector reform (Tellam 2000; Newell 2021b). This ideology and set of institutional lock-ins perpetuated by the development industry needs to change if we are to address the roots of climate injustice.

### **2.3 The production of social injustices in the fossil-fuel economy**

As well as a historical account of the injustices associated with today's fossil-fuel economy, which necessarily form the starting point for campaigns for climate and environmental justice, we also need a more social account. Climate change exacerbates existing inequalities. Between 1961 and 2000, emissions from poorer countries caused US\$740bn worth of damage to wealthier countries, whereas emissions from richer countries caused US\$2.3tn worth of damage to poorer ones.

In poorer countries, the impacts of climate change have extended beyond economic damage. In these regions, climate change is hindering socioeconomic progress and people's wellbeing. In sub-Saharan Africa, frequent extreme weather events are affecting people's livelihoods, thus impeding economic growth. It is noteworthy that despite sub-Saharan Africa having contributed the least to the global energy-related emissions, it is having to pay the highest economic price for emissions from richer countries. Sub-Saharan African countries such as Burkina Faso, Niger, and Sudan have had a significant reduction in their per capita gross domestic products as a result of climate impacts (Meseret 2020; Diffenbaugh and Burke 2019; Adow 2020).

Social relations of race, class, and gender interact with these economic and environmental injustices, exacerbating existing vulnerabilities, exclusions (from resources and their governance) and inequalities (Newell 2021a, 2005). A large number of studies on environmental justice, environmental racism, and from feminist political ecology explore these dynamics (Bullard 2000; Rocheleau, Thomas-Slayter and Wangari 1996; Sikor and Newell 2014). These

cover not just direct sites of extraction of fossil fuels, but also their processing in petro-chemical complexes in places such as 'Cancer Alley' in Louisiana in the US, for example (Wright 2005). The breadth of social, human, and environmental impacts produced along the fossil-fuel supply chain, from hazardous working conditions and local pollution at the source of production, to marine pollution in the transport of fossil fuels around the world, to the health impacts of their combustion in housing and transport systems, creates, at the same time, incentives for intersectional alliances. These can be between movements as diverse as labour, indigenous groups, women's groups, and environmental movements with different reasons for fighting a common battle against the largest driver of climate injustice.

### 3 Contesting climate injustice

Climate injustices will continue to be perpetuated as long as the fossil-fuel economy lasts. An urgent priority for social movements, non-governmental organisations, and governments, therefore, is to disassemble that economy in as fair a way as possible as part of a just transition. There are a number of ways of doing this.

**First**, there are campaigns to withdraw financial support to fossil fuels. This means challenging the lending practices of bodies such as the World Bank, as well as bilaterals and governments through advocacy on fossil-fuel finance. The issue is that despite the negotiation of the Paris Agreement in 2015, total multilateral development bank finance for oil and gas exploration more than doubled from 2015 to 2016, from US\$1.05bn to US\$2.15bn. The World Bank Group, the European Investment Bank (EIB), and the Asian Development Bank were the largest financiers of fossil fuels in 2016. At the same time, renewable energy still made up less than a third of multilateral development bank energy finance (OCI 2018).

There have been a number of successes in this regard, including commitments from the EIB to discontinue financial support to fossil fuels and from the UK government to end the use of export finance for fossil fuels, though much work remains to be done and such commitments often come with caveats and exemptions and need to be situated in the broader landscape of financial flows described below. Some campaigns have exposed the inconsistencies in government policy between climate objectives and the ongoing pursuit of fossil-fuel extraction, such as the campaign aimed at the activities of specific government agencies in the case of the 'paid to pollute' campaign targeted at the UK's oil and gas authority which has a mandate to expand fossil-fuel extraction. This included a judicial review launched by the campaign group Uplift exposing the fact that since signing the Paris Agreement in 2016, the UK government has paid £3.2bn of public money to North Sea oil and gas companies.<sup>3</sup>

With regard to the private sector, fossil-fuel divestment movements have played a critical role in encouraging institutional

investors – universities, pension funds, and others – to divest from fossil fuels (Bergman 2018). Thanks largely to the climate advocacy group 350.org joining forces with the student activists, to date, 688 institutions and 58,399 individuals across 76 countries have committed to divest from fossil-fuel companies. By 2018, the fossil-fuel divestment movement marked the 1,000th divestment in what has become by far the largest anti-corporate campaign of its kind, bringing the total size of portfolios and endowments in the campaign to just under US\$8tn (£6.4tn) (McKibben 2018).

**Second**, there is more politically focused work to disrupt incumbent control over the political system. This aims to challenge the political influence of the polluter elite (and not just their investment power or direct emissions associated with high carbon living) (Kenner 2019) through exposure work and lobbying for greater regulation and transparency around lobbying, representation, party donations, and the like. It focuses on cleaning up governance with regard to party donations, revolving doors, internships, and access to key decision-making bodies (Newell and Martin 2020).

The work of activist organisations such as the Corporate European Observatory and DeSmog is particularly important here. To give an indication of the scale of the challenge, by the close of 2019, 134 members in US Congress and their spouses owned as much as US\$92.7m worth of stock in fossil-fuel companies and mutual funds (Kotch 2020). Fossil-fuel industry political giving outdoes renewables 13 to 1 in the US, with the fossil-fuel industry spending at least US\$359m in the 2018 mid-term cycle for federal campaign donations and lobbying (Kirk 2020). Globally, according to one recent analysis, among 350 companies that represent around 100 leading industry groups, over 90 per cent have at least one membership in an industry association with lobbying practices that undermine the Paris Agreement (InfluenceMap 2021).

There is also a revolving door between high-level offices in government and fossil-fuel industries that needs to be stopped if the injustices associated with the expansion of fossil-fuel frontiers are to be brought to an end. For example, as Newell and Martin show, 'nearly 90 per cent of people leaving the UK's Department of Energy and Climate Change took up jobs in the energy sector, including six former energy ministers' (Newell and Martin 2020: 24). Some hold these positions at the same time. While serving as Minister of State for Energy, Charles Hendry secured £3,333 a day as a consultant for Vitol, the world's biggest oil trader handling 270m tonnes of oil in 2016.

However, the door swings the other way too, with private sector actors securing key roles in government. For example, Lord Browne, former CEO of BP, was made 'lead non-executive director' at the Cabinet Office by former prime minister



David Cameron in 2010. Lord Browne was also chair of fracking company Cuadrilla at the time and made clear his intention to do 'whatever it takes' to promote shale gas (Cato 2018). Strategies need to focus on clearer party financing rules, registries of politicians' interests, boards of companies they sit on, the corresponding restrictions on which committees they sit on, and policymaking processes they are part of when there are such obvious conflicts of interest.

**Third**, in recent years, litigation has emerged against individual fossil-fuel projects (e.g. coal mines in Australia and the UK, and oil and gas pipelines in the US), against individual fossil-fuel companies (Shell in the Netherlands, Total in France, ExxonMobil in the US), and against carbon majors as a whole (in the Philippines). The recent case against Shell is perhaps one of the most telling examples: the Dutch court ordered Shell to achieve a specific emission reduction target along its entire supply chain, effectively suggesting that the company had to cut back production (van Asselt *et al.* 2021).

Loss and damage represent another important frontier in this battle (Toussaint 2021). Yet, despite the existence of the Warsaw mechanism on loss and damage, at the Madrid climate summit, the US, with Russia's support, ruled out agreeing to and implementing a concrete plan to increase financing for loss and damage. Other rich countries, including Australia, Japan, and some member states of the EU, sheepishly followed suit, leaving vulnerable countries without the help promised to them in 2013. Nevertheless, moves to strengthen loss and damage provisions might provide further impetus towards leaving fossil fuels in the ground (*ibid.*).

**Fourth**, and more directly, we have seen over the last few years a growing wave of supply-side policy activism supporting countries and cities to adopt a range of policies to leave fossil fuels in the ground, as well as more broadly around the idea of a Fossil Fuel Non-Proliferation Treaty or other multilateral alternative to equitably leave remaining swathes of fossil fuels in the ground (Newell and Simms 2019; Burke and Fishel 2020). Gaulin and Le Billon (2020), drawing on a fossil-fuel-cuts database, found that 1,302 initiatives were implemented between 1988 and 2017 in 106 countries across seven major types of supply-side approaches. SAFE Cities, for example, is a growing network of cities, counties, and other communities that Stand Against Fossil Fuel Expansion (55 so far) and a number of key cities including Vancouver, Barcelona, Sydney, and Los Angeles, as well as the Australian Capital Territory, have endorsed the idea of a Fossil Fuel Non-Proliferation Treaty. These efforts help to socialise the idea of production limits on fossil fuels.

**Finally**, and critically, there is widespread resistance to new fossil-fuel projects (Temper *et al.* 2020; Carter and McKenzie 2020).

This is a rising, but not altogether new, phenomena with resistance to the expansion of fossil-fuel frontiers in the global North and South going back decades, even if climate was not the primary driver (Princen, Manno and Martin 2015). Temper *et al.* (2020) find, nevertheless, that over a quarter of fossil-fuel projects encountering social resistance have been cancelled, suspended, or delayed. The example of the proposed coal plant on the United Nations Educational, Scientific and Cultural Organization World Heritage site of Lamu off the Kenyan coast is an example of a victory for climate justice. A group of dedicated local campaigners, Save Lamu and DeCOALonise, managed to fend off the financial interests of investors General Motors and the Industrial and Commercial Bank of China.

Despite this resistance, many fossil-fuel companies are keen to see fossil-fuel expansion across Africa, from Ghana to Kenya and Mozambique, despite the abundance of renewable energy (Bos and Gupta 2016; Phillips 2019; Newell and Phillips 2016) and the geopolitical risks associated with further lock-in to fossil-fuel pathways (Gupta and Chu 2018). The role of Chinese finance in supporting investments in fossil fuels is especially notable here (Power *et al.* 2016; Shen and Power 2017) and presents particular challenges for activists where normal channels of influence are harder to pursue with state development banks based in non-democratic societies (Gore 2017).

This activism does not exist in a vacuum, therefore, but rather seeks to magnify and accelerate emergent political and social tipping points. These include a confluence of the falling price of renewables and availability of battery storage technologies, bolder government commitments including the adoption of supply-side policies by first movers such as Costa Rica, Belize, New Zealand, Denmark, and France, as well as coalitions building on the Powering Past Coal Alliance (Jewell *et al.* 2019). Another tipping point is the diminishing licence to operate of fossil-fuel companies contested by social movements across a range of policy arenas and cultural spheres, combined with investor concerns about stranded assets.

It is also important to note that some of this resistance is being articulated around novel articulations of intersectional, multi-generational, multicultural indigenous-led movements seeking to contest climate injustices, the criminalisation of land protection, and expressing forms of anti-colonial solidarity (Spiegel 2021a, 2021b). What this activism highlights and seeks to contest are the ways in which indigenous people are particularly affected by the injustices of fossil fuels (Jonasson *et al.* 2019; Gilio-Whitaker 2019). In these instances, fossil fuels happen to be the campaign focus, but the activism is aimed at contesting, dismantling, and decolonising the very power structures, hierarchies, and failures of recognition which permit and enable these injustices to take place in the first place, routinely

distributing the greatest costs of fossil-fuel expansion to poorer classes and to people of colour (Bullard 2000; Newell 2005).

#### 4 Conclusions

We have briefly explored here the growing momentum around a diverse range of strategies aimed at keeping fossil fuels in the ground. We have argued that their adoption and wider uptake are crucial to reverse centuries of injustices produced by the fossil-fuel economy, of which climate injustices are just the latest manifestation.

The onus is clearly on rich countries to take a lead in addressing these climate injustices. For reasons of lack of resources, capacity, or policy autonomy, many countries in the global South are trapped by these fossil-fuelled dependencies, sedimented over centuries. For many poor countries awash with problems, including insufficient energy production, following the fossil-fuel-laden course that wealthy nations took is the path of least resistance and is particularly attractive for elites in those countries because of the opportunities for rent-seeking that fossil fuels enable. Yet there is an opportunity to chart a different course, but also work to do in order to ensure that old injustices are not perpetuated, or newer ones created.

There is no one theory of change which will underpin the success of movements against climate injustices. We need to mobilise all pressure points to challenge fossil-fuel incumbency. This brings different challenges in different settings and depends a great deal on degrees of democratic space, the nature of state power, and the degree of positive engagement by business and civil society actors. The risks for many environmental defenders of confronting the fossil-fuel industry are very high (Global Witness 2017).

Then again, so are the risks of allowing runaway climate change and enabling the fossil-fuel industries to further tighten their grip on economies by locking in fossil-fuel use for decades to come. A key challenge is confronting and reducing incumbent power over future energy pathways when the interests of the state and fossil capital are so closely aligned, given the revenues, tax, and employment associated with the sector in both its state-owned and private configurations. This means that states are often willing to use their monopoly on the use of force to crush protest and dissent targeted at the fossil-fuel complex (Brock *et al.* 2018).

This is a critical moment in the history of activism against climate injustice. As desperation mounts about the scale of the challenge and the speed of responses needed, social movements can spend all of their time fire-fighting proposals to achieve net-zero that often include regressive solutions for many of the world's poorest people. But they also need to keep focused on the elephant in the room: the obvious need to turn off the tap of

finance for fossil fuels and to equitably leave large swathes of fossil fuels in the ground as the greatest single thing that can be done to prevent further climate injustices.

### Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- † We are grateful for the reviews of this article by external referees and the issue editors of this *IDS Bulletin*.
- 1 Peter Newell, Professor, University of Sussex, UK.
- 2 Mohamed Adow, Founding Director, Power Shift Africa, Kenya.
- 3 **Paid to Pollute website.**

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# Livestock and Climate Justice: Challenging Mainstream Policy Narratives<sup>\*†</sup>

Fernando García-Dory,<sup>1</sup> Ella Houzer<sup>2</sup> and Ian Scoones<sup>3</sup>

**Abstract** In discussions around food systems and the climate, livestock is often painted as the villain. While some livestock production in some places contributes significantly to climate change, this is not universally the case. This article focuses on pastoral production systems – extensive, often mobile systems using marginal rangelands across around half of the world's surface, involving many millions of people. By examining the assumptions behind standard calculations of greenhouse gas emissions, a systematic bias against pastoralism is revealed. Many policy and campaign stances fail to discriminate between different material conditions of production, lumping all livestock systems together. Injustices arise through the framing of debates and policy knowledge; through procedures that exclude certain people and perspectives; and through the distributional consequences of policies. In all cases, extensive livestock keepers lose out. In reflecting on the implications for European pastoralism, an alternative approach is explored where pastoralists' knowledge, practices, and organisations take centre stage.

**Keywords** climate justice, pastoralism, extensive livestock, life cycle assessment, methane, Europe.

## 1 Introduction

Livestock have become the villains of the climate change debate. They produce significant quantities of greenhouse gases, notably methane, and the climate footprint of meat and milk production is potentially huge. The argument follows that livestock production should be reduced, if not eliminated, and an alternative diet, based on plant products or 'cultured' meats, should be adopted. But which livestock, where? Whose diets? What science justifies this, based on which assumptions and what data?

© 2022 The Authors. *IDS Bulletin* © Institute of Development Studies | DOI: 10.19088/1968-2022.138

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The *IDS Bulletin* is published by Institute of Development Studies, Library Road, Brighton BN1 9RE, UK  
This article is part of *IDS Bulletin* Vol. 53 No. 4 December 2022 '**Reframing Climate and Environmental Justice**'; the Introduction is also recommended reading.

This article argues that the generalised narrative, if universally applied to all livestock production systems, is misplaced and unjust. Yet versions of it, with various nuances, are now widely promoted by international organisations, governments, businesses, think tanks and campaign groups. The general narrative is supported by well-known celebrities from David Attenborough to Greta Thunberg, and is showered across the media, while profitable alternatives to animal-source foods are backed by everyone from Bill Gates to the World Economic Forum.<sup>4</sup>

There is no doubt that some livestock production is immensely damaging – either through changes in habitat, including deforestation to create ranches or farmed feed, or through intensively farmed systems with high greenhouse gas emissions across the system from production to consumption. But this does not apply to all livestock systems, particularly extensive pastoralism that supplies high-density protein to often vulnerable populations and generates income from areas that otherwise would not be used for agricultural production. It is therefore vitally important to differentiate between production systems and not just focus on the potentially negative qualities of the products, whether meat, milk, cheese or wool.

Current climate debates focusing on livestock production and changing diets urgently need more sophistication. They are generating exclusions and creating injustices, as particular sources of knowledge are favoured over others in the assessment of climate impacts. This creates biases in procedures that guide policy choices. These in turn have important implications as the world contemplates how to reduce emissions levels so that temperature rises are restricted to 1.5 degrees Celsius, while supporting livelihoods and development.

This article focuses on pastoralists who make use of extensive, highly variable rangelands, often through flexible mobility (Krätli 2019; Scoones 2021; Manzano *et al.* 2021). These are harsh environments, where alternative production options and land uses would require high levels of external inputs and would not be sustainable. Rangelands make up more than half the planet's land surface (ILRI *et al.* 2021) and are a site of important biodiversity, ecosystem services, and the home for many millions of pastoralists. Pastoralists produce from a diversity of animal species – camels, yaks, cattle, goats and sheep, reindeer and llamas. They live in areas ranging from the Arctic Circle to the savannahs and semi-deserts of Africa, and in the mountains and steppes of Asia and Latin America.

Towards the end of this article, we focus on the situation in Europe, where livestock keepers make use of the hills and mountains of the Mediterranean region and parts of northern Europe, the diverse meadow pastures of the Alps, Pyrenees, and other mountain ranges, and the extensive rangelands of the

tundra in the far north. In their production of meat and milk – and a huge range of other animal products – pastoralists provide an important source of nutrition, alongside luxury goods for high-end markets. Such production allows pastoralists to gain an income and livelihood, and so they can continue to live in and make use of such environments, providing protection and guardianship of these landscapes.

The article is organised as follows. First, we identify some of the key narratives and the underlying data (Section 2). In Section 3, we look at where these data come from, including the oft-repeated iconic statistics that frame the debate. Then in Section 4, we examine the assumptions behind the science and look at the inherent biases. We ask how this affects pastoralists, and what patterns of exclusion and forms of injustice result (Section 5). Finally, in Section 6, we explore the implications for the case of European pastoralists before concluding (Section 7).

## **2 Climate and livestock: dominant narratives**

Policy narratives as storylines about the world define both problems and solutions, making use of particular types of knowledge along the way. Importantly, policy narratives have power, associated with different networks and advocacy groupings (Keeley and Scoones 2003). When backed by formal, accredited science, they gain authority and credibility and so help to frame debates. That they also reflect realities – in some places, at some times, for some people – makes them appealing to those with prior commitments and particular biases and incentives. When they fit a wider storyline about the need to do something urgently about climate change, it is understandable that they have appeal.

Narratives about climate change and livestock have emerged in this way over the past 15 years. A number of influential reports, starting with *Livestock's Long Shadow* emanating from the Food and Agriculture Organization of the United Nations (FAO) (Steinfeld *et al.* 2006), set the terms. Based on an analysis of secondary data making use of life cycle assessments of livestock production, the reports highlighted the potential damage of continued greenhouse gas emissions from livestock systems. Livestock produce methane through anaerobic digestion. When combined with emissions from manure and other elements of the livestock production, processing, and marketing system, this can add up to considerable amounts.

Estimates vary, but one much repeated figure suggests that livestock (directly and indirectly through the whole production system including transport, feed, infrastructure, and so on) contribute 14.5 per cent of total anthropogenic greenhouse gas emissions (Gerber *et al.* 2013). This is clearly a large figure in need of reduction, but simplistic comparisons used in climate campaigns by Greenpeace and others<sup>5</sup> argue that this is

equivalent to the whole of the transport sector, forgetting that calculations on transport only include direct emissions and not the full sector (Mottet and Steinfeld 2018). Meanwhile, the media pick up the argument, often without digging into the details. On the back of a major publication in the journal *Science* (Poore and Nemecek 2018), the UK broadsheet *The Guardian* proclaimed, 'Avoiding meat and dairy is the "single biggest way" to reduce your impact on Earth' (Carrington 2018).

Quite appropriately, land-use change and agricultural production have increasingly become a focus for attention in debates of climate change policy, now that shifts to low-carbon alternatives in energy, housing, and transport are well under way, driven by major price shifts, technological advances, and increasingly strict government regulation. Land use and agriculture seem more intractable, given the trade-offs and vested interests involved. However, in an attempt to assess the evidence and push the issue up the agenda, the Intergovernmental Panel on Climate Change (IPCC) produced a landmark report in 2019 on this theme arguing for a suite of technical mitigation options in the livestock sector. The report listed an array of solutions from manure and slurry management, to animal breeding, to methane-reducing vaccination (IPCC 2019), despite widespread scepticism of the practicality of many of the solutions offered (Goopy 2019).

A focus on changing production and land use is combined with attention to consumption and diets. Reducing meat and milk consumption is seen by many concerned with climate change as important for encouraging a shift to diets centred on plant-based or cultured meat alternatives. The EAT-Lancet report offered a 'planetary diet', with adjustments for different world regions, that would not cross both environmental sustainability and human health boundaries (Willett *et al.* 2019).<sup>6</sup> While not arguing to exclude meat and milk, as advocates for a purely vegan diet do, the EAT-Lancet report called for massive reductions in consumption of animal-source foods worldwide. Among the 'consumption elite' of many Western countries, this undoubtedly will be beneficial both for personal health and the planet. Yet questions have been raised about affordability and the impact of alternative diets in many parts of the world, and particularly the consequences for those reliant on animal-source foods for nutrition (Beal *et al.* 2017; Ryckman *et al.* 2021).

As arguments against livestock production and animal-source foods build (with varying degrees of qualification and nuance), and are adopted by everyone from UN organisations and campaign organisations to politicians and well-respected celebrities, a new political economy of production and food emerges. Powerful commercial interests intervene to offer alternatives, such as cultured meat. These alternatives are heralded as the answer to the climate challenge and supported by companies such as Impossible Meats, a network of venture

capitalist funders and philanthropist backers. The 'big meat' corporate sector, including major producers such as Tyson from the US and JBS from Brazil, have enormous lobbying power and counter arguments for any dietary switch, arguing that they are protecting the 'rights' of consumers (Weis 2013).<sup>7</sup>

But where in this are the millions of pastoralists and other small-scale, low-input extensive livestock keepers who produce animal products from diverse rangelands, supplying often poor populations alongside growing urban consumers with high-quality products? The voice of pastoralists goes unheard while globalised narratives play out in a new political economy of climate change food production. This is creating exclusions and injustices, often hidden from view in the wider global debates about climate change and food policy that go on in global conferences of the parties for climate or biodiversity or the huge UN gatherings around food systems.

### 3 Science and climate policy: creating injustices

Policy narratives on climate depend highly on the authority and legitimacy of science. The IPCC is the pinnacle of the global process and involves an elaborate procedure for assessing accredited evidence from multiple sources. A series of panels is formed to look at everything from global climate modelling to socioeconomic impacts, and the panels are populated by scientists from the world over. But the process has limitations (Beck and Mahony 2018). There are multiple uncertainties, now increasingly acknowledged, yet there are also strong incentives to reach definitive conclusions and to set targets (Asayama *et al.* 2019). Although more varied today, certain types of science dominate the process, with the majority of contributors based in the global North. Such a process can work only with the formal data that is available, a requirement that narrows discussions to the centres of knowledge production, frequently derived from a narrow range of countries and settings.

For good reason, the IPCC has gained legitimacy and authority on climate change science and, when a report emerges, policymakers from global to national level sit up and listen. Reports are long and complex with much detail. On livestock production globally and on the benefits of shifting to plant-based diets, a number of key sources are frequently relied upon. The two FAO reports noted earlier (Steinfeld *et al.* 2006; Gerber *et al.* 2013) are hugely influential, as is the analysis by Poore and Nemecek (2018).

This latter study was picked up widely in the media, with a number of 'iconic statistics' emerging. For example, *The Guardian* presented graphics claiming that '[b]eef results in up to 105kg of greenhouse gases per 100g of protein, while tofu produces less than 3.5kg'; and that '[m]ore than 80% of farmland is used for livestock but it produces just 18% of food calories and 37% of

protein' (Carrington 2018). Looking in more detail at the Poore and Nemecek publication and the 76 pages of supplementary material published separately, the limitations of the analysis are clear (and indeed admitted by the authors). The study was based on a meta-analysis of livestock production life cycle analyses – where all the emissions are measured, from production and processing to transport and retail – across 38,700 farms and 1,600 processors. It is an impressive data set, but almost exclusively focused on intensive, industrialised production, often in contained units with no free grazing. Nearly all the data was from Europe and North America, with some from Latin America and coastal China. Systems deemed 'subsistence' production were excluded from the analysis. The results reinforced the dominant narrative about the need to address livestock-related emissions and reduce consumption of animal-source food, and were shared widely in the media (see, for example, Petter 2020). Unfortunately, a more nuanced picture was not available, and the dominant narrative became further entrenched.

The now widely shared anti-livestock stance has knock-on consequences, as campaigners in other areas pick up the narrative in support of their agendas. For example, those promoting 'land-sparing' or 'half-earth' positions on conservation may envisage the intensification of livestock production or its replacement by industrialised meat and milk alternatives, releasing land for 'rewilding', conservation and biodiversity protection (Wilson 2016; Folberth *et al.* 2020). Major global initiatives that call for a commitment by all governments to a target of 30 per cent of land for biodiversity conservation by 2030 often present reducing land-extensive livestock production as central to this.<sup>8</sup> Those who see extensive livestock production as causing land degradation and desertification add to the clamour, despite many long-standing debates that show how such production systems, including pastoralism, may actually increase biodiversity and preserve landscapes when livestock and people are not constrained by other land uses that restrict movement, for example (Behnke and Mortimore 2016).

A poor understanding of diverse extensive livestock systems, including pastoralism, can result in patterns of enclosure for conservation and environmental protection, resulting in exclusions of people and animals from areas that have long co-evolved with livestock use. Different imaginaries<sup>9</sup> of 'wilderness' and environmental integrity are imposed, often by urban-based environmentalists with limited knowledge and appreciation of the lived-in landscapes used by livestock keepers. Injustices result through processes of 'green grabbing' and exclusion, rooted in divergent perspectives and understandings of environmental processes. Too often, the justification given for such moves is to address climate change, with the iconic figures on the assumed climate impact of livestock inevitably trotted out.

#### **4 Biases, gaps and assumptions: differentiating the dominant narrative**

As any of the scientists involved in the assessments that produce such figures would admit, there is much more to life cycle analyses than the figures promoted in media headlines. Digging into the data can reveal nuance and differentiate between cases. The problem is that certain biases in data, assumptions and the way systems are bounded persist, giving a misleading impression for the uninitiated.

A review of 164 life cycle analyses of food products showed that only 0.4 per cent were derived from Africa, while most were focused on industrial systems (Clark and Tilman 2017). In order to make calculations of total contributions to greenhouse gas emissions, inputs and outputs are traced along the product life cycle and calculated in terms of a carbon dioxide-equivalent measure. Emissions, if not directly measured, are estimated according to recommended emissions factors for a 'standard' animal, while equivalence between greenhouse gases is estimated in relation to conversion factors that evaluate the potential for global warming. Emissions of carbon dioxide equivalents are assessed in relation to units of product (meat, milk, etc.) and so carbon footprints are assessed within a productivist lens of product efficiency, rather than a broader view of multi-functionality across diverse contributions from a livestock system (Houzer and Scoones 2021).

Many assessments take place in contained industrial units with imported feed and limited grazing, so the complexities of the carbon cycle and its spatial and temporal dynamics are often excluded, including patterns of carbon and nitrogen sequestration on open grassland. Meanwhile, the assessments assume that additional livestock result in additional impacts from an assumed neutral baseline; it is forgotten that – in extensive systems – alternative land uses may not be possible (as crops or trees will not grow) and removal of livestock may result in their replacement with other greenhouse-gas-producing animals, whether wild ruminants or termites (Manzano and White 2019).

All these seemingly technical approaches, published in endless papers in scientific journals, frame the results in particular ways, making assumptions that bias the results. In other words, the way the science is conducted, the sources of data used, and the assumptions made do not usually account for the practices central to extensive livestock systems, such as those practised by mobile pastoralists on rangelands. Box 1 summarises the set of biases, gaps and assumptions around the data, the way systems are understood and bounded, and the understandings and definitions of alternatives and baselines.

Extrapolating across types of livestock production systems and drawing 'global' conclusions about shifting production

systems or transforming diets is therefore highly problematic. When conducting life cycle assessments and generating recommendations for policy, the biases and assumptions in the approach need to be taken into account. When this is done, quite different conclusions can arise.

For example, in Sardinia, Italy, a series of studies show how semi-extensive systems have potential benefits over more

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### **Box 1 Ten limitations of dominant life cycle analyses**

#### **Data**

Biases in the data – The majority of life cycle assessments make use of data from high-income countries and industrial systems. 'Global' assessments are therefore highly partial.

Default emissions factors – Most studies use default emissions factors, which do not reflect pastoral conditions.

Greenhouse gas measures – The 'global warming potential' is very different for short-term (methane) and long-term (carbon dioxide) greenhouse gases. Factors that create equivalence may result in biases.

#### **Systems**

Conceptualising 'efficiency' – Emissions per unit of output (milk or meat) may look very different to other measures. A wider systems-level assessment is required to capture multi-functional use and diverse impacts.

Livestock and the carbon cycle – Carbon sequestration can be significant with light grazing in extensive, mobile systems. Such systems may be in balance or seasonally negative, meaning that livestock may not be net contributors to emissions.

Spatial and temporal dynamics – Emissions may be positive or negative in one area or at one time in extensive systems. This requires much more focused mitigation measures compatible with pastoralists' practices.

Ecosystem services – Bounded farm-level assessments miss wider contributions of extensive livestock to biodiversity and environmental and landscape improvements.

#### **Baselines and alternatives**

Alternative land uses – Abandoning livestock in favour of 'rewilding' or 'land-sparing' initiatives may not have the expected benefits. Tree planting, for example, may not be as beneficial as sustaining grasslands for carbon sequestration, especially in dryland and montane environments.

Niche replacement – If livestock are removed, the areas will be filled by other species, including wild ruminants and termites. Emission reductions may even be negative and certainly much lower than predicted.

Diet and consumer choice – Hypothetical diets may undermine nutrition of vulnerable human populations, particularly in the early years of life.

Source Summarised from Houzer and Scoones (2021).

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intensive systems, given the high carbon costs of feed imports and the opportunities for carbon sequestration (Arca *et al.* 2021; Vagnoni *et al.* 2017). Similar results were found in Amdo Tibet in China when extensive and more intensive systems were compared (Zhuang *et al.* 2017). A detailed study of carbon balances in a mobile pastoral region of Senegal in West Africa showed that they could be in balance, and even be negative at certain times of year, if the whole system was taken into account (Assouma *et al.* 2019).

Through these studies, alongside many others, the possibilities for carbon (and nitrogen) sequestration by extensively grazed animals are shown, along with the wider ecosystem service and landscape conservation benefits of such patterns of production. While multiple short trips for marketing by artisanal producers may produce more emissions than bulk transport and supply in industrial systems, there are other opportunities for mitigation in extensive systems. These include light mobile grazing, resulting in increased sequestration in regenerating grasslands; the management of manure in ways that disperse deposition through movement rather than concentrating it near water sources and in slurry pits; and the addition of browse and tannin-rich feed to reduce methane production during rumination (Herrera 2020).

A wider 'systems' approach, encompassing the diversity of costs and benefits of extensive livestock production, is therefore required, with data collection attuned to local contexts, with mobility, spatial heterogeneity, and temporal patterns of seasonality included in the calculations. Such assessments may allow a more rounded evaluation for policy. Livestock keepers must be included in such assessments, as it is their local knowledge of systems that can help in understanding system boundaries and functions, and the possibilities for transformation to reduce emissions.

Going beyond the narrow focus on formal, accredited science adopted by the IPCC, with the resulting biases and distortions, suggests the opportunity to set a wider, more encompassing frame. This would be centred on an understanding of complex, dynamic systems, which emerges from a more inclusive approach to knowledge production, and a pluralised approach that sees conventional life cycle assessments sit alongside more participatory appraisals involving livestock keepers. Solutions to climate challenges thus emerge across multiple pathways, informed by diverse sociotechnical imaginaries and knowledge sources.

Extensive systems, using often poor-quality forage, certainly may result in significant methane emissions, but these may be offset by sequestration in open rangelands, facilitated by mobile patterns of light grazing and supported by careful, skilled herding. As providers of a diversity of goods, such livestock systems may have

a wide range of benefits, including for biodiversity and ecosystem services. When different types of knowledge are included, a more differentiated picture emerges, as pastoral and other extensive livestock systems may have substantial benefits both for people and the environment, offering the possibilities for carbon neutrality under the right conditions.

### **5 Rethinking climate and livestock policy processes**

As we have shown, generalised narratives based on aggregated science, where biases, assumptions, and gaps are hidden or ignored, can cause great damage. Such narratives can generate injustices and exclusions when they are captured by particular interests – from those advocating alternative industrial meat or milk products that they have invested in to those promoting other imagined 'wild' landscapes without people and animals – and sometimes, bizarrely, alliances between the two positions.<sup>10</sup> What emerges from these narratives are 'epistemic injustices' – through the way that science is constructed and knowledges are incorporated – and 'procedural injustices' – through the way that such science defines the processes of assessment, the definition of metrics, and the form of reporting in global policy processes, whether around climate, food, or biodiversity. And these result in forms of 'distributive injustice', where certain people lose out – in this case, it is those who are already marginalised, without power, and often living in marginal areas away from the centres of power and knowledge production (*cf.* Newell *et al.* 2020).

The processes by which such injustices arise are often insidious and incremental, and sometimes happen by default rather than design. The IPCC, for example, does not have a firm position on livestock production but makes use of available data, based on accredited science, and so therefore misses out on a nuanced and differentiated picture, as we have discussed. Those advocating for biodiversity protection may adopt a vision of conservation and preservation based on long histories of conservation practice, mostly in the West, where exclusion and so-called 'fortress conservation' have long dominated policy discourse and practice. Those advocating changes in diets may see the devastating impacts on health and nutrition in some populations from the consumption of excess animal products, particularly processed foods, and advocate a shift, while forgetting about issues of availability, affordability, and the particular importance of high-density protein and certain animal-derived nutrients in certain people's diets (Moughan 2021).

In the processes of policymaking, the need to aggregate and simplify pervades. This emerges perhaps especially in 'global' policy arenas with the focus on targets, boundaries, and protocols for simple reporting – whether through Nationally Determined Contributions to climate mitigation through the Conference of the Parties (COP) process or whether in relation to dietary changes according to specified boundaries (even

regionally adjusted). The consequence is that those working in under-resourced government departments and in charge of a policy area, whether on food, environmental protection, or climate, may inevitably take the global standard or recommended protocol without questioning it. However, this can undermine the livelihoods of often poor and marginalised people and create injustice, even without any wilful intent.

### **6 Confronting injustices: the case of European pastoralism**

All these processes that generate injustices in the climate–livestock debate more widely apply in the European context. Already, major announcements have been made at the European level that urge a shift in diets and propose huge tree-planting campaigns. These inevitably will affect rangelands used by pastoralists. In the UK, proposals for planting trees and transforming the countryside have been announced as part of the post-Brexit settlement with farmers, combined with a review of food systems that pushes a particular view on dietary change, focusing on a ‘protein transition’ away from meat consumption.<sup>11</sup>

Pastoralists, who herd sheep, goats, cattle and reindeer, are important in every corner of Europe, and often are central to the revitalisation of remote areas that have suffered long-term patterns of depopulation (Farinella and Nori 2020; Kerven and Behnke 2011). Extensive livestock production provides employment for migrant workers from Eastern Europe and North Africa and so offers incomes to often highly marginalised people (Nori 2017). As a source of high-quality artisanal produce, the skills of cheese making, meat curing, and traditional wool production are shared and maintained, boosting local economies (Aubron *et al.* 2014). There is also a growing interest in local gastronomy, with particular foods protected by European Union geographical indications and so enhancing local food cultures and heritage.

Yet, such conditions are under threat. A poor understanding of pastoral systems is evident in many European settings as urban populations become disconnected from the countryside. This rupture has created a discourse that presents livestock production as polluting, generating disease risks, and contributing to the climate catastrophe. The bovine spongiform encephalopathy (BSE) epidemic (also known as ‘mad cow disease’) in the UK, worries about animal welfare, concerns about the importation of hormone-grown meat, pollution from intensive livestock units, and wider shifts in lifestyle and culture mean that negative attitudes about livestock production prevail among many consumers. If probed, most would admit that this is a distaste for industrial production, particularly ‘factory farming’, but such imagery affects all livestock. This is perhaps particularly evident in northern Europe – including the Netherlands, Denmark, and Germany – where there has been a major consolidation in the meat industry. The decline in demand for meat products, for instance in Spain, has led to a switch in market destinations.

Because lambs are no longer required in such large numbers for Easter, producers have had to shift to supplying Middle Eastern markets for Eid some weeks later.

A simplistic, protectionist vision of conservation promoted by environmentalist groups often casts pastoralists as destroyers of wildlife and landscapes, while rewilding advocates celebrate the reintroduction of wolves, bears, and other predators. This generates tensions between pastoralists and urban environmentalists, fostering distrust and further misunderstandings. This has been especially the case in the French Pyrenees, but also elsewhere in southern Europe (Nori and Berzi 2021). Across Europe, such divisions are in turn exploited by far-right, authoritarian populist political forces who offer a narrative of protecting 'the people' from interference by the state and the influence of urban, elite environmentalism. For example in Spain, the right-wing, nationalist Vox party has made in-roads into rural areas, enlisting pastoralists and setting up opposition between their interests and those of 'leftist' radical vegans, rewilding enthusiasts and conservationists from town (Vampa 2020). Real resentments by pastoralists and smallholder farmers after years of state neglect and exclusion from policy processes combine with concerns about declining markets and the effects of predator reintroductions. Such grievances feed divisions, with regressive political forces exploiting discontents generated by repeated injustice.

There are thus intersecting injustices affecting European pastoralists: epistemic injustices resulting from distorted discourses and poor understandings of pastoral contexts; procedural injustices emerging from the lack of access to decision-making power by pastoralists living in remote, rural settings; and distributive injustices that result from pastoralists being marginalised across national and Europe-wide policy priorities. In order to confront these overlapping forms of injustice, movements committed to supporting pastoralists and a lived-in, productive European countryside need to generate an alternative narrative, and in turn influence how science-policy processes around climate and biodiversity unfold.

This is already happening. For example, across Europe, there are growing numbers of young people applying to attend shepherds schools, suggesting renewed interest in pastoralism and rural lifestyles. As guardians of often remote, montane landscapes, pastoralists enhance such settings, providing wider values for tourism and recreation, as well as protecting watersheds and enhancing biodiversity (FAO 2021). A focus on community and territory affirms the cultural importance of pastoral production, even with new producers coming from urban areas to join long-term and now ageing rural populations.

Such initiatives are supported by a diversity of pastoralist organisations, which together offer a new narrative for European

pastoralism. For example, the European Shepherds Network that connects pastoralists across the continent and which is linked to the World Alliance of Mobile Indigenous Peoples (WAMIP), argues forcefully that pastoralism is about care – for animals, environments, landscapes, and the climate. Pastoralism, such movements argue, also welcomes migrants, supports unemployed youth, offers opportunities for women, and can be the basis for educational experiences for young people. Pastoralists provide healthy food to society, encourage local markets, and avoid the damage of free trade and industrial production. Through celebrating self-management, autonomy, and independence, pastoralists help keep the countryside alive with both people and animals (see PASTRES 2021). However, mobilising such a perspective in the face of powerful players promoting commercial interests and alternative visions of nature is challenging, especially when divisive, populist constituencies act to divide pastoralists' alliance-building.

## 7 Conclusion

Confronting the climate challenge requires a more nuanced debate about science and policy, and the role of livestock in environmental change. Injustices can arise when generalised narratives, captured by particular interests, are promoted. Science is always partial and political, which is why attention needs to be given to the framing of challenges, defining 'the system' and the use of data, and always acknowledging biases and limitations. We must ask whose knowledge is included and whose is excluded, linking scientific assessments – including often highly technical life cycle assessments – to questions of justice. Exclusions that emerge from epistemic, procedural, and distributive injustices can damage life chances, while not achieving the aims of environmental protection and climate mitigation.

In thinking about alternative science-policy processes, we must always focus on politics that produce knowledge for policy. In this case, it is imperative to emphasise the nature of the production system and the material conditions and relations under which meat, milk, and other animal products are produced. This situates the debate about livestock and climate in context, highlighting the interests and commitments associated with different types of production. The forms of labour, sources of knowledge, and the environmental imprints of extensive livestock pastoral systems are quite different to those of industrial systems produced through capitalist relations. Given that there are multiple types of livestock production systems, each with different climate impacts, we must accept that there are multiple types of animal-source foods, each with different implications for climate change. The same applies to the political economy of 'alternatives', whether this is 'plant-based' production of proteins or the promise of cultured meat or the visions of conservation through enclosure that some environmentalists advocate. The debate therefore must be

about the processes of production (and their social and political relations), not the products (whether meat, milk, or plants). A focus on the political economy of policymaking highlights whose interests are central, and what alliances – sometimes unusual ones – are formed in order to silence perspectives on environment and livelihoods from pastoralists and other extensive livestock keepers.

Developing a more differentiated debate around the relationships between climate, livestock production, and diet requires incorporating diverse knowledges, plural perspectives, and context-specific analysis in international assessments (Scoones 2009). Perspectives on 'cognitive justice' mean rethinking the role of citizens in knowledge production and policy (Visvanathan 2005; Leach *et al.* 2005); and, in this case, involving pastoralists very directly in the co-production of science and assessment processes (Jasanoff 2004). Relying just on remote, elite science inevitably results in biases, reinforcing narratives and wider sociotechnical imaginaries, influenced by an urban environmentalism that is removed from the daily experience of pastoral settings (Jasanoff and Kim 2015; Beck *et al.* 2021). Such processes, in turn, construct a future for people and the environment that may be neither compatible with pastoral livelihoods nor address the real challenges of climate and environmental change. Instead, deliberating on processes of knowledge construction and the pathways of change that emerge – involving pastoralists and other livestock keepers and their movements directly – provides an alternative way forward that avoids oversimplified, standardised and unjust narratives about livestock and climate change.

### Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- † This article draws from the longer report ***Are Livestock Always Bad for the Planet? Rethinking the Protein Transition and Climate Change Debate*** (Houzer and Scoones 2021), produced by the PASTRES programme (Pastoralism, Uncertainty and Resilience: Global Lessons from the Margins, [pastres.org](http://pastres.org)) in alliance with a number of organisations. The PASTRES programme is supported through a European Research Council Advanced Grant (Number: 740342). Many thanks to Ann Waters-Bayer for providing a thorough review and a comprehensive edit of the article.
- 1 Fernando Garcia-Dory, European Regional Coordinator, World Alliance of Mobile Indigenous Peoples.
- 2 Ella Houzer, independent researcher, UK.
- 3 Ian Scoones, Professor, Institute of Development Studies, UK.
- 4 See, for example, Dalton (2020), Bugga (2021), Temple (2021), and World Economic Forum (2021).
- 5 Greenpeace European Unit (2020). See also Harvey (2020) and, also from earlier, Lean (2006).

- 6 See also **EAT–Lancet Commission on Food, Planet, Health**.
- 7 See also Sharma (2018).
- 8 See **Campaign for Nature 30x30 website**.
- 9 Social imaginaries are defined by Charles Taylor as ‘common understanding that makes possible common practices and a widely shared sense of legitimacy’ (2003: 23).
- 10 For example, Channel 4 documentary ***Apocalypse Cow: How Meat Killed the Planet***.
- 11 See UK Government (2021) and Case (2021) for the UK, while for the EU’s biodiversity strategy, see Vaughan (2020).

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# Policing Environmental Injustice<sup>\*†</sup>

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**Abstract** Environmental justice (EJ) activists have long worked with abolitionists in their communities, critiquing the ways policing, prisons, and pollution are entangled and racially constituted. Yet, much EJ scholarship reflects a liberal Western focus on a more equal distribution of harms, rather than challenging the underlying systems of exploitation these harms rest upon. This article argues that policing facilitates environmentally unjust developments that are inherently harmful to nature and society. Policing helps enforce a social order rooted in the 'securing' of property, hierarchy, and human-nature exploitation. Examining the colonial continuities of policing, we argue that EJ must challenge the assumed necessity of policing, overcome the mythology of the state as 'arbiter of justice', and work to create social conditions in which policing is unnecessary. This will help open space to question other related harmful hegemonic principles. Policing drives environmental injustice, so EJ must embrace abolition.

**Keywords** state violence, political ecology, environmental justice, policing, abolitionism, animal liberation, ecocide.

## 1 Introduction

Environmental and climate justice<sup>3</sup> movements and scholarship are proliferating across the world. The Environmental Justice Atlas (EJ Atlas 2021) now documents 3,455 EJ conflicts that include struggles over industrial agriculture, dams, mining, infrastructure projects, deforestation, biomass, and much more (Scheidel *et al.* 2020; Temper *et al.* 2020). Many of these are violently policed by military and police forces, private security services and militias, to enforce ecologically destructive projects and programmes. Yet, Álvarez and Coolsaet (2020) have argued that EJ scholarship tends to focus on the inequitable distribution of environmental harm and benefits associated with these projects, rather than challenging the underlying system and ideology of exploitation, extraction, human-nature relations, capitalism, and colonial continuities.

© 2022 The Authors. *IDS Bulletin* © Institute of Development Studies | DOI: 10.19088/1968-2022.139



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The *IDS Bulletin* is published by Institute of Development Studies, Library Road, Brighton BN1 9RE, UK  
This article is part of *IDS Bulletin* Vol. 53 No. 4 December 2022 '**Reframing Climate and Environmental Justice**'; the Introduction is also recommended reading.

[N]otwithstanding the suitability of distributive solutions in the context of toxic pollution or hazardous waste, for example, environmental equity is intrinsically linked to an idea of environmental exploitation. What it tells us is that this exploitation does not necessarily need questioning as long as its most harmful effects are being distributed equitably within society. (*ibid.*: 6)

This exploitation, we argue, is linked to a hierarchical social-ecological ordering that is secured and enforced through policing. Abolitionist campaigns seek to reduce or eliminate police and other related carceral institutions like prisons. While many environmental and climate justice scholars and activists critique the violent – often deadly – policing of specific struggles against megaprojects, abolition has not been widely embraced as a core objective of mainstream EJ,<sup>4</sup> which has tended towards liberal reformism (Dunlap 2021). This is despite the radical roots of the concept of EJ in the black civil rights movements and the Black Panther Party, championed by black people, Latinx, indigenous peoples, and Asian Americans (Perkins 2021).

Critical scholarship has highlighted the ways in which policing supports and maintains a white supremacist, patriarchal, capitalist, ecocidal global social order (Elliott-Cooper 2021; Roy 2021; Neocleous 2021; Brock and Stephens-Griffin, forthcoming<sup>5</sup>). Central within this is the defence of property rights, through enclosures and exclusions; the right to kill non-humans; and the right to exploit, extract, and degrade ecosystems. Current logics of policing are therefore intertwined in the history of industrialism and capitalist development, colonial and imperial histories and continuities, and counter-insurgency operations (Verweijen and Dunlap 2021). Policing also functions through

techniques of social control; indirectly through surveillance, but also through the work of bureaucratic and legal institutions and government departments, schools and universities, media, charities, and other organisations that are enrolled in various ways to regulating people's ideas, behaviour, mobility, well-being, and access to financial and other forms of support. (Brock and Stephens-Griffin, forthcoming)

In this article, we argue that policing facilitates forms of industrial development and globalisation that are environmentally unjust and inherently harmful to nature and human society. In other words, policing drives environmental injustice. For this reason, EJ must embrace abolitionist principles which seek to create the social conditions in which policing is no longer necessary (Lamble 2021). This will, in turn, help to open up space to question the primacy of economic growth and the very nature of ownership; the notion of nature and animals as property; the right to kill and the right to degrade; and hegemonic anthropocentric modes of thinking and how these connect to logics of white, male supremacy.

To illustrate the relationship between policing and environmental injustice, we focus on policing in and by Imperial Britain. We start by briefly sketching out the relationship between colonialism, capitalism, patriarchy, and policing. We then explore the policing of environmental and climate injustice (enforcing extractivism and ecocide), the policing of 'green capitalism' (the securing of socially and ecologically unjust projects under the name of conservation or climate mitigation), and the policing of the right to kill (through animal agriculture and hunting). We conclude by appealing to EJ scholars and activists to form alliances with, and work towards abolition of policing, prisons, and carceral logics of punishment and containment in society.

## 2 Policing and EJ

Policing is historically rooted in state management of populations for the maintenance and preservation of an existing social order via diverse means, so our understanding of policing should not be limited to the formal institutions of 'the police' (Neocleous 2021). Policing is enacted by uniformed and undercover state police and military organisations, corporate security contractors, paramilitary organisations, through coercive maintenance of public order and surveillance practices, as well as more indirectly through bureaucratic and legal institutions, including schools, universities, and media apparatus (Reiner 2010).<sup>6</sup> Together, these interconnected dimensions of policing ensure the continuation of an ecologically and socially disastrous condition of 'permanent war' (Dunlap 2014) against human and non-human populations and ecosystems. Policing helps enforce a social order that is rooted in the 'securing' of property, hierarchy, and human-nature exploitation and serves to extend the 'current intensification of internal colonisation' (*ibid.*: 53) in the name of progress, security and safety, and 'high-modernist ideology' (Scott 1998). EJ scholars and movements need to take these seriously and overcome the mythology of the state as 'arbiter of justice' or manager of environmental goods and bads (Dunlap 2020).

Álvarez and Coolsaet (2020) have argued that while most empirical EJ work is being carried out in the global South, conceptual EJ work continues to be dominated by Western academia and defined through Western ways of thinking – 'bound to a hegemonic-Western idea of modernity and Western-inspired political ideals (e.g., solutions to injustices are conceived within the realm of the state)' (*ibid.*: 7). The lack of critique of policing speaks to this point. Policing is inherent to statism and state power (Neocleous 2021), which is itself part and parcel of coloniality (Ramakrishna 2014). Policing facilitates Western forms of power in non-Western societies to control and exploit human labour as well as nature (in the form of 'resources') (Quijano 2000). In turn, it structures 'the relationships between peoples and nature, and among the former in regard to the latter, especially with regard to the ownership of the resources of production' (Quijano 2014: 286, translation cited in Álvarez and Coolsaet 2020).

To challenge environmental injustice not just as an inequitable distribution of harms and goods, but to break with the underlying practice and ideology, EJ scholars and activists should critique and break with the logic of policing as an assumed necessity. Some EJ activists have long worked with abolitionists in their local communities (Braz and Gilmore 2006), and the concept of 'toxicity' has been central to EJ campaigning as well as police and prison abolitionism (Thompson 2018: 9). The diverse harms associated with policing, prisons, and pollution disproportionately affect people of colour, especially those living in urban communities, as political ecology scholars Pulido and De Lara (2018) have demonstrated.

As Dunlap has argued, 'the inherent liberalism within EJ studies serves to discipline mentalities and, potentially, act as a pacification device' (Dunlap 2021: 7). To stop and subvert ecological injustices and build healthy human (and) ecological communities, we call on EJ activists and scholars to work with – and to build – abolitionist alternatives and solutions. This opens the door for much more serious collaboration and joining of struggles based on solidarity across autonomous action and ecological self-defence and other attempts to create a more just future world through our actions in the present. Abolition provides a route to these aims and should ultimately be a productive process; it should focus on creating and building alternatives as opposed to simply removing carceral institutions (Davis 2005). As Kaba (2021: 2–3) argues: 'abolition is a positive project that focuses, in part, on building a society where it is possible to address harm without relying on structural forms of oppression or the violent systems that increase it'. For Gilmore (2020, cited in Lambie 2021: 148) 'abolition is about abolishing the conditions under which prison became the solution to problems, rather than abolishing the buildings we call prisons'. We therefore aim to contribute to EJ by encouraging the building of bridges and solidarity between EJ and abolitionist struggles. The importance of these bonds of solidarity comes into sharper focus when placing policing in its historical context.

### **3 Policing colonialism, capitalism, and patriarchy**

The logic of policing is deeply entangled with colonialism, extractivism, patriarchy, and environmental harm. Historically, Britain's violent colonial endeavours have rested on the creation and enhancement of policing techniques, as illustrated by 'laboratory theories' of policing (Arendt 1951; Ramakrishna 2014). Acknowledging this is central to understanding the role of policing as a contemporary driver of environmental injustice.

Historically, Britain employed various methods and modes of policing, and worked with private chartered companies to develop extractive industries in colonised nations and to repress opposition (e.g. the British South Africa Company) (Verweijen and Dunlap 2021; Abrahamsen and Williams 2011). British domestic

penal policy also functioned to establish and entrench its colonial power abroad, such as through 'transportation' – the practice whereby so-called 'criminals' were deported to British colonies to provide cheap labour (Maxwell-Stewart 2010). This frequently also had a huge ecological impact; for example, through building new roads, bridges, other infrastructure, and agriculture. British colonialism and its harmful ecological effects relied heavily on policing and domestic penal policy (Redfield 2005).

Plantations and plantation slavery were key to the development of global capitalism. They provided a space to develop and experiment with modern scientific management techniques, and represented a lucrative source of income for British development at home (Johnson 2013). It is often assumed that the formal establishment of the police in Britain came after the abolition of slavery but, in reality, there was overlap (Bowling, Reiner and Sheptycki 2019). English colonists developed slave codes that were enforced by incipient forms of policing to uphold 'iniquitous social relationships' across North America and the Caribbean throughout the seventeenth and eighteenth centuries (*ibid.*: 131). Vitale (2017) argues that slave patrols should be understood as a precursor to contemporary forms of policing. Slavery, upheld by policing, was central to the expansion of tobacco and cotton agriculture, demonstrating the ways that Britain's involvement in slavery influenced policing in colonised nations and their ecologies (Kappeler 2014).

Domestically, institutions of policing emerged in Britain as a means of controlling people in the newly expanding urban centres, especially following the Industrial Revolution. As Whitehouse (2014) puts it: police were 'a response to crowds, not crime'. According to Foucault (2007 [1978]) the emergence of the police accompanied new forms of 'regulatory practice' of power, which sought to control populations. The policing of access to and exploitation of nature was crucial, and closely linked to the great formal 'enclosure' movements of the sixteenth century onward; these saw a radical transformation of British society whereby previously public land went into private ownership (Bookchin 1982).

Orthodox histories of British policing have tended to consider domestic and colonial policing separately from, and in isolation of, one another. This is problematic not least because, as Sinclair and Williams (2007: 221) argue: 'empire has never been a one-way process'. They point to the large numbers of British chief constables recruited from Ireland during the interwar period as evidence of the 'cross-fertilisation' of 'colonial' and 'domestic' policing in Britain. This contradicts the orthodox histories of policing which see colonial policing as distinct and more 'punitive' than 'consensual' policing at home. Then Ireland Secretary Robert Peele experimented with policing in Dublin, developing a professionalised, semi-armed police force to enforce the colonial order (Woodman 2020). Peele became Home

Secretary shortly after, and this colonial experiment acted as the model for his establishment of the London Metropolitan Police in 1829 (Brogden 1987; Woodman 2020). Chowdhury (2021) further explores the relationships between British policing at home and in the places it colonised in terms of a 'Colonial Boomerang', locating contemporary racialised policing in the UK within a multidirectional movement of policing cultures and techniques between colonies and metropole. These ideas link back to the work of Hannah Arendt, in particular the 'laboratory hypothesis' in which European Imperialism acted as a laboratory for racial doctrines and practices domestically (Arendt 1951). Elliott-Cooper (2021) explores how contemporary state power reproduces racialised forms of violence via contemporary policing, which are in many cases deeply connected to British colonial legacies, including counter-insurgency operations to repress anti-colonial resistance and ensure exploitation of resources. As Joseph-Salisbury, Connelly and Wangari-Jones (2021) have demonstrated, institutional racism is endemic and pervasive in Britain, manifesting at every level of policing from stop and search, to arrest, prosecution, sentencing, rates of imprisonment, through to deaths in/after custody. In Britain, black people are almost ten times more likely to be stopped and searched than white people, and seven times more likely to be tasered by police (*ibid.*). Since 1990, there have been 1,796 deaths in custody or otherwise following contact with the police – a statistic in which non-white people 'die disproportionately as a result of use of force or restraint by the police' (Inquest 2020). Contemporary racist policing has been a tool to protect the wealth and profit generated through colonial-extractivist processes, which in turn helps to consolidate the dehumanisation of colonised peoples, and the oppressive systems of power and hegemony that drive ecocide. Policing is fundamental to the ongoing extractivist British Imperial project.

Radford and Stanko (1994: 149) argue that 'sexual [gendered] violence is used by men to maintain relations of male dominance and female subordination, which are central to the patriarchal social order'. Just as the above enduring legacies of colonialism persist in racialised policing today, contemporary policing also rests on a foundation of institutional misogyny embedded within a wider patriarchal context, that is again tied to maintenance of a hierarchical social order. These dynamics of institutional sexism came to prominence recently with the murder of Sarah Everard by a serving police officer, and the subsequent police brutalisation of women holding a peaceful vigil in her memory. Townsend and Heal (2019) reported that between 2015 and 2018 UK police officers and staff were reported for alleged domestic abuse almost 700 times, with only 3.9 per cent of police officers being convicted (a rate 2.3 per cent lower than for the general population). Stephenson (2021) reported that an average of one woman a week comes forward to report that their partner in the police is abusing them or their children, with more than 125 women having come forward in the last two years. A culture



of dismissiveness, protectiveness over abusers, and cover-ups pervades. We might also look to the 'spycops' scandal to further illustrate the institutional sexism of the police whereby undercover police deliberately coerced female activist targets into long-term romantic and sexual relationships (Lubbers 2012). The subsequent Covert Human Intelligence Sources Act (2021) makes it legal for undercover agents to commit crimes, including coercing people into relationships on false pretences. This is notable in clearly illustrating the gendered abuse of environmental, animal rights, and racial justice movements by an institutionally racist and sexist police establishment – bringing the connections between policing and environmental injustice into sharp relief.

#### **4 Policing environmental and climate injustice – pushing extractive frontiers**

Policing is key to environmental and climate injustice and pushing extractive frontiers. With extractivism, we here refer not only to the mining of resources, but the underlying colonial ideology that is bound to state power and serves as a mechanism of (neo)colonial 'plunder and appropriation' (Acosta 2013: 63; see also Willow 2016). It underlies the expansion of agricultural monocultures as much as logging operations and dam building, sucking not just value but life out of ecosystems and communities.

Many of the thousands of struggles<sup>7</sup> against extractive projects and development are harshly policed, often involving various forms of intimidation, death and rape threats, physical violence, and even killing. In the UK, police enter 'public-private security partnerships' (Brock 2020) with private security forces and bailiffs to defend destructive projects like opencast coal mining, fracking, nuclear weapons, road building, animal exploitation, and hunting. They share mass intelligence and collaborate on the ground. Responses to ecological resistance reveal a 'state-extraction-ecocide nexus', whereby the political ecological order is maintained through statism, via direct repression, bureaucracy, counter-insurgency, public relations campaigns, and more (*ibid.*; see also Mason and Askins 2012; Stephens-Griffin *et al.* 2021; Brock and Dunlap 2018).

Environmental activists face gendered and racialised violence and repression from police. This manifests in public order policing of protest and direct action, undercover infiltrations, intelligence gathering, and more sophisticated psychological operations, divide-and-rule tactics, and counter-insurgency efforts (Brock 2020; Lubbers 2012). Work is often outsourced to private bodies including the 'National Eviction Team', whose involvement is characterised by particular disregard for protesters' health and safety. Policing further involves the imposition of civil injunctions on environmental defenders to prevent otherwise legal protest, unlawful arrests, and lengthy custodies for minor or non-arrestable offences, arrests as intelligence-gathering tools to collect fingerprints or DNA, or the imposition of restraining

orders against protesters despite not being found guilty of a crime. Other parts of the (welfare) state and the benefits system have also been used as a weapon against activists, as shown in the use of the label 'panseed' ('politically active – not seeking employment') during the anti-roads movement in the 1990s, or more recently police passing on details of disabled fracking protesters to the Department for Work and Pensions in an effort to undermine their disability benefits claims (Rahim 2018). Environmental and animal liberation campaigning has further become part of the government's Prevent programme, requiring schools, universities, and health services, among others, to notify the government about potential radicalisation of campaigners 'to prevent people from being drawn into terrorism' (UK Government 2015; see Brock 2020). Academics (including the authors of this piece, employed by British universities) and medical professionals thus have a duty to partake in surveillance and policing of environmental (justice) struggles. As mentioned above, policing of behaviour and tactics further involves self-policing of movements, as the insistence of Extinction Rebellion on non-violence illustrates, or through the adoption of action consensus that sets a framework for acceptable action during climate or anti-coal camps, for instance.

British security services – including private security companies like Aegis and G4S – army forces, and corporations are, and have historically been, involved in environmental and land struggles across the world, in mining projects, oil and gas extraction and transport, industrial agriculture, chemical industries, logging, dam building, and other activities (see Brock and Stephens-Griffin, forthcoming; Abrahamsen and Williams 2011). The activities of these forces typically involve the dispossession and displacement of communities as well as the repression of resistance against extraction, exploitation, and degradation. The British Army also trains other armies that are employed to secure mining operations; for example, British-trained MONUSCO<sup>8</sup> soldiers in the Democratic Republic of the Congo, who train 'mining police' to protect coltan and gold mining (Selwyn 2020). The British military and private security firms protect fossil fuel exploration and transport by providing security for private corporations that seek to invest and extract oil and gas – in Iraq, resource-rich northern and western Africa, and elsewhere. Private companies also spy on protesters, with firms such as G4S even publishing information about campaigners in the UK on its website (G4S 2020). Policing thus directly contributes to environmental injustice.

### **5 Policing 'green capitalism'**

As we have seen, policing is integral to industries associated with environmental injustice. However, many new and emerging extractive and infrastructure frontiers are packaged and framed as 'green', 'renewable', or 'sustainable', despite ecologically and socially disastrous effects on the ground: renewable energy projects, dam projects, national parks, and 'green

infrastructure projects' such as high-speed train lines and electric infrastructures. Plenty of evidence shows that such projects come at significant environmental and social costs – including biodiversity loss and loss of livelihoods through monoculture plantations that are meant to act as carbon sinks, dam projects to generate 'clean' energy but that damage fish grounds and habitats, or the extractive operations required for so-called 'renewables' – or they simply displace ecological damage to other areas (Sovacool 2021; Temper *et al.* 2020). Dunlap (2019) shows this in relation to wind farms in Mexico that profit multinationals but harm local communities. Similar dynamics can be observed on indigenous Lenca territory in Honduras (EJ Atlas 2021), or solar energy facilities in Greece (Argenti and Knight 2015; Siamanta 2019). Often, they hurt most those who have long looked after their local ecosystems, fighting extractive, logging, and other industrial projects – indigenous communities, smallholders, and communities who are being dispossessed or displaced, while profiting transnational or state investors and corporations.

In his review of the social and ecological impacts of hundreds of renewable energy and other mitigation projects, Sovacool (2021: 1) illustrates the 'enclosure (capture of land or resources), exclusion (unfair planning), encroachment (destruction of the environment), or entrenchment (worsening of inequality or vulnerability)' inherent in these projects. Across the world, communities are resisting these injustices, land grabs and dispossession pursued in the name of 'green capitalism', conservation, or 'sustainability'. This is where policing comes into play; enforcing and protecting property rights and economic activities through police, militaries, private security services, narco groups, and mercenaries employed by British companies.

In Britain, the best contemporary example to illustrate this is the ongoing and violent policing of anti-HS2 protesters. The British Government's HS2 high-speed railway project to connect London to the north of the country is framed to provide an ecological alternative to aviation and car transport, lowering carbon emissions from transport, and reducing air travel. The project claims to 'help the UK to tackle climate change and the drive to reach net zero carbon emissions' (HS2 2021). Meanwhile, ecologists and campaigners have exposed the huge ecological and social costs of the project, including the partial destruction of more than 100 ancient woodlands, the release of 11 million tonnes of carbon, and the irreparable damage to ecosystems and human communities. Environmental defenders occupied and set up camps in dozens of woodlands, taking direct action, digging tunnels, and organising demonstrations against the project. HS2 policing allowed for the cutting of trees and destruction of ecosystems and was characterised by violence against protesters by Thames Valley police and the private National Eviction Team. Numerous injuries of campaigners and endangering, racialised

violence (Griffin 2020) and intimidation were documented by the human rights organisation Not1More, including,

violence, at the hands of the police, security and bailiffs, incidents included splitting scalps, and choking protestors in front of helpless onlookers... years of harassment in the form of unfounded charges that are eventually dropped, to shattered bones and broken limbs, to degrading treatment of people with disabilities.

(N1M 2020; see also Taylor 2021)

Meanwhile, wildlife laws are very badly implemented and frequently ignored, not only by HS2 contractors but more generally in the UK: described as a system 'consisting of legislation inadequate to the task of wildlife protection, subject to an equally inconsistent enforcement regime... that fails to address the specific nature of wildlife offending' (Nurse 2013: 4).

Policing green capitalism further involves the policing of anti-mining resistance to ensure the provision of rare earth metals and 'green' technologies including e-mobility and renewables. Examples of this include police abuse and torture of Mapuche peoples in order to repress their resistance to hydropower in Chile (Carruthers and Rodríguez 2009); Rio Tinto's use of police and private security to repress resistance to its mining operations and enforce eco-tourist developments and other biodiversity mitigation strategies in Madagascar (Kill and Franchi 2016; Huff and Orengo 2020); the use of undercover policing and military forces to repress opposition, and the use of illegal police detection in industrial wind farm development, including development on indigenous land in Mexico (Dunlap 2019; Avila-Calero 2017).

Environmental injustice further manifests in militarised conservation or 'green militarisation', the 'extension of military approaches, personnel, equipment, techniques, partnerships and technologies to wildlife conservation' (Ashaba 2020: 1). The Jewish National Fund, a parastatal organisation and environmental charity in Israel that enforces the colonisation of Palestinian land for the establishment of national parks or forests, is one example of this logic.<sup>9</sup> While militarised conservation approaches stem from the 1980s, the past decades saw a growing presence of (foreign) military and paramilitary actors and armed technologies in conservation – especially in African countries – as the international wildlife trade has been gaining more international attention. The war for biodiversity has become, some argue, 'war, by conservation', framed to serve the protection of biodiversity, grounded in the narrative of 'poachers-as-terrorists', but driven by concerns about global security (Duffy 2016). Meanwhile, the involvement of police forces, militaries, and customs agencies in illegal wildlife trade has been documented in different places (e.g. Wyatt 2009).

The British state is involved in wildlife and conservation policing across the African continent. A new £900,000 British military counter-poaching task force (Forces Net 2018) is involved in anti-poaching operations in Uganda and Malawi, for instance, and has previously trained anti-poaching units in Gabon (MoD 2019) and South Africa (Forces Net 2018), not least to secure the existence of wildlife for the 'thousands of tourists a year hoping to catch a glimpse of an elephant or a rhino in its natural habitat' (MoD 2019). Private armed 'eco-guards' are often recruited from police forces (Neumann 2004). Private British foundations run national parks with militarised guards, including the Virunga National Park in the Democratic Republic of the Congo, and The Prince of Wales's charitable body supports British forces training Malaysians in anti-poaching techniques to help protect endangered wildlife species like the tiger (*Express & Star* 2017). New military surveillance technologies monitor human and non-human populations. Anti-poaching policing has a long history – fortress conservation was used as a form of counter-insurgency in colonial Indonesia (Minarchek 2020) and militarised conservation has historical roots in the colonial era, especially the British conquest of sub-Saharan Africa (Neumann 2004). And yet, militarised conservation fails to actually protect biodiversity while exacerbating environmental injustice, as it does not challenge the underlying and more systemic drivers of wildlife loss: extractivism, large-scale logging, agribusiness, inequalities, and poverty.

In effect, policing green capitalism pushes the frontiers of capital(ism) and state control, making nature and humans manipulable (Scott 1998), enhancing the frontiers of capital, extractivism, and (eco)tourism.

### **6 Policing the right to kill**

Coupled with the extractive enclosure of land and the right to exploit ecosystems therein, policing also protects the right to kill and exploit non-human animals helping maintain the human/non-human hierarchies upon which the animal-industrial complex rests (Twine 2012). Gillespie and Narayan (2020: 3) argue that non-human subjects have 'long been entangled with global cultural politics of nation-building and nationalism'. It is well documented that non-human animals were used in colonial projects; for example, through the mass slaughter of the buffalo to control and eliminate indigenous peoples in North America (McGinnis 1990), and the use of domesticated farmed animals to colonise vast swathes of indigenous land, a process that has been described as 'animal colonialism' (Cohen 2017: 268).

It is important to problematise the historic and contemporary domestication and alienation of humans and non-humans, as well as subordination and ownership, which 'laid the foundation for social hierarchy as property and power emerged' (Various 2014: 8). This subordination allows for the exploitation and killing of non-human animals, which is profoundly socially and ecologically

harmful (Pellow 2014). Aside from the harm to non-human animals themselves, who suffer immensely (Cudworth 2015), this exploitation is also harmful to human society and public health: for example, through links between animal industries and zoonotic diseases (Dalton 2021); increasing anti-microbial resistance, and other health implications (Losasso *et al.* 2018), as well as harms to human workers exploited in animal industries (Milmo, Heal and Wasley 2018). Furthermore, animal industries are harmful to the planet and the global climate – exacerbating climate and environmental injustice (Grossi *et al.* 2019). These multiple dimensions of harm are entwined with market dynamics, with animal industries embodying capitalist exploitation at its most ruthless (Nibert 2017; Twine 2012). Efforts to push back against exploitation of non-human animals are frequently met with extreme resistance and police repression, as the violent policing of hunt saboteurs and other animal liberation activists shows. This may be because efforts to liberate non-human animals pose a threat not just to profit and capital, but to the perceived superiority of humans within an anthropocentric social order.

We now examine the political role of the police through a brief study of the Stop Huntingdon Animal Cruelty (SHAC) campaign, which reveals the varied, interacting techniques of policing used to eliminate the campaign. SHAC was a high-profile anti-vivisection campaign formed in England in 1999, which sought to stop animal exploitation by Huntingdon Life Sciences (HLS), one of the world's largest non-clinical contract research organisations. Prior to the formation of SHAC, a Channel 4 News investigation into the treatment of animals at HLS showed staff exhibiting physical violence towards dogs and puppies, in addition to what many saw as the inherent violence of experimentation that animals were already undergoing. From its conception, SHAC's campaign was radical, uncompromising, and unapologetic. SHAC targeted not just HSL, but also businesses that HLS had dealings with. As a result of the campaign, numerous companies cut ties to HLS, and, at one point, HLS found itself without a bank account or insurer, leading the UK government to step in to provide them with both. In 2009, HLS had to go private due to the effectiveness of targeting shareholders (Mansell 2009).

The majority of SHAC's campaigning aimed to apply economic pressure to HLS, thus removing the financial incentives of animal exploitation. Much of this campaigning was lawful and non-violent in nature. However, while often maintaining their innocence, SHAC campaigners have been accused of, and successfully prosecuted for, a range of unlawful and violent tactics, including physical violence against the HLS managing director (BBC News 2001), attempted blackmail of HLS employees (BBC News 2014), and the sinking of a shareholder's yacht (Pośluszna 2015). In this sense, the SHAC campaign transgressed a prevailing doctrine of non-violence within social movements (Gelderloos 2007). The police

and HLS saw SHAC as a 'domestic extremist' or 'terrorist' organisation and collaborated to eliminate the campaign entirely. Tactics deployed against SHAC were varied, including typical public order policing; the use of covert surveillance; the imposition of strict bail and later parole conditions throughout the course of activists being arrested, bailed, charged, imprisoned, and after their release; and the pursuit of 'conspiracy to blackmail' charges against activists. The use of these malleable 'conspiracy to...' charges allowed the police and Crown Prosecution Service to successfully prosecute a wider range of activists. SHAC came to an end in 2014, after 13 activists were imprisoned as result of a long-term police investigation. Seven of these activists have since launched a campaign against what they regard as their wrongful imprisonment, arguing they were 'wrongfully convicted in a politically motivated miscarriage of justice' (SHAC Justice 2021).

Police have been transparent about their political prioritisation of the total elimination of SHAC. According to John Donovan, a Metropolitan Police Service officer, 'the police investigation and Crown Prosecution teams worked collaboratively, opting for an investigative strategy based on conspiracy to blackmail and leadership decapitation, rather than viewing all incidents as separate criminal acts' (Donovan and Coupe 2013: 127). 'Leadership decapitation' is a tactic traditionally rooted in responses to terrorist and organised crime groups (Johnston 2012). While police justified this as helping to prevent further crime and 'extremism', it ultimately functioned to uphold the ecologically destructive right to kill and to exploit animals in SHAC labs and more broadly. The violence animals face is legal, and endures, largely unacknowledged. SHAC briefly posed a challenge to state-corporate power and the dominant social-ecological order. In eliminating SHAC's campaign altogether, the suffering of animals in HLS labs was able to continue unchecked. In this sense, policing served to protect and uphold existing relations of animal exploitation, and therefore, environmental injustice more broadly.

### **7 Conclusion – abolitionism for EJ!**

We have argued that environmental and climate justice approaches must understand the role of policing in producing harmful and deep-rooted social-ecological hierarchies. This should be understood in the context of contemporary policing's historical connection to and development from the policing of colonial extraction, slavery, and plantations. Policing has historically been central to securing hierarchies of domination, subordination, and exploitation of humans, non-humans, and ecosystems alike (Brock and Stephens-Griffin, forthcoming). Policing is a tool of the state, and maintains a capitalist social order; but it also plays a key role in enforcing ecological devastation and a separation between humans, non-humans, and nature. Rather than simply seeking to distribute environmental harms more evenly across populations, EJ scholars should therefore be questioning the very nature of ownership,

questioning the notion of nature and animals as property, and questioning hegemonic anthropocentric modes of thinking and how these connect to logics of white, male supremacy. Crucially, that involves questioning the nature of policing and working towards abolitionist futures and alternatives, within EJ.

As activists and scholars have consistently demonstrated, environmental problems disproportionately impact and harm indigenous communities and communities of colour, compounding, entrenching, and exacerbating uneven social dynamics – a phenomenon Bullard (1993) famously called 'environmental racism'. Scholars such as Heynen and Ybarra (2021) have recently begun to draw connections between EJ and abolition, particularly via the concept of 'abolition ecology', which highlights the racialised processes underpinning environmental injustice. To apply abolitionism in EJ terms therefore means transforming the social-ecological conditions under which policing is presented as a 'solution' to the problems stemming from an unjust social order that it actually serves to maintain. These problems are rooted in damaging human/nature, human/non-human hierarchies which in turn help to justify and perpetuate these unjust environmental relations. Abolition means challenging the carceral logics that underpin this social order. In making alliances with abolitionist struggles, and in explicitly working towards abolitionist goals, EJ scholars and activists alike can help to address the pernicious yet vital role that policing plays in upholding environmental and climate injustice globally, and all the harmful hierarchies therein. We must move beyond the aim of redistributing harms and resources, towards challenging the very logics underpinning this ecocidal social order, within which policing is centrally important. EJ therefore necessitates abolition.

### Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- † This article would not exist in its current form without the contribution of Tom Anderson who read an initial draft and offered thoughtful and detailed critical feedback which helped expand and develop the work greatly. We would also like to thank Amber Huff for her contribution to our thinking in relation to this topic. Finally, we would like to thank our anonymous peer reviewer for their detailed and constructive feedback.
- 1 Andrea Brock, Lecturer, University of Sussex, UK.
- 2 Nathan Stephens-Griffin, Senior Lecturer, Northumbria University, UK.
- 3 For the purpose of this article, we include climate justice under the broader umbrella of environmental justice. While important differences exist, they are less relevant for our argument.
- 4 See Braz and Gilmore (2006) for a notable exception.
- 5 For a longer exploration of the arguments presented in this article see Brock and Stephens-Griffin (forthcoming).



- 6 Another important dimension of policing is self-policing, for instance through the no-violence doctrine, which we cannot explore here for reasons of space (see Brock and Stephens-Griffin, forthcoming).
- 7 Importantly, not all environmental defenders involved in environmental/land/resource struggles would identify these as environmental justice struggles, and we do not want to impose this label.
- 8 MONUSCO is the acronym for the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo, based on its French name.
- 9 See **Stop the JNF website**.

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# Epistemological Justice: Decoloniality, Climate Change, and Ecological Conditions for Future Generations\*

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**Abstract** In this article, we reflect on the work of contemporary Brazilian indigenous artists and philosophers who have developed an Amerindian critique of the Anthropocene and the climate emergency. Based on research co-produced by the Another Sky research project, poetry, performance, and orality are discussed as routes of an emergent epistemological turn in the face of the inevitable challenges that lie ahead. Through indigenous thought expressed in aesthetic manifestations, we discuss critical analysis of the current situation, as well as imaginaries of future social and ecological conditions needed for climate justice, epistemological justice, and protection of life in the broadest sense.

**Keywords** indigenous art, epistemological justice, climate emergency, decolonial practices, political ecology, Brazil.

## 1 Introduction

The idea that we share the same planet and must take care of common resources for the good of all because we belong to one humanity, is new in the history of ideas, and remains an incomplete notion. However, the climate emergency has amplified our notions of kin and belonging, namely that a potentially catastrophic change of ecosystems caused by part of humanity, or by a system created within it, has begun to put at risk the survival not only of this species, but of thousands of others. Being together, and co-habiting the planet, has therefore become a fundamental philosophical question, above all related to the differences amongst and existence of humans. Even so, the field of international relations is still limited in facilitating urgent discussion of the 'Humanity Club', as the Brazilian indigenous leader Ailton Krenak ironically calls it (2020a: 15). In the lead-up to the Conference of the Parties (COP)26 in Glasgow in November 2021, the Intergovernmental Panel on Climate Change (IPCC)

© 2022 The Authors. *IDS Bulletin* © Institute of Development Studies | DOI: 10.19088/1968-2022.140

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The *IDS Bulletin* is published by Institute of Development Studies, Library Road, Brighton BN1 9RE, UK  
This article is part of *IDS Bulletin* Vol. 53 No. 4 December 2022 '**Reframing Climate and Environmental Justice**'; the Introduction is also recommended reading.



released a new report that not only reaffirmed the prior scientific consensus that rapid and intensifying climate change has been caused by human activities, but also documented sustained changes to all elements of the global climate system. Continuing changes, the panel concludes, are both inevitable and irreversible, with political and regulatory action to date grossly insufficient to keep global average temperatures from reaching 2 degrees Celsius above 'pre-industrial levels' (IPCC 2021: 5). In her speech opening the event, Txai Surui, a young indigenous activist, inspired by Krenak's *Ideas to Postpone the End of the World* (2020a), told the audience: 'Indigenous people are on the front line of the climate emergency, and we must be at the center of the decisions happening here. We have ideas to postpone the end of the world' (Surui 2021).

Even though the severity of the effects of global warming for human and non-human communities are well known, high-level policy discussions about responding seem ever more detached from an increasingly obvious choice: reject the systemic logics and practices that have brought us to this point of no return or continue down a pathway of accelerating and intensifying intersecting forms of social and environmental injustice and ecocide. We argue that, in the context of climate change politics and broader struggles for environmental justice, critically engaging with the politics of knowledge practices and understanding people's struggles for **epistemological justice** are important entry points for opening up analyses, making sense of the current juncture, and envisioning what is needed to build truly transformed, emancipatory, and plural social-ecological trajectories in the face of the inevitable challenges that lie ahead.

It often seems that the (depoliticised) environmentalisms and politics of capitalist society dictate that human relations to the Earth and non-human nature cannot be framed beyond abstract thresholds, financial incentives, 'risk' calculations, spectacles of 'sustainable' industrial exploitation and 'solutionism' that in practice work like a techno-bureaucratic 'shell game' (Huff and Brock 2017; Hulme 2021). These politics are supported through a scientific 'grand narrative' in the form of a new geological epoch, the so-named Anthropocene (Crutzen 2006; Armiero and De Angelis 2017), an idea that works through framings of change in policy and media to universalise and naturalise the destructive domination of the Earth by an undifferentiated and homogenous 'humanity', and to reify antiquated notions of inherent society-nature boundaries. Whilst not denying the profound capacity of humans to transform their lived environments, critical scholars have approached the Anthropocene framing and debates with caution, exploring the current juncture through alternative lenses informed by different theoretical assumptions and forms of evidence.

For example, notions of the Capitalocene<sup>4</sup> (Moore 2017), Wasteocene<sup>5</sup> (Armiero and De Angelis 2017), Plantationocene<sup>6</sup>



and Chthulucene<sup>7</sup> (Haraway 2015), among others, have been useful to emphasise the historical and material changes associated with relations and technologies of globalisation through which extractive, colonial, racialised, and patriarchal capitalisms were instituted across the world. This work, broadly, aims to re-politicise, to de-naturalise, and 'to challenge the (in)visibility and (un)knowability of the Anthropocene beyond geological strata and planetary boundaries' (Armiero and De Angelis 2017: 347). Exploring such concepts can bring temporal depth and awareness of continuities to our understandings of climate change and environmental politics. Contrary to an abrupt and recent 'rupture' or acute-onset 'global crisis', we can see sedimented logics and practices of social and ecological domination shaping historical changes as well as contours of the current moment, and we can think ahead to how these might continue to shape future conditions.

Although these critical diagnostics may be novel to Western scientists, bottom-up critiques date from the very beginning of European expansion. The invasion, conquest, and colonisation of the Americas were marked by disputes and different forms of resistances (including epistemic) critical of extraction of natural resources, and in defence of ecological conditions. It has been widely documented by sixteenth-century chroniclers (*cronistas*) how indigenous leaders and shamans opposed logging and mining only for the purpose of accumulation. Their opposition continued throughout the whole history of wars and imposition of colonisation. From a Tupinambá shaman, or more recently, a Yanomami shaman perspective, as we will present below, they challenge the idea of development based on cannibalising and extracting from the Earth.

We base our analysis on the findings from a research project called Another Sky, as part of an international research network known as 'Sustainable' Development and Atmospheres of Violence: Experiences of Environmental Defenders, which materialised along with another project, Mapping Indigenous Rights Abuses in Northeast Brazil, and an emergency research plan to investigate the impacts of the Covid-19 pandemic among indigenous peoples, combining art and mapping of environmental conflicts. In an interdisciplinary movement and in a network, we use three research methodologies from political ecology, and the environmental humanities: (i) reports of the experiences of defenders, (ii) cartographies of conflicts made by indigenous researchers and students, and (iii) works by indigenous artists about the effects of the pandemic, associated to the ecological conflicts experienced by the communities. We realised that from these territories of art and war emerge different forms of resistance, narratives, constructions, and reconstructions of worlds torn by conquest, colonialism, and capitalism. And combining the complexity of the contemporary indigenous struggles through art and war, we look into the epistemological challenges posed on

hegemonic standards about the climate emergency. We argue that the challenge of systemic change or climate collapse, if framed from a decolonial perspective, would lead not only to a reconfiguration of the economy and the decline of capitalism, but in building a completely different framework of existence, of our relationship with Earth and natural resources (Krenak 2020a), and of forces of reproduction (Barca 2020), instead of a patriarchal economy of extraction.

## 2 Aid, allyship, and radical change

Fantastical dreams of modernity, and endless growth and expansion, including into space and other planets, continue to raise more attention and funding than warnings of the devastating consequences of industrial extraction on livelihoods and landscapes (Coelho *et al.* 2021), or atrocities carried out against poor people in the name of biodiversity conservation (Duffy 2014). But ignoring other voices that raise alarms is definitively not new. The Western epistemological preoccupation with the production of knowledge or 'truth' based on authority and consensus systematically marginalises different points of view and experiences. In the past century or so, as a result of colonialism, this has been reproduced in the political fields too, shaping conventions that implicitly govern what and whose knowledge matter in identifying and explaining problems, who gets invited in and heard in debates about response, and whose priorities should be considered when visioning outcomes of different courses of action.

Despite this broader trend of failing to consider non-Western knowledge systems within global spheres of decision-making, the humanitarian aid and international development sectors tend to tout the importance of 'locally led' and 'bottom-up' solutions to the climate crisis and other challenges. This has led to an increasing number of projects that focus on 'co-production' and 'participation' with non-governmental organisations (NGOs) playing a central role brokering relationships between donors and governments on the one hand and local communities and social movements on the other. While many positive collaborations exist, NGOs can also effectively act to further government and company interests whilst undermining grass-roots social movements and infringing on local peoples' rights (Dunlap and Correa Arce 2021; Menton and Gilbert 2021). The recent increased focus within the mainstream environmental movement towards applauding indigenous peoples as allies in the fight against climate change (UNFCCC 2021; WWF 2020), in particular due to their role in halting deforestation (Baragwanath and Bayi 2020; Fellows *et al.* 2021), can be ineffective in bringing about such change if the 'allyship' is oversimplified and rebottled in a neoliberal logic of 'carbon offsets' and 'net-zero' deforestation targets. Indeed, these mainstreaming processes risk deradicalising the revolutionary anti-colonial, anti-capitalist struggles at the heart of grass-roots social movements' defence

of the land, the earth, and life in the broadest sense. Ultimately, climate justice is inextricably linked to, and directly dependent upon, social justice and other forms of justice (see Sultana 2021).

Instead, climate justice movements must reflect how indigenous imaginings of different futures influence present-day actions that can inform climate action (Whyte 2017). Whyte (2020: 5) highlights how '[a] narrow focus on averting some ecological tipping point is a major concern for some indigenous peoples because we know that the needed relational qualities for coordinated response are missing'. Further, he asks:

Will this just be another situation... where a call to urgency is used to justify solutions that ultimately harm indigenous peoples? That's how colonial power has been wielded in the past, that is, by using real or perceived urgencies to mask or justify privilege, harm, and injustice.  
(*Ibid.*: 5)

For example, wildlife conservation has historically been used as justification for excluding local communities from their ancestral lands (Kashwan *et al.* 2021) and REDD+ (reducing emissions from deforestation and forest degradation in developing countries) has been linked to land grabs and rights abuses (Asiyanbi and Lund 2020).

As Ailton Krenak has said in his recent book, *Ideas to Postpone the End of the World*, we cannot remain a humanity refusing to recognise the relationship with Earth:

This humanity refuses to recognize that the river, now in a coma, is also our grandfather; that the mountains mined in Africa or South America and transformed into merchandise elsewhere are also the grandfather, grandmother, mother, brother of some other constellation of human beings that want to go on sharing the communal home we call Earth.  
(Krenak 2020a: 36)

This false dichotomy between natural and human, present-day and ancestral peoples, is therefore also a key driver of the climate crisis, and returning to notions of respect, relationships, and accountability are central to fighting against it.

### **3 Ecology and the decolonial turn**

Political ecologies emerging from the global South provide new perspectives following the decolonial turn in the social sciences. These works both promote the dismantling of the colonial system of knowledge and looking for dimensions of knowledge that have been systematically silenced, marginalised, or destroyed. From a decolonial perspective, the violence of the conquest and colonisation in *Abya Yala*,<sup>8</sup> was not only physical – involving genocide and ecocide – but also involved epistemic and ontological dimensions, related to knowledge and existence,

respectively. For example, in examining the effects of racism in the aftermath of conquest of *Abya Yala* following the path of Anibal Quijano and the coloniality of power (Quijano and Ennis 2000), Grosfoguel (2016) finds that the implementation of extractivism – the system of extracting living and non-living materials from nature to generate outflow of material wealth in the form of natural resources – required both epistemic and ontological extraction. Grosfoguel (2016: 126) describes this as a process of 'thing-ification', the result of a discursive cutting away that allows for the separation and extraction of forms of knowledge, forms of human existence, and forms of non-human life from their situated histories and social and ecological relations to create 'objects' that can be instrumentalised. In practice, this involved the historical dehumanisation of indigenous peoples and the desacralisation of place, which in turn enabled the transformation of territories into resource frontiers to be extracted and people into bodies to be exploited through forced labour.

Silvia Rivera Cusicanqui (2012) argues that decolonisation must not only be a discourse but also an affirmative practice. In the following, we show some examples of decolonisation from the perspective of the environment beyond eurocentric perspectives: decolonising the relationship with Earth and what is so-called nature is necessary not only to adapt, but to build new forms of existence, and to create new worlds. In the sixteenth century, French Calvinist Jean de Léry noted that a Tupinambá elder once said:

I see now that you *Mairs* (French people) are great fools; must you labor so hard to cross the sea, on which (as you told us) you endured so many hardships, just to amass riches for your children or for those who will survive you? Will not the earth that nourishes you suffice to nourish them? We have kinsmen and children, whom, as you see, we love and cherish; but because we are certain that after our death the earth which has nourished us will nourish them, we rest easy and do not trouble ourselves further about it.  
(Léry 1990: 102)

The same is also reflective of a book by the Yanomami shaman Davi Kopenawa, *The Falling Sky*, where he describes the '*Xawara*', the deadly disease emerging from the destruction of the planet that will kill humans and collapse the sky until it falls over our heads. He says: 'We are different from the white people and our thought is other' (Kopenawa and Albert 2013). So as with the Tupinambá elder five centuries ago, the shaman says that all they leave to future generations are the forests:

When I am no longer, you will burn my possessions and you will live in your turn in this forest that I am leaving for you. You will hunt and clear gardens to feed your children and grandchildren on this land. Only the forest will never die!  
(*ibid.*: 330)

The forest that nourishes the present societies should be preserved to nourish future generations.

The epistemic dialogue between the Yanomami shaman and the Tupinambá elder, from five centuries apart, seems closer than they are. It can be seen in the discourse of the magic entity *Kaapora*, as seen in the work of Olinda Yawar Tupinambá, *Equilibrio/Equilibrium*, as a message coming from the forest to humans:

There is a balance among all of us, and no species was ever capable of breaking it on its own. Until now. For the planet, you are just a baby that just arrived here. There is nothing special about you. But the changes that led you to adapt led you to develop the ability to break this important balance. You call this ability intelligence, although I do not necessarily agree. This intelligence should be warning you of the fragility of the continuity of your lives. But it seems that you are not really that intelligent after all. The arrogance that you use as a filter to see the world around you, led most of you to believe that you are right about everything, to never question your acts. This does not indicate intelligence.  
(Yawar Tupinambá 2021<sup>9</sup>)

The words spoken in Yawar Tupinambá's film come from the entity she performs called *Kaapora*, that in one moment, interferes in the spheres of the coloniality of thought as questioning its existences as non-real: 'For most of you, even I am only folkloric, a creature invented by people that you see as primitive and backwards' (*ibid.*). Yawar Tupinambá challenges colonial hierarchical thoughts around structure that historically have inferiorised shamans' knowledge – compared to children – and treated them 'as incomplete beings incapable of understanding the world, who must be protected by your civilization until they become the insensitive and arrogant adults that you are' (*ibid.*).

Although seen as infantile, naïve, the cry from the forest coming from a spiritual deity or translated by shamans can mobilise communities living with environments and who defend them in global environmental justice movements (Martinez-Alier *et al.* 2016). Struggles for ecological conditions of life have a cosmopolitical<sup>10</sup> dimension, but also a very material perspective of political contestation. The reproduction of life and the care of the territory are inseparable in the perspective of life in a broader sense. The opposite is not only a disrespect to nature or an aggression towards the other, but a threat to the existence of the destroyers themselves as well. *Kaapora* announces that turning the planet uninhabitable and producing the extinction of different species will also lead to the extermination of humans. It consists in forests that are 'stolen', she says to produce soybeans, in a chain of destruction to feed confined animals that suffer in order to feed humans. The 'predatory civilization' has the power to terminate what she calls 'this planetary calm' (Yawar Tupinambá 2021) –

the equilibrium. It is also said in the discourse of *Kaapora* as documented by Yawar Tupinambá in her film:

This [Covid-19] pandemic, like the others, comes from your hostility towards other living beings. It came from bats with which you should not have contact, but you went to their home to destroy it. The same forest that is home to many bats is also home to an infinity of other viruses, which will remain quiet if you don't go there and destroy the forest. But you have not learned from your mistakes, and the forests continue to be torn down and burned to serve unscrupulous men who want to transform the forests into numbers in banks. They are the same men who see the Indigenous as an impediment, and the destruction of these peoples as a collateral effect. By the way, these peoples have been the best behaved among you, and the lands under their care are the best preserved on the planet.  
(*ibid.*)

#### 4 Art and Another Sky

The artist Denilson Baniwa, from the Baniwa nation in the Upper Rio Negro in the Amazon, describes from where the novelty for a new world can emerge:

All colonial territory  
Is ancestry land, first of all  
When all scum is scraped off  
Plastic, asphalt, metal  
Untold stories in History  
Oxygen fills the blood.  
Those who have always been from here know  
São Paulo has always been  
Indigenous land.  
(Denilson Baniwa 2020, reproduced with permission)<sup>11</sup>

This beautiful poem was written by Denilson Baniwa just months before the pandemic outbreak, during an intervention<sup>12</sup> in the most distinguished avenue of São Paulo, Paulista Avenue. It was reminding everyone that those rich buildings framing the landscape were built on colonial territory over sacred indigenous land. What remains after the ashes of colonialism are removed from the surface can be not a thing from the past, but new lifeworlds emerging to hold up the sky. Poetry is a powerful tool to help us to situate ourselves in life and in context, to reinterpret the world.

The months of June, July, and August 2020 were marked by extreme violence of the Covid-19 virus against indigenous peoples (Menton *et al.* 2021). Denilson Baniwa lost one of his masters, Feliciano Lana, taking away 'a multitude of experiences and knowledge with him' (Baniwa 2020). The great indigenous environmental leader from the Kayapó-Mebegokrê, Paulinho Payakan, also died in June. Aritana Yawalapiti, the great chief of the Upper Xingu, the most famous indigenous reserve in

Brazil (demarcated in 1961), passed away in August. With the death of each elder, a library of knowledge burned. The libraries burned daily. But many survived, and many peoples found protection by isolating in the forest, protected by the forests and the spirits of the forests. Among them was an important Xavante chief, Jurandir Siridiwê, who used sacred plants to heal guided by a shaman in a traditional camp in the forest, the *zomori*. Ailton Krenak, indigenous leader from the Krenak nation and a common friend of Siridiwê – also one of the brightest intellectuals in Brazil – dedicated a poem to the ones, like Siridiwê, who were able to survive the painful infection. He called it 'Another Sky', as a metaphor to mobilise collective action for the future, and to bring hope over the horizon for future generations '[b]ecause it never knew the goodness that the sky holds from up high' (Krenak 2020b):

It truly disappeared 🌿 it was always  
hidden  
in the folds of time,  
unescapable like lightning on a dark night  
it descends to earth bringing pain and madness  
Hiding in these folds  
It sleeps like the work  
of a spirit who fails  
Because it never knew the goodness that the  
sky holds from up high 🌟  
(*ibid.*, reproduced with permission)

Native art is rising in attention after centuries of systemic silencing and erasure, of genocide but also epistemicide.<sup>13</sup> Brazil is on the verge of a dramatic moment, fuelled by economic crisis, political authoritarianism, rising racism and intolerance, amidst an ecological disaster and the cruel environmental destruction of deforestation, ranching, and mining-accelerated extractivism. Deforestation of the Amazon rainforest, the savannah (Cerrado), and Pantanal (swamp) are at high rates, all while river basins have been collapsed by mega extraction of mining.

This powerful and creative native art, or, as the outstanding indigenous artist Jaider Esbell called it, '**contemporary indigenous art**', is pure anti-colonial and deeply embedded in an ontological system of life calling for a re-existence with other beings on Earth. Esbell, from the Macuxi nation, passed away in November 2021. He questioned the premises of Western art, and self-designated himself not only as an artist, but that what he was doing was deeply political in all terms:

Indigenous art for us is essentially in daily life, in the community, in the collectivity, in the practices, which transcend a manual or oral skill. It presupposes a whole compound of life, where the greatest art is this harmonious living with the environment, that which the West has already separated as nature.  
(Esbell interview, cited in Oliveira and Setz 2021)

Inspired by these reflections, we look into indigenous art to offer an analytical perspective of the decolonial epistemic perspective for environmental justice.

Culture and art constitute a powerful system to defeat colonialism and to rebuild worlds destroyed by the rage of exploitation of ecology and humans – or to recreate worlds after the end of the worlds, as Ailton Krenak prefers to name the political projects of existence after the genocide/ecocide wars of conquest. In this sense, the Another Sky research project tried to bridge indigenous arts with training indigenous students on mapping indigenous rights abuses.<sup>14</sup> A cartography of this relation between extractive violence and ecological resistance shows that native territories are territories of war against conquest, of anti-colonial resistance, of reclaiming lands, of re-occupations, of creation and recreation of worlds, and of art.

From the scum of colonialism, ravaged lands of extraction and sacrifice zones and peoples, art emerges to build another sky with the enchanted and non-human lifeworld, especially plants and trees. Planting trees for future generations and dancing for the planet have become revolutionary practices to dismantle the **Colonialocene**.<sup>15</sup> How can life exist without the sacred Watu river (Rio Doce) for the Krenak nation, or the Opará (San Francisco river) for the Tuxá and Pankararu?

Although the pandemic confinement and lockdowns produced depression and anxiety in Western societies, many indigenous peoples who still had their territories protected were able to take refuge with the forest to protect their collective from the virus. Either they have the forest and rivers to nourish and protect, physically and spiritually, or colonialism had already built the walls of confinement and separation.

Indigenous peoples learned how to survive in confinement. That is how Ailton Krenak describes the situation of his people when they were reached by the pandemic. His people lived in a square of indigenous land surrounded by cattle ranches, and crossed by the sacred river Watu, who was assassinated (as the Krenak believe), by the crime of the mega mining Vale dam break of 2015, publicly known as the Mariana disaster (Santos and Milanez 2017). An entire nation living in deforested land, with the sacred water source contaminated, when even the silence has been kidnapped by the trains from Vale taking iron ore to the coast and 'honking' every hour. Therefore, indigenous peoples have had tragic experiences of genocide and the ends of their worlds. However, some have also managed to survive genocide and rebuild worlds. Art has emerged as a powerful system to mobilise community and spirituality, such as through shamanic songs and dances to protect bodies, and call for healing the Earth. Native art, struggle, and epistemology are positioning their critics



towards the making of the Anthropocene that brought us to the current climate emergency. As Krenak says:

It is as if the idea of our art biennials, of our galleries, were all in the past, overcome by time, by the urgency of a new mentality [of us humans learning to step gently on Earth], stepping gently on Earth, deeply marked by our footprints, which put us on the threshold of this Anthropocene.

(Krenak 2020c, with author interpretation)

For indigenous movements in Brazil, the fight for territorial integrity and against the colonial powers of conquest is intricately interwoven with the fight to protect the forests, the waters, and life in the broadest sense. The protection of the forests, the waters, and the land is all part of a fight against the colonial capitalist systems of production and exploitation that have created the climate crisis. As Sonia Guajajara said in her speech at the Climate March at COP25 in 2019, indigenous women from all over Brazil ‘fight to build “living well” for all societies and for environmental equilibrium. We are going to continue to fight and we want to fight together with you because the fight for Mother Earth is the mother of all fights’ (Guajajara 2019). From Sonia Guajajara in 2019, to Txai Suruí in 2021, indigenous women have been struggling to intervene directly – and not through ‘representations’ or ‘allies’ – in the core spaces of dialogues and decision-making at COPs and other climate political meetings. The fight against climate change is a fight for the Earth and against the wider intersecting injustices that indigenous people face under a capitalist system that values growth and consumption over life itself.

## 5 Concluding reflections

The revolutionary anti-colonial, anti-capitalist struggles reflected in indigenous art and social movements in Brazil highlight the links between social, epistemological, and other forms of justice and the struggle for climate justice. Jaider Esbell once said that ‘indigenous art awakens a conscience that Brazil does not have of itself’ (Esbell 2021, see Oliveira and Setz 2021). Esbell sadly passed away in November 2021, a great loss to the whole world, having lived his art as a testament to inspire new generations to make life more beautiful. We believe indigenous art can provide this same awakening of conscience worldwide in a movement for epistemic decolonisation and building of new ecological conditions for future generations. In this article, we have questioned eurocentric scientific perspectives and capitalist mitigation measures and offered a broader view on the dimensions of the ecological, civilisational, and climate crises. Instead, indigenous epistemologies and the emergent contemporary indigenous art movement in Brazil provide ways to promote new relations with Earth and existence, questioning the Western division between humans and nature.

## Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- 1 Felipe Milanez, Assistant Professor, Federal University of Bahia, Brazil.
- 2 Mary Menton, independent researcher, UK.
- 3 Jurema Machado de A. Souza, Assistant Professor, Federal University of Recôncavo da Bahia, Brazil.
- 4 Capitalocene: 'a system of power, profit and re/production in the web of life' (Moore 2017: 606).
- 5 Wasteocene: understood as toxic ecologies, constructed by contaminating substances and also of narratives.
- 6 Plantationocene: highlights the effects of colonialism, capitalism, and racial hierarchies.
- 7 Chthulucene: links human and non-human in a multispecies approach of the making of the new epoch.
- 8 *Abya Yala* has different meanings in the Kuna nation language, such as 'land of life', 'land in full maturity', and refers to the continent later named as the **New World**, or **America**, by Europeans. *Abya Yala* has been used as a self-designation of the continent by native peoples as a counterpoint to America. In the same way, Brazil was named Pindorama by the Tupiniquim during the Portuguese conquest and invasion.
- 9 Quotations from Yawar Tupinambá (2021) were translated into English for this article by Jeffrey Hoff.
- 10 A concept from the philosopher Isabelle Stengers, where non-human entities are engaged as agents in the political and social dissensus.
- 11 Pereira and Souza (2022): *Todo território colonial/Antes de tudo é ancestral / Quando raspadas toda escória / Plástico, asfalto, metal / Histórias não contadas na História / O sangue oxigena / Quem sempre foi daqui sabe / SP sempre foi / Terra Indígena*.
- 12 In the context of performance art.
- 13 A term coined by Portuguese sociologist Boaventura de Sousa Santos referring to the destruction of existing knowledge.
- 14 See **Another Sky project website**.
- 15 Colonialocene: the epoch which is defined by the ecological effects of European colonialism.

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# Climate Justice for Whom? Understanding the Vernaculars of Climate Action and Justice in Marginal Environments of India<sup>\*†</sup>

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**Abstract** As calls for climate action gain momentum, governments and international organisations are committing to ambitious climate targets and scaling up their climate action. In this article, we argue that to address climate change, 'just' climate action is required which moves away from portraying local communities as 'victims' and/or 'beneficiaries' and focuses on investing in their social and material capabilities so that they determine their futures and pathways of change. Climate action will have little meaning or will produce counterproductive results unless it is mobilised to question deep-seated inequalities and unjust framings that feed into epistemic closures and foreclose possibilities of plural pathways towards radical social change. Drawing on our research with front-line communities in India, we emphasise the importance of processual aspects of addressing climate (in)justice. We underline why climate action must be steered from 'below' for transformative change, and why this requires attention to more 'vernacular' forms of action.

**Keywords** climate justice, vernacular politics, transformation from 'below', marginal environments, pastoralism, fishers, India.

## 1 Introduction

The release of the Intergovernmental Panel on Climate Change (IPCC) (Working Group 1) report in 2021 (IPCC 2021) sounded a 'code red for humanity' (António Guterres, cited in UN News 2021), outlining the profound alterations that anthropogenic climate change has caused to our global environmental system. The message was loud and clear, urging countries to decarbonise rapidly and effectively. This 'crisis' framing spurred several countries into action: they committed to ambitious climate targets at the

© 2022 The Authors. *IDS Bulletin* © Institute of Development Studies | DOI: 10.19088/1968-2022.141

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The *IDS Bulletin* is published by Institute of Development Studies, Library Road, Brighton BN1 9RE, UK  
This article is part of *IDS Bulletin* Vol. 53 No. 4 December 2022 '**Reframing Climate and Environmental Justice**'; the Introduction is also recommended reading.



2021 United Nations (UN) Climate Change Conference (Conference of the Parties (COP26)) in Glasgow, mostly through techno-centric pathways such as Net Zero. However, the process by which these targets will be implemented or realised has profound justice implications, especially in the situated contexts of countries in both the global South and North (Contreras, Srivastava and Shen 2021). If implemented poorly, these could inevitably cause dislocation and disruption for many, especially vulnerable populations with little to no voice in decision-making on climate action, thus perpetuating climate colonialism and injustice.

Climate justice recognises that impacts of climate change are spread unequally, unevenly, and disproportionately (Sultana 2021), leading to diverse forms of recognitional, distributional, cognitive, and procedural injustices. It emphasises that the burdens of change fall unequally on those who are the least responsible for creating climate change (Newell *et al.* 2021; Schlosberg and Collins 2014). This begs the following questions: How should these injustices be addressed, and whose voices count in the claims for justice? How is the justice language articulated by those on the front line? And how should these processes be made visible? This article focuses on some of these questions through the case of marginal environments in India that are characterised by climatic uncertainty.

Recognised as a global climate hotspot, India has large population groups that are highly vulnerable to the impacts of climate variability and change (IPCC 2014). As an emerging economy, India has one of the largest sources of greenhouse gas (GHG) emissions globally. Yet, it also has one of the lowest GHG emissions per capita, reflecting that it has an enormous share of the world's poorest people (Dubash 2012; Mehta *et al.* 2019). In global negotiations, India has constantly argued for the principle of common but differentiated responsibility, underlining that economically advanced countries should take on the burden for historic emissions. However, India's domestic policy often revolves around international negotiations and geopolitical interests rather than social and environmental justice concerns (Narayanan and Fernandes 2016) and usually builds on historical legacies of inequality, oppression, and injustice (Kashwan, forthcoming). Predominantly influenced by economic growth imperatives, these policies fail to address inequalities in a substantial way. This is also evident in the weakening of environmental regulations in India that are justified on grounds of 'ease of doing business' and that have facilitated the diversion of forest land and coastal commons for industrial activities (Kukreti 2017; Aggarwal 2020). Furthermore, many big corporations are engaging in greenwashing, often in the name of green energy and climate mitigation, which further dispossesses locals from their lands and livelihoods (see Section 4).

This paradox is clearly visible in climate hotspots such as drylands, deltas, and coastal ecosystems in India. These areas were often considered to be 'marginal environments' in colonial



and post-colonial policymaking in that they were subjected to unpredictable events, compared to 'environmental normal' areas which were considered productive and predictable (see Damodaran, D'Souza and Dey 2021). 'Marginal' to the gaze of mainstream development for decades, these areas are now being reimagined and remade as the new 'resource frontiers' (Barney 2009; Huff and Orengo 2020; Srivastava and Mehta 2021). Climate uncertainties are particularly acute in these marginal environments where climate stressors and shocks such as droughts, floods, and cyclones are intersecting with the uneven impacts of capitalist expansion and are threatening people's sense of place and identity (Mehta *et al.* 2021). This expansion includes coastal infrastructure projects in Mumbai which are decimating Koli livelihoods (Chouhan, Parthasarathy and Pattanaik 2018); aggressive industrialisation in coastal Kutch, Gujarat, which has dispossessed local fishers and pastoralists from the grazing and fishing commons (Mehta and Srivastava 2019); and poorly designed conservation projects in the Sundarbans, which have curtailed the forest-based livelihoods (honey, crab, or prawn collection) of the islanders. While local communities may have historically developed practices to deal with uncertainties arising due to environmental variability, current climate change impacts that intersect with neoliberal development have produced a radical uncertainty that severely curtails their adaptive capacity (Srivastava *et al.* 2021).

More recently, local communities within these habitats are now being dispossessed of their common-pool resources (grazing land, marine resources, coastal wetlands, farms, and forests) in the name of 'green' development (Martin *et al.* 2020). For example, in Kutch, renewable energy projects are increasingly being pushed as a solution for avoiding the ecological impacts of fossil fuel-based power projects (Aggarwal 2021; see Section 4). When implemented poorly, such schemes can overlook the synergistic and cultural relationships that local resource-dependent communities (artisanal fishers, pastoralists, farmers) have with these habitats. This can lead to profoundly alienating effects on local communities and can threaten their wellbeing and identity (Sullivan 2013; Mehta and Srivastava 2019; Fairhead, Leach and Scoones 2012). Therefore, questions of **distributive justice** (who gains and who loses) and **recognition justice** (understanding plural notions of value) become critical in unpacking climate action and the so-called climate 'solutionism' which was at full display at COP26 (Scoones 2021).

We argue that 'just' climate action is underlined by systemic transformative change (Newell *et al.* 2021; Mehta *et al.* 2021) which disrupts unequal power relations and is orientated towards socially just pathways. This requires both researchers and policymakers to move away from portraying local communities as 'victims' and/or 'beneficiaries' and to focus on investing in their social and material capabilities so that they can determine

their futures. In doing so, a place-based, bottom-up view on climate action is required that values the perspectives of the marginalised population who, despite being at the centre of climate change impacts, are often excluded from initiatives around climate action through epistemic, recognitional, and distributive injustices. The PhotoVoice approach (see Section 3) that we use in all the empirical cases is one way to make the hitherto invisible and tacit knowledges of marginalised groups visible. Through three diverse case studies from the Indian subcontinent, we demonstrate how local communities in marginal environments are experiencing climate change and injustice as top-down policies disrupt and dislocate their lives. In parallel, we also showcase how these communities are mobilising and working towards place-based or what we have called 'vernacular' forms of justice through building alliances. The latter involved stakeholder workshops, roundtables, and a study of autonomous protests, petitions, and resistance to marginalisation which draw from local awareness and understanding of climate change and its impacts on living spaces, assets, and livelihoods.

We begin by conceptualising climate justice and the importance of the 'vernacular' in centring the bottom-up views on action and we outline how our methods aided in reversing the gaze. We then turn to the case studies from Kutch, coastal Mumbai, and the Indian Sundarbans where front-line communities are mobilising through diverse tactics to challenge mainstream narratives of climate (in)action before concluding with some final reflections.

## 2 Vernacularising climate justice

Although there is considerable literature on climate justice that emphasises its procedural, distributional, and intergenerational aspects, including questions of recognition (Schlosberg and Collins 2014; Newell *et al.* 2021), the meaning, scope, and practical implications of climate justice remain contested. Emerging literature now points towards decolonising climate justice, arguing that global North-centric frameworks of justice can potentially erode other ways of (re)conceptualising climate (in)justice and how it is experienced and realised (Álvarez and Coolsaet 2020; Newell *et al.* 2021; Chakraborty and Sherpa 2021). To this end, several scholars have emphasised the need to pluralise climate justice, what it means, and how it is being realised in situated contexts (Chakraborty and Sherpa 2021; Sultana 2021), thus promoting alternative concepts of justice, value, knowledge, nature, and culture (see Martin *et al.* 2020). For example, we show below how, for the Koli fishers in Mumbai, climate justice has influenced the petitions of the small-scale fishers who have documented the losses and damage suffered by them due to cyclones and extreme precipitation events, and are seeking compensation from the government.

There are also scalar (international, national, and subnational) and temporal (intergenerational) aspects of climate change

and climate (in)justice (Chakraborty and Sherpa 2021; Sultana 2021). Research on local perceptions of climate change shows that climate change is often experienced in terms of changing and diminishing livelihoods in conjunction with historical relationships of inequity and exploitation (Chakraborty and Sherpa 2021; Mehta, Adam and Srivastava 2022). Impacts of climate change and injustice are most often experienced in the language of 'loss' for communities on the front line; loss of land, home, and identity, and very often in terms that are not amenable to quantification (see Boyd *et al.* 2021). Furthermore, the cascading and compounding impacts of climate change experienced via disasters bring in new dimensions of injustice that combine marginality and inequality to push resource-dependent communities such as the Koli fishers, pastoralists in Kutch, and women islanders into greater vulnerability (*cf.* Parthasarathy 2018; also see Sections 4, 5 and 6). However, global narratives on climate change often take an abstract and aggregate view of these changes, and push solutions and interventions that at best, may not fit local situations and at worst, yield counterproductive results leading to maladaptation (Chakraborty and Sherpa 2021; Eriksen *et al.* 2021). For example, in the Indian Sundarbans, concrete embankments have been implemented that have both increased the displacement of poor residents from their lands, and also often do not lead to the required flood control. Thus, without recognising the effects on poor and marginalised populations, they have led to 'cascading' maladaptations. Often seen as 'unintended' or negative effects, long-standing structural inequalities lie at the heart of such maladaptive outcomes (Ghosh, Bose and Bramhachari 2018; Srivastava, Mehta and Naess 2022). However, for policymakers, place-based articulations of climate change (how it is felt, experienced, and perceived) are often disparaged and sidelined as being anecdotal or not generalisable enough to warrant policy action (Srivastava *et al.* 2021).

In his book, *Politics in the Vernacular*, Kymlicka (2001) argues that democratic politics is essentially a 'politics of and in the vernacular'. Although he is referring to language capacities and communication, his key argument is that people associate with concepts, ideas, and issues and express these freely in a language and style in which they are comfortable. A similar lens when applied to climate change means that experience of climate change and (in)justice are locally embedded in the social, cultural, and political context. Similarly, resistance and mobilisation may also draw on cultural repertoires and diverse practices as we outline in our case studies. We locate these forms of action, articulation, and mobilisation as the politics of the vernacular and show how the PhotoVoice method, in particular, helps to reveal these practices and repertoires and bring them to the fore.

We use the category of the vernacular in two ways. First, to situate and centre the climate change experiences and

articulations of communities on the front line in marginal environments. Second, to highlight that mainstream theorisation of climate justice which rests on Western frameworks needs to give way to more indigenous and situated practices and discourses of justice. We need to critically engage with both these dimensions. In this vein, vernacular climate justice explores the diverse meanings and practices of climate justice (Newell *et al.* 2021). It makes a strong case for pluralising climate knowledge and recognising the value of experiential knowledge of those at the forefront of climate change as well as climate justice struggles (*ibid.*).

Cognitive justice is central to this vernacularisation as questions of whose knowledge and values count, who participates in agenda-setting, and how accountability is established are key (Visvanathan 2005; Forsyth and Sikor 2013; Martin *et al.* 2020). In Mumbai, for instance, the city and state administrations have failed to acknowledge the nature and scale of damages experienced by the Koli fishers due to Cyclones Nisarga (2020) and Tauktae (2021). This absence of a local-level understanding of disaster risks is linked to abstract methodological comprehension of disaster vulnerability, which usually depends on indicator-based approaches. Further, we observe that knowledge may not always be articulated verbally and can have diverse ways of representation in situated cultural practices (Srivastava and Mehta 2021). Scholarship on citizen science (Fischer 2002; Panda 2016; Vedwan and Rhoades 2001), indigenous environmentalism (Carruthers 1996), and alternative cosmologies have also contested this coloniality of power (Figuerola Helland and Lindgren 2016) and captured these tensions of asymmetries of knowledge production and generation. However, destabilising hegemonic, incumbent frames and knowledge can be a slow process (Lakoff 2010), 'once reified they may not disappear until the institutions, industries, and cultural practices disappear' (*ibid.*: 77). Hence, destabilising knowledge requires democratic and participatory politics and knowledge-making (Chakraborty and Sherpa 2021).

Thus, climate and environmental justice are not merely about the absence of injustice, but are also about the 'active creation' of relationships, structures, and knowledge systems that are embedded in principles and politics of dignity, fairness, and mutual respect (Huff and Naess, this *IDS Bulletin*) as well as in enhancing capabilities. Here justice is about the ability to live lives that individuals value and that also enhance their wellbeing (Sen 1993; Martin *et al.* 2020). In this vein, it is important to engage with how and whether practices of co-producing socioecological knowledge can enhance the agency of people who live in marginal areas to transform existing socio-political structures of power and recognition while being alert that entrenched injustices and exclusions are not reproduced (Mehta *et al.* 2021). We unpack some of these issues through our case studies in the following sections.

### 3 Methodology

This article draws on previous and ongoing fieldwork in Kutch, Mumbai and the Indian Sundarbans, building on *long durée* research of all the authors. Specifically, it draws on ethnographic research conducted between 2012 and 2019 under a range of projects<sup>5</sup> studying climate change and uncertainty in these sites. This was complemented by interviews, life history narratives, focus group discussions, and participatory visual methods such as PhotoVoice (with Jat herders in Kutch, Koli fishers in Mumbai, and women islanders in the Sundarbans), which helped to provide representation to the voices, knowledge, and perspectives from 'below' who are often framed as recipients rather than active stakeholders.

Creative and participatory methods such as PhotoVoice can potentially open up new and existing conversations that otherwise might be impeded by hierarchical social structures, such as caste traditions or gender inequities. These methods sought to address power imbalances and ensure that hidden and subaltern perspectives remain central to our research. Thus, we contend that climate justice must have a transgressive and emancipatory agenda if the aim is to address issues of social justice, and methods that facilitate this 'reversing the gaze' may offer a useful entry point in that direction (Srivastava *et al.* 2021). However, we also need to be aware that these methods require considerable buy-in and trust-building with local communities and should not be pursued as a standalone activity as they may risk being extractive. Such an activity could reproduce cognitive injustice and compromise the emancipatory agenda embedded in these methods. In all our case study sites, our work builds on long-term research where researchers and the community have worked together to build trust and co-created opportunities to reflect on the implications of these engagements. We now turn to these three sites in India.

### 4 Reframing dryland discourses in Kutch

Kutch, a dryland located in the state of Gujarat, is known for its ecological diversity, ranging from wetlands to thorn forests and the desert. As a region falling into an arid to semi-arid zone, droughts and water scarcity have always been part of the Kutchi landscape. Pastoral communities have harnessed this variability and developed a symbiotic and cultural relationship with the dryland habitat over several centuries (Srivastava and Mehta 2017; Bharwada and Mahajan 2007). Kutch is known for its livestock and distinct indigenous breeds. The Kutchi cow is still one of the best dual-purpose strains in India (e.g. the Kankrej and Thani breeds). The kharai camel, now recognised as a distinct breed, is a unique indigenous breed of swimming camel that can thrive in both a marine and desert environment (Mehta and Srivastava 2019).

Although most Kutchis were traditionally pastoralists, pastoralism today finds itself on the margins of Kutchi life mainly due to the

'dryland blindness' (Mehta 2005) that has permeated a series of state interventions across several decades. This includes powerful narratives of environmental degradation alongside 'modernising' discourses of settled agriculture and industrialisation (Mehta 2005; Mehta and Srivastava 2019), which have systematically ignored the particular dynamics around variability, uncertainty, and water scarcity as well as the experiences and expertise of local communities, especially pastoralists, to deal with these uncertainties. The predominant image of the 'overgrazed pasture' has perpetuated the view that livestock is to blame for environmental degradation (*cf.* Robbins 1998; Agrawal and Saberwal 2004). This view has persisted because problematic concepts such as 'carrying capacity' are still employed in drylands. Moreover, the notion of 'overgrazing' reflects certain culturally ingrained biases towards pastoralists, who are among the least vocal and empowered actors in Kutch (Mehta 2005; Mehta and Srivastava 2019).

This marginalisation is exacerbated by the rapid transition in Kutch's ecology owing to aggressive industrialisation after the 2001 earthquake, which has transformed this remote border district into a 'resource frontier' (*cf.* Barney 2009; Srivastava and Mehta 2021). Industrialisation has resulted in the loss of common grazing lands, denudation of mangrove forests, and water and land grabs. This has threatened the survival of the kharai camels that predominantly rely on mangroves (Srivastava and Mehta 2021). It is no surprise that private and government actors have leveraged these very discourses of environmental degradation, 'modernity', and wasteland to denude mangrove commons and dispossess local communities. For example, conservation scientists argue that 'unscientific grazing patterns' (e.g. camels browsing on leaves and damaging the tree) and cutting are responsible for the destruction of mangroves; economists characterise mangrove dependence as 'primitive and unsustainable'.<sup>6</sup> By contrast, herders speak of the synergistic relationship between mangroves and the camel. They claim that they have been swimming out to the mangroves for centuries and that there has been no disruption to the mangroves. They assert that the grazing of the camels helps to regenerate the mangroves – for example, their camels' hooves support seed germination and the browsing also helps to thicken the growth of leaves (see Srivastava and Mehta 2017). Disputing the degradation narrative of the scientists and the state officials, the Jat pastoralists who rear kharai camels disagree that these animals could 'ever be bad for mangroves because they share a natural relationship with them'.<sup>7</sup> They claim that scientists get their knowledge only 'from books, and do not look at the reality of everyday life'<sup>8</sup> and that the real culprits are the big polluting industries that have cleared both the mangroves and also changed the coastal ecology, undermining the coastal biodiversity in Kutch.

This dispossession is also bolstered by how these landscapes have been framed as unproductive or a wasteland. In the Wasteland Atlas of India, large areas of Kutch that include scrub savannahs, grasslands, saline flats, and mangroves have been classified as wasteland, undermining the rich diversity of this ecosystem (Pardikar 2021). This goes back to the archaic colonial practice where non-revenue-generating lands (especially non-agricultural lands) were often labelled as wasteland (Srivastava and Mehta 2021). In 2005, the Government of Gujarat passed a resolution allowing for leasing 'wastelands' up to 2,000 acres for 20 years to corporations and commercial farmers. This framing has created several instances of resource injustice and ill-being for local herders. The decline of these so-called 'wastelands', which in reality are grazing lands, has increased the sedentarisation of pastoralists and has led to a loss of their identity (Duncan and Agarwal 2017; Srivastava and Mehta 2017). Several Jat herders have now left pastoralism for low-paid and insecure jobs in the industries. More recently, this discursive framing has also facilitated the diversion of commons towards 'green' projects. For instance, in 2020, Gujarat cleared a land allotment for a 41,500MW (megawatts) renewable energy park (solar and wind) in Kutch, which is now being developed as a 'wind energy exploitation zone'. Farmers and herders have been protesting because these zones restrict their access to commons and forest resources (*Indian Express* 2021).

The case of Kutch reveals how epistemic and cognitive injustice, cemented over decades through colonial and post-colonial discourses around pastoralism and drylands, has given way to multiple forms of harm. The unmeasurable and symbolic qualities around 'wastelands', pasture, and mangroves that are linked to the identity and wellbeing of pastoralists remain either hidden or are labelled as unproductive (Kohli and Menon 2016), while state and industry-driven programmes succeed in both depleting and privatising the commons and marginalising pastoralism in Kutch. This was also revealed in a PhotoVoice initiative with Jat women whose narratives captured the impacts of the capitalist transition in Kutch. The focus on women brought to light powerful images of the 'invisible' care economy that sustains the pastoral system on a day-to-day basis. More importantly, in contrast to the dominant framings of climatic uncertainty in the form of high temperatures, erratic patterns of rainfall and sea-level rise, the PhotoVoice method revealed more embodied, socially and culturally embedded experiences of uncertainty that are often undervalued and overlooked by traditional forms of research and top-down policy processes. For example, women in the PhotoVoice group in Jimlivand (a coastal hamlet in Kutch) captured multiple ways in which they relate to the environment and the challenges they face. They mentioned how the drying up of wells because of rising salinity has increased their household chores or how the destruction of mangroves by salt industries also means that they have to spend more time picking leaves



Jat women picking mangrove leaves in Jimlivand, Kutch.  
Photographer: PhotoVoice group, Jimlivand.

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(the main source of fodder in the summer months; see photo, above) as these commons are getting depleted due to industrial pollution (Srivastava and Mehta 2021).

In recent times, alliances between civil society and local people are attempting to preserve the pastoral identity and challenge the categories of 'unproductive' and 'wasteland' associated with pastoralism and pastoral landscapes. The non-governmental organisation (NGO) Sahjeevan is working closely with the pastoral communities to revive their indigenous systems and restore the native habitats, food stocks, and grazing routes of the kharai camels. To protect the mangrove landscapes, Kachchh Unt Uchherak Maldhari Sangathan (KUUMS, the union of camel pastoralists) along with Sahjeevan has used legal routes to mobilise against industries, demanding an injunction on encroachments and environmental degradation (Smitha 2018) through the creative use of the Forest Rights Act, which recognises the rights of indigenous communities to forests and landscapes (Srivastava and Mehta 2021). In 2018, KUUMS approached the National Green Tribunal (NGT) and managed to secure a stay order and also to get the creeks, which had been blocked by the industries, reopened for mangrove regeneration (Rahman 2019).

More recently, through the efforts of Sahjeevan and KUUMS, camel-rearing is said to be witnessing a revival. KUUMS has partnered with Amul dairy to mainstream camel milk production and supply. The underlying hope is that these initiatives will lead to the achievement of twin goals: preservation of the kharai-mangroves coexistence as well as livelihood improvement, bringing wider benefits to the pastoral community.



These practices are countering the 'official' and received wisdom regarding pastoralism and drylands on many fronts while also using innovative methods and alliances to counter the pressures that threaten to disrupt pastoralist practices and lifestyles. They also enhance biodiversity in the drylands and improve overall resilience to climatic shocks and stressors.

### **5 Effecting change through women's mobilisation in the Indian Sundarbans**

The Indian Sundarbans form a complex and climatically vulnerable ecosystem that traverses India and Bangladesh. Islanders there have experienced devastating impacts of cyclones and flooding and are at risk of rising sea levels (IPCC 2014). They have to contend with these multiple challenges, as well as poverty and socio-political and economic marginalisation, which are all underlying contributors to their vulnerabilities to climate and environmental change (Ghosh, Kjosavik and Bose 2021). But amid these frequent climatic events and somewhat expected changes, the social and economic landscape of the islands has changed rapidly with the infusion of globalised systems of providing 'solutions' to localised problems like salinity intrusion. The agro-business lobby, with its emphasis on high-yielding variety (HYV) seeds, has introduced and supported agri-system services like fertilisers and insecticides (Nath *et al.* 2021). The lobby's stronghold over the market has marginalised the smallholder farmers and their indigenous variety seeds as well as their traditional knowledge of the ecosystem. In parallel, these emerging business lobbies have hijacked the political space, drowning out the voices of marginal islanders who live under the constant threat of submergence.<sup>9</sup> These interests have also worked in favour of commissioning coastal infrastructures such as embankments, that undermine the local solutions of erecting bundhs and mangrove planting (Mukhopadhyay 2009).

The livelihood uncertainties due to climate change and changing political economy are creating cascading vulnerabilities for the islanders, and in particular for the women of the Sundarbans. Following Cyclone Aila (2009), the islands have witnessed a continuous out-migration of young men who migrate to other Indian states in search of work. Unlike their male counterparts, the women are restricted from leaving the islands due to cultural and patriarchal norms (Ghosh *et al.* 2018). This climate change-induced rupture in the social fabric has made visible the conditions of landless rural women who are now further burdened with complementing their husbands' uncertain remittance income through hazardous jobs such as crab-catching in addition to their household and childcare duties. For example, in the Sundarbans, about two million people are directly or indirectly dependent on the resources (for forest-based produce, fishing, and so on) for their livelihoods; and the forests protect the lives and properties of the adjacent population from tidal surges and tropical cyclones (Ghosh and Roy 2022). However, mainstream conservation



Women from the Indian Sundarbans presenting their demands to policy officials through a PhotoVoice presentation.

Photographer: © Lokmata Rani Rashmoni Mission

discourses and practices leverage the degradation narrative to limit access and mobility of the local population (Vivekanandan 2021). In addition, the issue of ownership of the meagre family land which continues to be vested with the male members provides a complex background where obstruction of climate justice intersects with gender justice to further push back women's inclusion.

It is in this contested landscape that 80 women, belonging to different caste and religious groups in the Sundarbans, provided a grounded and subjective representation by articulating their struggles and demands through photo stories in front of local leaders and policymakers. As part of two projects,<sup>10</sup> women across the three most geographically remote areas in the Sundarbans – Namkhana, Patharpratima, and Kultoli block – of South 24 Parganas district, came together to document the challenges they faced and to demand for change (see photo, above). Women in this PhotoVoice group lived in highly precarious areas, which were regularly flooded and buffeted by cyclones. All had young children and made their living primarily from fishing and crab-collecting. They were trained on the use of the camera equipment to create their own photo stories. They selected group leaders and held fortnightly group meetings to discuss the story they wanted to tell, the issues they most wanted to highlight, and the photos to take that would best illustrate those problems.<sup>11</sup> This PhotoVoice initiative revealed vernacular expressions of not only climate uncertainties around cyclones, high tides, and the lack of freshwater supplies in the Sundarbans. It also raised critical questions about equity and access to resources and poor service provision (such as health care, education, and lack of roads), which often become invisible in mainstream discourses.

For example, one participant noted: 'Unless there is a big cyclone and loss of lives, livestock, land, and property, the media does not come [here]. Through this process, we are trying to voice the everyday uncertainties that we have to deal with'.<sup>12</sup>

Their claims of justice, identity, and wellbeing from their perspective were articulated to the local policy implementers at the *panchayat* (village council) and block level including the officials of the Sundarbans Development Board (see photo on page 112). Through this initiative, they not only achieved improvements in local infrastructure such as safe drinking water provision, but they also revealed how PhotoVoice instilled a sense of empowerment and agency. For example, one participant stated: 'We should do these action initiatives [PhotoVoice] more often so that we can raise our voices and talk about our problems to the concerned people [*sic*]'.<sup>13</sup>

This unique process of gendered articulation in the remote islands of the Sundarbans through a participatory process of mobilisation also brings forth issues of distributive justice and recognition of plural forms of knowledge to address systems of power and inequity. It also demonstrates how consciousness and collective organisation can lead to the active creation of agency and voice. This initiative also provided vital perspectives on how social and environmental justice often does not work from a macro policy level, where the daily struggles and concerns of the local communities often get silenced. Inherent in this approach is the promotion of transformative justice where women advocates focused on how vulnerability to climate change reflects various structural injustices in society, such as the exclusion of poor communities (who are often also the landless) from their traditional climate-resilient livelihoods like artisanal fishing, honey collection, and crab collection, and how climate justice must explicitly address these structural power imbalances.

### **6 Claiming the coast in Mumbai**

'Koli' is an umbrella term referring to a cluster of artisanal fishing castes in coastal Mumbai, in the state of Maharashtra. This small-scale indigenous fishing community has long been subjected to displacement and loss of livelihoods as a consequence of rapid urban growth, infrastructure projects, and blue growth initiatives in the Arabian Sea (Chouhan, Parthasarathy and Pattanaik 2016; Bose *et al.* 2018). More recently, climate change has brought new uncertainties and vulnerabilities by exposing Koli fishing villages to storm surges, sea-level rise, coastal erosion, and frequent storms and cyclones. For example, Cyclones Nisarga (2020) and Tauktae (2021) caused significant damage to boats, jetties, and fishing equipment. Koli fisher associations have been demanding compensation for their losses similar to that provided to farmers affected by drought, cyclones, or extreme precipitation events (Johari 2021). These claims addressed to the state government in part emanate from

the fishers' own research documenting the increasing frequency and intensity of tropical storms in the Arabian Sea (Senapati and Gupta 2015). They are also part of long-term struggles to resist encroachments and the loss of livelihoods in coastal fishing villages in the Mumbai urban region. These struggles against real estate projects, new urban expansion, and infrastructure projects reflect deep vulnerabilities and contestations around commons, customary property rights, the right to livelihoods, and ecological degradation that have exacerbated flood risks and biodiversity loss. It is against this ongoing process of marginalisation and injustice that several projects in the Mumbai region seek to map the processual aspects of claims and contestation involving coastal small-scale fishers as we describe below.

Koli fishers practise small-scale fishing using mechanised and non-motorised boats and diverse gear to fish close to the shoreline, and in creeks and coastal wetlands. Increasing marginalisation, overfishing, and competition from commercial trawlers have forced them to go further out to sea for fishing, putting them at significant risk from extreme climate events (Adam *et al.* 2021). The Kolis, however, are not passive victims and have frequently expressed their agency to mitigate their multiple vulnerabilities. Across the districts of the Mumbai Metropolitan Region, fisher associations (National Fishworkers Forum, the Akhil Maharashtra Machhimar Kruti Samiti, Boat Owners Association, and several fisher cooperatives) have launched several protest movements and struggles, filed cases in courts and at the NGT, and petitioned diverse state agencies.

Broadly, Koli fishers formulate their concerns in terms of rights-based discourses. Justice claims focus on their customary rights to coastal commons, some of which are enshrined in law, and recourse to other kinds of citizenship claims around education, health, livelihoods, and disaster impacts. For example, fishers in the Palghar district have documented how their vulnerabilities and loss of livelihoods affect the health and education of women and children. In a well-known case filed before the NGT by fishers of Uran in Navi Mumbai, the fishers successfully argued for compensation for resource commons, forced a recognition of ecological flows in impact assessment, and brought to light the unscientific and illegal implementation of Coastal Regulation Zone norms (Parthasarathy 2016; Bose *et al.* 2018; Parthasarathy and Chouhan 2020). These claims not only reflect a vernacular understanding of ecosystems, habitats, environmental flows, and climate change that are often ignored in state responses and strategies (Senapati and Gupta 2015; Parthasarathy 2016). They also highlight the large-scale neglect of Koli spaces and concerns in government plans. For example, the initial Mumbai Development Plan for 2037 failed to include koliwadadas (i.e. Koli settlements) on the maps or in the Climate Action Plan, and thus largely neglects the climate change impacts, uncertainties, and vulnerabilities of Kolis and koliwadadas.

Ongoing struggles around the coastal road project<sup>14</sup> also reflect both an intransigence on the part of state agencies to recognise the short- and long-term vulnerabilities of Koli fishers from a bottom-up perspective, and the significance of vernacular practice-based knowledge when it comes to understanding the complex relationship between infrastructure projects, climate change, coastal transformation, and fisher livelihoods in the Mumbai region. Our research in koliwadās and recent press reports reveal that fishers are also beginning to gain an understanding of the relationship between uncertainties unleashed by climate change (particularly cyclones, sea-level rise, and storm surge), and the continuing ecological marginalisation induced by neoliberal growth imperatives, especially coastal infrastructure projects. For example, a PhotoVoice project we conducted in Uran village<sup>15</sup> (facing the brunt of a major port, transport, oil and gas, and airport projects) showcased the high level of reflexivity among the Koli fishers, by offering a 'grounded exploration of the marginalised lived experience'. It alerted us to a 'critical positioning' of individual experiences within the wider community in the given socio-political context (Bose *et al.* 2018: 76). It revealed a bottom-up awareness of urban environmental issues (such as land grabs and prohibition in fishing areas), which is not just framed in terms of local contexts but also directly offered an enhanced sense of the fishers' relationship and dependence on ecological habitats for their livelihoods and wellbeing (see photo on page 116). This ecological dependence and the significance of ecological flows adversely impacted by sea-level rise and infrastructure projects especially came through in the significant struggle of the Uran fishers in the NGT which accepted the justice claims of the Kolis based on their assessment of the ecology and environment, rather than the logic of the state. The researchers and local civil society organisations worked with Koli leaders to build this reflexive understanding of ecological flows and interdependence between environmental integrity, justice claims, and livelihoods.

A similar observation is made in our work with Koli women who have historically enjoyed financial autonomy and decision-making power, and who now aspire to go back to a time when they had a significant role in household and community affairs. For example, in our stakeholder workshops and interviews with Koli women, a constant refrain of the older women was about their autonomy, empowerment, and quality of life in previous decades and a steady degeneration of their status within the household and declining incomes in recent years. Despite this, the women we spoke to in Versova Koliwada exhibited both resolve and ability in coping with the compounded impacts of climate change, marginalisation, and the Covid-19 pandemic in the past few years. Hence, as we have argued elsewhere (Adam, Parthasarathy and Narayanan 2018), addressing issues of justice in the context of climate uncertainty and marginalisation driven by urban development requires a different kind of governance,



Koli women complaining of poor fish catch and declining fish species due to changing weather patterns and industrial pollution in Uran village. Photographer: Uran PhotoVoice group.

'a strategic, adaptation-focused, and communicative urban governance framework that emphasises both reducing risk and strengthening social justice' (*ibid.*: 1).

The ongoing Occupy protests<sup>16</sup> on the sea and inland against the coastal road project in Mumbai's Worli Koliwada reflect this very well. Such pushbacks using local cosmologies against narrow technical understandings of the environment by the state agencies are also seen in other protests against infrastructure development projects such as the Shivaji Memorial project, port and thermal power projects in Palghar, and real estate projects across the urban region. These struggles also reflect an extensive use of scientific research findings and knowledge aided by sensitive civil society activists and academics. These processual aspects of claims-making indicate faith in democratic and legal strategies but may also reflect powerlessness to act in other ways to prevent the further marginalisation of the Kolis.

## 7 Conclusion

In this article, we have demonstrated how climate variability and emanating uncertainties have intersected with top-down, state-and/or corporate-led projects. Their narrow and technocentric approach to climate and environmental concerns has produced multiple forms of injustice for local pastoralists, fishers, and islanders in marginal environments in India: recognitional injustice (denigration of local knowledge and value), procedural injustice (top-down policies and programmes such as infrastructure development or energy parks which exclude their voice and concerns), and distributive injustice (inequitable impacts of top-down interventions). More importantly, as demonstrated in the case of Kutch, so-called 'green development' projects

are reproducing a similar trajectory by leveraging the same problematic discourses on harm and degradation, thus marginalising the very communities that are set to lose the most from climate-induced loss and damage. Thus, we argue that 'just' climate action requires centring the voices and concerns of these communities by adopting a vernacular lens instead of retrofitting these climate actions within top-down global discourses. In the cases we have presented, local communities are asserting bottom-up agency, pushing back against dominant framings of their landscapes and environments while mobilising for alternative livelihoods in the face of climatic shocks and struggles.

A vernacular lens not only allows for the inclusion of voices of marginal communities but also centres their tacit and embedded experiences as well as their material aspirations. Using this lens would require focusing on the politics of framing, advocating a plurality of assessment pathways, and embracing the uncertainties within climate-society relationships. Through the PhotoVoice initiative, we demonstrate how hidden and alternative perspectives are brought to the fore through creative practices while highlighting the need to address the power imbalances that prevent alternative ways of valuation and epistemic diversity that are so urgently required for realising transformative climate justice. Recognising and enabling the agency of the vulnerable and marginalised people is crucial for resisting and reframing these discourses and practices; these methods provide a way to mainstream these peoples' concerns and engender alternate imaginaries of the state as demonstrated by all three cases. Beyond this, giving expression to and amplifying the voice of local communities are also key to articulating justice concerns that arise from exposure to climate risks. This can also facilitate the integration of their livelihood concerns into legal-environmental frameworks and development priorities as demonstrated by the attempts being made in Mumbai and Kutch. Furthermore, creative alliances between civil society, sympathetic state actors, and local communities also offer pointers to how social change can be facilitated. This can be done by bringing together diverse and sometimes conflicting perspectives and aspirations within local communities, presenting a platform for voicing concerns, and actively carrying out research to produce evidence for alternative pathways to climate justice.

In conclusion, the current drive for climate solutionism may ring hollow if the voices and experiences of the most marginalised people remain absent from the processes. Such activities must be accompanied by larger structural changes within dominant production and consumption patterns. Without structural changes, these patterns will both reproduce unsustainable practices and marginalise the poorest populations who have very little to no voice in deciding and shaping these so-called solutions.

## Notes

- \* This *IDS Bulletin* was funded and produced as part of the IDS Strategic Research Initiative on Climate and Environmental Justice.
- † This article draws on previous and ongoing research by the authors under the following projects: TAPESTRY (Transformation as Praxis: Exploring Socially Just and Transdisciplinary Pathways to Sustainability in Marginal Environments), which is funded by the Belmont Forum and NORFACE (New Opportunities for Research Funding Agency Cooperation in Europe) Joint Research Programme on Transformations to Sustainability, which is co-funded by the Economic and Social Research Council (ESRC), International Science Council (ISC), Japan Science and Technology Agency (JST), the Research Council of Norway (RCN), and the European Commission through Horizon 2020 under grant agreement No. 730211; ANTICIPATE (Anticipating Futures: Forecasting and Climate Preparedness for Co-Located Hazards in India – British Academy Project No. KF400251); Greenmentality (Norges forskningsråd, project No. 235449); Climate Change, Uncertainty and Transformation (Norges forskningsråd, project No. 250975); and the ESRC STEPS Centre (ES/I021620/1).
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- 5 See **Uncertainty from Below project website**; **Climate Change, Uncertainty and Transformation project website**; **Tapestry project website**.
- 6 Interview, September 2016.
- 7 *Ibid.*
- 8 Interview, October 2016.
- 9 Field Journal (Bose December 2021).
- 10 Climate Change, Uncertainty and Transformation project as well as the Future Health Systems project.
- 11 Field Journal (Bose November 2016).
- 12 PhotoVoice participant, Namkhana, September 2017.
- 13 PhotoVoice participant, Kultoli, September 2017.
- 14 Refers to the construction of an eight-lane, 22.2km-long freeway that would run along Mumbai's western coastline.
- 15 PhotoVoice project in Uran Koliwada was launched in January 2017.
- 16 The Kolis, primarily from Worli Koliwada on the west coast of Mumbai, have held a series of occupations on land and sea since September 2020, to disrupt the construction of a stretch of the Coastal Road. They take the form of Koli fishers occupying the coastal construction sites on land and sea, and by use of small fishing boats. The protests target an



interchange to connect the Coastal Road with the southern end of the Bandra–Worli Sea Link, as the current design of the interchange disrupts Koli fishing routes.

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## Glossary

- AWF** African Wildlife Foundation [Kenya]  
**EIB** European Investment Bank [Luxembourg]  
**ESRC** Economic and Social Research Council [UK]  
**GGW** Great Green Wall  
**GHG** greenhouse gas  
**HYV** high-yielding variety  
**IISD** International Institute for Sustainable Development [Canada]  
**IPCC** Intergovernmental Panel on Climate Change [Switzerland]  
**ISC** International Science Council  
**JST** Japan Science and Technology Agency [Japan]  
**KUUMS** Kachchh Unt Uchherak Maldhari Sangathan (the union of camel pastoralists)  
**NGO** non-governmental organisation  
**NGT** National Green Tribunal [India]  
**OCI** Oil Change International [USA]  
**ODI** Overseas Development Institute [UK]  
**RCN** Research Council of Norway [Norway]  
**REDD+** reducing emissions from deforestation and forest degradation in developing countries  
**SAFE** Stand Against Fossil Fuel Expansion  
**SDG** Sustainable Development Goal  
**SEI** Stockholm Environment Institute [Sweden]  
**UN** United Nations  
**UNCCD** United Nations Convention to Combat Desertification  
**UNEP** United Nations Environment Programme [Kenya]

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**Periodical ID statement** The *IDS Bulletin* (ISSN 0265–5012 print) is published in four issues per year. Mailing agent: Gary Edwards, Institute of Development Studies, Library Road, Brighton BN1 9RE, UK. Tel: +44 (0)1273 606261 [idsbulletin@ids.ac.uk](mailto:idsbulletin@ids.ac.uk)

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**ISSN** 0265–5012 (print), 1759–5436 (online)

## Reframing Climate and Environmental Justice

Issue Editors **Amber Huff and Lars Otto Naess**  
Volume 53 | Number 4 | December 2022

**Introduction: Reframing Climate and Environmental Justice**  
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**Climate Justice for Whom? Understanding the Vernaculars of Climate  
Action and Justice in Marginal Environments of India**  
Shilpi Srivastava, Shibaji Bose, Devanathan Parthasarathy and Lyla Mehta

'A reframing of contemporary debates on climate and environmental justice is urgently needed in order to address the "blind spots" in dominant mainstream views in current policy and practice. There are still important gaps in the inclusion of marginalised actors and their knowledge in decision-making for climate action. By challenging current debates, the articles in this *IDS Bulletin* offer principles to reframe – and refocus – the justice agenda, in order to move towards more just and inclusive pathways.'